

# BIOCOSMOLOGY – NEO-ARISTOTELISM

Abbreviated key title: *Biocosmol. – neo-Aristot.*

Parallel title: *Биокосмология – нео-Аристотелизм*

Bilingual Electronic Journal  
for Universalizing Scientific and Philosophical Research  
based upon the Original Aristotelian Cosmological Organicism

ISSN: 2225-1820

Volume 12, Numbers 3&4, Summer/Autumn 2022

*Official organ of the Biocosmological Association –*  
<https://www.biocosmology.org/>

*Place and time of origination:*  
*At the Novgorod State University named after Yaroslav-the-Wise,*  
*Veliky Novgorod, Russia;*  
*On the July 24th, 2010*



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A peer reviewed journal

Published by the *Biocosmological Association*, Since December 2010, 2 times a year

Texts of the articles are available in the rubric – “Issues of the Journal”

Журнал зарегистрирован Федеральной службой по надзору в сфере связи, информационных технологий и массовых коммуникаций (Роскомнадзор) – Свидетельство о регистрации СМИ – Эл № ФС77-43048 от 15.12.2010.

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## Editorial

The present Issue, for the second half of 2022, completes the twelfth volume of the journal *Biocosmology – Neo-Aristotelism*, Volume 12, numbers 3&4 (Winter/Spring 2022). This Issue, first of all, continues the development of the *Biocosmological Initiative* (BCI); here the first priority is to bring its topical agenda to the international debate. In this regard, the Issue opens with a section titled “*Discussion of the Biocosmology Initiative*”. Six scholarly papers examining BCI issues are posted here. In the first of them, a leading BCA scholar Georges Chapouthier reveals the topic of “The Emergence of Complexity”, in the light of the *Biocosmological Initiative*. Next comes an article by Miriam Fernandez Calzada, entitled “*Biocosmological Initiative. Prospects for the development and expansion of dialogue with the Spanish language*”. The essential and unique point here is that the author (because she is fluent) sets forth her important points in Russian; thus the content of her research is more accessible to Russian-speaking readers of the *BCnA*-journal.

Further, another positive feature of the works presented in this section is the placement here of three interesting and meaningful (evaluative) studies of the BCI by Chinese scholars. There is no doubt that their detailed critical analysis will be of real interest to the scientists of the Association. These three publications are: “*Biocosmology: Shaping the Model of Human Experience of the World in the 21st Century in the 21st Century*” by Hongyu Jiang and Han Gao; “*Biocosmology: A New Philosophy beyond Traditional Mechanical Cosmology*” presented by Guowen Zhou, Hongyuan Wang and Yingyin Zhu; and “*The Value of Biocosmology for Today and Some Issues on the Path toward its Practice: Comments on «Addressing the Scientific Community – the Biocosmology Initiative»*”, by Xuefang Chi and Ping Ye.

Finally, the section “Discussion of the Biocosmology Initiative” is completed by K.S. Khroutski, who aims to improve the *stylistic* (first three parts and the Conclusion) and *lexical* quality of the section “*Bipolar nature of scientific knowledge*” in the text of the Initiative. This work was prompted by the difficulty for non-Russian-speaking academics to understand the English-language version of the *Initiative*. As it follows clearly, this issue is of real relevance. In this case, the title is “*Editing the English version of the Biocosmology Initiative, year 2022*”.

Next, the section “Articles” publishes four papers. It opens with a study titled “*Mathematical Realism in Aristotle, its Holist-Entelechial Position; Part I*”, by Milan Tasic and K.S. Khroutski. Following this, Arthur Saniotis conducts an integralist study of the ‘human brain’, entitled “*Mosaic Model: An Integral Approach towards understanding development and process of the human brain*”. Last in order (in this section), but not in importance (‘Last, not least’); especially as this study aims to put forward

a new philosophical (ethical) line of scholarship; here the author is Li Ping, and the title of the work, *“The Second Beginning and a Co-philosophy – The Realization of a New Relationship between Technology and Ethics”*.

The “Essays” section publishes a new work by Kiyokazu Nakatomi, with the title *“Inexistence and Love of Montesquieu”*. Finally, the “Scientific Life” section publishes the Book of Abstracts of the 23<sup>rd</sup> International Seminar on Biocosmology (23ISBC), the last of the Society’s major scientific events. This publication is definitely worthy of attention : firstly, because it contains informative, though concise (however, expressive and comprehensible) materials; starting with the Address of the President of the BCA Prof. Xiaoting Liu, as well as detailed abstracts of Professors A.I. Orlov, S.N. Grinchenko, A.S. Kozhemyakov, N.N. Maximiuk, Li Ping, and others.

In addition, the achievements posted here and questions raised by scientists (which can be considered as interim) will come at the right time, as the BCA community has announced its participation in the next (regular, seventh in a row) International Scientific Congress “Globalistics-2023: Sustainable Development in the Context of Global Processes” (October 13-20, 2023), dedicated to the 160<sup>th</sup> anniversary of Vernadsky. It is essential that the congress will be co-organized by the Moscow Society of Natural Scientists. The theme of the XXIV International Seminar on Biocosmology: *“Biocosmological U-turn towards the Organicist Pole of Triadological scholarly knowledge and the North-Eastern vector of the peaceful world evolvemnt”*.

January 30, 2023

Konstantin S. Khroutski, *BCnA* editor

## Редакторская статья

Представляемый Выпуск, за второе полугодие 2022 года, завершает двенадцатый том журнала *Biocosmology – neo-Aristotelism*, Volume 12, numbers 3&4 (Winter/Spring 2022). Данный Выпуск, прежде всего, продолжает развитие *Биокосмологической Инициативы* (БКИ), в первую очередь путем вынесения ее актуальных вопросов на международное обсуждение. В этой связи, Выпуск открывает раздел «Обсуждение Биокосмологической Инициативы». Здесь размещаются шесть научных работ, изучающих вопросы БКИ. В первой из них, ведущий ученый БКА Жорж Шапутье раскрывает тему «*Возникновение сложности*» в свете *Биокосмологической Инициативы*. Далее следует статья Мириам Фернандез Кальсада, с названием «*Биокосмологическая инициатива. Перспективы развития и возможности диалога с испаноязычным миром*». Здесь существенный и уникальным момент заключается себя в том, что автор (поскольку свободно владеет) излагает свои важные положения на русском языке; что несомненно делает содержание её исследования более доступным для русскоязычных читателей *ВСнА*-журнала.

Далее, другой положительной особенностью представленных в данном разделе работ выступает размещение здесь сразу трех интересных и содержательных (оценочных) исследований БКИ со стороны китайских ученых. Не вызывает сомнений, что их обстоятельный критический анализ окажется по-настоящему интересным для ученых Ассоциации. Эти три публикуемые работы: «*Биокосмология: формирование модели переживания мира и жизненного опыта человека в XXI веке*», авторы Хуньюй Цзянь и Хань Гао; «*Биокосмология: Новая философия за рамками традиционной механической космологии*», представленная Гоувэнь Чжоу, Хонюань Ванг и Иньинь Чжу; и «*Значение Биокосмологии для современности и некоторые вопросы на пути к ее практическому применению: Комментарии к “Обращению к научному сообществу – Биокосмологической Инициативе”*», за авторством Сюефанг Чи и Пинг Йе.

Наконец, раздел «Обсуждение Биокосмологической Инициативы» завершает работа К.С. Хруцкого, которая нацелена на *стилистическое* улучшение (первых трех частей и Заключения) и *лексическое* совершенствование раздела «*Биполярная сущность научного знания*» в тексте Инициативы. Причиной к появлению подобной работы послужили трудности к восприятию англоязычной версии Инициативы, со стороны не-русскоговорящих ученых. Как отчетливо следует – данный вопрос приобретает действительно актуальное значение. В данной случае, названием работы служит «*Редактирование английской версии Биокосмологической инициативы, год 2022*».

Далее, в разделе «Статьи» публикуются четыре работы. Раздел открывает исследование с названием «*Математический реализм Аристотеля, его холистско-энтелехическая позиция; первая часть*», за авторством Милана Тасича и К.С. Хруцкого. Вслед за этим, Артур Саниотис проводит *интегралистское* исследование «человеческого мозга», под названием «*Мозаическая модель: Интегральный подход к пониманию развития и процессов человеческого мозга*». Последнее по порядку (в данном разделе), но не по значению; тем более, что данное исследование нацеливается на выдвижение нового философского (этического) направления научной деятельности; здесь автор – Ли Пин, а название работы, «*Второе Начало и Ко-философия – Реализация новых отношений между технологией и этикой*».

В разделе «Эссе» публикуется новая работа Киёказу Накатоми, с названием «*Несуществование и любовь Монтестье*». Наконец, в разделе «Научная жизнь» публикуется Сборник тезисов докладов XXIII Международного семинара по Биокосмологии (23ISBC), последнего из проведенных Обществом крупных научных мероприятий. Данная публикация определенно заслуживает внимания : во-первых, поскольку содержит содержательные (информативные), но лаконичные (при этом выразительные и доступные к пониманию) материалы; начиная с Послания Президента БКА проф. Сяотина Лиу, а также развернутые тезисы профессоров А.И. Орлова, С.Н. Гринченко, А.С. Кожемякова, Н.Н. Максимюка, Ли Пин, и др.

Кроме того, размещенные здесь достижения и поднятые вопросы учеными (которые можно считать промежуточными) будут как нельзя кстати, поскольку БКА-сообщество заявило о своем участии в очередном (регулярном, седьмом по счету) Международном научном конгрессе «Глобалистика-2023: устойчивое развитие в контексте глобальных процессов» (13–20 октября 2023 г.), посвященном 160-летию В.И. Вернадского. Существенно, что организатором конгресса станет Московское общество испытателей природы. Заявленная тема XXIV Международного семинара по Биокосмологии: «*Биокосмологический разворот к Органицистскому полюсу Триадологического научного знания и Северо-Восточному вектору мирового-peaceful развития*».

30 января, 2023 г.

Константин С. Хруцкий, *BCnA*-редактор

# The Emergence of Complexity

Georges CHAPOUTHIER<sup>1</sup>

Возникновение сложности  
Жорж ШАПУТЬЕ

## What is complexity?

How did complexity first emerge, and specifically in living organisms which are the most complex systems found on earth? The next question is how can such complexity be seen in a Neo-Aristotelian philosophical perspective? The question will be addressed here by covering a number of ideas.

In previous studies<sup>2</sup>, we presented arguments showing that complexity developed stage by stage as determined by two basic principles: *juxtaposition* and *integration*.

The key idea is that in the living world (or even perhaps elsewhere<sup>3</sup>) complex anatomical architecture is the result of iterative application of two fundamental principles: the *principle of juxtaposition* of similar elements, followed by the *principle of integration* when the similar elements integrate with one another to form a unit of greater complexity incorporating the integrated elements that then become the component parts. Two very simple examples can be cited as illustrations of these processes. Physical cells in juxtaposition can form tissue where all the elements constituting the tissue are identical, before then integrating to form organs or organisms with component elements that can be different. Similarly animals can gather in groups to sleep, a group where each and every animal has the same functional purpose, but they can also integrate to form social groups where their roles

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<sup>2</sup> In French: G. Chapouthier, *L’homme, ce singe en mosaïque*, Editions Odile Jacob, Paris, 2001.

In English: G. Chapouthier, *The Mosaic Theory of Natural Complexity: A scientific and philosophical approach*. [online]. La Plaine-Saint-Denis: Éditions des maisons des sciences de l’homme associées, 2018. Available on the Internet: <<https://books.openedition.org/emsha/200>>. ISBN: 9782821895744.

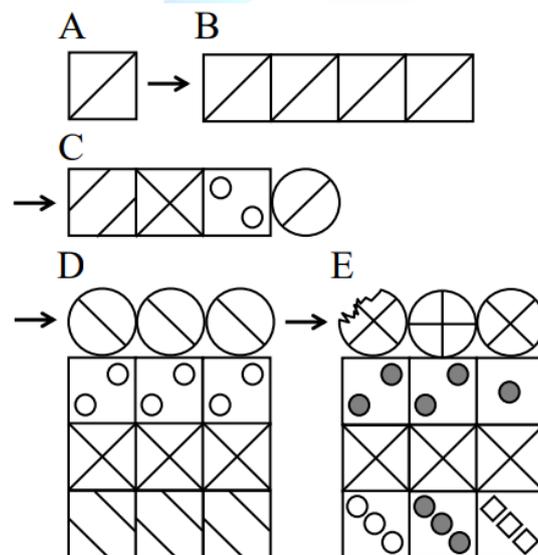
In Russian: Жорж Шапутье, Мозаическая теория природной Органической сложности. Научно-философский подход, *Biocosmology-Neo-Aristotelism* (online), 2020, Vol. 10 (N° 3-4), pp. 330–405.

<sup>3</sup> The astrophysicist Jean Audouze argued that stellar objects were mosaic constructions. Jean Audouze, L’univers, in: J. Audouze, G. Chapouthier, D. Laming, P.Y. Oudeyer (dir.), 2015, *Mondes Mosaïques* CNRS Editions, Paris, pp. 15–58.

can be different, e.g. for bees, with the queen, the workers and male bees, or for humans with skilled workers, farmers and teachers.<sup>4</sup>

Drawing a parallel with art and mosaics where the integrated entities leave a certain degree of autonomy to the component parts (as in the examples cited with cells and individuals), a work of mosaic art does not cancel the autonomy of shape, colour, texture or sheen of each individual tessera forming the work.

The two principles can operate and be repeated, continuing both actions. Figure 1 presents a detailed explanation of the modalities applying to the two successive stages and ultimately leading to overall entities that are “mosaics of mosaics” as, for example, with a community of animals comprised of individuals, each one of which is already comprised of mosaics of organs and cells.



*Figure 1:* Outline of mosaic construction built on repeated operation of the two principles identified: juxtaposition of identical units and the subsequent integration of the units at a higher level. The juxtaposition of units (A) will produce (B) where units (A) are identical then, through integration at (C), units develop differences in relation to one another. As part of (C), the units retain a certain degree of autonomy, as in a mosaic formation where the overall entity leaves a degree of autonomy to the component parts. The same exercise can then be repeated, and thus the juxtaposition of units (C) will produce (D), then through integration (E), forming a “mosaic of mosaics” as for example with a community of animals comprised of individuals, each one of which is comprised of mosaics of organs and cells (*Ref. G. Chapouthier, L’homme ce singe en mosaïque, Editions Odile Jacob, Paris, 2001*).

<sup>4</sup> Looking at purely anatomical facts, it can be noted that when complex animals are physically mobile, the principles of juxtaposition and integration operate to a lesser degree. In vertebrates, for example, juxtaposition phenomena that are purely anatomical are observed (and sometimes referred to as “Siamese twins”), but the constraints imposed by movement show that integration cannot be extensive. This explains why at this level, as noted above, juxtaposition and integration remain at a stage of separate individuals being juxtaposed side by side, then integrated in a social context.

It is then quite feasible for the operation to be repeated, not just once, but many times, each time with the entities thus formed providing elements for a further cycle of juxtaposition and integration, producing an entity of greater complexity.

Observing the reality of living organisms, it can be seen that between the simplest level of organelles that combine to form a cell, and the highest level of individual beings that combine to form a community or society, there are only five or six cycles of juxtaposition-integration, covering the different levels of organelles, cells, organs, groups of organs (e.g. the “rings” of the earthworm, that subsequently appear in modified forms in the anatomy of many different animals), organisms (or individuals) and ultimately societies of individuals.

The mosaic model, while not directly based on Darwinian principles, is in line with Darwin’s theory of biological evolution, presenting reasoned arguments offering an understanding of the biological diversity arising through sexual reproduction. When the model is applied to the anatomy of living beings, it can provide an explanation for the development of complex biological systems originating from single cells.

In a broader context or on a larger scale, the mosaic model can describe complexity in memory, consciousness and language, in technical achievements such as drawing, music, urban planning, mathematics and information theory, and also in social entities and for ethical considerations or even for literary expression. Evidence supporting the mosaic model can be identified in diverse aspects of traditional, cultural or animal practices as has been recorded with reports on the use of tools, cognitive factors, communication and language, and there have even been observations of behaviour determined by moral or aesthetic responses<sup>5</sup>.

### **Mosaics and the Neo-Aristotelian approach**

As a philosophical concept, the mosaic model can be related to the Biocosmological or Neo-Aristotelian stance as developed by the Russian scholar Konstantin Khroutski and his neo-Aristotelian school. Given Aristotle’s argument that the universe is not built physically but biologically, a relationship can be found between the mosaic model of complexity and the Neo-Aristotelian approach. This does not imply that the universe as it is understood today has developed to gigantic proportions. The argument is that complexity in its different shapes and forms as found in

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<sup>5</sup> For further detail see G. Chapouthier, *The Mosaic Theory of Natural Complexity: A scientific and philosophical approach*, *Op.cit.*

the universe can be based on biological sub-entities. Rules applying to the complexity of living organisms may thus be seen as references to help understand the processes of complexity.

In modern biology, a number of aspects can be interpreted through Aristotelian entelechy, the concept of the combined accomplishment of a whole (holos) and of an ultimate purpose (telos), the purpose here being the internal construction of living organisms. This position is the opposite of vitalism. The concept is naturalist and can be seen in many manifestations ranging from embryology, cellular metabolism and genetics, to the evolution of the species and more general evolution developing ever-greater complexity, as presented in our mosaic model (Chapouthier, 2018)<sup>6</sup>. Studies analysing living organisms in motion, revealing the complexity of their movements, show that entelechy can be aligned with and complement Darwinian selection<sup>7</sup>.

When considering the concept of triunity as developed by Khroutski, it too can be seen as an elementary process involved in the functioning of living organisms. Khroutski (2010)<sup>8</sup> studied biological parameters and identified cases of triunity in living beings including the sleep-wake cycle, systole-diastole and the “(one) vegetative (super) system: the parasympathetic, sympathetic and metasymphathetic (sub)systems.”<sup>9</sup> Traditionally western medicine tends towards a binary approach, as for the sympathetic and parasympathetic systems, disregarding the autonomous action of the free ganglia in the metasymphathetic nervous system which play a key role, e.g. for the heartbeat, this being spontaneous and continuous, without any input from the sympathetic and/or parasympathetic systems, although there may be occasional integration through counter-actions from the sympathetic and/or parasympathetic systems. In the apparently binary contrast of being asleep or awake, there is another state of awakening where both opposites may coincide or alternate.

In biology, triunity could have wider applications if and when there is a relationship to time-related metabolic changes that are then followed by ontogenetic development of living beings. Here too modern science would adopt a binary approach, identifying, for example, opposite reactions in a biochemical equilibrium forming the basis of cellular metabolism, in other words of life. At a greater level of integration, there is hormonal regulation and the binary relationship of hormones being released and inhibited. In higher animals effects on behaviour can be attributed to the two

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<sup>6</sup> G. Chapouthier, Aristotelian entelechy and modern biology, *Biocosmology – Neo-Aristotelism*, online, 2018, 8 (3-4), pp 421–429. DOI: 10.24411/2225-1820-2018-00021

<sup>7</sup> *Ibid.*

<sup>8</sup> K.S. Khroutski, All-embracing (triune) medicine of the individual health: a biocosmological perspective. *J. Future Studies*, 2010; 14(4):65–84.

<sup>9</sup> *Ibid.*, p 70.

hemispheres of the brain. Arguing for simplicity, binary division is commonly observed in living beings. Animals move in relative bilateral symmetry, and some have symmetrical brain hemispheres, but observations focusing on binary opposites can overlook subsequent stages when two actions are ultimately balanced, then achieve stable ontogeny, “overruling each other by turns<sup>10</sup>”, reaching a state of “oneness of the two autonomous poles (bipolar unity)<sup>11</sup>” – a temporary stage of the opposition, creating triadic unity which may become the point for further triadic developments.

At another level, considering the general philosophical concept of dialectics and the proposed *Biocosmology Initiative* (that evolves its Biocosmological Trialectic approach) : here Thesis and the opposing Antithesis are the equally essential entities, while the Synthesis is the intermediate basis and the axis for going beyond and the successive Functionalist Integration (of both) on a higher (in complexity) evolutionary sphere – the concept of Triunity, in this light, may also be applied to both materialism (as for the Dialectics of Nature by Engels) and ideology (as for Hegel’s dialectics)<sup>12</sup>.

With reference to von Bertalanffy and his holistic General System Theory<sup>13</sup> where similar principles can be found in different fields of science and theory, the mosaic model can also apply, the argument being that the mosaic structure would be one such general principle. So while the mosaic model is essentially Neo-Aristotelian, it can also be reconciled with theories propounded by certain modern philosophers.

### Negentropy

The second law of thermodynamics says that all material systems tend to reach a poor state of energy referred to as maximum entropy. In other words, allowing a margin for interpretation<sup>14</sup>, all material systems tend to maximum disorder. Exceptions to such a general argument obviously exist and modern figures in the science of thermodynamics such as Ilya Prigogine<sup>15</sup> and Jacques Tonnelat<sup>16</sup> provide excellent examples of this. In open non-equilibrium situations, i.e. “dissipative structures”, matter and energy can be accumulated locally within a system, reversing the entropic path to reach a

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<sup>10</sup> *Ibid.*, p 72.

<sup>11</sup> *Ibid.*, p 73.

<sup>12</sup> G. Chapouthier, *The Mosaic Theory of Natural Complexity: A scientific and philosophical approach*, *Op. cit.*, pp. 26-27.

<sup>13</sup> K.L. Von Bertalanffy, 1968, *General System Theory: foundations, development, applications*, George Braziller, New York.

<sup>14</sup> J.J. Matras, G. Chapouthier, 1984, La néguentropie : un artefact, *Fundamenta Scientiae*, 5/2, p. 141–151.

<sup>15</sup> I. Prigogine, D. Kondepudi, 1998, *Modern Thermodynamics: from heat engines to dissipative structures*, John Wiley, Chichester/New York.

<sup>16</sup> J. Jacques, 1995, L’ordre issu du hasard, *Comptes-Rendus de la Société de Biologie*, 189, p. 215–237.

negentropic state. “The growth of natural orderliness under normal conditions is possible only in open non-equilibrium systems, in so-called dissipative structures.”<sup>17</sup> Living systems and organisms are distinctive: “Evolution (...) proceeds ‘against the current’, against the tendency toward general decomposition<sup>18</sup>”.

Darwinian theory in the broadest sense may therefore be described as a reverse expression of the second law of thermodynamics as there is continual movement towards locally non-entropic oriented structures in “a dynamic process of generation of structures and of massive self-organization<sup>19</sup>.” The result of such oriented evolution is the emergence of more complex structures. Described in different terms, culture has taken over from nature. In non-equilibrium situations, negentropic paths tend to run counter to the general or entropic path of the universe, and the same could be said for culture at a cognitive or intellectual level. Tools are used as an extension of the intrinsic physical capacities of a body. Interactions through chemical or biological factors gain further expression through communication and language skills. Cognitive rules and declarative memories<sup>20</sup> expand an animal’s potential for autonomy, thereby strengthening unconscious habits, i.e. basic procedural memories initially arising from lower organisms. The existence of a social community with rules and morals will see groups of living beings behaving with a certain degree of uniformity, while biological systems will develop higher levels of organization, complexity and autonomy. Reactions made on the basis of aesthetic considerations will offer an animal the possibility of choosing one of a number of behavioural responses, thereby achieving a higher degree of autonomy<sup>21</sup>. In the course of the life of a living being, the pathway followed will be both naturally and culturally negentropic. This correspondence with both Darwinian selection and Aristotelian entelechy is perfectly aligned.

**Conclusion.** The arguments as reported suggest that the model of complexity emerging in mosaic structures may be seen as an extension of modern Neo-Aristotelism. The same model can also complement Darwinian arguments and align with them. The Mosaic model corresponds organically with the *Biocosmology Initiative* and can be seen as modern adaptation of the philosophy of Aristotle as applied to the development and evolution of living organisms.

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<sup>17</sup> J. Smajs, 2008, *Evolutionary Ontology*, Rodopi publishers, Amsterdam, p. 81.

<sup>18</sup> J. Smajs, *Op. cit.*, p. 109.

<sup>19</sup> L. Kovàc, 2015, *Closing Human Evolution: life in the ultimate age*, Springer Verlag, Heidelberg, p 20.

<sup>20</sup> D.L. Schacter, 2001, *The Seven Sins of Memory: how the mind forgets and remembers*, Houghton Mifflin publishers, Boston.

<sup>21</sup> G. Chapouthier, 2009, *Kant et le chimpanzé – Essai sur l'être humain, la morale et l'art*, Berlin, Paris.

## Биокосмологическая инициатива. Перспективы развития и возможности диалога с испаноязычным миром

Мириам ФЕРНАНДЕЗ КАЛЬСАДА<sup>1</sup>

### **Biocosmology Initiative. Prospects in the evolvement and possible dialogue with the Hispanic world** **Miriam FERNANDEZ CALZADA**

**Резюме.** В этом кратком сообщении, намечаются две возможные линии развития Биокосмологической Инициативы, которые видятся как способные содействовать интернационализации ее существенных предложений. Конкретно, на втором моменте обозначены возможные пути совместных исследований между испаноязычным миром и русским миром.

**Ключевые слова:** Биокосмологическая Инициатива, новая парадигма в науке, Диалог между Россией и испаноязычным миром

**Abstract.** In this brief release the two possible lines of development of the Biocosmological Initiative are outlined. These lines are seen as capable of promoting the internationalization of the essential proposals of the Initiative. Specifically, the second moment, points at possible ways of joint research between the Spanish-speaking world and the Russian world.

**Keywords.** Biocosmological Initiative, new paradigm in science, dialogue between Russia and the Spanish-speaking world.

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**Введение.** Очевидно, что люди управляют своей жизнью согласно определенным парадигмам, культурным образцам, религиям, словом, согласно определенным мировоззрениям, в рамках той или иной космологий. Человеческие действия, интересы и ожидания не могут быть поняты без этих мировоззрений. Это человеческий способ существования в мире. Нынешний мир, стремящийся к глобализации и гомогенизации этих мировоззренческих различий, представляет опасность не только потому, что он может положить конец разнообразию и богатству, которое жизнь на этой планете влечет за собой в различных способах существования в мире каждой цивилизации. Существует также опасность того, что сама идея быть человеком утрачивается, чтобы породить трансгуманистическое существо, поддающееся модификации, податливое на основе определенных интересов. Является ли историческим предназначением человека управлять эволюцией? Если да, то должно быть ясно куда именно и с какой целью.

Поэтому необходимо создать платформу, позволяющую встречать разные мировоззрения, обогащающий диалог между разными способами видения и бытия в мире без отказа от собственной идентичности. И именно в этом смысле я считаю, что перспектива, которую делает Биокосмологическая инициатива возможной, может активно способствовать созданию этой платформы.

## 1. Первый момент (движущая сила) : риски трансгуманизма и перспектива новой парадигмы научного знания

Одной из возможностей, присущих Биокосмологической Инициативы, является нынешняя необходимость установить новую парадигму науки, то есть, первый вопрос связан с текущим состоянием и будущим науки, начиная с необходимости теоретической переориентации в способе исследования и в понимании науки; а также в технологическом развитии, связанном с научными достижениями. Сегодняшние возможности научно-технического развития ставят нас перед дилеммой : или, саморазрушение; или обновление парадигмы как типа менталитета (умонастроения и мировосприятия), на основаниях которой проводятся научные исследования. Необходимо открыть альтернативные пути, по которым можно избежать надвигающуюся гуманитарную катастрофы, к которой, как представляется, мы движемся; с угрозой исчезновения собственно человека – *Homo sapiens*, как высшего творения биологической (естественной, Природной – Космической) эволюции, чтобы уступить место трансгуманистическому существу.

Если говорить о риске трансгуманизма, то современные достижения биотехнологии и мироотношение, во многом определяемые постмодернистской мыслью – эти достижения превратили вопросы, непосредственно затрагивающие естественную природу человека, в «варианты игры», «перспективы», «модели» и «творческие возможности». Достижения в области биотехнологии позволяют нам оставить естественный детерминизм позади; когда Природа изобретает или переделывает себя, и именно человек, превращенный в «управляющего эволюцией», устанавливает правила и параметры новой реальности. В трансгуманистическом подходе, напротив – сама жизнь, на индивидуальном уровне, уже рассматривается как проект, который можно преобразовывать как в физическом, так и психическом (ментальном) отношении.

Необходимо подумать, действительно ли можно направлять ход эволюции и какова природа этого «управляющего» воздействия; и что требует переосмысления природы человека. В рамках постмодернистского видения есть авторы, которые отрицают существование человеческой природы, и настаивают на конститутивной и радикальной свободе человека. Для них, люди не имеют никакой общей сущности или природы. Изначально, эта позиция была типичной для экзистенциализма и нигилизма, а в результате приведшая к постгуманистам,

таким как Слотердаjk<sup>2</sup>, и его докладу «Правила для человеческого зоопарка». Ответное письмо на «Письмо о гуманизме» Хайдеггера» или Джорджо Агамбена.

Противоположной крайностью являются те, кто в нигилистической интерпретации Дарвина отстаивают, что человек есть только природа, животный вид и ничего больше. Этот радикальный натурализм ведет к трансгуманизму, который защищают такие авторы, как Бустрём, один из основателей Всемирной ассоциации трансгуманистов и директор Института Будущего Человечества; или Савулеску, которые выступают за модификацию и искусственную обработку человека для его улучшения (enhancement).

Хотя верно и то, что постгуманизм является постмодернистским феноменом, который фокусируется на критике и преодолении исторического гуманизма. Сам же трансгуманизм пытается искусственно преодолеть и улучшить человека как живой организм, но между обоими движениями существует определенная конвергенция. С обеих точек зрения человек воспринимается как нечто податливое и модифицируемое. Оба направления мысли приходят к Ницше как к одному из столпов, на которых базируются их теории. Если исторически гуманизм пытался найти и показать путь, который позволяет человеку стать действительно и истинно человеком, то путь, который расчищает Ницше, ясен: человек должен исчезнуть, выйти за пределы самого себя, стать сверхчеловеком. Надо сказать, что широко распространена тенденция искать альтернативу трансгуманизму и постгуманизму в преодолении Ницше.

Однако, альтернатива преодоления Ницше пребывает в рамках тех же самых парадигмальных схем и типов ментальности; которые продолжают говорить об абстрактной человеческой природе, подобно платоновской идее о верховенстве трансцендентального умопостигаемого мира. Возможно, что альтернатива находится в преодолении дуализма и антропоцентризма, господствующих в западной науке и мысли, и, взамен – в поиске новой общей, вначале базисной переориентации. В этой связи, в лице Биокосмологической перспективы, с ее возвращением к Аристотелю, и выдвижением оснований антропологизма и антропокосмизма, присущих Органицистскому видению русской мысли – здесь очевидно просматривается

<sup>2</sup> Например, об этом заявляется в докладе «Правила для человеческого зоопарка. Ответное письмо на «Письмо о гуманизме» Хайдеггера»; см. Peter Sloterdijk, Regeln für den Menschenpark. Ein Antwortschreiben zu Heideggers Brief über den Humanismus, Frankfurt am Main: Suhrkamp, 1999 (В интернете является доступным перевод с немецкого Татьяны Тягуновой, 2002) – <https://www.nietzsche.ru/influence/philosophie/sloterdijk/>

существенная возможность выхода из опасного тупика, в который, как представляется, движется современная наука.

В современном понимании, термин «трансгуманизм» был предложен еще биологом-евгенистом Джулианом Хаксли, который придумал этот термин, чтобы попытаться снабдить евгеническую философию дискурсом, который освободил бы ее от бича нацизма. Превращение евгенического учения в трансгуманизм стало возможным благодаря его дружбе с Тейяром де Шарденом. Вместе с тем, известное произведение Тейяра де Шардена *Феномен человека*<sup>3</sup>, где выдающийся ученый и осуществил свой мысленный синтез религии, науки и философии – этот труд, в свою очередь, был написан под влиянием Вернадского и его концепции *ноосферы*<sup>4</sup>. Не стоит ли теперь, в этой связи, взять за основу изучение собственно научного наследия Вернадского, а в целом следовать пути развития принципов русского космизма и органицизма, присущих русской мысли и принципиально противоположных установкам трансгуманизма – чтобы осознать существенную альтернативу, и обрести новый и необходимый гуманизм?

## 2. Сходные и отличительные культурологические черты – у России и Испании

Вероятно, однако, что подобная возможность зависит от более глубоких и радикальных изменений сознания, чем только понимание характера деятельности науки. Согласно теории Н.Я. Данилевского, наука, как и развитие других сфер культуры – все это составляет только второй «Геркулесовый столб» (т.е. естественного основания для присущего цивилизационного развития у данного культурно-исторического типа), на котором зиждется каждая мировая цивилизация. Первый же – *космологический*, и от него зависит мироотношение и мировоззрение данной цивилизации. Это второй момент, в котором Биокосмологическая перспектива открывает возможность создания теоретической платформы, позволяющей вести нужный диалог мировоззрений и цивилизаций в текущий период мировой истории, в котором мы находимся в настоящее время; и который можно назвать, используя выражение Сэмюэля Хантингтона, как столкновение цивилизаций (The Clash of Civilizations, 1993)<sup>5</sup>.

<sup>3</sup> См.: Тейяр де Шарден, П. *Феномен человека*. – М.: Айрис-пресс, 2002. – 350 с.

<sup>4</sup> Например, см.: Вернадский, В.И. *Биосфера и ноосфера*. – М.: Айрис-пресс, 2007. – 576 с.

<sup>5</sup> См. Хантингтон С. *Столкновение цивилизаций*. – М.: «Издательство АСТ», 2003. – 603 с.

В этом смысле я считаю, что Органицистское миропонимание, присущее *Биокосмологической Инициативе*, как утверждает коллектив авторов, обладает потенциалом объединения субъектов социокультурного развития в мире для достижения общей задачи и общего блага, на этом пути естественным образом преодолевая навязывания общего порядка из единого центра, что является характерным для монополярного, монолинейного и антропоцентристского мировоззрения, преобладающего в Западном мире<sup>6</sup>; но никак не соотносится с естественным (Динамическим, Биполярным и Циклическим – Триадологическим) ходом развития мирового Биокосмологического ЭвоПроцесса.

Хотя с разных предпосылок, мыслители из испаноязычного мира, как из Америки, так и из Испании, настаивали на осуждении и необходимости преодоления этой поглощающей и подавляющей различия характеристике западной цивилизации. Надо уточнять с начала, что для этих авторов Запад, как утверждает например Хосе Рамон Браво – это на самом деле англо-германская перспектива, англо-саксонский европротестантский мир, а не иберо-американский мир<sup>7</sup>. Именно этот англо-саксонский и европротестантский мир принижает, игнорирует или поглощает (и поглотил) любое альтернативное видение.

Несмотря на различия, между Россией и Испанией имеются общие черты, которые могут сделать возможным меж-цивилизационный диалог или сравнительное исследование. Обе страны являются периферийными странами Европы, что делает их уникальными, обе приветствовали разные этнические группы. Обе открыли новые миры: Сибирь и Америку; как и обе, находясь на окраинах Европы – непосредственно соприкасаются с другими частями света, Азией и Африкой.

В отношении к истории Испании была создана ‘черная легенда’, путем искажения события, сопровождавших колонизацию и роль Испании в Америке; и что было описано исследователями, такими как Эльвира Рока или, недавно, аргентинец Марсело Гулло. Подобные действия оцениваются как крупнейшая маркетинговая операция в истории, направленная на создание вражды и разделение Испании и испано-американских народов. В результате, ‘черная легенда’, которую и сами испанцы, и испаноязычные американцы приняли

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<sup>6</sup> См: Гринченко С.Н., Орлов А.И., Хруцкий К.С. «Россия и мир (peace) – перед Органицистским вызовом : системного генезиса, наукометрические и (Био)космологические аспекты, в преодолении текущего глобального кризиса; в год 200-летия со дня рождения Н.Я. Данилевского // *Biocosmology – Neo-Aristotelism*, Vol. 12, Nos 1&2, Winter /Spring 2022); с. 222.

<sup>7</sup> См.: Bravo, J. R. *Filosofía del Imperio y la Nación del s. XXI. Ensayo sobre el problema político de las Españas y las Rusias*, Oviedo, Pentalfa, 2022, p. 44.

и ассимилировали – эта легенда, таким образом, выполнила свою ‘черную’ миссию, состоящую в осуществлении разделения и сегрегации народов<sup>8</sup>. Хотя русофобия имеет многовековую историю, но также и русская *черная легенда*, и именно в наши дни поднимается во всей своей силе. Как и, во все времена, просвещенная Европа считала обе страны отсталыми или варварскими.

### 3. «*Рассуждение о мире с позиции маргинальности и варварства*», Леопольдо Сеа (1983)

Обращает на себя внимание, в изучении культур Испании и России (и где автор расценивает их в качестве ‘пограничных культур’) – выдающийся труд Леопольдо Сеа «*Рассуждение о мире с позиции маргинальности и варварства*» (1983). «Варвар», как напоминает нам Сеа – это слово греческого происхождения, обозначающее тех, кто заикался или плохо говорил по-гречески; т.е. маргинальных существ, чья человечность подвергалась сомнению. Европа, кристаллизовавшись как группа наций, стала поддерживать эту оппозицию между цивилизацией и варварством, чтобы выразить свои отношения с народами на пределе своих границ<sup>9</sup>.

Западноевропейский человек считался цивилизованным против заикания или двусмысленных рассуждений других. Но культурная жизнь т.н. ‘маргиналов’ и ‘варваров’ – это же и неизбежные центры выражения (существования и развития) человека. К югу и востоку от Европы, напоминает Сеа, есть два народа вне культурной сферы, придающей смысл Европе, Испания и Россия – народы, которые на протяжении всей истории пытались участвовать в жизни Европы, и которые были отвергнуты как варвары или полуварвары. Несмотря на это, обе страны спасли Европу от ее исторической гибели: Испания сдержала мусульманское вторжение, а славяне – монгольское нашествие, но к которому мы могли бы добавить – и от фашизма XX века. Запад всегда пытался остановить периферию, как способную формировать любой центр власти, поскольку ‘центр власти’ был задуман только для западноевропейского мира. Однако варварство, говорит Сеа – это желание быть похожим на другого; тогда как цивилизация – это быть собой и строить из этого свое бытие<sup>10</sup>.

<sup>8</sup> Gullo Omodeo, M. *Madre patria*, Barcelona, Espasa, 2021, p. 26; Roca Varela E. в книге *Imperiofobia y leyenda negra. Roma, Rusia, Estados Unidos y el Imperio español*, Madrid, Siruela, 2016, посвящает главу изучению исторического происхождения русофобии, сс. 105–135.

<sup>9</sup> Zea, Leopoldo: *Discurso desde la marginación y la barbarie*, Barcelona, Anthropos, 1988, с. 21.

<sup>10</sup> Там же, с. 128.

Главная особенность испанского народа – смешение рас. Сеа приводит слова Боливара: «давайте помнить, что наш народ не европейский и не североамериканский, что он скорее смесь Африки и Америки, чем эманация Европы; что же, даже сама Испания перестает быть европейской из-за своей африканской крови, из-за своих институтов и из-за своего характера»<sup>11</sup>. Что касается России, то это другой народ с раздвоенной душой, другая страна, вынужденная историей оставаться в пределах своей культуры и культуры Европы. Ссылаясь прямо на Данилевского<sup>12</sup>, Сеа напоминает, что согласно Данилевского единство Европы не географическое, а некое культурно-историческое единство, германо-романская цивилизация, ограниченная одной областью мира. Россия не принадлежит к этой культуре, и не участвовала в ее развитии. Как и тот факт, что на Востоке ее роль не стала ролью европейского цивилизатора. Россия приветствовала различные культуры, но без характерного испанского смешения рас.

Поэтому именно русская цивилизация (в своих потенциальных возможностях, но до сих пор не актуализированных в достаточной мере) : но эта цивилизационная сущность России способна стать основой нового гуманизма; т.к. способна генерировать новые (альтернативные, но востребованные человечеством) основания и цели мирового развития. В таком движении, Россия способная выступить и стать мостом (воплотить собой реальное основание для взаимосвязей) между народами и этносами Запада и Востока. На самом деле, вспоминая христианские воззрения Достоевского – Россия никак не исключает, но скорее включает всех во всемирное братство.

Запад, заключил Сеа в своем эссе, превратился в регрессивный аппарат. То, что мы должны искать – это не формы подражания или поиск сходства, но утверждение того, что отличается. Таким образом, порождается форма цивилизации, которая выполняет то, что и должно быть задачей цивилизации – побуждение людей жить вместе, не отказываясь как от этнической идентичности, так и своей собственной личности : и тогда, утверждая равенство с точки зрения своеобразия; отказываясь быть подражанием тому, чем ты не являешься; и обогащая свой опыт опытом других, не переставая быть собой<sup>13</sup>.

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<sup>11</sup> Там же, с. 122.

<sup>12</sup> Там же, с. 192.

<sup>13</sup> Там же, с. 276.

#### 4. Современные представления о Европе и Европейском Союзе: Густаво Буэно, Хосе Рамон Браво, и другие

Ганс Гадамер поддерживал именно такое представление о Европе – как места встречи и диалога между разными языками и конфессиями. Однако, стоит спросить себя, действительно ли Европа является той площадкой, которая делает возможным подобный диалог и встречу. Испанский философ Густаво Буэно в своей работе *Испания против Европы* утверждает, что существует тенденция рассматривать Европу как авангард человечества, как генератор и воплощение высших ценностей, в которых должны участвовать все люди, хотя и только под руководством Европы<sup>14</sup>. Но, на самом деле – внутри Европы существует много руководящих сил и центров. Таким образом, цель организации ‘единых сил’ принципиально недостижима, если не отменить некоторые из существующих руководящих принципов, например, испанские. К этой идее призывают Германия или Франция, потому что Европа для них является синекдохой, но это положение не распространяется на те страны, которые находятся на периферии.

В истории Европы постоянно проводилось (и, в результате, доминировало) положение о существующем единстве между христианскими европейскими королевствами. На самом деле, последние всегда подвергались разрушительному воздействию как внутренних распрей, так и внешней агрессии, например, со стороны турок. В результате, европейское ‘единство’ никогда реально не существовало; история Европы – это история внутренних войн. По этой причине Буэно предлагает рассматривать Европу не как «воплощение» возвышенных Идей, но как реальное историческое образование – территорию, на которой зародились две мировые войны. Речь здесь идет не о том, чтобы предлагать ту или иную Европу, это разные взгляды на одно и то же. Кроме того, выше отмеченный возвышенный способ понимания Европы был создан до Второй мировой войны – до того, как Европа показала, что реально содержится в ее недрах. Если же Европа понимается возвышенным образом как кульминация и воплощение высших ценностей, то противостояние Испании или любой другой страны с Европой ведет к противостоянию ценностей, иначе говоря – с движущими и организующими развитие идеями; и тогда, например, Испанию можно спасти только в том случае, если она приобщится к науке, технике, философии, и всем прочим ‘обще’-европейским ценностям.

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<sup>14</sup> Bueno, G: *España frente a Europa*. Barcelona, Alba, 1999. Густаво Буэно (1924-2016) считается одним из самых важных испанских философов s. XX и начало XXI. Его линию мысли в настоящее время продолжает школа его последователей.

Важнейшим проектом европейского единства после Наполеона стал нацистский (фашистский) проект – как политический, правовой, культурный и экономический порядок для всего континента. Вторая Мировая Война была для нацистов стартовым этапом их европейского проекта. Фашизм провалился, но проект европейского единства нет<sup>15</sup>. Что касается Европейского Союза, то он представляет собой аналог нацистского геополитического проекта, который изначально задумывался как стена, чтобы остановить Советский Союз. Евросоюз родился под защитой США от СССР, но это не значит, что он не может быть, в свою очередь, конкурентом США; отсюда происходят, как Буэно заявлял еще в 1999 году – постоянные подозрения США к отношениям Германии с Россией.

Евросоюз подразумевает подчинение некоторых государств группе государств-гегемонов; и не допуская существования для других равноправия и независимости. Невозможно сохранить испанское гражданство и испанскую идентичность и в то же время быть гражданином ЕС. Или да, это возможно, но путем отделения этого испанского гражданства от Латинской Америки, что и произошло, но вместе с этим Испания перестала быть Испанией.

По Буэно, тот тип единства, который существует в Европе – это биоценоз, здесь нет ни настоящего братства, ни гармонии. Биоценоз – это не совокупность особей одного вида (популяции), а организмы разных животных, растений и т.д., сохраняющих определенную степень взаимодействия и взаимозависимости, так что возникает надвидовая система (исторически сложившаяся совокупность) организмов, способная к саморегулированию и укоренившаяся в среде обитания. Этот биоценоз может разрастаться и включать в себя другие биоценозы или сжиматься. Гармония, возникающая в биоценозе и организующая свое здесь само-поддержание, как и в ЕС – это не любовь и мир Девятой симфонии, а ‘гармония’ борьбы за жизнь между ее участниками. Этим членам необходимо убивать других, чтобы есть их и поддерживать себя; как необходимой является регуляция трофических цепей в пределах стабильных скоростей разрушения и ассимиляции.

Каждое общество или культура является видом внутри этого биоценоза, а инструментарий и особенности каждой культуры предстают как черты этого вида. Виды остаются в постоянной конкуренции, идут войны и другие (‘гибридные’) формы насилия, используемые в дарвиновской «борьбе за существование». Итак, Европа больше похожа на биоценоз, чем на общество, управляемое справедливостью, милосердием или братством. Солидарность возникает внутри группы, и только против того, кого считают врагом. Единство Европы – это

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<sup>15</sup> Там же, с. 390.

не солидарность. Проект Европейского Союза стремится преодолеть этот недостаток солидарности биоценоза, путем создания и превращения в свободную, устойчивую и демократическую Европу, в рамках универсального братского сообщества. Однако, все это представляет собой чистую утопию, которая существует только в воображаемых принципах ее восторженных защитников. Государства-партнеры здесь имеют противоречивые интересы; и, тогда – только третий (общий для них) враг может превратить отсутствие солидарности в солидарность, но она будет преходящей или случайной.

С более общей точки зрения, как это спрашивает Буэно<sup>16</sup> – какие проблемы затрагивают человечество сегодня? С самого начала мы должны иметь в виду, что человечество есть абстрактная, неразрешимая категория которая преследует этнические различия или самобытные культуры. Человечество возникает позднее, и оно появляется в результате взаимодействия культур и народов. Это метафизический идеал, который, по мнению некоторых, выражен во Всеобщей декларации прав человека, однако то, что содержит эта декларация, представляет собой систему функций без параметров или с дискуссионными параметрами, которые часто формулируются в бинарном виде: демократия/фашизм; коммунизм/капитализм; правые/левые и т. д. Но эти параметры являются крайностями без промежуточных степеней. Кроме того, политические варианты являются лишь одним из аспектов набора философских альтернатив. Поэтому мы должны найти систему координат, исходя из которой можно ставить проблемы и вызовы, влияющие на человечество в целом.

Буэно предлагает сгруппировать эти различия вокруг трех систем:

1. Абстрактно-философский порядок: левый/правый; анархизм/коммунизм; фашизм/демократия; гуманизм/расизм, национализм/интернационализм и т.д.
2. Геополитический порядок: Западная/Восточная Европа; Атлантическая/Средиземноморская Европа; Север/Юг, Европа/Африка и т.д.
3. Система с моральными альтернативами, которые также можно назвать культурными или религиозными альтернативами. Великие религии содержат в себе не только религиозно-богословские компоненты, но и ряд исторического наследия, обычаев, языка. Возможно, больше, чем религиозные морфологии, их следует называть культурными.

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<sup>16</sup> Там же, с. 415.

Как пример, Испания и ее империя имели глубокую идентификацию с католицизмом, больше чем в других странах. Но Испания потеряла свою идентичность, когда Испанская империя рухнула. Сегодняшние испанские политики ищут и пытаются утвердить новую европейскую идентичность. Но государства-гегемоны ЕС склоняются к дальнейшему расчленению Испании, чтобы позже вести переговоры со вновь образовавшимися национальностями. Конечно, империи рушатся, и все же что-то остается от них. То, что осталось от Испанской империи – это латиноамериканское сообщество, и это сообщество является альтернативой капиталистическому протестантизму. Быть испанцем – это больше, чем способ существования, но это способ существования в мире по сравнению с другими доступными альтернативами.

Хосе Рамон Браво, исследователь школы Буэно, ищет и предлагает сотрудничество или совместную работу между русским и испаноязычным миром, хотя я думаю, что ее можно распространить и на другие цивилизационные платформы, существующие в нашем мире. По мнению Браво, в мире наблюдается сильная тенденция к гомогенизации, которая исходит из англо-саксонской империи. Эта тенденция к гомогенизации угрожает поглотить суверенитет каждого государства, осудив их к подчинению или к распаду, как происходит с ЕС. По этой причине он предлагает восстановить и подтвердить различные этнические и институциональные традиции, искать союз, сохраняющий независимость каждого члена, что невысказано в любом интернационалистском или глобалистском проекте, предложенном англосаксонской элитой, которые ведут только к поглощению и подчинению.

## **5. Второй момент – очистить мировое культурологическое знание от понятия ‘периферия’**

Таким образом, понятие культурной ‘периферийности’ может (и должно быть) растворено и исчезнуть на новых (высших) основаниях (соответственно, и из лексикона) как мирового сотрудничества; так и в реализации человечеством целей общего дела (но что является присущим-определенным для каждого субъекта мирового развития и его идентичности) – общей устремленности к разрешению насущных Органицистских вопросов и злободневных проблем в развитии человечества; и где человечество воспринимается как единый целостный субъект мирового ЭвоПроцесса. Пока же (хотя и неявно), но в современной политической практике признается (как на ‘высшем уровне’, так и на всех других культурных уровнях; всего происходящего – под давлением монополярного дискурса англосаксонского мира и ‘коллективного’ Запада) – до сих пор в ‘глобальном’ мире признается существование и

устанавливается гомогенный (однородный) мир, отсюда его как ‘для всех’ центральные установки и требования, так и его ‘периферийные’ (т.е. незначимые) идентичности. Отсюда следует ключевой вопрос, на сегодня : как следует заложить основы нового видения мира – нового Космоса, в котором нет «пупка», заявляющего себя как ‘центр мир-системы’; поэтому оценивающего всех остальных субъектов мирового развития как ‘периферию’; значит, обрекающего их (т.е. народы Земли) на исчезновение, поглощение или отвержение (как варварские и дикие)?

Поэтому в свете выше изложенной аргументации : предлагаемое Биокосмологической Инициативой (БКИ) *Органицистское* видение естественного мирового (Космического) развития<sup>17</sup> – все это может предложить важные точки опоры в процессе создания той коммуникационной сети между культурами и цивилизациями, которая позволит обнаружить и реализовать действенные основания для мирного сосуществования и развития присущих потенциальных возможностей, свойственных каждой цивилизации. Более того, на взгляд автора : понимание цивилизации не столько как формы политико-территориальной организации, которая часто является реализацией внешних планов – но как автономного субъекта мирового развития, наделенного присущими потенциями и естественными силами, т.е. обладающего собственной внутренней динамикой жизнедеятельности.

Нельзя не отметить одну существенную разницу между БКИ и альтернативой, предлагаемой такими авторами как Хосе Рамон Браво. В последней стоит отметить ее глубокую погруженность главным образом в политическую философию; следовательно, возможно, что обладающей серьезным ресурсом, чтобы принять вызов и справиться с вопросом изменения (коррекции) глобального мировоззрения, но при этом не затрагивая его основополагающих (космологических) оснований, как это делает БКИ. В любом случае, сравнение основных положений БКИ и подобного понимания, характерного для школы Буэно, может быть плодотворным и обогащающим. Более того, это открывает перспективы и за пределами Европы, чтобы все другие цивилизации стремились к диалогу вне своих геополитических положений и разногласий.

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<sup>17</sup> В своем подходе, сотрудники БКА обращаются непосредственно к научному наследию Аристотеля, и используют его как основную концептуальную базу (референциальную систему отсчета и координации усилий); а также напрямую соотносятся с достижениями уже состоявшихся русских научных школ: *космизма, органицизма, циклизма, функционализма, пульсационизма*, «русского пути в науке о поведении» [Хруцкий, 2020, сс. 122-123]; наконец, выделяя русскую школу цивилизационных исследований; и здесь «Большую Пятерку» выдающихся ученых: Данилевского, Леонтьева, Вернадского, Сорокина и Гумилева [Гринченко, Орлов и Хруцкий, 2022, сс. 59–62].

**Заключение.** В своей работе, автор главным образом изучает вопросы, связанные с историей и современным культурным развитием Испании и латиноамериканского мира. Однако, в заключение, исходя из подготовленных в исследовании материалов и выводов : автор прежде всего приходит к выводу, что краеугольным моментом текущего глобального кризиса (по сути, затрагивающим в равной мере каждого субъекта мирового развития) – таковым в настоящем выступает необходимость в срочном обнаружении существенно новых, но безопасных, перспективных и благодетельных космологических оснований и целей мирового развития. В этой связи создается устойчивое впечатление, и что становится более очевидным после анализа приведенных исторических аспектов в культурном развитии испанского и латино-американского мира – это впечатление и уверенность состоит в том, что *Биокосмологическая Инициатива* (БКИ) уверенно принимает возникший в мире объективный запрос на пробуждение новых космологических предпосылок (востребованного историческим временем возникновения у человечества нового мироотношения и мировоззрения) – появления новых научно-космологических оснований-целей, и в этой связи новых возможностей к тому, чтобы как выстоять в состоявшемся глобальном кризисе, так и успешно справиться с трудностями по реализации дальнейшего (поступательного, восходящего в сложности, благодетельного) развития мирового человечества, взятого в целом, как передового отряда вселенского ЭвоПроцесса.

Имеет большое значение, что БКИ следует противоположному подходу (в отношении к доминирующему с 17 века, а ныне диктующему все правила и порядок – Дуалистскому, Западному пути) – т.е. следует *Биокосмологической* научной парадигме, полагающей себя на существенно натуралистических и Органицистских принципах мировосприятия; и когда подобная стратегия воспринимает мир как живой *Само-развивающийся* (и *Само-восходящий*, в сложности своей организации) Космический ЭвоПроцесс. Поэтому ученым всего мира не следует не обращать пристального внимания на эту *Инициативу*, но внимательно ее изучать и принимать к сведению.

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## **Biocosmology : Shaping the Model of Human Experience of the World in the 21st Century**

**Hongyu JIANG<sup>1</sup> & Han GAO<sup>1</sup>**

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**Биокосмология: формирование модели переживания мира и жизненного опыта человека в XXI веке**  
**Хуньюй ЦЗЯНЬ<sup>1</sup> и Хань ГАО<sup>1</sup>**

Cosmology is the earliest form for human beings to grasp the world. The original cosmology is often presented in the form of myth. From the ancient Greek period in the West and the pre-Qin period in China, people began to explain their own world consciousness in a rational way. A rational cosmology replaced the mythical cosmology. With the growth of modern empirical natural science, scientific rationality has become the representative form of rationality. The human concept of the cosmos has changed from a general rational cosmology to a scientific cosmology. Cosmogony is the system of human thinking about what the world is and the relationship between human beings and the world. It is the basic thinking and prerequisite self-awareness for human beings to settle down. It is the empirical model for human beings to think and deal with the world. It plays an important role in guiding thoughts for human beings to choose what way to deal with the world and how to realize the double meaning of human beings and the object world in dealing with the world.

The 22<sup>nd</sup> International Symposium on Biocosmology was held as part of the 7<sup>th</sup> International Conference on Globalism at Moscow State University in Russia in June 2021 and adopted “Addressing the scientific community – the Biocosmology Initiative.” The core content of the Initiative is to establish a Triadology of science with the integralist as the direction and a dynamic understanding of the Triadology of scientific knowledge. Based on this, a Biocosmology towards the 21<sup>st</sup> century will be constructed. On the whole, the Initiative is a refinement of the scientific worldview shaped by the paradigm shift in natural science since the 20<sup>th</sup> century, a synthesis of the new model of philosophical epistemology and cosmology since the 20<sup>th</sup> century, and a prerequisite ideological foundation for thinking and practicing the relationship between people and the world in the 21<sup>st</sup> century.

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The issue of the scientific basis of Biocosmology is the central concern in the Biocosmology Initiative. In the Initiative, it is proposed to integrate top-down and bottom-up scientific knowledge to form an organicist view of scientific knowledge with comprehensive characteristics, which pays attention to both factual material and the intrinsic purpose of object, and then to construct a Biocosmology view of the organicist model for understanding the universe. The essence of such an organismic view of science is the result of a paradigm shift in scientific understanding from physics to biology since the 20<sup>th</sup> century. The 20<sup>th</sup> century is often called the century of physics and the 21<sup>st</sup> century the century of biology. In fact, the period from the rise of empirical natural sciences in the 17<sup>th</sup> century to the 20<sup>th</sup> century could be called the century of physics. As a paradigm of thought, physics is characterized by being mechanistic, linear, reducible and mathematical. It often forms a qualitative and quantitative deterministic description of the object world.

However, with the development of physics since the 20<sup>th</sup> century, a new paradigm of physics, represented by quantum mechanics, was born. The physical paradigm of quantum mechanics leads to a complex and uncertain understanding of the world. The paradigms of theoretical research and understanding and worldview models based on classical physics began to be questioned. Corresponding to this, the most representative theories of natural science in the 20<sup>th</sup> century are the DSC (Dissipative structure theory, Synergetics and Catastrophe theory) and the SCI (Systems theory, Cybernetics and Information theory). They are both models of scientific theories constructed on the basis of Systems Theory. And Ludwig von Bertalanffy, the founder of general system theory, is a biologist. He proposed General System Theory based on the establishing of the theory of organism of life organization. The Russian scholar who was mentioned in the Initiative, Vladimir Ivanovich Vernadsky (Владимир Иванович Вернадский), is a Russian and Soviet mineralogist and geochemist. He is known as one of the founders of Geochemistry, Biogeochemistry, and Radiogeology, and has a background in biology.

Biology takes living things (animals, plants, microorganisms) as the research object, which studies both the structure and function of living things and the occurrence and development rules of living things. We can not only apply mathematical, physical and chemical methods to make precise quantitative studies of biological structure and function at the molecular biology level, but they can also be described in terms of organic theory of complexity and self-organization by applying System Theory, Evolution Theory occurrence and Evolution Theory development. It can be said that the rise of the biological paradigm has brought challenges to the physical paradigm. However, from a comprehensive perspective, it complements reductionism with holism, complements simplicity with

complexity, and complements linear description with nonlinear description, which further enriches the overall revelation of the object world.

## 2

Biocosmology is a summary of the cosmology generated by the paradigm of scientific research from physics to biology. The generation of Biocosmology cannot be separated from the base of scientific knowledge and its paradigm of understanding. At the same time, as a metaphysical thought mode of the world as a whole, its construction cannot be separated from the foundation of the cosmological model characterized by Generativism, Existentialism and Organicism since the 20<sup>th</sup> century. Among many cosmological models, Popper's theory of World 3 in his theory of knowledge, Heidegger's Existentialism configuration of the relationship between man and the world, and Whitehead's organic world view directly provide the metaphysical basis for this Biocosmology that emphasizes self-generation.

Popper, the British philosopher of science, believes that there is an objective knowledge world in comparison with the objective material world and the subjective spiritual world. The ontological basis of the objective knowledge world lies in the independent growth of knowledge. Although the objective world of knowledge cannot be separated from the objective material world and the subjective spiritual world, the independence of the objective world of knowledge lies in its independent evolution. That is, knowledge itself has the potential to create new knowledge, and people can further create new knowledge based on existing knowledge achievements. Popper's theory of objective knowledge provides a generative understanding of knowledge problems similar to biology.

The German philosopher Heidegger's Existential-Ontology has become widely known, and in his Existential-Ontology lies a generative understanding of things. Heidegger thinks that the "thingness of things" is not the perceptual theory of things from the epistemological point of view, or the description and grasp of conceptual theory. The "thingness of things" lies in the self-display of things, that is, they show themselves exactly as they are. Man is involved into natural processes, but not an intervener, of the self-manifestation of things. Heidegger's thoughts on the Generativism of things break the traditional subject-object relationship between humans and things, and form an Existential-Ontology interpretation characterized by the phenomenological description of things, highlighting the generative qualities of the object world.

Whitehead, an English philosopher, put forward a cosmology of organism theory. According to Whitehead, the world is made up of “actual entity”, which is changing and moving. The “actual entity” constitutes different clusters, which constitute larger, higher-level clusters, which in turn constitute larger, higher-level clusters, until they constitute the universe. The “actual entity” is constantly generated. An “actual entity” not only absorbs other “actual entity”, but also is absorbed by other “actual entity”. It has a dual identity, which is both a subject and an object. Whitehead's organic cosmology directly lays the theoretical foundation for a kind of Biocosmology toward the 21<sup>st</sup> century.

### 3

The German philosopher Ernst Cassirer once said that since the ancient world there has been an anthropology and cosmology in parallel. This shows that while human beings know the outside world, they also begin to ask for their own understanding. If the self-consciousness of human subjectivity is not yet sufficient, and cosmology and anthropology can be separated, then after the establishment of human subjectivity, anthropological and cosmological thinking become two aspects of one system. Neither the mere examination of human self-worth nor the mere doctrinal inquiry into what the universe is has true value connotations. What the world is and how the world should be are directly related to what people are and how they should be. The inseparable reality of the relationship between man and the world, the theoretical connection between cosmology and anthropology in their inner unity, makes cosmology a world experience of human tangibility.

With the rise of modern philosophy of subjectivity and the increased human capacity to transform the world brought about by the development of human science and technology after the first industrial revolution, an anthropocentric view of nature was formed. As a kind of practical logic, this view of nature has brought about very serious negative effects in the process of guiding human beings to deal with the relationship between human beings and nature, because it overemphasizes human subjectivity, in the process of human transforming nature, and in the process of meeting people's material life needs and improving human material life standards. These negative effects have a significant detrimental effect on the survival of people and the reproduction of the race. Therefore, people carry out sociological criticism, political criticism, economic criticism, scientific and technological criticism and philosophical reflection from different levels. It is hoped that through criticism and introspection, we can find the problem of the modern world experience model with the basic idea of anthropocentrism.

In the 21<sup>st</sup> century, the fourth industrial tide is surging, and the ability of human beings to transform the world of objects is, far from being weakened, enhanced with the improvement of technology and industrial level. Since it is impossible to remove the place of human subjectivity, how to place the relationship between man and nature becomes the key to constructing a new model of world experience. Although the Biocosmology Initiative has grasped the premise misplacement caused by the binary opposition model between man and nature in modern cosmology, which has been formed with man's subjective consciousness and empirical natural science development since modern times, it is still unable to escape the limitation of the dualistic thinking mode due to the confinement of this premise thinking paradigm. The holistic empirical mode of inquiry derived from the excellent Chinese traditional culture can form a counterpoint to this mode of thinking. Thus, the full exploration of the integration of Chinese and Western cultural experiences in the context of the discourse of modernity can provide humanity with a constructive model of world experience toward the 21<sup>st</sup> century.

## Biocosmology : A New Philosophy beyond Traditional Mechanical Cosmology

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Биокосмология: Новая философия  
за рамками традиционной механической космологии  
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**Abstract.** In the face of the global ecological crisis in the 21<sup>st</sup> century, we should re-interpret the cosmology of the 17<sup>th</sup> century in an organic way, realize the contemporary turn of the organic cosmology, and finally form a systematic and scientific philosophical worldview and the methodology of building a new human civilization. Organic cosmology is a philosophy of ecological environment with the supremacy of nature. It is supported by traditional Chinese and Western philosophy. Organic cosmology is global-oriented but originated in China. Chinese traditional philosophy has expanded a new direction for the perfection of organic cosmology with a spirit of rational thinking. Organic cosmology adheres to the research standpoint and dynamic method of holism. Based on the present and looking to the future, organic cosmology aims to realize the harmony and beauty in diversity of cosmic life.

**Keywords:** Organic cosmology; Dong Zhongshu, Triadicity; Holism

**Резюме.** Перед лицом глобального экологического кризиса в XXI веке мы должны переосмыслить космологию XVII века в органическом ключе, осознать современный поворот органической космологии и, наконец, сформировать системное и научное философское мировоззрение, и методологию построения новой человеческой цивилизации. Органическая космология – это философия экологической среды с главенством природы. Она опирается на традиционную китайскую и западную философию. Органическая космология ориентирована на мир, но зародилась в Китае. Китайская традиционная философия открыла новое направление для совершенствования органической космологии в духе рационального мышления. Органическая космология придерживается исследовательской точки зрения и динамического метода холизма. Основываясь на настоящем и устремляясь в будущее,

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органическая космология стремится реализовать гармонию и красоту в многообразии космической жизни.

**Ключевые слова:** Органическая космология; Дун Чжуншу; триадичность; холизм

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The universe is the inclusive place of all living beings, stars and galaxies, and also the space-time boundary faced by natural organic matter and inorganic matter. As a kind of academic thought with great research significance, organic cosmology is increasingly attracting the attention of experts and scholars around the world. Based on the new historical and cultural context, organic cosmology takes Aristotle's ideological system as the theoretical foundation and makes a new theoretical interpretation, committed to providing the guiding principle of organic philosophy for the contemporary cultural and scientific activities. *Addressing the scientific community – the Biocosmology Initiative* states: “There is no doubt (in view of the current global crisis): the time has actually come for the scientific community to reconsider the supremacy of the 17th century’s cosmological (basic scientific and cultural) foundations; but instead to take as a basis the new foundational principles for the scientific and cultural activities produced by the Anthropocene, man and society in the 21st century.”<sup>i</sup> Therefore, realizing the turn to organic cosmology is of great significance for the contemporary study

of the field of philosophy of science and culture, for the formation of a scientific philosophical world outlook, and for the construction of the methodology of the new human civilization.

### 1. The philosophical nature of organic cosmology

Organic cosmology is a philosophical interpretation with a historical root, and a kind of ecological environmental philosophy that upholds the supremacy of nature. It is not a philosophy that ignores man unilaterally and excludes man arbitrarily, but an ontology that pays attention to the harmonious coexistence of man and nature from the perspective of the cosmological world outlook and the organic methodology. Organic cosmology takes the physical world as its basic research category, including both the whole world and each subject in this organic universe. It harmonizes the relationship between various physical subjects organically based on the principles of unity, naturalness and dynamism of the world. The concept of cosmology has been discussed as early as before B.C. In the *Classic of Changes*, a traditional Chinese work, it is mentioned that “The vast earth is the source of all things, obedient and adhering to the law of heaven. The earth is deep and contains all things and its merits are vast and infinite.” The hexagram “Qian” refers to the heaven and “Kun” refers to the earth. It deduces the source of the world, deduces the beginning of the universe and the generation of everything in the world. The cosmological view in the *Changes* regards “Yin and Yang” as the origin of the world, and insists that everything in the world is born of “Yin and Yang”. The Indian *Upanishads* refers to “the Great Brahma, the one who is all, the supreme joy, the self-born.” The Great Brahma is not only the source of the world, but also the world itself. It is eternal, immortal and imperishable. The existence of the universe and the things in the universe are characterized by infinity, naturalness and non-terminality. The dynamic principle of organic cosmology is also the contemporary exposition of infinity in the *Upanishads*. It can be seen that the historical interpretation of cosmological concepts in traditional Chinese and traditional Indian civilization has provided the root and basic philosophical theoretical support for the discussion of organic cosmology.

In the western philosophy, Aristotle, as an ancient Greek encyclopedic writer, his scientific thought also upheld organic deals and the concept of holism, actively exploring the dynamic development of the whole universe. He established the form-material theory and the basic principles of the Four Causes led by the final, teleological cause. He proposed that the natural world had its own laws, and everything had its own functional properties in the cosmic order. The dynamic, organic and holistic characteristics of Aristotle's cosmology can be expanded as a new expression of cosmology, and the cosmological foundation can be reconstructed at the level of system theory. After all, characteristics

of holism and scientism revealed by Aristotle's philosophical thought have constructed the basic concepts and frames of thought in the category of organic cosmology.

Whitehead, a British philosopher in the 20th century, reconstructed the cosmology of organic philosophy in his *Process and Reality*. "The purpose of these lectures," he said, "is to formulate a rigorous cosmological idea, to reveal the meaning of these cosmological ideas by exploring various empirical topics, and finally to establish a suitable cosmology according to which all particular topics can acquire their internal relations." Whitehead is committed to know the world in a new way of process theory and to providing a new philosophical way of observing the world. He conducted a comprehensive overall study of the natural world, the fragmented fragments of the whole material world, explored the world from the perspective of processes and relations, and interpreted the real world as a dynamic organic whole.

At the same time, the origin of organic cosmology is closely related to the philosophical and cultural research of Russian scholars. Danilevsky believes that the non-uniformity of the world culture makes each civilization the embodiment of its own culture-history. In his dynamic analysis of social culture as conducted in his *Social and Cultural Dynamics*, Sorokin concludes that social culture always fluctuates repeatedly between perceptual culture and conceptual culture, which shows a kind of organic naturalism and can be expanded as a cosmological expression of organic theory and holism. Vernadsky puts forward the question on how to incorporate new cosmology in scientific activities, re-examines the expression of the 17th-century cosmology in the 21st century, and tries to explore a kind of philosophical attitude to modern scientific knowledge transformation. He willingly acknowledges the naturalistic exploration of philosophy of science and the triadicity of its system structure, so as to effectively realize the contemporary value and practical significance of this triadicity.

## **2. The basic principles of organic cosmology and its deconstruction of mechanical cosmology**

Organic cosmology is broad and profound. As a principled generation, its basic connotation is not only a powerful deconstruction of mechanical cosmology, but also a systematic integration of the cosmological world outlook and organic methodology.

The basic position of organic cosmology is to recognize that "The real world is unified (one whole) natural Dynamic Living Biocosmos." It includes physical, plants, animals and social culture. All subjects are connected and dynamic. They grow and change in accordance with certain universal laws

(basic principles). The seven basic principles include the dynamic (Hylemorphist and Entelechist) coherent oneness of a subject, bipolarity, triadicity, circular cyclicism, quaternity, pentavalence, and the ontogenetic finitude. Bipolarity refers to “unchanging existence of two opposing centers (poles) of the integral life organization in a subject;” and triadicity means that “the poles are united into an integral life organization through an essential and unchanging (homeostatic) center, the only one capable of interacting synchronously with both poles”<sup>ii</sup>

Everything in the world follows these seven principles. Scientific knowledge also has bipolarity: Scientific knowledge always includes two poles of (rival) scientific positions. The contemporary scientific dominance of absolute dualism based on the transcendental view of the world advocates the opposition of man and the world. This ignores the teleological organic pole, thus excluding the organic (dynamic, internal) pole from scientific research. The result of this is that knowledge is only acquired through objective empirical research in the dualist field, and the internal dynamics of the subject naturally leaves scientific activities, so that the advantages of the organic theory and the integration theory of knowledge cannot be brought into play. The *a priori* position of organic theory admits that all subjects belong to real world and carry on dynamic activities continuously, and abandons the transcendental dichotomy of subject and object. This determines that the philosophy of science of organic theory takes into account three types of scientific knowledge in order to obtain integrated knowledge. The essence of the *Biocosmology Initiative* reveals that “scientists around the world can (and should) generate and maintain an equal awareness of both poles of rational (scientific) knowledge: as of the currently dominating Transcendentalist (Dualist – Static, mathematical-physicalist) ...; as of the forgotten Organicist.”<sup>iii</sup> That is to say, scientific knowledge should turn to the pole of organic knowledge, eliminate the binary opposition thinking mode in modern Western philosophy, and examine the dynamics of the whole world with a new and holistic thinking mode and worldview.

Therefore, the organic cosmology is a new philosophy that differs from the traditional mechanical cosmology. It insists on explaining the integrity of the universe and the internal, generative, processive dynamics of nature, and holds that the natural world moves and changes endlessly according to the principle of material unity. “In his *Concept of Nature*, Whitehead further criticizes the classical cosmological notion of a ‘dichotomy’ or ‘bifurcation’ of nature, arguing that there is only one unified nature. In other words, we only have one organic universe. By elaborating on his theory of perception, he illustrates the unity of the physical world in which we live.”<sup>iv</sup> Based on this, the *Biocosmology Initiative* calls for the return of knowledge of the philosophy of science to the “true triadicity” in the way of dialectical materialism, deconstructs the isolated, one-sided and static

mechanical cosmology, and realizes the turn to an organic cosmology of movement, connection and development.

### 3. Organic cosmology and Dong Zhongshu's cosmological thought

Organic cosmology is both global-oriented and Chinese-originated. From the Spring and Autumn Period and the Warring States Period to the Qin and Han Dynasties, the traditional Chinese cosmology was produced. Many thinkers in the pre-Qin period provided necessary ideological resources for Dong Zhongshu's cosmological thought which absorbed the essence of pre-Qin Confucianism, Taoism's Five Elements theory and the essence of Monism, including such concepts as “Tao”, “qi” and “yuan”, presenting a colorful picture of the universe. “The qi of heaven and that of earth are integrated into one, divided into Yin and Yang, which are classified as four times and listed as Five Elements”<sup>v</sup>. Dong's cosmology explores the origin and formation basis of the universe, adheres to the principle of integrity, and flashes the same light of wisdom as Leibniz's principle of world unity. “The principle of world unity is the realization of unity through reasonable distribution of all cultural parties. By virtue of the principle of unity, the principle of preordained harmony is necessary in his thought, and therefore forms the basis of the other principles of unity.”<sup>vi</sup>

Dong regarded “Yuan” as the end of the universe and the foundation of the world. Yuan is often regarded as referring to the beginning in Chinese. The first is the beginning of the epoch of time and the basis of the generation of all things. Yuan is based on the meaning of the original occurrence of the universe. The first and the yuan share the same name, which is the pursuit of the root and foundation of all things. In the exploration of the structure of the universe and the origin of the world, Dong summarized the “ten ends” of Heaven: “The sky is one end, the earth is one end, Yin is one end, Yang is one end, fire is one end, gold is one end, wood is one end, water is one end, earth is one end, and man is one end. The number of the ends is ten, which is the number of Heaven.”<sup>vii</sup> As the symbol of the whole in Chinese ideology, Heaven also constitutes the basic element of the whole existence in cosmology. The support and coupling of Heaven with the Five Elements create an organic ontology of Heaven, and even directly supports the existence of the original universe. “There is a boundary for life, a domain for the earth. Boundaries and domains exist in the natural world and are presented in the form of time and space. And in a more macroscopic, broader boundary, there is a dynamic, infinite place containing all things, which the Chinese call the universe.”<sup>viii</sup>

Heaven is associated with Yin and Yang, and Chinese cosmology is inseparable from Yin and Yang. “The great way of Heaven lies in Yin and Yang.” Yin and Yang are the inner essence of all things, the

two key elements of world changes. Dong's cosmology started from the two kinds of Qi of Yin and Yang. The change of Yin and Yang with the alterations of four seasons featured his cosmic diagram. Pre-Qin cosmology also changed the stagnant past. While absorbing the theory of Yin and Yang, the theory of Five Elements also became the basic element of Dong's cosmology. Dong constructed an ontology from the material perspective by combining the Five Elements with the four times and directions.

The Five Elements follow each other in their order. Each of the offices of the Five Elements fulfills its role. Therefore, wood is in the east and in charge of spring qi, fire in the south and in charge of summer qi, gold in the west and in charge of autumn qi, water in the north and in charge of winter qi. Therefore, wood gives rise to birth and gold death, fire gives rise to heat and water cold. For people to follow order, and officials to fulfill their roles, this conforms to the way of Heaven. (The Meaning of the Five Elements from *Spring and Autumn Dews*)

It can be seen that the coexistence of the Five Elements creates a kind of dynamic, complex world context and map with its dynamic characteristics, which provides the logic path of traditional Chinese philosophy for the organic cosmology in the world context at the ontological material level.

Dong Zhongshu's cosmology is based on the cosmological thoughts of various schools in the pre-Qin period. It is coherent and full of vitality with its characteristics of systematism, balance and dynamics. It constitutes an important discussion on the cosmological view in the traditional Chinese Confucian philosophy. This cosmology from Chinese history and Chinese circumstances summarized the tradition of pre-Qin cosmology, and has continued to inspire later generations. For thousands of years, it has been all embracing. It provides the root of traditional Chinese philosophy and its speculative stance for the current study of organic cosmology, and expands the field of cosmological research by taking the Yin-Yang theory and the Five Elements theory as philosophical conceptual paradigms. As the Oriental perspective of cosmology, it effectively promotes the transmission and continuous development of organic cosmology from generation to generation by making cosmological philosophy learn to speak Chinese. It can be seen that the ancient Chinese cosmological thought represented by Dong Zhongshu in the Han Dynasty played an important role in the establishment of the cosmological view in China and the world and the shaping of the way of thinking.

#### 4. Philosophical comments on organic cosmology

Organic cosmology is a constructivist thought of wisdom looking to the future of the universe. Its organic concept and organic philosophy are the basis of cosmology. Organicity refers to organicity of nature, of ecology, and of the universe. In terms of research scope, organic cosmology is based on the natural world, seeks the unified existence of ecological system with human initiative, investigates the universe with a holistic and dynamic mode of thinking. “The holistic view is an attempt to replace and cover everything with an all-encompassing whole or something more universal, providing a unified basis and guarantee for all members.”<sup>ix</sup> The holistic view of organic cosmology is based on the basic premise of recognizing the diversity of things and seeking common ground from the perspective of synthesizing individual differences. Its dynamic nature means to examine the multiple returns of nature, ecology and universe in a way of movement and Organicity is based on natural life, implying a universe consisting of heaven and earth which nurture all things to return to their organic life. The organic system includes organic life and organic universe. The ecologically harmonious system of organic cosmos has elements conducive to the survival and reproduction of all its members, and all life elements are combined in an organic way to adapt to nature and the universe in an organic way.

Organicity is of endless growth, harmonious circulation and coexistence of diversity. The alternate cycle of life constitutes the basic premise of the existence of the universe, and different living things are in the same universe, that is, “all things exist separately and yet belong to a unity, which is referred to as mutual belonging or co-belonging”<sup>x</sup>. The organic nature of life is the unity of diversity and wholeness. It is because of the diversity and alternate cycles of life on earth that human beings, nature and the universe are full of vitality.

It comes from ontology, cosmology strives to repair the relationship between human beings and the universe above Earth with the wisdom of organic philosophy and the naturalism-oriented methodology. In the pursuit of harmonious coexistence between man and nature, it reveals that human's ability to repair nature, the earth and the universe is the unity of finite and infinite. “Finitude is the reflection of man's finite rationality and limited labor ability. Infinity is a symbol of human creativity and intelligence.”<sup>xi</sup> The unity of bounded rationality and potential power is the embodiment of human's initiative to live harmoniously in nature and repair the universe in nature, and the infinite creativity and technological intelligence revealed therein symbolize the future ideal of human's pursuit of a harmonious universe paradigm.

Organic cosmology dialectically critiques mechanical cosmology as well as unilateral modern scientism, and provides a paradigm of philosophy of science for the future development of human civilization. It is also closely related to the future trend of the global ecological civilization construction, and the transformation from mechanical cosmology to organic cosmology. It is necessary for organic cosmology to serve as the philosophical foundation of the future ecological civilization development. This is the main purpose of the *Biocosmology Initiative*, which is in essence to “promote (with urgency) the Biocosmological approach as a new form of Integralist knowledge.”<sup>xii</sup>.

The dialogue between organic cosmology and traditional natural philosophy shows the transcendence of mechanical cosmology and forms a scientific and holistic organic cosmology. In terms of theoretical research significance, organic cosmology has a positive guiding significance for us to correctly understand and comprehensively understand the organic universe in reality. From the macro world to the micro world, from nature, society to human thinking, various elements in the universe interact in a complicated way and develop together. From this point of view, human beings should examine the dynamic development of the material world with a holistic organic thinking, abandon the isolated and static metaphysical cosmology, and establish organic and process thinking modes. In terms of actual effects, ecological crisis faced by the world today can to a certain extent be said to have been caused by the long dominance of the mechanical cosmology. Therefore, organic cosmological theory can be used as a reference for solving the current world ecological environment problem, exploring a post-COVID19 way to build ecological civilization against the backdrop of the global climate change and the destruction of ecological environment. The solution to the crisis of the black industrial civilization can also draw lessons from organic universe as a way of holistic thinking, which entails the exploration of the ecological features in traditional cultures, respect for the diversity of all kinds of civilization, regions and nationalities. This contributes to the collection and refinement of cosmological ideas and principles in diverse cultures that will help build a community with a shared future for mankind and a community for natural life in the universe.

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<sup>ii</sup> *Ibid.*, 147.

<sup>iii</sup> *Ibid.*, 153–154.

<sup>iv</sup> Yang Fubin. Whitehead’s organic cosmology and its criticism of and enlightenment to mechanical cosmology. *Practice and Theory of Special Regions*, 2018(02): 51-57.

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- <sup>ix</sup> Liu Xiaoting. The construction of common philosophy based on biodiversity. *People's Forum•Academic Frontier*, 2022(04): 80–93.
- <sup>x</sup> Ibid.
- <sup>xi</sup> Zhou Guowen & Lu feng. Ecological epistemology and ecological value. *Studies in Dialectics of Nature*, 2009, 25(12): 78–83.
- <sup>xii</sup> The Biocosmological Association (BCA). Addressing the scientific community–the Biocosmology Initiative. *BIOCOSMOLOGY–NEO-ARISTOTELISM*, Vol. 11, Nos. 3&4, Summer/Autumn 2021: 155.

## The Value of Biocosmology for Today and Some Issues on the Path toward its Practice: Comments on “Addressing the Scientific Community – the *Biocosmology Initiative*”

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Значение Биокосмологии для современности и некоторые вопросы на пути к ее практическому применению: Комментарии к «Обращению к научному сообществу – Биокосмологической Инициативе»  
Сюэфанг ЧИ<sup>1</sup> и Пинг ЙЕ<sup>1</sup>

“Addressing the Scientific Community : the *Biocosmology Initiative*” (Hereinafter referred to as the “Initiative”), which is well suited to the needs of the “Integralist sociocultural era” in the 21<sup>st</sup> century, is the engine propelling substantive changes away from the “Transcendentalist or Dualist” attitude toward modern scientific knowledge. The thematic content is a highly condensed summary and generalization of the latest research findings widely recognized by Biocosmologists so far. It not only provides basic beliefs and principles for the academia that are cross-era, cross-disciplinary and cross-cultural nature as advocated by “big science”, but also presents a way of scientific understanding and thinking, as well as a picture of scientific knowledge structure oriented toward the future propelling the construction of the global community with a share future for humanity that are revealed in the development of human civilization as the world undergoes tremendous changes unseen in a century. However, since the Initiative is aimed at the entire academia and the entire intelligentsia, certain issues deserve further deliberation and discussion if Biocosmology and its foundational principles are to be taken to be the basis for scientific and cultural activities in the Anthropocene, particularly the 21<sup>st</sup> century.

Firstly, the term “global crisis” is used in the sense of the timing of putting forward the Initiative, but it is overly generalized without specifying what is closely related to the ultimate concern of Biocosmology - Entelechy. We should remember the “global” in “global crises” highlights threats to the lives and health of all human beings. If so, we can easily see that the COVID-19 pandemic is currently the most urgent global crisis faced by mankind, and may well be the greatest “global crisis”

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Fundamental project: “Research on the History of Chinese Eco-Philosophical Thought in the Past 40 Years” (18ZDA028), a major project of the National Social Science Foundation of China.

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for our generation.<sup>2</sup> Some scholars believe that the virus has become a new historical subject in the Anthropocene, and an inseparable part of human life, society and history. The outbreak and speed of the onset of the virus will also inevitably prompt us to reflect on the overall backlash of nature and other non-human substances and forces on us. At the same time, the COVID-19 outbreak also reminds us to reflect on our preparations for a possible super-disaster.<sup>3</sup> Covid-19 is definitely not our last encounter with viruses. As man-made disasters appear more and more in the form of natural ones, and more and more man-made disasters are superimposed, we will perhaps find, when we think back to 2020 many years later, that this may be a possible first year when nature begins violently to fight against mankind.<sup>4</sup> This viewpoint has epoch-making significance for it indicates that the COVID-19 had revealed the “tip of the iceberg” of “the conflict between life and development”. However, the Initiative adopted at the 22<sup>nd</sup> International Symposium on Biocosmology ignored the epoch-making significance of COVID-19, thus missing a great opportunity for the advancement of Biocosmology and the foundational role it can provide the Initiative.

In fact, the ongoing worldwide COVID-19 pandemic is a manifestation of the impact of technological and industrial revolutions on the universe-nature at the virus-level. Hitherto, the development of the above revolutions has not only transformed the natural substances (material revolution), energy (energy and power revolution), and information (computer, Internet, big data and cloud computing and other related scientific and technological revolutions), but it has also embarked on profound transformations of natural life (scientific and technological revolutions in terms of transgenesis, gene editing, cloning, genetic engineering, creation, modification and restoration of species as well as their germplasm and biodiversity). As a result of that, the issue of “life and development”, following those of “peace and development” and “environment and development”, is attracting worldwide attention and may become the theme of the development of human civilization in the 21<sup>st</sup> century. The “one front and two flanks” development pattern of the new era - “peace and development” and “environment and development” centered around the axis of “life and development”, has rich connotations: a new cosmology (on Life and Development”), a new peace and development theory (on a Community with a Shared Future for Mankind), and a new environment and development theory (on a Community of Life for Man and Nature). We believe that, as mankind faces the future, the post-

<sup>2</sup> Yuval Harari, author of *A Brief History of Humanity*, published “*The World After Coronavirus*” in Financial Times, March 20, 2020.

<sup>3</sup> The so-called “super disaster” is a disaster on the scale of humanity and the whole planet. If the human race encounters a “super disaster”, how to plan without external assistance is the core problem of the contradiction between life and development.

<sup>4</sup> Yang Xiaoli. Non-human viruses: life companions and historical subjects of the Anthropocene. *Journal of Shenzhen Social Sciences*, 2021: No. 1.

epidemic era, this development pattern is precisely the scientific-cultural theoretical basis of the Initiative. The dialectical materialist viewpoint running through the concept of life and development is that development involves not only science, technology and industry, but also a community with a shared future for mankind and a community of human and non-human life forms. In the harmonious development of the “Triadicity”, survival is the bottom line, and health is the goal. This may also be the value of the ultimate goal of the “Triune-Triadological” scientific knowledge advocated by Biocosmology, that is, the contemporary value of Entelechy.

Secondly, there are a number of conceptual issues in the Initiative. To start with, the word “science” used in the Initiative is not (natural) science in the narrow sense, but general science, or big science. In other words, “science” here is defined as the sum total of knowledge about all natural and man-made objects, including all divisions of sciences such as natural science, social science, thinking science, philosophy, mathematics, interdisciplinary science and synthetic science. This concept of big science is not only for the convenience of cognition, nor does it just serve the need for consistency and unity of thinking and logic, still less is it because individuals or academic communities feel it is important. Instead, as Whitehead puts it, whether the sense of importance is true lies in whether it corresponds to “matter-of-fact”.<sup>5</sup> The matter-of-fact of the Initiative is to call on the academic community to consider and acknowledge the “essential return” from the traditional Dualist or Transcendental science to the Triadicity theory of scientific knowledge.

In addition, the concept of “physical subject” is relatively vague, so it is necessary to clarify the subject of human consciousness. Physical subjects range “from physical fields and energies, to a particle, atom, molecule, bacterium, subject of plant, animal and sociocultural (human) worlds; or, in Vernadsky’s approach, the stratum of Geo-, Bio-, Socio- and Noosphere”. From the epistemological and intellectual perspective, the classification of such diverse things as human, animals, plants, energy, particles, molecules, and noosphere, whether dead or alive, whether conscious or unconscious, into one category, i.e., the “class of tangible things” carried over from Aristotle’s time, is in accordance with the logic of classification of Aristotle’s works, but the use of multiple categories in this way is epistemologically unacceptable. For the Initiative states that “wherein every physical subject is naturally subordinated (subject to) and follows the single (universal, timeless and omnipresent) laws (fundamental principles)”, which confuses the human cognitive subject and the basic particle subject, claiming that both would “naturally obey and follow the law of unity”. And so far, it is not possible to speak epistemologically about the so-called “particle subject of knowledge”.

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<sup>5</sup> Alfred North Whitehead, *Modes of Thought*. New York: MacMillan Company Press, 1938, p. 4.

If Aristotle were alive today, it would be highly unlikely that he would agree to this interpretation or application of his concept of “physical subject”.

Ontologically speaking, the Aristotelian “classification of souls” gives a good classification, highlighting both the commonalities and particularities between humans and other living things, with differences embedded in their similarities. Human beings are endowed with not only vegetative souls (as in plants) and sensory souls (as in animals), but also rational souls. Therefore, simply the term “physical subject”, as is used in the Initiative, does not suffice for describing the human cognitive subject or the human rational subject. Third, the concept of Biocosmology needs further elaboration. The Initiative states that “the Biocosmological approach first argues that the real world is a Single (one whole) natural Dynamic Living Biocosmos”, but such a definition is overly general. Logically, the higher the level of generalization of a concept, the larger its extension and the smaller its connotation. Thus, the human body as a microcosmos, the earth as the mesocosmos, and the entire Nature (the universe) as the macrocosmos are all “the Single (one whole) natural Dynamic Living Biocosmos”. What, then, is the purpose of proposing that concept? We believe that purpose of concept is to help derive the following principles: “the Dynamic (Hylemorphist and Entelechist) coherent oneness of a subject, Bipolarity, Triadicity-in the Triune, Circular Cyclicity, Quaternity (Four-sidedness), Pentavalence, the ontogenetic (the subject life path) finitude”, as listed in the Initiative.

From the perspective of epistemology and theory of knowledge, these are the principles which humans have discovered and used to control destiny,<sup>6</sup> but the Initiative fails to reflect this voluntarist nature of human consciousness. In fact, from an ontological point of view, the body as the microcosmos, the earth as the mesocosmos and the universe as the macrocosmos constitute a three-tier gradually expanding structure of concentric circles. There is a three-dimensional structure of consciousness, life and environment in the microcosmos of human body, from which, as per the holographic theory, can be derived that the mesocosmos and the macrocosm have likewise three-dimensional structures. In other words, the prefix “bio” in the English word “Biocosmology” can mean either “biological” or “living”, or even “organic” by extension. All three meanings exist, and the Chinese version of the Initiative has it translated as *youji* (organic). We suggest the translation of *shengming* (life) for “Biocosmology”, which would be rendered *shengming yuzhou lun* (life

<sup>6</sup> The Chinese expression is “制天命而用之”; the English expression is “use it to control destiny”. This is a famous aphorism of Xunzi, an ancient Chinese Confucian thinker. Its meaning : Human beings not only can understand and conform to the law of nature, but also can discover the law of interaction between human and nature, and then human beings can change the state of nature, create natural things that benefit human beings and nature.

cosmology). Is there anything new in such a translation? Indeed, there is, for we need to confirm a new concept with the idea of a “life cosmology”.

“Life cosmology” refers to the comprehensive theory of the relationship between humans and the universe of life, including the universe of human consciousness, the universe of life and the organic universe. The “organic universe” includes the universe from the physical field and energy to the particle, the atom, the molecule and the macromolecule. The universe of life includes the universe of animals (including human beings), plants and microorganisms. The universe of human consciousness includes general consciousness, special consciousness and concrete consciousness. For example, Transcendentalist scientific consciousness belongs to general consciousness, and the Dualist one, to special consciousness, while pragmatism and realism belong to concrete consciousness. Organicism belongs to special consciousness, while holism or system theory belongs to general consciousness. Amending the above is significant in three ways : *First*, it highlights human voluntarism in the Anthropocene and the central position and value of human consciousness in the universe of life and the organic universe, and gives flesh to the noosphere (the sphere of human consciousness) theory of Vladimir Ivanovich Vernadsky, which in turn helps to clarify the hierarchical structure of the “Triune-Triadological” theory of scientific knowledge in the noosphere.

*Second*, the purpose of “life cosmology”<sup>7</sup> is to remind humans of their moral responsibilities for the universe, i.e., human intervention or even transformation of the inherent existence mode of the Entelechy of the biocosmos or certain components of the organic cosmos, or the movement toward the Entelechy would be right if it does not harm their integrity, stability and beauty, and be wrong otherwise.<sup>8</sup> *Third*, the Initiative states that “presently, in the twenty first century, when the Integralist sociocultural era is inescapable, and which naturally comes into its own – Integralism equally requires an understanding of both poles of scientific knowledge; because it equally uses (integrates) their powers and means to produce true Integralist cultural knowledge.” In essence, the Integralist sociocultural process happens at the level of human consciousness. According to the Doctrine of Four Causes by Aristotle, we believe the material cause here is to replace the Transcendentalist/Dualistic theory of knowledge with the Triadic theory, the formal cause is the subjectivity of human consciousness of Vernadsky’s noosphere, the moving cause is both the pull of the development of the Integralist sociocultural era and the thrust of moral consciousness with which humans handle the

<sup>7</sup> The Biocosmology is further extended to be interpreted as the life cosmology, where life can be interpreted as both human (biological and cultural) life and other non-human(biological) life.

<sup>8</sup> “original whole” refers to the overall natural state of the natural thing in the relation between human and nature in which it is located.

contradiction between survival and development, and the final cause is the harmony and balance among the general, the special, and the concrete Entelechist.

Thirdly, the relationship between the “Triune-Triadological theory” and the “Transcendentalist/Dualist theory” of science, and that between organicism and integralism need to be further clarified. Epistemologically speaking, it is almost impossible to integrate organicism with the modern Transcendentalist/Dualist science, which is at present absolutely dominant because, from the perspective of organicist (naturalist) science, the three types of scientific knowledge – the Transcendentalist/ Dualist, the Organicist, and the Integralist – “have equal rights.” Apparently, it is what the English cross-cultural scholar C. P. Snow calls the “schism between science and culture”. In essence, it exposes the crisis of Western Transcendentalist/Dualistic scientific paradigm since the 17<sup>th</sup> century. It is almost impossible get out of the crisis by simply replacing the Transcendentalist/Dualist theory of scientific knowledge with the “Triadic theory” from the perspective of epistemology and the theory of knowledge.

But ontologically, all instruments, machines, equipment, and facilities, or even all artificial and natural objects created by the Transcendentalist/Dualist science, technology and engineering have to function on land, in sea, in the polar regions, or even on the moon or Mars. They are not dualistic beings, but exist in the organic system of man and Nature, or has an organic and integrated existence with inherent Entelechy. Besides, they are artificial objects. Humans are responsible for recycling and re-using them in accordance with the ecological principle of recycling, in a manner that is harmless to the biocosmos and the organic cosmos. The current problem is that the manufacturers, users, and recyclers (in the laboratory, the factory, and in engineering projects) do not belong to one organization, nor are they in one scientific community, but the overall division of labor among the three reflects the application of the “Triadic theory of science”. As the proverb has it, facts speak louder than words. It is not by reasoning that one can claim “Triadic theory of science” should replace the Transcendentalist/Dualistic theory of science, but the necessity for such replacement has to be tested through praxis. At the level of operation, the systematic viewpoint of the “Triadic theory of science” as epistemology may be implemented if we explicitly require the establishment of systematic and integralist outlook in the three kinds of organizations mentioned above. The Initiative is somewhat pessimistic about this for “truth is rightly called the daughter of time and not of authority” and “the main law of history is its cyclicity....” That has to be changed. The Initiative is an appeal to “people of foresight to unite” so as to accelerate this change. In fact, the worldwide environmental movement, especially the Green University movement, is helping not only to accelerate this change,

but also to train top-notch professionals equipped with a “Triadic knowledge structure” to help bring about this change.

Fourthly, the development of the environmental movement throughout the world to the stage of ecological civilization movement is an important theoretical front for breaking the “orthodox” dualism of scientific knowledge and truly carrying out and implementing the “Triadic theory of scientific knowledge”. The worldwide environmental movement originated from a rational reflection on the causes of the unprecedented global ecological crisis<sup>9</sup> in the second half of the 20<sup>th</sup> century. It made people realize that the root cause of the crisis lies in the “orthodox” view of human progress through the “conquest” of Nature, that of human development based on economic determinism, and an ethics ignoring the relationship between man and Nature – the view of civilization that stresses only ethical relationships among humans, as well as the mode of social production, life styles, behavior patterns and modes of thinking based on industrialism and consumerism. It is impossible to get out of the crisis through science and technology alone, or through industry, nor can the crisis be resolved through country-by-country changes. Rather, a global ecological revolution is necessary.

This ecological revolution is essentially one of ecological concepts whose purpose is to construct the ecological world outlook, ecological values, ecological rights and ecological interests based on the ecological framework for the relationship between man and Nature, and establish the beliefs, attitudes and behavior norms of respecting Nature. By now, this revolution has gone through two stages. The first stage is the transformation of people’s outlook on the environment, and the representative achievements of this stage include Carson’s *Silent Spring* (1962), *Only One Earth* by Barbara Ward and René Dubos (1972), the World Environmental Protection Movement promoted by the World Conference on Environment and Development for 20 years from 1972 to 1992. The second stage is the transformation of the development view, with notable achievements being *Our Common Future* (the Brundland Report) by the World Commission on Environment and Development (1987) and “Agenda 21” adopted by the UN World Conference on Environment and Development (1992), which have helped to transform environmental protection movements into the global movement of sustainable development with coordinated developments of economy, society, and environment. In

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<sup>9</sup> Global ecological crisis refers to the destruction of the structure and function of the earth's ecosystem caused by the development of science and technology, industrial production and economic development, as well as the pollution of the earth's ecological environment, which leads to the phenomenon that is not suitable for the survival of human beings and all life on the earth. The main manifestations are: the destruction and depletion of natural resources, the deterioration and pollution of the ecological environment, the destruction and accelerated loss of biodiversity, the imbalance of human society and the increase of human malignant diseases, as well as the abnormal global climate, the accelerated melting of the Arctic ice cap, the accelerated rise of sea level and so on.

institutes of higher learning, this is mainly reflected in the green university movement throughout the world and innovative approaches to green education.

The year 1990 saw the birth of the Talloires Declaration on building green universities<sup>10</sup>, which has been signed by presidents of hundreds of universities and colleges throughout the world. It is a landmark for the incorporation of environmental awareness, culture, knowledge, responsibility, policy, as well as environmental protection for the purpose of sustainable development into the education and teaching process of colleges and universities. J. A. Palmer, a British environmental education expert, proposed that environmental education should not only adhere to the tradition of positivism or empiricism, but also develop the traditions of hermeneutics and critical theory. Based on that, he discovered the 5 most important factors affecting people's view of Nature: life in the wild (including experience with wilderness), school education, influence of parents and other relatives, influence of relevant organizations, and influence of TV and other media.<sup>11</sup>

Now the ecological revolution has entered a new stage (2007-), that of world ecological civilization movement, which is mainly signaled by changes in the concept of civilization. China took the lead in proposing and practicing ecological civilization, aiming to become not just a participant in the world ecological civilization movement, but also a major contributor and leader in that movement.<sup>12</sup> As the source and cultural centers of the chain reaction in outlooks on the environment, development, and civilization that was triggered by this ecological revolution, Chinese institutions of higher learning, institutes for scientific research, culture and art agencies, news media, and other institutions, in accordance with the "Overall Plan for the Reform of the System of Ecological Civilization" and the "Indices for Green GDP" promulgated by the national government and taking the demonstration zones, model zones, and experimental zones for ecological civilization as carriers, have been active in promoting the social transformation toward ecological civilization.

Moreover, the movement to build green universities in China has had a history of more than 20 years. The idea of green university is embodied in many aspects, including green education, green research,

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<sup>10</sup> See: Wang Min, Wei Dongying, Zhang Ying. "Emergence and development of green universities," *Journal of Environmental protection*, 2010: No. 13.

<sup>11</sup> J.A. Palmer. *Environmental Education in the 21th Century: Theory, Practice, Progress and Promise*, Routledge, 1998.

<sup>12</sup> XI Jinping pointed out that: "If ecology thrives, civilization thrives; if ecology declines, civilization declines". The Chinese government has realized that it needs to properly handle the contradictions between development and protection, between clear waters and lush mountains and mountains of gold and silver, and between natural value and natural capital. It is necessary to move from industrial civilization to ecological civilization. Without the transformation of civilization concept, it is impossible to fundamentally change the concept and behavior habit of "conquering" nature.

green campus, green culture, green management, and so on. Green education, in particular, has been highly successful: courses in ecological philosophy, ecological ethics, ecological civilization and social transformation are being offered on many campuses, expeditions are organized for students to go into various communities and the wilderness to experience society and Nature through various activities, as are projects for them to conduct research on environmental and social issues, and sessions for “discussion on social transformation” from industrial civilization to ecological civilization are organized for students to express and debate their views. All these initiatives have helped college students to change from a spontaneous to a conscious recognition of the harmfulness of the Dualism in the “orthodox” view of “conquering Nature” and that of a moral education which ignores ecological ethics of organicism and holism. Both the “Three Green Projects” of Tsinghua University and the “One Center, Three Advances” model of Harbin Institute of Technology in promoting the building of green universities in China are of great significance for cultivating science and engineering students to become “Earth-friendly engineers”.<sup>13</sup> They directly facilitate the entrance of the “Triadic theory of scientific knowledge” to the college campus, to the classroom, and to the student’s mind. It is no exaggeration to say that the worldwide environmental movement, especially the green university movement, still plays an important role worth our attention for breaking away from the “orthodox” Dualism of scientific knowledge and truly carrying out and implementing the Triadic theory.

Fifthly, the essence of the Initiative is to call for the scholarly community to recognize the necessity of replacing the hegemonic Transcendentalist/Dualistic theory of scientific knowledge with the new “Triadic theory”, but it ignores a key element for the switch to the new theory of scientific knowledge, namely the stage of civilization development. According to Danilevsky, each civilization is the embodiment of its own (natural) culture-historical type. And the latter (in each individual case) naturally leads the civilization subject to recognize and realize its inherent mission and position in the world development. and the latter (in each individual instance) – leads the civilizational subject to realizing and actualizing its inherent mission and place in the world evolution. For example, the results of the dominance of the Anglo-Saxon civilization “have manifested themselves in a sharp (radical) adherence to a unified Transcendentalist cosmology that enables the ideal-abstract (mathematical) conditions and possibilities of human consciousness’s successful confrontation with the external (admittedly Chaotic) material world – cosmos”. Since the 17<sup>th</sup> century, the world-cosmos has existed for man to re-create Nature – with the ultimate aim of subjugating natural forces

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<sup>13</sup> Ye Ping, Chi Xuefang. *From Green University Movement to National Ecological Civilization Publicity and Education*. Beijing: China Environmental Publishing Group, 2018: p. 48–59.

to human will. Human beings have been constantly plundering the wealth of Nature in order to modernize their society. Scientific thought as an important basis for that endeavor unconditionally obeys the basic principles of the Transcendentalist cosmology, i.e., the principles of objectively and empirically examining the world using mathematical and physics tools. Fundamentally speaking, in order to transfer the Transcendentalist cosmology and the Dualist view of science to the organicist view, it is necessary to abandon pragmatism as the guiding ideology of science, and even more important to change the Anglo-Saxon civilization that underpins the development of scientific thought.

In this regard, the Chinese civilization, especially in the Chinese society today, has the potential for leading mankind out of its current dilemma. Currently, ecological civilization has been widely accepted in China as the direction for the future development of human civilization. The Chinese President Xi Jinping, in particular, has declared that China has put forward and put into practice the construction of a global community with a shared future for mankind and a biocommunity of human and nature at international conferences attended by heads of state throughout the world. The ideal of the two communities has become the consensus of all Chinese people.

Some scholars regard a life-oriented culture as the foundation of ecological civilization, and have dug into Chinese bioethical traditions, reinterpreting and reconstructing them for the modern era. Chi Xuefang has constructed a mode of understanding and thinking with a “four-dimensional structure” based on a distinction between bioentity and biocollective, and that between bioontology and bioepistemology.<sup>14</sup> She has given a comparative and systematic interpretation of the bioethics tradition of China all the way from the Ancient dynasties Xia, Shang and Zhou to the later imperial of Yuan, Ming, and Qing, based on that, suggests that the traditional theories of Chinese Confucianism, Taoism and Buddhism are important not only for explaining the life and death process of individual life and the nature of life, but also for explaining collective life, including family life, national life, and the cosmic or natural life. Moreover, she has proposed that those intellectual traditions of China can provide good ground for the co-evolution between the order of natural life or “the way of generating life” of Daoism and the cultural life order of “the benevolence of generating life” of Confucianism, which can serve as the starting point, the theoretical basis, the standard for evaluation, and the ultimate goal for the reconstruction of the Chinese bioethics tradition. These views fit neatly with those of biocosmology, suggesting that China today, compared with the Western world,

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<sup>14</sup> Chi Xuefang, *The life culture foundation of ecological civilization: Interpretation and Reconstruction of Chinese Bioethics Tradition*. Harbin: Northeast Forestry University Press, 2022 edition.

probably can provide more fertile soil for the new “Triadic theory” of scientific knowledge to take root and flourish.

Reminiscing on the Initiative, we can see that its essence is to enrich and improve the frame of scientific knowledge for the academia, and that it is nothing more than to infiltrate the methodology of biocosmology, with its vital, dynamic, indivisible and systemically integrated life culture into traditional scientific knowledge, and form a new frame for scientific knowledge with the “Triadic theory” as the working philosophy for the academia. The Initiative, as an emerging scientific and cultural force, supports the movement of human beings towards ecological civilization while cultivates and establishes life-oriented civilization in the scholarly community. It is also a force for thought and knowledge that plays an important role in the construction of Green University throughout the world, especially in improving awareness in the cultivation of college students of science and engineering majors. Moreover, it is a non-negligible sociocultural force underlying the mindsets of decision-makers in economic and social spheres and thus a driving force as well as a constraining force for development. We hope and expect to see the presence of experts and scholars who firmly believe in the “Triadic theory” as they take part in making decisions relevant to the destiny of the region, of the country, of mankind, of the natural world, and even of the cosmos-world.

## Editing the English version of the *Biocosmology Initiative*, year 2022

Konstantin S. KHROUTSKI<sup>1</sup>

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Редактирование английской версии *Биокосмологической инициативы*, год 2022

К.С. Хруцкий

The first edition (its English version) of the *Biocosmology Initiative* (BCI), among English-speaking scholars, met with both approval and difficulty in grasping some of the key elements of the Initiative’s text. In this matter, from the position of secretary of the Biocosmological Association and in active interaction with the BCA-associates : I have made efforts to improve as much stylistic and grammatical, as the lexical properties of the English-language text of the BCI. Quite unexpectedly, it turned out that we first needed to change (correct) the lexical content of the leading terms – so that they would correspond to the Biocosmological (neo-Aristotelian) content of the Initiative put forward. Above all, the section “The Bipolar nature of scientific knowledge” demanded lexical development. Whereas other edited sections have undergone mainly stylistic and grammatical improvement; that is, leaving the lexical content the same – this applies to the sections of the document: “PREAMBLE”, “Basic Principles of the Biocosmological Approach”, “On the national (civilizational) nature of science”, and “FINAL SUMMARY OF THE DOCUMENT”.

### Addressing the scientific community – the *Biocosmology Initiative* (edit in 2022)

(Accepted at the 22<sup>nd</sup> *International Symposium on Biocosmology*; as part of the 7<sup>th</sup> International Conference on Globalism, Moscow State University, 15–18 June 2021)

#### *PREAMBLE*

A century ago, Vladimir Ivanovich Vernadsky (1863–1945) raised the issue of introducing new cosmological foundations into science. He argued as follows: “It took many years before I realized (in the mid-30’s) the backwardness of philosophy (in its global scope) at the historical moment we are experiencing in the life of mankind... It stands in essence on grounds of the 17<sup>th</sup> century, unaware

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<sup>1</sup> Novgorod State University named after Yaroslav-the-Wise, Veliky Novgorod, RUSSIA.

of the impossibility to grasp new phenomena with ‘old bellows’ ...” (taken from the scientist’s book *Philosophical Thoughts of a Naturalist* (Filosofskie mysli naturalista) [M., 1988. P. 237]). There is no doubt, in view of the current global crisis – the time has actually come for the scientific community to reconsider the supremacy of the 17<sup>th</sup> century’s cosmological (defined by explorer’s stance in the universe) foundations of science; but instead to take as a basis for new fundamental principles of scientific and cultural activities, consistent with the evolving needs of the anthropocene, the individual and society in the 21st century.

The emergence of the *Biocosmology Initiative* was preceded by a long way of scientific pursuits and consistent contributions by many scholars of the Biocosmological Association (BCA). Eventually, the *Initiative* was accepted and launched at the 22<sup>nd</sup> International Symposium on Biocosmology (22ISBC), held as part of the 7th International Conference on Global Studies (organized at MSU, June 2021). Now, the needed Biocosmological scientific principles and the sought-for path (its bases and purposes) for scientific evolvement are ready to be presented to the scientific community. The main challenge for the *Biocosmology Initiative* is to make a *decisive U-turn shift* (for 180 degrees) in relation to the contemporary (21<sup>st</sup> century) scientific knowledge; and which, in our times, needs to be based on the recognition and actualization (in scientific theory and practice) of the universal Triadic nature of rational knowledge, i.e. the substantially Triune and Triadological essence of scientific and philosophical activity and of the achievable results (successes).

### MAIN CONCEPT

***Basic Principles of the Biocosmological Approach.*** The Biocosmological approach first of all states that the real world is a Single (one whole) natural Dynamic Living Cosmos – *Biocosmos*. Our other essential starting point, in connection with the universality of the *Biocosmological* approach : the widespread term “*self-*”, which primarily refers to the individual person (the individual self – “my own very self”) as a subject of her/his own experience of phenomena (through personal perceptions, emotions, thoughts, etc.). Therefore, the term ‘self-’ does not fit the Biocosmological worldview at all. In fact, the meaning of the English *self-* (German: *Selbst*) fundamentally means (and provides, in human consciousness) the separation of the individual (and her/his selfishness) from the world around him; whereas the Aristotelian (*Organon*<sup>i</sup>Kosmological)<sup>ii</sup> approach requires precisely the reverse merging of a subject (man, first of all) with the world that naturally surrounds him.

The crux is that the cornerstone notion of a '*subject of life*' (*subject*, for short), that is introduced in a Biocosmological inquiry – the latter has the universal significance. In other words, '*subject*' means, in a universal way, a physical – natural, cosmic, natural-scientific, autonomic integral entity. Substantially, this concept embraces both as the whole living world-Cosmos (living Nature) – *Biocosmos*; as each subject of this Biocosmos – from a free quantum microparticle to a substantive person and society-civilization, and all of humanity.

Therefore, we replace 'self' with '*Auto*'<sup>iii</sup> – in order to give universality to the naturalist Dynamic essence of a Biocosmological subject, thus stressing the priority of *internal* inherent potency-powers and of vigorous autonomy in the vital activity of each subject of life. Ultimately, as Biocosmology states : the primary quality-virtue of a natural *subject* is its/her/his inherent results-oriented (telic – *Entelechist*) lifelong *Auto*-evolution (from within, throughout the subject's ontogenesis) – with the eventual achievement and exercising the unique Functionalist (effector) abilities; and that everything is carried out on the basis of constant *Auto*-maintenance and *Auto*-controlling, in a homeostatic 'corridor of normality', of all its vital functions.

In this Biocosmos every physical (from *physis* – Greek Φύσις; and the title of Aristotle's work *Physica*) : every physical *subject*, from physical fields, forces and energies of nature, to a free particle, atom, molecule, bacterium, subject of plant, animal and sociocultural (mankind-humanity) worlds; and in Vernadsky's approach: the stratum of *Geo*-, *Bio*-, *Socio*-, *Techno*- and *Noo*-spheres. Being in the Biocosmos, every physical subject naturally subordinates to and follows the *Biocosmological* – the universal, timeless and omnipresent laws (the foundational principles), they are:

**-the Dynamic** (*Hylemorphist* and *Entelechist*) **coherent oneness** of a subject : its Organicist *active-evolutionary Auto*-existence and *Auto*-changeability – in the ontogenetic process of the subject's *Auto*-ascending evolution (in the complexity of organization – within the surrounding Biocosmos); which is realized through the inherent (to any natural-cosmist subject) *inner entelechist* powers-potentials;

**-Bipolarity** : unchanging existence of two opposing centers (poles) of the integral life organization in a subject;

**-Triadicity – in the Triune** : the poles are united by means of the median base-axis-Center; the integral organization of a subject's life and ontogenetic *Auto*-evolution is carried out through the coherent

and consistent vital functioning of the median *homeostatic* Centre, which is the only one capable of synchronizing and harmonizing the activities of both poles;

**-Circular Cyclicism** : natural dynamic, rotational and alternating dominance (of the poles and the medium Centre) in organizing the subject's integral and coherent life;

**-Quaternity (Four-sidedness)** : the essential inherent concurrent vitality of both poles; and, consistently, under the influence of their dominant activities – the two polar cycles in the subject's circadian life activity (as are, by physiological analogy – the two circadian cycles, “Sleep” and “Wakefulness”);

**-Pentavalency** : the essential meaning of the median Axis-Center – as an integral basis in the existence of a subject's poles and the circular realization of all its life cycles; thus, of all the five essential and autonomous in their organization elements;<sup>iv</sup>

**-Ontogenetic finitude** (of a subject's life course);

**-Functionalist (Entelechist) inherent Heterogeneity** of Biocosmos subjects;

**-Dynamic hylemorphist Hierarchicality** – in the realization of the general order of natural, coherent with other subjects and wholesome life activity and Auto-evolvement of the Biocosmos subjects;

**-Entelechist dynamic Auto-ascendance** (in successively increasing levels of complexity, throughout ontogenesis) of the subject's life organization – for the ultimate Functionalist fulfillment (into the Common Good) of its/her/his autonomous *entelechist* coherent wholesome contribution.

**On the national (civilizational) nature of science.** 150 years ago, Russian scholar Nikolay Ya. Danilevsky has produced and advanced the foundations of the civilizational theory of world evolvement. In the book “Russia and Europe” published in 1871, the scholar proved the essential independence of the Russian civilization (as the subject of world sociocultural evolution). He also proclaimed the phenomenal evolvement of the Russian cultural-historical type, including its scientific domain; and the essential significance of this civilizational movement for the fate of the world. The great scientist's prediction proved completely correct. The *Organicist* civilizational essence of the Russian social organization manifested itself in the history of the 20<sup>th</sup> century both in terms of (Soviet) social and economic development, and in terms of the formation of the inherent scientific (naturalistic – *Organicist*) tradition; with its “Russian” schools of *cosmism, Organicism, cyclism, pulsationism,*

*functionalism*. Especially as substantiated in the BCA, a conceptual awareness of the ‘*Russian school of civilizational studies*’ is required (see BCnA<sup>v</sup>-publication, [2020 – DOI: 10.24411/2225-1820-2020-00006]); where the importance of the *Big Five* outstanding scholars (N.Y. Danilevsky, K.N. Leontiev, V.I. Vernadsky, P.A. Sorokin, L.N. Gumilev)<sup>vi</sup> is acknowledged.

First of all, as N.Ya. Danilevsky discovered a century and a half ago: the sociocultural (hence also scientific) world cannot be similar (monolithic), uniform and homogeneous (unified for all). On the contrary, humanity naturally consists of different “*cultural-historical types*,” heterogeneous in their historical “*beginnings*,” accordingly – each has a national *cultural-historical essence*; hence the inseparable destiny to make an inherent contribution to the natural common for the whole world – a peaceful evolutionary movement ahead. This is vividly illustrated by how the Anglo-Saxon civilization, now dominant both in the West and in the global world – how this “cultural-historical type” has been able to succeed (since the 17th century); for example, in imposing on the entire global world a commitment to an exclusively Transcendentalist (Dualist) cosmology (just inherent in its Type), thereby forcing scientists worldwide to follow it unquestioningly.

In other words, the results of one-nation’s (civilization’s) dominance have manifested a radical adherence to a single unified *Transcendentalist* cosmology, which provides the *ideal-abstract* (mathematical) conditions and opportunities for the successful confrontation of human consciousness with the *external* material world-cosmos, and which is fundamentally recognized as Chaotic. Such a world, following Plato, is taken in the modern academic community in the meaning of an essentially aimless “*physicalist*” world; and which is a matter both for its anthropocentric “*idealistic*” understanding and explanation, and (ultimately) for the constructive “re-creation” of nature by man – in the ultimate goal of the complete subordination of natural forces and potencies to human consciousness. All this turns out to be possible, in a fundamental way, exclusively on conditions of unquestioning submission of scientific thought to the monistic, properly *Transcendentalist*, cosmological scientific foundational principles – of the objective positive *mathematical-physicalist* knowledge about the real world; while these fundamental scientific principles (and the “*scientific method*” in general) were put forward and accepted as the basis as early as the seventeenth (17<sup>th</sup> – !) century.

***The Bipolar nature of scientific knowledge.*** In turn, as Ecclesiastes argued, there is “*a time to scatter stones, and a time to gather stones: everything has its time.*” Undoubtedly, the era of analytical (mathematical-physicalist) knowledge was (and still is) absolutely essential. But, because of the natural cyclicity in the evolvement of the world : in the present, the Integral sociocultural epoch

naturally and inevitably enters its rights, in the current 21<sup>st</sup> century; and as it was substantiated by Pitirim Sorokin, already 80 years ago, with the completion of the release of his four-volume *Social and Cultural Dynamics*, in 1941<sup>vii</sup>.-Exactly this work presented to the world the Triadological Dynamic civilizational theory of the great Russian-American scholar, including his foundational principle of *Integralism*. The latter, in an essential way, equally requires an understanding and knowledge of both poles of scientific knowledge; because an Integral basis equally brings to bear (merges) the polar powers and means – for producing a true Integralist cultural knowledge. In this light, the biocosmological ideas expressed by Alfred N. Whitehead, in his book *Process and Reality* (and who was a colleague of Sorokin at Harvard University, but worked at the philosophy department), are also important.

The core is that scientific knowledge is naturally Bipolar: i.e. scientific knowledge always contains the Two Types of polar (and incompatible with each other directly) – the Two opposite Types of scientific approaches; but which are equally indispensable for the One, coherent whole Triune, all-round true rational (scientific and philosophical) knowledge. It is essential that each of the Three Types of Scientific Knowledge (Transcendentalist, Organicist, and Integralist) is capable of knowing the real world only in the realm of its potentiality. For instance, the modern dominant Western (Dualist) science is essentially based on the method of categorically objective, mathematical-physicalist positive cognition; all of this is rooted in the Transcendentalist-Type approach to comprehensive studying the physical reality, and which principally realizes the opposition of human consciousness (with) and proves its superiority over the physical world. In a logical way, therefore – Western (Dualist) science is capable of establishing exclusively grounds and conditions that cannot help but remove from scientific inquiry and ban for scholars the natural-scientific relevance of endogenous *telos*-propelling<sup>viii</sup> (Bio)cosmic forces-causes acting *from within* the subject.

A well-known judgement by Cicero says: “the Greeks term by the *Telos*, the highest, ultimate or final Good.” In respect to Aristotle’s science, another statement is essential, of John Herman Randall, Jr. [1962]<sup>ix</sup>, where a renowned scholar concludes that the Aristotelian “rupture with Plato is complete: natural teleology has nothing to do with mind, and «purpose,» which in English suggests «conscious intent,» is an erroneous translation of *hou heneka* and *telos*.” J.H. Randall reveals the crucial issue that “*Physis* for Aristotle is not a Platonic «soul»: it is something «completely new»”. At the first priority, therefore, Randall stresses that what is needed is the ability “to detect *unconscious Platonizing* (italics is ours. – Eds.)” [1962]. Likewise, F.E. Peters, another recognized authority in Classics Studies completes on the issue, stating that “The doctrine of teleology is basic in Aristotle: (...) It is explained in various places that the *telos* is the Good (Phys. II, 195a; Meta. 1013b), and in

Meta. 1072b the ultimate Good, and hence the final cause of the entire kosmos is the First Mover, the noesis noeseos of 1074b (see kinoun, nous).” [Peters, 1967, p. 192].

William Emerson Ritter, a distinguished naturalist and philosophical biologist, and who is considered to be the first biologist to propose a theory of systems, and recognized as the originator of the term *organicism* for biological scientific activities – the renowned scholar, in his famous work “*Why Aristotle Invented the Word Entelecheia*” [1932]<sup>x</sup>, here the scholar makes a number of crucial generalizations, understandings, and conclusions. His big takeaway is that “the teleology for which Aristotle is roundly condemned by many present-day biologists he was not at all or very slightly guilty of,”; and further Ritter continues, in his concluding statement, “On the other hand those who condemn the teleology which he (Aristotle. – **Eds.**) did hold, that of completed wholeness as essential to the adequate interpretation of any phenomena of nature whatever, are in so far not only failing, themselves, in reaching such interpretation, but are tacitly denying the possibility of it.” [Ritter, 1932, p. 382] The gist is that Aristotle’s *Organicist* teleology (*telos*-logy) and *OrganonKosmology* as a whole is fully opposite and polar to Plato’s Transcendentalism (Dualism). However, as this is brought out by Alfred North Whitehead, in his *Process and Reality* (1929), modern Western rational thought is fundamentally Platonic: “The safest general characterization of the European philosophical tradition is that it consists of a series of footnotes to Plato.” [Whitehead, 1978, p. 39]

Substantively, the guiding principles of Aristotle’s *Physics* are likewise of decisive importance to us. Here, in *Physics* I.2, the founder of the overarching *Organicist* science (*OrganonKosmology*) introduces the *telic cause* – *for the sake of which* (το ου ενεκα – *hou heneka*). In the modern perception of the Aristotelian scientific heritage – this is the *final cause* (Lat. *causa finalis*); however, in the light of aforesaid – this is genuinely the *telos*-cause. But, what is essential : the Stagirite do this as Christopher Miras argues (2004), in terms of three criteria: “something is an end (in the original text τέλος; in transliteration – *telos*. – **Eds.**) if (a) it is last (έσχατον) – that is, is an outcome of some motion; (b) the motion in question is continuous; and (c) the outcome is, as he puts it, the best: (...) For not everything that is last claims to be an end (*telos*. – **Eds.**), but the best (*Phys*.II.2, 194a29-33)”. In any case, moreover, the neologism of Aristotle – his foundational concept of *entelecheia*, as the richly meaningful, compound three-word comprehension (with *telos* as its central component) – to all intents and purposes, in no way can it be translated by the simple one-word “actuality” (but this is done everywhere in the academic world nowadays!).

In this entangled (in quantum physics terms) situation – of the incompatible contraposition between the Transcendentalist (rooted in Platonism) Type of science and the Aristotelian *OrganonKosmology* of the *Organicist* Type of the scientific understanding of the natural world; but which coexist in the

coherent integral Triunity of scientific knowledge – the more we should bring back to life the original (true) meaning of the seminal pillars in Aristotle’s *Organon* Kosmology. Among the primary ones here is the rehabilitation of the original meaning, hence the true understanding of the Aristotelian key concept of *telos*. We have no right to forget the basic concept in Aristotle’s theory, as it is given in the “Loeb Classical Library 288” [1957]<sup>xi</sup>: “The soul may therefore be defined as the first actuality (in the original text – *entelecheia*. – **Eds.**) of a natural body that has life potentially.” (*De Anima*, 412a28-412b1). Essentially, *entelecheia* is a crucial concept introduced into science by Aristotle himself (the universally recognized Father of science). The latter has a cornerstone significance, in the entire coherent framework of the Aristotelian knowledge (his comprehensive *Organon* Kosmology) – *entelecheia* lies “at the heart of everything in Aristotle’s thinking, including the definition of motion.” [Sachs, 1998, p. 245].

Through careful study, Aristotelian scholar Abraham Bos (1998) has come to the strong, deeply researched conclusion that the generally accepted translation of Aristotle’s most important statement (on the definition of the soul) – the given translation is incomplete, hence incorrect. First of all, the scholar emphasizes that the Stagirite uses the concept *organikon*<sup>xiii</sup> in his definition of the soul (412a28 and b6) – “Arguing step by step, he (Aristotle. – **Eds.**) arrives at the following definition of ‘soul’ (we also cite the Aristotelian original Greek terms, from the *De Anima*. – **Eds.**): ‘(the soul-ψυχη is) the first entelechy (εντελεχεια) of a natural body (σωματος φυσικου) which potentially (δυναμει) possesses life and which is instrumental (οργανικον – organikon)’.” [Bos, 1998]. Again, referring to *Physics*, here Aristotle, taking into account the knowledge revealed in the first four chapters : further, the Father of (Organicist) science, in chapters 7 to 9 – he comes to the fundamental conclusion that nature acts for *telos* (whereas the usual English translation “end” is erroneous); but Aristotle’s *telos* means exactly the achievement (in a continuous inherent process) of a completed, wholesome and of superior quality result – the *Organon*-result that is needed for the universal Good.

Nevertheless, as the translation of the *entelecheia* in Aristotle, throughout the modern global academic world, is done through the generally accepted word *actuality* (and while the word «actuality,» refers to anything, however trivial, incidental, transient, or static, that happens to be the case) for that matter, the Aristotelian scholar Joe Sach arrives at the conclusion that in the modern academic world, as far as the legacy of Aristotle is concerned: “***everything is lost in translation, just at the spot where understanding could begin*** (bolding and italics is ours. – **Eds.**) [Sachs, 1998, p. 245]” In fact, Aristotle’s *entelecheia* is a compound word that is consisted of the three components; in the expression of Will Durant (from his “*The Story of Philosophy*” [1926]): “Entelecheia (εντελεχεια) – having (εχω – *echo*) its purpose (τελος – *telos*) within (εντος – *entos*).” [Durant, 1962,

p. 69]<sup>xiii</sup>. Other Aristotle's leading notions, in addition to the aforementioned *telos*, *organon* (*organikon*), and *entelecheia*; and which are (by Will Durant's definition) "the magnificent Aristotelian terms which gather up into themselves a whole philosophy" – these key concepts also are *hypokeimenon* ("underlying thing", Latin: subjectum), *dunamis*, *energeia*, *steresis*, *hyle*, *morphe*, *aether*, et al.; and which state the actual existence of the Aristotelian *Organicist* foundational principles – of Organicism, Dynamicity, Entelechism and Hylemorphism, Bipolarity and Cyclicity – Triadicity of a Subject's Functionalist Ontogenetic Auto-(Self-)evolution, etc.

*Summing up this section*, we affirm the natural existence of the Two pole Types of scientific knowledge:

- a) the *Transcendentalist* Type, which is implemented in the New Age by modern Western (and global) science, and that is based on the Dualist (Platonic) cosmology; and which is ultimately Anthropocentric;
- b) the opposite *Organicist* Type, based on the principles of the Aristotelian *OrganonKosmology*; and which is ultimately AnthroKosmist.

The former (Transcendentalist Type of science) deals, in all cases, with the external mechanistic *objective* data (in studying real things and forces; phenomena and processes, causes and effects) : which all is perceived in the realm of homogeneous uniform human consciousness – for the data successive *artificial* mathematical (of Man against Nature) processing and analysis, and consistent conceptual technical constructing; of all of this – aimed at the ultimate Anthropocentric positivist application of the obtained technical results and their progressive incorporation into the world around for the betterment of societal conditions. The polarity of a Transcendentalist science establishes the foundational elemental and structural Uniformity (Homogeneity) – both of the physical world that is perceived and explored, and of the mathematical apparatus that realizes the artificial *idealistic* conceptual constructing of all the successive progress, regarding the person and her environment (geo-, bio-, socio-, and techno-spheres).

The second pole, of the Organicist Type of science, in contrast – here the *internal*, intrinsic natural forces are predominant for a subject (living thing or entity). These inherent *telos*-moving forces-causes are recognized (in Organicism) as leading and contributing (through subjects' ontogenetic wholesome effects) to the world movement and evolution. The subject's naturalistic *telos*-propelling Organicist forces-causes, both the inherent *dunamei*-potentials and *energeia*-activities – they all carry out the subject's ontogenetic *entelecheia*-route and the eventual successful (its/her/his) wholesome contribution into the Kosmist universal Auto-ascending evolution – the EvoProcess.

In this foundational (Bipolar and Triadologic) way, the Two Kosmist (and of scholarly endeavor) poles are inextricably united (through the Third, the median foundation) to one another, thus constituting the integral Triunity. Aristotle's inductive method of scientific knowledge confirms this proposition. Here, the Father of science (exactly – the Father of Organicist science; but Aristotle is also recognized as the Founding Father of empiricism) : in his Induction, Aristotle's first-initiative and essential phase of a scientific process (but where the ultimate task is apprehending the subject's *internal* and inherent *telos*-substance<sup>xiv</sup>) – the primary stage of Aristotle's Induction is exercised through direct observation, exactly the thorough external empirical (objective) inquiry of the subject under study. Basically, therefore, this inductive empiricist phase in the research process – it essentially orients a scientist at the task of conducting the direct (naturalist) careful observation-study of the subject's morphological properties and the features of his *dynamic* behavior (motion) in the inherent environment (*topos*). At the same time, an artificial experiment (which provides a mathematical study of the object) is not allowed here, in principle; for, experiment establishes artificial (*Static* – unnatural) conditions for studying the object, hence making impossible the Organicist observation of the subject's *Dynamic* behavior-motion in his natural milieu.

However, especially in the contemporary era, when scientists around the world are conducting their research in all fields and at all levels of scientific inquiry – from the quantum level to the astrophysical study of distant cosmic objects; today, in modern conditions, it is possible to apply the Organicist Type of scientific pursuit only if scholar is using (in his Organicist approach, seeking for the naturalist observation) the objective data already available (in their entirety, as applied to a given subject-matter), and which are obtained by the opposite, of the Transcendentalist Type of science activities. Otherwise, there is really no other way to conduct an effective organicist study of the world-Kosmos (Biocosmos), starting with the observation of the subject's natural dynamic changeability, his behavior and the ontogenetic evolvment-growth of physiological and psychological (and all other, anthropological) inherent capabilities-strengths of a subject under study.

Therefore, finding ourselves in today's 'entangled' situation (in the third decade of the 21st century) : we have the right, in light of the above, to find the two really existing pairs of incompatible (with one another), but inextricably linked (in a universal coherent unity) interactions:

*Firstly*, the '*mutual negation*' pairing : here, the Transcendentalist Type of scientific knowledge disavows the presence of internal *telos*-propelling forces and causes of motion and change-evolvment in the studied objects. In turn, the Organicist type of science denies the experimental, mathematical-physicalist method – rather, the artificial and Static study of the physical objective world. The reason is obvious, since the Transcendentalist method excludes Dynamic observation of

the natural living subjects of the real world under study. Consequently, as much the subject's residing in its natural (inherent) surroundings, as its Dynamic realization of the ontogenetic, *entelecheia*-propelled Auto-ascending process of evolvment – both stay without the *dynamical* observation and Organicist exploration of the subject's eventual carrying out his inherent (Functionalist) *telos*-contribution to the world evolutionary movement, the Auto-ascending (in complexity) EvoProcess.

*Secondly*, it is a pair of '*interdependent coherence*' : here, regarding the objects under study, the Transcendentalist Type of scientific knowledge takes *for granted* (with no proof) the specific purposeful behavior of a subject under study; thus making the detectable specific dynamic processes just the object to an external mathematical description. On the contrary, Organicist science takes *for granted* the objective all-encompassing data that is delivered to the academic world by Transcendentalist knowledge. However, in contrast : the Organicist approach uses them to directly observing the naturalist *dynamic* living subjects and their autonomic life *dunamei*-potentials and *energeia*-activities, and which are aimed at the inherent, but efficiently wholesome *telos*-contributions to the world-Kosmos Auto-(Self-)evolvment (EvoProcess); and which are realized at all levels of their existence (from quantum particles – to atoms, molecules, organs and organ systems, biological and social organisms, civilizations, Biosphere and Noosphere, etc.).

*The Last, but Not the Least* : we complete this section with a few more important statements:

- In fact, it is impossible to carry out the study of a given matter by means of a scientific method that produces the proof (and is based on evidence), in respect to both pole Types of knowledge : as much for the *external* data (of objective, mathematical-physicalist origin), as for the *internal* – subject data, that are essentially Entelechist and Hylemorphist (of the *Organon*-Functionalist essence). Similarly, in metaphor, it is factually impossible for a man to be both Sleeping and being Awake. A scholar, therefore, who is seeking for comprehensive knowledge : s/he actually needs to be ready for accepting the results-data from the polar Type of scientific knowledge for granted (without the proof, that is not produced by the pole Type of knowledge, which s/he follows). These are (which are taken *for granted*) : the subject's natural Dynamic *internal* (inherent) *telos*-propelling existence and behavior – for a Transcendentalist scholar; and, vice versa – the entirety of objective (Static and experiential) data, in relation to a given subject-matter, that are obtained through positive mathematical-physicalist processing and the analytical approach to studying the external objective reality – for an Organicist scientist.

- For Aristotle, the motion of a natural living thing (of the conscious human subject as well) is determined principally *from within* (by the *telos*-propelling forces-causes), which are essential for a living (Auto-changeable – movable-evolvable) thing-subject. On the contrary, modern science that is

based on Platonism and which activities are realized within the realm of mathematical-physicalist (Transcendentalist) objective positivist inquiry – here the motion of objects is determined categorically *from without*. Hence, as a direct, inevitable consequence : modern Dualist science categorically excludes in a subject any intrinsic strength-causes for moving-evolving activities, that are aimed at the eventual efficient wholesome *telos*-results. It is natural that by no means these *telos*-causes can be included in the research agenda of modern Dualist (Western) science. But it is the other way around, within the Transcendentalist Type of science (with its rational base model in Platonism), that only external objective data are recognized and accounted for here, inasmuch as exclusively objective data turn out to be fit for *idealistic* analytical (mathematical) processing, with the following conceptual constructing – of all, in the finality, into practical, constructive and technical applications in the life of man and society. On the contrary, in the Biocosmological Organicism (rationally correlating with Aristotelism) : the naturalistic Organicism-pole scientific approach recognizes as foundational and studies the Dynamic *internal – telic*, results-oriented propelling forces-causes of the subject, which are essentially *naturalist* – generated by Nature.

- Not surprisingly, in the New Age, the Organicism natural *dynamic* forces-causes of a living subject have been categorically excluded from modern (Western) scientific knowledge; and they are not permitted, at present, to be studied and applied within the contemporary Transcendentalist (Western) science. The latter is essentially global and positive, but Dualist – of a man withstanding Nature, and (in its extreme activities) – withstanding the natural-Kosmist Auto-ascending EvoProcess; thus (inasmuch as interrupting the natural Dynamic EvoProcess), inevitably pursuing anti-humanistic goals with respect to man – a product of the natural Auto-(Self-)evolving Kosmos.

- As a matter of fact, the time has come today to categorically change the way things are, and, for scientists around the world – to recognize the essentially Triadological essence and Bipolarity of scientific knowledge.

#### *FINAL SUMMARY OF THE DOCUMENT*

The address to the academic (scientific and philosophical) community comes at a time of the current global crisis (WW3) and comprises the launching of the Biocosmology Initiative. The essence of the latter is a call to consider, recognize, and return to the natural order of the world's cyclical evolutionary (and historical) Auto-ascending circuiting; hence – to basically accepting the foundationally Triadologic world, as the Auto-(Self-) ordered and Auto-(Self-)evolving Living Cosmos – Biocosmos, Kosmos; and which is the universal concurrent existence of the Three dynamic autonomic omnipresent Types of the Kosmic Organization, which always exist and act together, in

the Triunity. These Triune Types universally substantiate as the entire world-order, as the life (ontogenesis) of its each subject, from a quantum particle to molecule, bio-organism, human being, society and civilizations, Biosphere and Noosphere, etc. Substantially, in their Dynamic Cyclical circuiting – the Triune Types by turns determine the dominant (one of the Three) Type in the world-Kosmist organization, respectively also in relation to authentic scientific knowledge.

In the realization of this enormous task, the recognition of the naturalistic Bipolarity and the dynamic Triadology of scientific knowledge is of prime importance. In this perspective, the main focus in our times is on the Organicist pole of subjects' *telos*-(for wholesome result)-propelling potencies and activities; naturally, that in the Triune wholeness with the world-Kosmos and, accordingly, in the Triunity of all Three academic Types of scientific knowledge (Organicist, Integralist and Transcendentalist), which all are essential for the effectual integrity (of all the realms and subjects involved). Likewise, the Dualist Anglo-Saxon analytical knowledge (and whose foundations were laid as early as the 17<sup>th</sup> century) has the equal importance for the world History (social-cultural evolution).

Nevertheless, in the face of the unavoidable problems and threats of the 21st century (and within the current period of the so-called “tectonic shifts” in the world development) : we see the direct natural challenge for a decisive **U-turn**, but already on the basis of the contemporary, 21<sup>st</sup> century Integralism. The essence of the latter – to make the *U-turn* from the Transcendentalist or Dualist Pole (of the *Southern* and *Western* – Anthropocentric potencies and activities) – to the *North-Eastern* (AnthropoKosmist and Noospheric) Pole and Vector of the (dominating) Organicist and Integralist Types of rational, scientific and philosophical knowledge. The vector of the outlined world evolutionary advancement has a path that is essentially *Biocosmological* and *Integralist* – chiefly of the *North-Eastern* contribution to peace sociocultural evolution.

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<sup>i</sup> Here, “*Organon*” – from the Greek ὄργανον – directly has the original meaning of ‘instrument’ (‘tool’ and ‘means’ to achieve ‘an end’, i.e. the needed result of activity); and what is, ultimately, the natural *telic*-(for the needed result)-*function* of a subject (thing, organ).

<sup>ii</sup> Spelling “Cosmos” with the capital “K” (as *Kosmos*; and studying Kosmos as *Kosmology* and *Kosmism*) comprises a direct reference to (in full accordance with the Biocosmological Triadological approach taken) the meaning of the ancient Greek “κόσμος”, the main significance of which is “good order”; Pythagoras first used the term κόσμος (Lat. *kósmos*) to denote the highest world order, thus the world and the universe as a whole. In Aristotle, the most primary substance of cosmos (and which is not analyzable into matter and form) – the First Unmoved Mover, who is conceived “as an active, intelligible, eternal,

and imperishable substance (*ousia*) or Nous.” [Christos C. Evangeliou, 2016] The matter *Nous* deals with – for Aristotle, his matter (*hyle* – υλη) is not the passive and formless ingredient of cosmos; but matter for Aristotle is that which is full of potentiality for the completely developed essence, “also completely – developed substance and essence in a lower level is the matter (that is potentiality) for the next higher ontological level of the cosmic hierarchy.” [Georgios Pavlos, 1997] The author also concludes (in the name of Aristotle) that “the quantitative and the other characteristics of cosmos are the derivatives of the cosmic dynamics and becoming.” [Ibidum]

At the same time, the term *Kosmism* (*Kosmist*), already in the Biocosmological perspective – directly points to the Organic unity of the Cosmos with all its living subjects as the main basis for the existence of the real world-Kosmos.

- iii The main meanings of the ancient Greek ΑΥΤΟ- (αὐτο-) = {αὐτός} prefix, denoting: =1) natural property, naturalness (αὐτόρριζος); =2) authenticity, purity (αὐτοσίδηρος); =3) inner independence, self-determination, spontaneity (αὐτόνομος). Taken from the cite: <https://dicipedia.com/dic-gr-ru-old-term-10995.htm>
- iv If we use a geographical analogy (with the sides of the world), we get the values of the five elements, starting with the poles of the Earth – South and North; and then in correlation with biorhythmic cycles – Sleep (West) and Wakefulness (East); and finally – the Middle of the Earth (Center).
- v *BCnA* : the journal “*Biocosmology – neo-Aristotelism*”, an electronic scientific periodical – the official organ of the Biocosmological Association; URL: <https://biocosmology.org/?lang=en>
- vi However, the integral (united as a whole) significance of the world scientific (in civilization theory) contribution of Russian scholars – such a significance has not yet become a subject of actualization in the scientific and philosophical community : because of the ‘dissociation’ of the achievements of these five great scholars from each other in the thorns of the historical process that had taken place (and for other reasons).
- vii However, the first Russian-language publications (initially, fragments of the outstanding scientific work) have appeared in Russia only since 1995.
- viii *Telos* – from the Greek – τέλος; in transliteration – telos; meaning “goal, end” as the “final destination” of the subject’s efforts, i.e., the final “result” of his actions. *Telos* is introduced into science and used by Aristotle to denote the ultimate actualization of the inherent physical potential in a living thing (man, individual subject) – thus realizing its/her/his goal-end of existence and wholesome activity; and that acts as the key element in a compound concept, the original and essential in Aristotle’s scientific system – *entelecheia* (as interpreted by Will Durant (1926): “... having (*echo*) its purpose (*telos*) within (*entos*); one of those magnificent Aristotelian terms which gather up into themselves a whole philosophy.” [Durant, 1962, p. 69]).

We quite agree with Aleksei Fedorovich Losev, a prominent Russian philosopher and culturologist of the 20th century : *telos*-end and *telos*-goal are quite fused by the Stagirite; as well as that the bivalence of the term *telos* in Aristotle turns out to be quite natural – that *telos* both is the end-completion; but it also realizes the supreme Good as the main goal of all activity (Losev, *Aristotle and the Late Classics*, 1975).

Synonyms for the Aristotelian *endogenous* (acting *from within* the subject) *telos*-propelling (Bio)cosmic forces-causes are: telic, results-oriented, target-driven, ergic, intentional, task-oriented, teleological, goal-seeking. Below, *see* the explanatory statement on the meaning of the notion of *telos*, originally operative in the Aristotelian *Organicist* science.

- <sup>ix</sup> In respect to *telos* and *entelecheia*, regarding a more detailed explanation : we make it clear, with referring the statements of Randall, Sach, Bos, Ritter, Durant, Peters, Windelband, Whitehead – in the BCnA-publication “*New Integralist Time : New (True – Organicist) interpreting, understanding and applying of Aristotle’s Organon Kosmology – to bringing successes to the contemporary world science*” (DOI: 10.24411/2225-1820-2021-00004)
- <sup>x</sup> In the work “*Why Aristotle Invented the Word Entelecheia*” [1932], initially, Wm.E. Ritter aims at resolving the issue “of the relation between *telos* and *holos* in Aristotle’s thinking with a view to understanding his reason for coining a word (*entelecheia*) which should contain *telos* as a basic element.” [p. 382] Among the important results of this profound exploration, we appreciate the active claim of the scholar – “to ascertain as far as possible the English equivalent of the Greek *telos*.” [p. 380] (we ourselves have no doubt that the term-equivalent should be the original *telos* itself). The reason is that the commonly given “end” as its equivalent cannot be used, for “*telos* never meant end as of a stick or a road”, a very common meaning of the English “end”; as well as, Ritter stresses, “*telos* is not the original word for which «purpose» is substituted”. Hence, “the Greek word *telos* has quite different associations from the English word «end.»” [pp. 380, 382] On the contrary, as the author reveals in his study, “by examining a wide scope of the Aristotelian writings” – there is the evident “kindred of the *telos* of *entelecheia* to wholeness we find borne out” [Ritter, p. 380].
- <sup>xi</sup> See: Aristotle. *On the Soul. Parva Naturalia. On Breath*. Translated by W.S. Hett. Loeb Classical Library 288. Cambridge, MA: Harvard University Press, 1957.
- <sup>xii</sup> The notion “Organon” (adj. – organikon) – from the Greek ὄργανον (οργανικόν) – directly has the original meaning of ‘instrument’ (‘tool’ and ‘means’ to achieve ‘the goal-end’, i.e. the needed *telos*-result of life activity). The latter, ultimately, is the natural *telic*-function of a living subject (thing, organ) – for the needed wholesome result-effect-product achievement; and which realizes the subject’s ultimate Functionalist wholesome contribution to the Common Good.
- <sup>xiii</sup> In a similar manner, Wilhelm Windelband, in his *A History of Philosophy* [1914], comes to a conclusion: “Being is that which comes to existence in the processes of Nature. This self-realization of the essence in the phenomena, Aristotle calls *entelechy*. The central point of the Aristotelian philosophy lies, therefore, in this new conception of the cosmic processes as the realization of the essence in the phenomenon, . . .” [Windelband, 1914, p. 140].
- <sup>xiv</sup> The synonyms Aristotle used for designating the subject’s naturalist inherent unchangeable substance are: *hypokeimenon* – υποκειμενον; *to ti en einai* (a formula for expressing the notion of “essence”) – το τι ην ειναι; *ousia* – οὐσία; *arche* – αρχη; *genos* – γενος; *eidos* – εἶδος; *katholon* – καθολον; and, of special foundational significance – *entelecheia* (ἐντελέχεια).

# Математический реализм Аристотеля, его холистско-энтелехическая позиция; первая часть

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## Mathematical Realism in Aristotle, his Holist-Entelechial Position; Part I Milan Tasić & Konstantin S. Khroutski

**Резюме.** У Аристотеля отсутствуют отдельные труды по математике. Следовательно, изучение поднятого вопроса изначально представляет собой нелегкую задачу. Следуя Платону, своему учителю, Аристотель признает существование *математических объектов* как конструктивных элементов в человеческом духе, которые абстрактным путем, начиная с чувственного содержания в опыте, используют только значения *формального языка*: как число, мера, форма и т.д. Все это в онтологическом значении имеет характер *идеалитетов*, и к которым обращается разумное существо (субъект познания; ученый, например). В свою очередь, в сфере созданного Аристотелем всеохватывающего рационального знания, которое мы именуем как *Органон* Космология<sup>3</sup> – здесь математический способ познания реального мира несомненно имеет также иные как значения, так и возможности; и где субъект не может обходиться без *холистско-энтелехического* подхода к взаимоотношениям с миром и своим сообществом (естественным окружением, Космосом в целом), к которому он принадлежит. На первой стадии проводимого исследования, авторы стремятся прояснить как исходные (космологические) основания темы, так и сравнительный анализ позиций и отношений, с которых математическое познание утверждали гении мировой культуры, Платон и Аристотель.

**Ключевые слова:** Платон, Аристотель, математический объект, реальность, идеальность, потенциальность, умопостигаемость, холистско-энтелехический.

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<sup>3</sup> Здесь, *Kosmos* – Космос (и изучение Космоса как Космология) включает в себя прямую ссылку (в полном соответствии с принятым Биокосмологическим Триадологическим подходом) на значение древнегреческого «κόσμος», основное значение которого – «надлежащий или благой хороший порядок»; Пифагор впервые использовал термин *κόσμος* (лат. *kósmos*) для обозначения высшего мирового порядка, таким образом, мира и Вселенной в целом; тогда как “*Organon*” – «*Органон*» (от греческого ὄργανον), отсюда и Органицистский и *органический* – имеет оригинальное первоначальное значение ‘инструмента’ (‘орудия’ и ‘средства’ для достижения ‘цели’, т.е. необходимого результата деятельности); и что, в конечном счете, является естественной целевой *telic*- (для необходимого результата)-функцией предмета (вещи, органа).

**Abstract.** Aristotle has no individual works on mathematics. Consequently, examining the question raised is not an easy task from the outset. Following Plato, his teacher, Aristotle recognizes the existence of *mathematical objects* as constructive elements in the human spirit, which in an abstract way, starting from the sensory content in experience, use only the meanings of *formal language*: as number, measure, form, etc. All this in its ontological meaning has the character of *idealites*, and to which a rational being refers (the subject of knowledge; a scientist, for example). In turn, in the sphere of the all-encompassing rational knowledge created by Aristotle, which we call *OrganonKosmology* – here the mathematical way of knowing the real world undoubtedly also has other meanings and possibilities; and where the subject cannot do without a holistic-entelechiic approach to relationships with the world and his community (the natural environment, the Cosmos as a whole) to which he belongs. At the first stage of the ongoing research, the authors seek to clarify both the initial (cosmological) foundations of the topic, and a comparative analysis of the positions and relationships from which the geniuses of world culture, Plato and Aristotle, claimed mathematical knowledge.

**Keywords:** Plato, Aristotle, mathematical object, reality, ideality, potentiality, intelligibility, holistic-entelechiic.

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#### *Вместо заключения*

**Введение.** Наука Аристотеля начинается с *первой философии*; и здесь Стагирит обнаруживает, что «Бог предпочел бы обладать ею». В отличие от Платона, который резко отделил чувственный от умопостигаемого мира (мира идей) – Аристотель имеет в виду единственный (природный естественный) реальный мир; тот мир вещей и существ, явлений и процессов, в котором «все, что существует, стремится к какой-то цели». [Аристотель 1976, 1050a]. По его мнению, естественно определяемые пространством и временем математические объекты – все они реально существуют в материальном мире : но никак не *трансцендентально*, как у Платона; в качестве «моста» между *идеями* и чувственными вещами. В то же время математические объекты для Аристотеля – это воображаемые конструкции в человеческом духе, достигаемые абстрагированием чувственного содержания (данных) в опыте; т.е. применением только числа, формы, размера и т. д. Таким образом, математические объекты являются однородными по происхождению : ~~самы~~ они несут в себе что-то общее, в значениях логики или эстетики. В конечном итоге, вся их сущность заключается в смысле, значении и интерпретации, которая им придается *Извне* (с позиции познающего человека); так что, по своему характеру, их существование является столь же семантическим, сколь и онтологическим.

Порядок реализации здесь таков : скрытые потенциальности вещей и существ (и их *интеллигибельность*); и что содержится в *пассивном разуме* ( $\acute{o}\ \nu\omicron\delta\varsigma\ \lambda\alpha\theta\eta\theta\iota\kappa\acute{o}\varsigma$ ) – все это, через *творческий разум* ( $\acute{o}\ \nu\omicron\delta\varsigma\ \rho\omicron\iota\eta\tau\iota\kappa\acute{o}\varsigma$ ) трансформируется в фактическое состояние их явных (осуществленных) форм, в пределах возможного. Таким образом, согласно Аристотелю, пассивный разум свидетельствует о полной постижимости мирового бытия и его единстве с логосом. Последнее относится и к сотворенным объектам *идеальности*; которые, существенным образом, могут являться одновременно противоположными (Биполярными) друг другу; если рассматривать их отношения как производные от мышления разумных существ. Поэтому, в математической науке : здесь различаются три онтологические сферы мышления, которым разумный человек обязательно следует на своем познавательном пути; а именно, 1) *сфера интеллигибельности*, 2) *сфера идеальности* и 3) *энтелехическая сфера* (ЭС). В третьем случае (ЭС) – это совокупность продуманных действий индивида (субъекта жизни) на пути к достижению *холистических* целей в сообществе (экологическом окружении).

Кстати, на протяжении всей истории, реалистические взгляды в философии математики отстаивал Джон Стюарт Милль, для которого математика является «индуктивной наукой о количестве агрегатов». Также и Анри Пуанкаре утверждал, что математика – это «наука об отношениях»; или Бурбаки – что математика основана на понятии структуры; и т.д. И сегодня,

в основах математики ведущей является теория множеств (Кантора); но последняя выстроена как аксиоматико-дедуктивная система, поэтому её полнота и непротиворечивость может быть доказана. Следовательно, нам требуются новые основания и новые попытки установить, насколько полно здесь осуществляется следование логическим законам – именно на основаниях Аристотелевской *ОрганонКосмологии*<sup>4</sup>.

### 1. Первая философия, математика, физика

Аристотель расширил свой теоретический интерес к науке до космологических (всеобъемлющих) значений; прежде всего полагаясь на разработку первичных принципов и основных причин мирового бытия – в рамках своей *первой философии* (ἡ πρώτη φιλοσοφία)<sup>5</sup>; и для которой он находит что πρώτη φιλοσοφία является «самой высшей и самой божественной наукой», и что сам Теос<sup>6</sup> «предпочел бы владеть»<sup>7</sup> ею. Следовательно, *протофилософия* приобретает определенное превосходство по сравнению с двумя другими теоретическими дисциплинами, математикой и физикой; в том смысле, что, будучи наукой о «бытии как таковом»<sup>8</sup> – те могут использовать эти результаты. Таким образом, законы теперь устанавливает философ<sup>9</sup>; так что «не он должен повиноваться другому, а ему – тот, кто менее мудр». [Аристотель, 1976, 982a 19-20]. Точнее, когда дело доходит до принципов и изначальных причин в природе – этот порядок диктует фундаментальный (*прото*-)принцип.

<sup>4</sup> См.: *Биокосмологическая Инициатива* (в русскоязычном и на сербском языке изложении – [https://biocosmology.org/?page\\_id=2471](https://biocosmology.org/?page_id=2471))

<sup>5</sup> По сути, «первая философия» Аристотеля – это ‘*прото*-философия’: поскольку греческое πρώτη подразумевает «первый» в значении «вначале» – в начале (в основании) всего последующего процесса изменений и развития; и без чего (*прото*-, первоначального) не состоится и всего дальнейшего, поэтапного и систематического изменения-развития. Тогда, для *протофилософии* – все это непосредственно указывает на *первые* (фундаментальные и краеугольные, изначальные) принципы и причины всего существующего мироздания (значит, полагаемые и в основание всеобъемлющего рационального знания о действительном мире-космосе); т.е., по сути, *протофилософия* – это философская и научная Космология.

<sup>6</sup> Оригинальный термин Аристотеля – Θεός (Theos – Теос), который никоим образом не имеет значения современного монотеистического понятия «Бог».

<sup>7</sup> Он скажет: «Теос, по общему мнению, принадлежит к причинам и есть некое начало, и такая наука могла бы быть или только или больше всего у Теоса. Таким образом, все другие науки более необходимы, нежели она, но лучше – нет ни одной». [Аристотель, 1976, 983a 9-12].

<sup>8</sup> Его слова об этом: «первой философии надлежит исследовать сущее как сущее – что оно такое и каково все присущее ему как сущему». [Аристотель, 1976, 1026a 31-33].

<sup>9</sup> Существенно, однако, что в научном знании Аристотеля отсутствует принципиальное отличие между понятиями «философ» и «ученый». Дело в том, что и тот, и другой, в Аристотелевской *ОрганонКосмологии* – и ученый и философ в равной мере (но различаясь лишь по степени обобщения достоверного физического материала исследования) полагаются (на) и следуют универсальным Органицистским законам мироздания и мироустройства (Вселенной – Космоса).

Согласно этому принципу, основополагающе-*неподвижное*, но *движущее* – является как «более божественным» ('более теистическим' – метафизическим), чем движимое (физическое), так и более самостоятельным; и все это относится как к Космосу в целом, так и к каждому его свободно движущемуся (и развивающемуся) субъекту (вещи).

Согласно Аристотелю, предмет *первой философии* – это самостоятельные (независимые) и неподвижные (но осуществляющие движение и развитие данного субъекта) сущности. В свою очередь, предмет математики – неподвижное и несамостоятельное (и зависимое – уже объекты, а не субъекты) сущности; тогда как предмет физики – подвижное и самостоятельное (независимое в своем существовании и развитии) существо. В первом случае, подобная сущность необходимо является в форме «*протоматерии*», а *первопричина* выступает как «перводвигатель». Понимание последней достигается в умопостижении – схватывании неподвижной сущности, т.е. внутренних движущих причин-сил вещи-субъекта (путем непосредственного эмпирического изучения и динамического наблюдения); но не посредством (как это в современной, Западной Платонической науке) искусственного эксперимента и чувственного восприятия извлекаемых данных, с последующим приложением к ним математической абстракции и объективным описанием изучаемой вещи путем математического анализа.

Соответственно, когда речь заходит об изменении форм всех вещей и существ в природе : натуралисты полагают существование изначальной конкретной (неподвижной и самостоятельной) «субстанции», лишенной какой-либо формы; и напрямую связывают это с вопросами движения и изменения. В целом – это *неподвижный двигатель* (для каждой действительной вещи и субъекта естественного мира) : который двигает (и определяет движение и изменение), но сам является неподвижным; и он всегда имеет одно главное целе-(результат-)организованное (инструментальное; *греч.* οργανικον – organikon, organic, органическое, Функционалистское) предопределение в всей жизни (онтогенеза) данного субъекта, что и определяет целостность вещи (субъекта).

В отличие от Платона, у которого *математические объекты* приближаются (по статусу) к высшим, вечным и неизменным, и единственно реальным Идеям-Эйдосам (и которые не даны ни в физическом опыте, ни в умственном постижении<sup>10</sup>) – у Аристотеля «математические объекты» не существуют независимо от физического мира. Математические объекты, таким

<sup>10</sup> В то же время номиналисты заявляют, что они вообще не существуют; и что математика – это всего лишь наука о манипулировании символами, т.е. не что иное, как вымысел.

образом, являясь абстракциями в человеческом духе – они не могут быть приложены к познанию неотъемлемых свойств физических тел, обладающих самостоятельностью и способностью к онтогенетическому движению (саморазвитию)

Сущности физических субъектов, как *внутренние*, неподвижные и самостоятельные сущности (перводвигатели субъектов) : они содержат (осуществляют) принцип и причины движения *в себе* (и действуют *Изнутри*); напротив, в Трансценденталистской философии Платона – главный принцип и причина воздействия и движения происходят *Извне*, в отношении к принципиально зависимым (неподвижным – неспособным к самостоятельному движению) *объектам* чувственного мира.

## **2. Онтологический (и онтогенетический) статус математических объектов (и субъектов)**

Сначала проясним, что представляют собой математические объекты сами по себе для Аристотеля и для Платона; то есть каков их онтологический статус? Что касается Платона, то он в соответствии со своим (резким) делением мирового бытия на чувственный и умопостигаемый миры : т.е. на сферу чувственных и земных вещей, и на царство вневременных и бестелесных сущностей или идей (эйдосов); и когда математические сущности выступают «мостом» между этими двумя мирами. Последние (математические сущности) воплощают в себе двойственную природу – как нечто *реальное*, чувственное (скажем, форма круга); так и *умопостигаемое* (толщина линии, как лишенной ширины). Аристотель говорит об этом: «Далее Платон утверждал, что помимо чувственного воспринимаемого и эйдоса существуют как нечто промежуточные математические предметы, отличающиеся от чувственно воспринимаемых тем, что они вечны и неподвижны, а от эйдосов – тем, что имеется много одинаковых таких предметов, в то время как каждый эйдос сам по себе только один». [Аристотель, 1976, 987б 14-20].

Аристотель переворачивает *трансцендентальный* мир Платона – мир идей, в реальный мир. Напротив, у Платона, настоящий (реальный) *Идеальный* (Трансцендентальный) мир противостоит земному чувственному миру вещей и существ (*объектов*), подвергающихся постоянным изменениям и недолговечных : причем, Платоническое противостояние выражается не только как *абстрактное – конкретному*; но и как *благое – злему*, и где материальный мир (изменчивых и мимолетных вещей) является лишь «тенью» умопостигаемого мира вечных и неизменных «идей» (греч. «эйдосов»).

У Аристотеля идея (εἶδος – эйдос) формы (в оригинале – μορφή, морфе), т.е. сущность данного (морфологически организованного субъекта) выступает в качестве действующей причины, побуждающей материю (в оригинале – ὕλη, гиле) вещи, т.е. *гилеморфистски* и *энтелехистски* организованного целостного субъекта – последовательно переходить ‘от формы к форме’, в присущей онтогенетической траектории возможных жизненных изменений (развития) данного реального субъекта. Мир Аристотеля – это мир *само-движимых* и *само-изменяемых* субъектов (вещей, сущностей); и здесь определяющая роль отводится движущей силе (присущей каждому субъекту) *энтелехии* – как раз обеспечивающей его (*энтелехийного* субъекта) самостоятельное изменение (развитие, становление) в конечные (морфогенетические) формы, собственно производящие свойственную (субъекту) эффективную Функционалистскую деятельность. Следовательно, как идеи и математические объекты, так и энтелехии и (формируемые ими морфогилетические) действительные субъекты – все это реально существует в реальном мире. Основополагающим образом, каждый действительный субъект жизни (в *ОрганонКосмологии* Аристотеля) обладает собственной естественной присущей (данной ему от природы, при рождении) *энтелехией*, соответственно и своим присущим *энтелехийным* онтогенетическим пространством и временем; и что принципиально отличает каждого субъекта у Аристотеля, как обладающего уникальной *энтелехией* – от «подлинного эйдоса» у Платона, униформного (гомогенного) для всех вещей (данного вида), и вечно существующего вне пространства и времени, исключительно в *трансцендентальном* состоянии.

Аристотель выстроил свое учение об онтологическом (*онтогенетическом*) статусе математических объектов на принципиально ином (по сути, противоположном) пути, в противовес Платону, значит и пифагорейцам, и т. д. Иначе говоря, Стагиритом полагаются, в основания своего научного подхода – природные *динамические* субъекты (вещи) само-изменяющегося действительного (реального) мира; с присущими им *гилетическими*<sup>11</sup> (материальными) и *морфогенетическими* (формальными) свойствами, выражающими их присущие способности к движению-изменению и саморазвитию. Все это существенно отличает теорию (всеохватывающую *ОрганонКосмологию*) Аристотеля от (в равной мере всеохватывающей Дуалистской) космологии Платона, концептуальные конструкции которого выстраиваются «*Сверху-Вниз*» и с позиции Внешнего наблюдателя (ученого, функционера,

<sup>11</sup> О необходимости использовать оригинальные термины и понятия Аристотеля (взамен общепринятых латинизированных терминов; и которые несут смысл уже принципиально иной культурно-исторической эпохи и ее космологических оснований) – об этом, см. работу: Khroutski K.S. & Tasic M. [2021].

производителя, строителя, демиурга и т.д.), принципиально исходя в своей деятельности из оснований единственно реальных, высших и вечных *Идей*.

Например, для Аристотеля число является чем-то принципиально отличным от идеи, хотя позже он найдет способ понять их как единое целое, в понятии «идеального числа» [Лосев, 2011, с. 55–57]. В этом смысле, прежде всего, Стагирит задается вопросом, относятся ли математические объекты к чувственности : и здесь он отвечает, что это всячески не так, поскольку «находиться в одном и том же месте два тела не могут» [Аристотель, 1976, 1076б 1]; поскольку «другие способности и сущности (*phuseis*) тоже должны были бы находиться в чувственно воспринимаемом» [Аристотель, 1976, 1076б 2-4]. Иначе выражаясь, если математический объект (как неделимое и идеальное целое) находится в чувственности : то чувственный объект (субъект, у Аристотеля), с которым соотносится исследователь – последний всегда будет неделимым; однако мы имеем, например, что геометрические тела состоят из поверхностей, поверхности из линий, линии из точек и т.д.

То, что математические понятия представляют собой особую конструкцию в человеческом духе, начиная с чувственного содержания в опыте – все это подтверждается общими научными положениями, начиная со свойств аксиом и теорем. Последние (математические понятия) находятся, согласно Аристотелю, между числами и формами (морфологией субъекта); и происхождение которых, как мы сказали, находится в чувственности. Что касается единства математических величин, то Аристотель ставит вопрос: «как это может быть достигнуто без чувственности»? Дело в том, что каждая из математических величин является делимой и количественной. Ответ Аристотеля, который он дает в другом месте, заключается в том, что единство даже чувственных вещей не зависит от чувственности, но от их *эйдосов*<sup>12</sup> (т.е. от *внутренней* основной сущности субъекта, остающейся неизменной и претерпевающей все его

<sup>12</sup> Помимо термина «эйдос» (*eidos* – греч. εἶδος, лат. *forma*, этимологически тождественному русскому «вид» – в отношении к обозначению субстанции как основной сущности у субъекта реального мира (и что он заимствовал у Платона) : Аристотель также (и более основательно) использует понятие *гипокейменон* – «подлежащее» (*hupokeimenon* – ὑποκειμενον), буквально означающее «базовую вещь» (лат. *subiectum*) – основную сущность у данного субъекта естественного мира; и которая как определяет все изменения (движение, рост, развитие), так и сохраняет себя неизменной на протяжении всего онтогенеза (жизни) у данного субъекта. В целом, синонимы (соответственно, термины и понятия, применительно к контексту), которые Аристотель использовал для обозначения присущей субъекту натуралистической неизменной субстанции-сущности, являются: *hupokeimenon* – ὑποκειμενον; *чтойность* или *этость* – *to ti en einai, quidditas, essentia* (формула для выражения понятия «сущность») – *τὸ τί ἦν εἶναι; ousia* – οὐσία (Лат. – *essentia or substantia*); *архэ* (*архэ* – *arche*); *под* (*genos* – γένος); *эйдос* (*eidos* – εἶδος); *общее* (*katholon* – καθολον); и, имеющее особое основополагающее значение – *энтелехия* (*entelecheia* – ἐντελέχεια).

изменения на протяжении полного онтогенеза субъекта – его *hupokeimenon*). Именно от *hupokeimenon*, при делении родов на виды, как последних и изначальных (для онтогенеза субъекта), и далее неделимых – собственно и происходит присущее онтологическое (*онтогенетическое*) возникновение и присущее *само*-развитие каждого естественного субъекта реального мира.

Существенно, что подобное единство (субъекта) достигается также логическим и феноменологическим путем, хотя и на основаниях, предшествующих чувственности и опыту. Далее Аристотель, исходит из принципа – что то, что приходит во времени после чего-то, предшествует этому по существу (последнее является возможным исключительно при круговоротном характере мирового развития). В этой связи Стагирит заключает, что объекты в математике, по сути, не предшествуют чувственности; просто поэтому, что они тогда были бы одухотворены, поскольку точка предшествует линии, линия поверхности, поверхность телу, и тело – одухотворенному телу. Математические объекты, что следует сказать, возникают прежде чувственных только путем логического абстрагирования, и только через создание (упрощенных) конструкций в человеческом духе; поэтому не вся полнота организации чувственных существ может принадлежать им.

Важной особенностью понимания математических объектов Аристотелем является то, что они соотносятся (и в этом Стагирит выявляет их существенный недостаток, поскольку это делает их несовместимыми с его *Органон*Космологической теорией) – что они соотносятся исключительно с *внешними* (объективными) атрибутами и сущностями изучаемого субъекта (как объекта). Существенно, что последнее с неизбежностью требует удаления всех содержательных характеристик вещей и существ, кроме числа, формы, количества и т.д.; но что является достаточным для их математической обработки изучаемого объекта. С точки зрения Аристотеля, *энтелехические* (с *внутренним* потенциалом к саморазвитию, *целе*-организованные) естественные (по своей природе) существа – подобные природные субъекты требуют (для изучения) особого определенного способа рассуждений и приобретения знаний, в соответствии с логическими законами мышления.

Таким образом, обнаруживается метафизическое (но, скорее, космологическое) противостояние (противоположность, полярность, разрыв) – между реальными идеями и чувственными вещами у Платона (и где *идеи* – это прежде всего математические объекты) и реалистической точкой зрения Аристотеля, который рассматривает идейную сферу и чувственный опыт с принципиально иной точки зрения. В подходе Аристотеля, «объекты» эмпирического опыта : а именно те, что обладают *внутренним* естественным *энтелехическим*

потенциалом (значит, и способностью к активному движению и *само*-изменению) – подобные «объекты» уже являются независимыми (*самостоятельными*) и подвижными (*динамическими*) индивидуальными (лат. *individuum* – «неделимый») и *целе*-организованными *субъектами* действительного мира. Понятным образом, подобный подход способствовал введению в математическую науку все новых и новых объектов на протяжении всей своей истории (как отрицательные, рациональные и иррациональные числа, матрицы, векторы, переменные и т.д.) : и здесь преследуя цели обобщения натуральных чисел, чтобы последние приобретали уже реальную основу; а значит и *внутренне* присущий *энтелехический* потенциал – что и позволяет данному активному субъекту осуществлять свой собственный (неотъемлемый) онтогенез (историю и результаты жизнедеятельности всей своей жизни).

В философии математики XX века – Трансценденталистский взгляд Платона на существование математических объектов приобрел особое значение; и что может обозначаться в текущей научной среде как «платонизм». В сфере логики, среди его видных сторонников отмечаются Готлоб Фреге (1848–1925), Курт Гедель (1906–1978), Хиллари Патнам (1926–2016), и другие. В целом, за всю историю науки, от античного времени до сегодняшнего дня : количество типов объектов, с которыми математическая наука имеет дело, значительно увеличилось; и эти современные математические объекты существенно отличаются по своей природе от тех, которые брал в рассуждение Аристотель. Так, в высказывании Стагирита: «математические предметы: например числа, линии и тому подобное» [Аристотель, 1976, 1076 18-19]. Является существенным, что по отношению к числам Аристотель всячески имел в виду (только) последовательность *натуральных* чисел 1, 2, 3, ... ; но, скажем, не числа отрицательные, рациональные, действительные, комплексные, и т. д. По его словам, числа идут «с некоторым измеримым множеством», а сами по себе являются «множеством единиц». Следовательно, для него единица измерения – не число, так что наименьшим числом остается быть 2; тогда как в древности даже 0 не считался числом.

В отношении способа существования чисел, и ввиду (Аристотелевского) принципа неотделимости математических объектов от объектов чувственной реальности : тем не менее, современные математические объекты (как уже было отмечено) существуют только в абстрактной сфере (в мыслях); даже учитывая определенную разницу в «степени», с которой арифметические и геометрические объекты включаются в предметную реальность – такие, скажем, как число в арифметике; и эллипс или точка в геометрии. Другой пример, число 5 полностью содержится в пальцах рук или ног; тогда как эллипс и точка несут только

приблизительное знание, в случае, скажем, когда речь идет о движении планет вокруг Солнца, и их представлении в виде точек в астрономии.

Здесь уместно привести высказывание Аристотеля: «Действительно, и чувственно воспринимаемые линии не таковы, как те, о которых говорит геометр (ибо нет такого чувственно воспринимаемого, что было бы прямым или круглым именно таким образом; ведь окружность соприкасается с линейкой не в [одной] точке, а так, как указывал Протагор, возражая геометрам); и точно так же движения и обороты неба не сходны с теми, о которых рассуждает учение о небесных светилах, и [описываемые ею] точки имеют не одинаковую природу со звездами» [Аристотель, 1976, 997б 36 – 998а 7]. Тем не менее, в заключение данному разделу, и что можно утверждать с полным основанием (и что является базовым принципом, которому следуют ученые в Биокосмологической Ассоциации) : в равной степени существенными и равноценными являются как Трансцендентальные основания (в космологии Платона; и которые послужили основанием к блестящему развитию современного математического аппарата); так и Органицистские (нео-Аристотелевские, Биокосмологические) основания и подходы, но которые незаслуженно оказались в тени (и вне должного внимания) современной науки – и поэтому требуют своего неотложного развития и достижения конечного паритета в (одинаково необходимом) существовании двух полярных космологических систем.

### 3. Предмет математики

Можно тогда спросить : является ли математика наукой о чувственно существующих вещах, когда в ней абстрагируются их основные свойства, а сама она сводится (только) к числу, форме, количеству, отношению, мере и т.д.? Ответ и рассуждения здесь Аристотеля предстают в диалектичном (скорее – *синлектичном*)<sup>13</sup> виде – поскольку заключающими, что потенциальное (динамическое) существование как принадлежит, так и не принадлежит чувственной вещи. Другое дело, проводя различие между двумя гениальными космологиями : в Трансценденталистском *идеализме* Платона, где идея и сама вещь абсолютно одинаковы и абсолютно разные, в одно и то же время и в одном и том же отношении; напротив, в Динамическом *натурализме* Аристотеля, здесь в понятии «потенциального» устанавливается как нерушимая стабильность бытия мира, так и его естественное само-движение и все существенные изменения в нем; приводящие в результате к мировому Само-восходящему (в

<sup>13</sup> См. предыдущую ВСнА-публикацию – «От Униполярной Диалектики – к Биполярной Синлектике; и их Триадологическое применение в Науке», 2022.

сложности Организации) эволюционному развитию (ЭвоПроцессу). Вместе с тем, на что еще можно обратить внимание – так это на высказывания Гераклита, о существующей всеобщей нестабильности, для общества и всех вещей; и что понятие «переменной величины», как математического объекта, восходит только к Декарту.

Как выше уже сказано (со ссылкой на Аристотеля) : математические объекты не существуют независимо, как в случае с Платоническим *эйдосом*; ибо, в противном случае потребовалось бы «умножение сущностей», и что было бы только «нелепое нагромождение» [Аристотель, 1976, 1076б 30]. Но математические объекты несут нечто общее, логически созданное в духе, какими являются по природе и аксиомы (в арифметике и геометрии); и потому не имеют характер ипостасей, как автономного и реального существования. Их сущность заключается в приписываемых им смысле, значении, интерпретации; поэтому, по своему характеру, они проявляют в большей мере семантические свойства. Тогда как онтологическая составляющая математических объектов включает в себя более пограничный уровень этого вида, заключенный также и в красоте. На самом деле, характеристиками прекрасного являются порядок, симметрия, определенность; и которые, по сути, характеризуют рассматриваемые объекты.

Стагирит, таким образом, различает то изначальное, что предшествует вторичному по значению ( $\tau\tilde{\omega}$  λόγῳ πρότερον), и это изначальное происходит по существу ( $\tau\tilde{\omega}$  εἶναι), так что, согласно Аристотелю : математические выражения, которые определенно соотносятся с первичным основанием (сущностью изучаемого субъекта) – оказываются способными оформлять изучение чувственного объекта. В свою очередь, математические объекты у Платона, выступая в качестве «моста» между первичным («высшим эйдосом» – бескачественным и безвидным прототипом вещи) и вторичным ее проявлением в материальном мире – Платоновские математические абстракции предшествуют чувственным материальным предметам, поскольку являют их первичные «образы»; но сами следуют за идеями ( $\tau\tilde{\alpha}$  εἶδεα), опять же как их «образы».

Из этого явствует, что Платон отождествляет бытие и логос, существование и его соотнесение с высшим значением «идеальных образцов»; таким образом, сам действуя подобно Демиургу – *Извне* (для познания материального мира), и *Сверху-Вниз*, (для его конструктивного преобразования). Напротив, Аристотель использует противоположный путь – здесь основополагающим признается естественный Динамический путь *Само*-развития субъектом своих присущих (природных) потенциалов, на собственной траектории *онтогенетического* осуществления характерной добродетельной активности. Таким образом, каждый

*динамический* естественный (по природе) субъект реально осуществляет свое Органицистское (Функционалистское, субъектное) приближение к Космическому Нусу – через последовательное восхождение (со своим конечным Функционалистским включением) в высшие (по сложности) страты целостной Организации ЭвоПроцесса; в целом, неуклонно осуществляя свое движение *Изнутри* и *Снизу-Вверх*.

Существенным образом, Аристотель отличает *естественное* (натуральное) от *идеального* (трансцендентального) – распознает «первое согласно природе», в отличие от «первого для нас»; и использует логическое в плане натуралистского *онтогенетического* (Энтелехистского и Гилеморфистского) – Динамического эволюционного Само-восхождения субъекта. Напротив, у Платона, здесь логический порядок для математической науки выстраивается в обратном Статическом (но прогрессивного развития) плане : независимо от природы чувственных вещей и существ; и что утверждает принцип – математические свойства униформны и гомогенны, поэтому существуют и принадлежат всем вещам в равной степени.

Итак, успешность математического анализа, как и математическая точность зависят от выбора основных принципов в науке; также и в отношении степени упрощения изучаемого объекта или субъекта. Следует принять во внимание суждения Аристотеля, в этом плане: «Следовательно, эпистема, предмет которой не имеет величины [т.е. арифметика], точнее эпистемы, предмет которой имеет величину [т.е. геометрии], и [в целом] самой точной эпистемой будет та, предмет которой неподвижен [т.е. математика]» [Аристотель, 1976, 1078a 9-12]. Или же: «эпистема [исходящая] из меньшего [числа начал], точнее и первичнее эпистемы, [исходящей из] дополнительных [начал], например арифметика точнее и первичнее геометрии. Под дополнительными [началами] я подразумеваю то, что, например, единица есть сущность без положения, а точка есть сущность с положением: это положение и есть дополнительное [начало] [Аристотель, 1978, 87a 32-37].

Тогда и: «Арифметик полагает человека единым и неделимым и затем рассматривает [вопрос о том], имеет ли человек какое-нибудь свойство как неделимый. Геометр же полагает человека не как человека и не как неделимого, но как [делимое] тело. Ведь ясно, что то, что было бы присуще человеку, если бы он не был неделим, может быть присуще ему помимо человечности и неделимости» [Аристотель, 1976, 1078a 20-27]. Аристотель также указывает, что «Каждая [вещь] полагается в теории наилучшим образом, если то, что не отделено [т.е. не существует отдельно от всей вещи], полагается отдельным: именно это делает арифметик и геометр» [Аристотель, 1976, 1078a 21-25].

В этих рассуждениях, Аристотель выступает как теоретик абстракции в математике, но также и как создатель Триадологического подхода в научной деятельности. В отношении к теории абстракции в математике, его идеи вскоре были восприняты Евклидом (III век до н.э.), кто и заложил, аксиоматическим образом, основания науки геометрии. Евклидовы *Элементы* (Στοιχεῖαι) в дальнейшем будут рассматриваться как парадигма – основания к осуществлению достоверного метода науки.

**Вместо заключения.** В работе затрагивается Аристотелевское понятие *творческого ума* (ὁ νοῦς ποιητικός), посредством которого субъект реализует скрытые возможности мирового бытия, но вначале постигает размещенные в нем *интеллигибельности*. Творческий ум переводит возможности в актуальное состояние их явных форм; таким путем он действует на другой, *пассивный ум* (ὁ νοῦς παθητικός), который в равной степени содержит их. Для Аристотеля – ум «то, чем душа размышляет и судит о чем-то» [Аристотель, 1976, 429a]; и где понимание осуществляет «общий акт разума и того, что разумно». Этот ключевой момент (в целостной Аристотелевской *ОрганонКосмологии*), т.е. его изучение и интерпретация применительно к исследовательским цели и задачам; а также и вопросы взаимоотношений (у Аристотеля) физических и математических воззрений (применительно к основополагающему произведению Стагирита *Физика*), как и другие фундаментальные вопросы, в отношении роли и значении математического знания у Аристотеля – все это требует дальнейшего углубленного изучения и поступательного развития поднятой темы; что и планируется авторами к реализации в ближайшем будущем.

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# Mosaic Model: An integral approach towards understanding development and process of the human brain

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**Мозаическая модель: Интегральный подход к пониманию развития и процессов человеческого мозга**  
**Артур САНИОТИС**

**Abstract.** The idea of cosmic and biological self-organisation with continuity as depicted in human neuroanatomy underlies the Biocosmological theorising carried out by the researchers of the Biocosmological Association, and which aligns with the universal scientific paradigm developed by Aristotle. The Stagirite was also interested in the structure and function in biological organisms. His rigorous biological investigation was central in developing the scientific method – foundational to the life sciences. Aristotle’s interest with form and function of natural organisms serves as a trajectory for my examination into the human brain. I argue that the human brain can be understood according to organisational patterns at micro and macro levels of cerebral architecture. In order to further explain this idea, I incorporate the Mosaic Model developed by Georges Chapouthier, which provides a relevant theoretical approach identifying and understanding structure and complexity of living systems.

**Keywords:** biological life, complexity, cerebral development, cytoarchitecture. Aristotle’s Biology

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**Резюме.** Идея космической и биологической самоорганизации с преемственной последовательностью (непрерывностью), как это отображено в нейроанатомии человека, лежит в основе Биокосмологического теоретизирования, осуществляемого исследователями Биокосмологической ассоциации; и что реализуется в тесной связи с универсальной научной парадигмой реального мира, разработанной Аристотелем. Стагирит также интересовался структурой и функцией биологических организмов. Его тщательное биологическое исследование сыграло центральную роль в разработке научного метода, лежащего в основе наук о жизни. Интерес Аристотеля к форме и функциям природных организмов служит траекторией моего исследования человеческого мозга. Я утверждаю, что человеческий мозг можно понять в соответствии с организационными паттернами на микро- и макроуровнях мозговой архитектуры. Для дальнейшего пояснения этой идеи я использую Мозаическую модель, разработанную Жоржем Шапутье, которая обеспечивает соответствующий теоретический подход к выявлению и пониманию структуры и сложности живых систем.

**Ключевые слова:** биологическая жизнь, сложность, мозговое развитие, цитоархитектура, биология Аристотеля.

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### *Заключение*

**Introduction.** The human brain is not a computer. This point has to be made clear from the start. As an evolutionist, correlating the human brain to machines is not only a bad idea, but overlooks its immense neuro-hormonal complexity. Although, our knowledge of the brain has increased over the last few decades, it is still inadequate in explaining how thoughts or consciousness arise. The human brain is a complex evolutionary organism whose biology reflects universal processes. Yes, the underlying neuroanatomical structures of the human brain reflect cosmological principles. This is the crux of my thesis which I will briefly elaborate.

The idea of cosmic and biological self-organisation has been foundational to the Biocosmological Association and personally the scholar Konstantin Khroutski, whose theorising is correlative with Aristotle. He and other Greek natural philosopher scientists were preoccupied with understanding natural forms. For example, Pythagoras of Samos (circa 570 BC) conjectured a relationship between numbers and nature, culminating in his theory of musical scales as based on numerical ratios – a brilliant thesis. Anaximander of Miletus (c. 610 BC) proposed that terrestrial forms derived from the oceans under a process of evolution. His speculation was correct. Furthermore, Democritus of Abdera (460–370 BC) hypothesised that matter was composed of indivisible particles – atoms, which constantly moved in space. The Greeks were also drawn to symmetry and harmony when applied to natural forms [Lloyd, 2010].

Aristotle was further interested in the structure and function in biological organisms. Consequently, his inquiry of animal structures led to him dissecting many types of animals. This kind of biological investigation was significant in developing the scientific method – foundational to the life and physical sciences. Aristotle's fascination with form and function of natural organisms serves as a trajectory for my examination into the human brain. I argue that the human brain can be understood according to organisational patterns at micro and macro levels of cerebral architecture. In order to further unpack this idea, I incorporate the Mosaic Model which provides a relevant theoretical approach when examining structure and complexity of living systems.

### **1. Mosaic model: A theoretical overview**

The Mosaic Model developed by the neuroscientist and philosopher Georges Chapouthier [2018] who hypothesises that anatomical structures are based on the processes of *juxtaposition* and *integration*. Chapouthier borrows from Aristotle's notion that the cosmos is built in a biological manner. In other words, the elements of the universe are predicated according to organic principles that produce life. Consequently, awareness of those laws which govern complex living organisms provide a method for studying complexity [Chapouthier, 2018, p. 49].

In juxtaposition molecular and cellular units are arranged in beadlike formation. During integration these units undergo modification and refinement in order to create new higher order structures. What is important here is that each unit is interdependent; cooperating with other units while conserving its unique autonomy. Volk and Bloom (2007, p. 29), elegantly suggest this as follows:

*Biological evolution is a pattern-finding process, on various scales, both spatial and temporal, and the patterns that have been evolved can be similar across diverse and independent instances.*

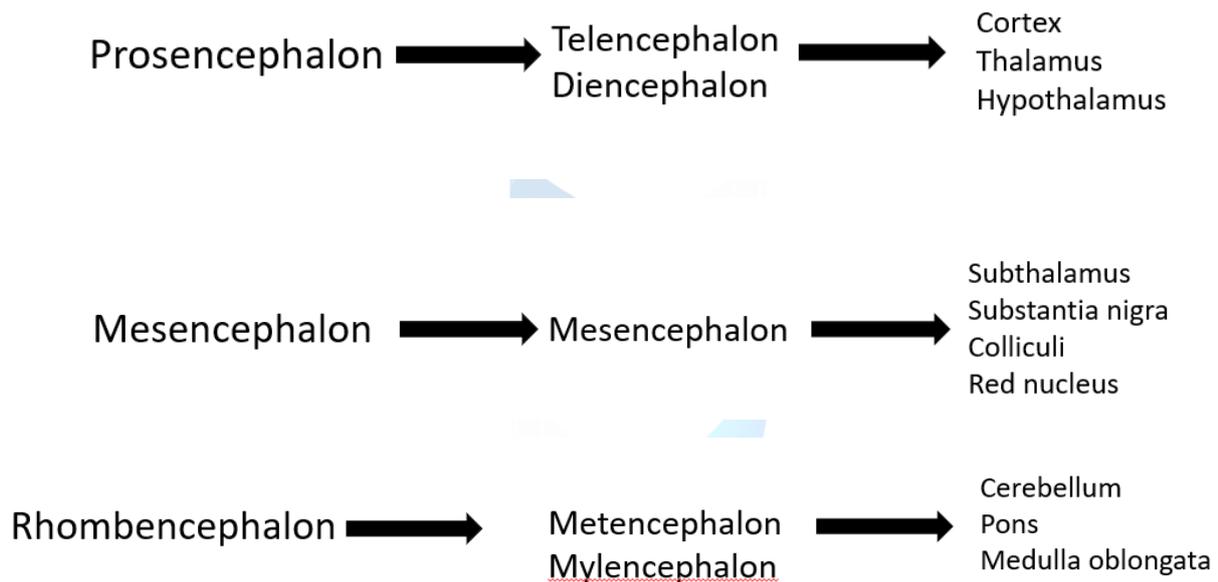
Similarly, the philosopher Daniel Dennett [1995], notes that evolution has algorithmic elements, consisting of replication, variation, and selection. The iteration of these elements produce operational patterns in biological and social structures. For Chapouthier, replication produces juxtaposition and integration generates variation. The crux of the Mosaic Model is that increasing complexity arises from the congregation of lower level units in novel arrangements [Mazzocchi, 2010, p. 342]. A key element of Chapouthier's system is predicated on the inter-dependency of mosaic structures, which increase organisational efficiency and reduce entropy in multicellular organisms. Here, Chapouthier [2018, p. 6], further employs Aristotle's dictum on the integrity of *holons* – complex structures that at their basic components retain autonomy, while maintaining the integrity of the whole. Thus, self-assemblage regulates mosaic processes towards greater complexity. The *telos* of living organisms is that they maintain integration at every level. Consequently, biological structures operate within the ambit of dynamic equilibrium.

The idea of self-assembling mosaic structures is reminiscent of Gregory Bateson's "ecology of mind" - a collective of units of a system. These integrated components are characterised by symmetrical and iterative patterns, and are inherent to all biological and social systems [Bateson, 1971]. In nature, mosaic patterns are informed by archetypal patterns called meta-patterns – "a pattern of patterns" [Bateson, 2002].

In nature the principles of self-assembly of organisms as depicted in the Mosaic Model can be traced back to the origins of the cosmos. For example, in the infinitesimal moments of the singularity inflationary event ("Big Bang") approximately 13.7 billion years ago, particles such as quarks were created. Three minutes after the Big Bang the nuclei of hydrogen, helium, beryllium and lithium were formed. It took approximately a third of a million years after the Big Bang for the first atoms to appear. Hundreds of millions of years after the Big Bang, the first stars were formed. Thus, the juxtaposition of atoms became integrated to form self-regulating, self-organising open systems. Biological life on earth embodies the organisational patterns of the cosmos. Like stars, biological organisms are open systems and generate their own energy from the breakdown of entropy. Indeed, a hallmark of life has been its ability to reduce entropy processes in order to maintain homeostasis.

## 2. Development of the Human Brain

In species such as *H. sapiens*, homeostatic control is facilitated by a complex central nervous system. From an embryological viewpoint the human brain embodies mosaic principles. The brain forms from a neural tube in the 3<sup>rd</sup>-4<sup>th</sup> week of life. From the neural tube three primary ovoid vesicles are formed – prosencephalon, metencephalon, rhombencephalon. In the 5<sup>th</sup> week post-conception, five secondary vesicles derive from the three primary vesicles, thus, forming the entire cerebrum (figure 1).



*figure 1*

I would now like to draw your attention to the two cerebral hemispheres which are composed mostly of white matter with a six-layer cell covering of grey matter (neocortex). Various authors proffer different estimates of neurons in the cerebral cortex. While older estimates revealed that the cerebral cortex consisted of approximately 7 billion neurons in the telencephalon [Sharif, 1953, p. 398], recent studies have modified that number to approximately 49.3 billion neo-cortical neurons in females and 65.2 neo-cortical neurons in males [Pelvig et al, 2008, p. 761], with the cerebellum consisting of over 100 billion neurons [Anderson et al, 1992, p. 558].

Glial cells which provide support, protection and nourishment to neurons far outnumber them in the cerebrum by approximately ten times [Pakkenberg and Gundersen, 1988, p. 8]. The dendritic anatomy

of each neuron allows it to receive the transmissions of thousands of other neurons. The totality of neural synaptic connections in the brain is approximately five hundred trillion – an incredibly vast synaptic matrix which confers to *homo* high order cognitive abilities and reflexive consciousness. The left and right cerebral hemispheres are ovoid shaped and are covered by *gyri* (prominences) and *sulci* (depressions). The highly folded appearance of the hemispheres allows for greater surface area. Interestingly, the convoluted architecture of the cerebral hemispheres, if altered, can lead to neurological pathologies [Gerritsen, 2013, p. 2]. Alternately, one study revealed “altered gyrification of the (right) anterior dorsal insula” of Zen meditators which may have increased synchronisation between cortical and limbic regions. The insula assists in emotional, cognitive and autonomic integration and awareness [Luders et al, 2012, p. 1]. Thus, experienced meditators showed greater emotional and impulse control and ability to reduce the default mode network (DMN) [Luders et al, 2012, p. 5].

The cerebral hemispheres are separated by a deep fissure – the great longitudinal fissure; this fissure contains the meningeal *falx cerebri*. The left and right cerebral hemispheres are connected by the *corpus callosum* – the largest of the commissural fibre pathways, consisting of millions axons. It is via the *corpus callosum* that connects homotypical regions of each hemisphere. The anatomical significance of the *corpus callosum* is evident in individuals whose *corpus callosum* has been damaged, causing them to have perceptual and cognitive difficulties. Each cerebral hemisphere is somatotopically arranged and provides motor and somatosensory innervation to the contralateral side of the body.

### 3. Cortical Cytoarchitecture manifests mosaic principles

I would like to turn our attention to cortical cytoarchitecture. As neuroscience posits, the human neocortex is six layered and approximately 2.5mm thick [Fischl and Dale, 2000, p. 1050]. These layers are arranged according to adjacent and interconnected columns. A column is a variation of a cube which is based on the square. In sacred geometry the square represents the four cardinal points, the four humours, the four seasons, and material existence. From the square is produced the square root of 2; the right angle axes produce replication, juxtaposition and integration. This is manifested by square grid patterns which may continue to infinity. The tightly packed columnar based neuroanatomy of the neocortex has been suggested to increase interconnectivity and integration between multiple neuronal columns. For instance, when observing an object, each neuronal column accesses only a limited amount of information of the object. It is only through the collaboration of multiple neuronal columns that a consensus of the observed object can be reached [Hawkins et al,

2017, p. 2]. Thus, each column is both autonomous and interdependent with other columns; each column involves itself with understanding the phenomenal world. However, multi columnar neural integration may act in resolving ambiguity [Hawkins et al, 2017, p. 12]. Some cells within a neuronal column respond only to stimuli on the horizontal plane along a single orientated axis. Thus, it seems that the neuronal level of organisation of the brain is not only mosaically organised, but that its internal organisation innately apperceives the world in a mosaic way [Lima-de-Faria, 2014].

#### 4. Rehabilitating Aristotelian *Organon* Kosmology and the Cosmic Play of life

Human brain processes and dynamic complexity can be best understood in relation to Aristotelian *Organon* Kosmology, which is predicated on a set of elegant, and often misunderstood concepts such as *entelecheia*, *organon*, *hyle*, *dynamis*, *morphe*, *genos*, and others (Konstantin Khroutski and Milana Tasić 2021). For example, the brain is continually evolving and is ever in a state of structural and neuro-hormonal flux. Second, the brain closely follows the principle of self-organisation, combining Aristotelian concepts of *energeia* and *dynamis* in order to maintain its integral structure and function. Therefore, the brain is a constant potentiality to act (*entelechy*), which is central to its “natural evolutionary” course.

The *telos* of the human brain is that it is irreducible – it cannot be constrained by Platonic essentialism. Elsewhere, Saniotis and Henneberg (2013) have stated that life should be considered as being cybernetic due to its irreducible nature – thereby confirming Aristotle’s dictum that the total is not merely the sum of its parts. Unfortunately, science’s current “love affair” with biological reductionism can only promote a distorted view of biological systems. As Saniotis and Henneberg (2013) have argued, biological processes must be considered according to their various levels of relationality and multi-linear and incessant flows of information interacting kaleidoscopically in real time (Bateson 1972, Laszlo 2004). At this level, life becomes totally nonsensical in its sheer capabilities and levels of *poiesis* – which in Aristotelian terms means that *entelechy* is always fluid and unending in its potentialities and creative playfulness; a ludic play of cosmic proportions.

Recently, Khroutski and Tasić (2021) have made an elegant case for the rehabilitation of Aristotle’s *Organon* Kosmology. Their erudite argument maintains that science needs to reformulate Aristotle due to historic and unending misinterpretation of his central concepts. This has had the effect of diminishing Aristotle’s insight of the life sciences, with the subsequent effect of leveraging essentialist narratives. Second, Aristotle’s *Organon* Kosmology highlights the integral nature of the cosmos, as explained earlier, while cleverly combining natural and cultural ‘semiospheres’ to coin

Makolkin (2020). This integral feature of cultural and natural lifeworlds has been taken up by Chapouthier's Mosaic model, which draws similarities between them. This biological way of understanding cultural systems, albeit, not novel (the early 20<sup>th</sup> century structural functionalist Emile Durkheim had envisaged society as operating like a multicellular organism), does nonetheless highlight the endearing influence of Aristotelian organicist philosophy.

**Conclusion.** In Hindu cosmology the universe was conceptualised as an infinite net, referred to as the "Net of Indra". At each vertex there was a translucent and multi-faceted jewel. It is believed that anyone who gazed within any jewel would perceive its reflection in all other jewels in the cosmic net. While this story has been traditionally interpreted in Buddhist philosophy as symbolising *pratīyasamutpāda* (interconnectedness and interdependency) and *śūnyatā* (emptiness), it alludes to the unity of cosmic and biological evolution. That is, if the universe is governed by general laws, then such laws must also apply to biological organisms by reason that biological evolution on earth is a continuation of cosmic evolution. Hence, the universe is constructed in a biological manner which concurs with Aristotle's bio-organic model.

Although, the shape of the human brain is genetically determined, it is by virtue of its complex geometrical patterning, intrinsic to its structures, which facilitates its impressive cognitive and imaginative abilities. Not only does anatomy inform structure and function, but the way in which structures form patterns which maintain the brain's neurodynamics. The Mosaic Model is pertinent to understanding the relationship between structure, pattern and function. Our current understanding of the human brain, albeit impressive, is far from complete. However, the use of systems approaches like the Mosaic Model can offer a more integrated explanation for understanding brain structure and complexity.

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# The Second Beginning and a Co-philosophy – The Realization of a New Relationship between Technology and Ethics<sup>1</sup>

Li PING<sup>2</sup>

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## Второе Начало и Ко-философия – Реализация новых отношений между технологией и этикой Ли ПИН

**Abstract.** The research on the relationship between the technical domain and ethics is not only an important content of the philosophy of technology, but also an important topic of the ethics of technology. The finitude of technology mainly refers to the highest level that technology can be presented in a specific stage of human activities, and also reflects the highest technological ability and the highest degree in a certain period. The finitude of technology in the context of traditional philosophy shows what technology is and what it should do. However, when super artificial intelligence continues to break through the finitude of technology, the traditional concept of the finitude of technology have challenged. For this reason, this article proposes technology breakthrough finitude oneself continuously based on ‘*the second beginning*’ of common philosophy. It will eventually break through the earth’s bearing, so reinterpretation the finitude of technology and the precedence of ethics is of great significance for humans to be.

**Keywords:** Finitude of Technology; Artificial Intelligence; Precedence of Ethics; Second beginning; Common Philosophy.

### Contents

#### Introduction

1. Traditional interpretation of technology finitude
2. The challenge of artificial intelligence technology to the traditional concept of technology finitude
3. The development of technology needs ethics first

#### Conclusion

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**Резюме.** Исследование взаимосвязи между технической областью и этикой является не только важным содержанием философии техники, но и важной темой этики техники. Конечность техники в основном относится к высшему уровню, который техника может представлять на определенном этапе человеческой деятельности, а также отражает высшую технологическую способность и высшую степень в определенный период. Конечность технологии в контексте традиционной философии показывает, что такое технология и что она должна делать. Однако, когда сверхъестественный искусственный интеллект продолжает прорываться через конечность технологии, традиционные представления о конечности технологии подвергаются сомнению. По этой причине в данной статье предлагается прорыв самой технологией своей конечности постепенным путем на основе предлагаемого 'второго начинания' общей философии. В конце концов, этот путь пробьет земную несущую поверхность; в этой связи современное переосмысление конечности технологии и приоритета этики имеет огромное значение для человека.

**Ключевые слова:** Конечность технологии; Искусственный интеллект; Приоритет этики; Второе начинание; Общая философия.

## Содержание

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3. Развитие технологии требует в первую очередь этики

### *Заключение*

**Introduction.** With the influence of artificial intelligence technology in various fields of society, from driverless cars to the use of big data cloud computing, to the construction of smart cities, digital finance construction and even the maintenance of national security, artificial intelligence technology continues to break through the finitude of technology. Dietrich, the representative of super artificial intelligence, believed that AI could have the perception, cognition, thinking, reasoning, calculation

and other abilities of human beings<sup>[3]</sup>. Sharkey proposed that artificial intelligence could surpass human intelligence<sup>[4]</sup>. In this regard, scholars represented by Stewart Clegg and others believe that if we regard the ultimate goal of the development of artificial intelligence as creating a kind of Homo sapiens, we not only forget that real robots are highly specialized and limited machines, but also face the ethical risks of anthropomorphizing robots<sup>[5]</sup>. When super artificial intelligence continuously breaks through the finitude of technology, it is difficult for us to use traditional ethical concepts to deal with the ethical dilemma of technology. The co-philosophy based on the second beginning emphasizes that technology continues to break through its own finitude and will eventually break through the carrying capacity of the Earth. Therefore, this article puts forward that technological development needs ethical guidance, which is of great significance to the sustainable survival of human beings.

### 1. Traditional interpretation of technology finitude

The finitude of technology mainly refers to the highest level that technology can present in a specific period of human activities, and also reflects the highest technological ability that human beings have. In traditional philosophy, there are three main views on technology **finitude**. One is that “technology is an imitation of nature”; Second, “the emergence of technology comes from human beings”; Third, “Technology is governed by the dualism of ontological and phenomenological boundaries”.

First, technology has finitude because “technology is an imitation of nature”. In the classical Greek period, “technology originated from the learning and imitation of nature”<sup>[6]</sup>. In Democritus, “house-building and weaving were originally invented by imitating swallows and spiders in building nests and weaving webs, respectively”<sup>[7]</sup>. Heraclitus proposed that “the exemplary role of nature is the original source of technology”.<sup>[4]</sup> Plato proposes that the thing that is real is an imitation of the thing that is an idea. To create an object, a craftsman needs to have the idea of the object in his mind. Since

<sup>3</sup> Dietrich, E. Homo sapiens 2.0: Why we should build the better robots of our nature[J]. *Journal of Experimental & Theoretical Artificial Intelligence*, 13(4), 2001: 323–328.

<sup>4</sup> Sharkey, A. (2017). Can robots be responsible moral agents? And why should we care? *Connection Science*, 2017, 29(3): 210–21.

<sup>5</sup> Clegg S., Berti M., Simpson A.V., Cunha M.P. *Artificial Intelligence and the Future of Practical Wisdom in Business Management*. In: Schwartz B., Bernacchio C., González-Cantón C., Robson A. (eds) *Handbook of Practical Wisdom in Business and Management*. International Handbooks in Business Ethics. Springer, Cham, 2020.

<sup>6</sup> Plato, *Laws*, M. Schofield (ed.), T. Griffith (tr.), Cambridge: Cambridge University Press, X 899a ff. 2016.

<sup>7</sup> Franssen, Maarten, Lokhorst, Gert-Jan and van de Poel, Ibo, “*Philosophy of Technology*”, The Stanford Encyclopedia of Philosophy. Edward N. Zalta (ed.), URL : [=<https://plato.stanford.edu/archives/fall2018/entries/technology/>](https://plato.stanford.edu/archives/fall2018/entries/technology/), 2018.

technology, and all sentient and created things, are regarded by Plato as the imitation of the highest paradigm of nature, “for Plato the true craftsman is the Creator, and the true artifact is the form, it lies outside of time and space, even from the most exquisite contingency of experience... Forms exist independently. They are the transcendent reality, the cause of the perceived (*aistheta*).”<sup>[8]</sup> In early Greek philosophy, the finitude of technology is determined by human's highest ability to learn and imitate nature, and the finitude of humans determine the finitude of technology and its dependence on the ethical concept of good.

Secondly, the finitude of technology is τεχνη “the emergence of technology comes from human beings”. For Aristotle, technology was understood as an artefact distinct from nature. Aristotle makes an ontological distinction between natural things and artefacts. According to Aristotle, natural things have their own internal laws of generation. For example, plants and animals grow and reproduce through natural movements and natural purposes. Technology as an artifact is generated by human goals. Aristotle pointed out that “technology accomplishes what nature cannot in some cases and in others imitates nature” [4]. Although there are differences between the craftsmanship in the Aristotelian context and modern Technology, the subject matter they deal with is in common, that is, what Technology deals with is the thing with variable origin and can be generated, and its purpose is to seek some external product based on production, creation and labor. Since technological activity depends on the tools and materials it uses, it can only show certain controllable objects in this changing world, and it cannot pretend to dominate the whole world of existence. Although people want to use technology to control the world, humans cannot control those whose beginning is not in their own things because the beginning of the world is not in humans.

Finally, the domain limits of technology are defined by the dualism between ontology and phenomenon. In Kant's view, technology is understood as “the means that people need to achieve a certain end or intention” <sup>[9]</sup>. Technical activities are different from practical activities (serving the pursuit of happiness) and moral activities (aiming at unconditional goodness). Technical activities are placed in the field of phenomena and regarded as activities that transform nature and the world, which is in contrast to moral activities that are placed in the ontological world. To transform nature and the world in the service of unconditional good, technology is regulated by “unconditional good”.

<sup>8</sup> Larry A. Hickman. *John Dewey's Pragmatic Technology* [M]. Bloomington/Indianapolis: Indiana University Press, 1990:116–126.

<sup>9</sup> Kant, I. *Groundwork for the Metaphysics of Moral* [M]. Allen W. Translated. New Haven and London: Yale University Press, 2002, pp.32–35.

Since Kant regards moral ontology as the highest being, the goodness of technology needs to be influenced by the dualism of ontology and phenomenon.

We need to note that Heidegger no longer understands technology in terms of the separation of noumenon and phenomenon. Although, influenced by the idea of causality in ancient Greek philosophy, he believed that the two traditional views of technology, “one is that technology is a tool for a purpose and another is that technology is human behavior”<sup>[10]</sup>, which is correct but not true. Because, these two views of technology do not disentangle the nature of technology. We should explore the impact of technology on human existence. From mountains and rivers are our home, to mountains and rivers are mined and exploited. When our understanding of mountains and rivers from the survival theory to the tool theory, mountains and rivers become a kind of technical objectified existence. When mountains and rivers are seen as available “sustenance”<sup>[11]</sup>, all beings (including humans and nature) are seen as resources and energy for technology to use. When technology continues to break through its own finitude, how to rethink the relationship between humans and technology, how to arouse human’s care for nature rather than invasion, ethical guidance of technological development becomes necessary.

In a word, in traditional philosophy, whether “technology is the imitation of nature” or “the origin of technology lies in man”, technology is mainly to make up for the systematic structural defects of human body by lengthening human organs. Such as the excavation capacity of human hands is low, so there are excavators and shield tunneling machines. Human vision is extremely limited, hence the Hubble Space Telescope, etc.”<sup>[12]</sup> However, when a natural person’s body, brain, cognition and executive power become “substitutable” objects, technology moves from “agent” to “surrogate”. While technology breaks through its own domain, it also brings various challenges to people's survival.

## **2. The challenge of artificial intelligence technology to the traditional concept of technology finitude**

Artificial intelligence usually refers to those technologies that are independent of human intelligence or intelligence level. It is a kind of structured, artificial or machine intelligence, which makes it

<sup>10</sup> Sun Zhouxing, *Selected Works of Heidegger*, Vol. 2, Shanghai: Sanlian Bookstore, 1996, p. 925.

<sup>11</sup> Heidegger M. *The Question Concerning Technology*, and Other Essays [M]. New York: Garland Pub, 1977:15.

<sup>12</sup> Li He: from technology as agent to technology as substitute: human obsolescence [J]. *Chinese Social Sciences*. 2020(10): 116–140.

different from human natural intelligence<sup>[13]</sup>. According to its application in various fields, artificial intelligence is classified into three major types. The first is narrow artificial intelligence, which is designed to perform specific tasks<sup>[14]</sup>. The second is general artificial intelligence, which has broad human cognitive abilities. Its level of intelligence is similar to that of humans. When faced with unfamiliar tasks, it can find solutions without human intervention, and can engage in mental work in a human way and like a human<sup>[15]</sup>. The third is super artificial intelligence which is smarter than individual humans in all aspects of intelligence. From the perspective of “technology is the imitation of nature” or “the origin of technology lies in man”, narrow artificial intelligence and general artificial intelligence still retain the traditional understanding of technology finitude. However, super AI poses a major challenge to the traditional concept of technological finitude. This is a challenge to the traditional concept of technology finitude. Representatives of super artificial intelligence claim that robots can not only think and act like humans, but also perceive the environment, process language, learn deeply, adjust goals, and make moral reasoning and moral decisions like humans. This is a challenge to the traditional technology domain view.

First of all, the representative of super artificial intelligence challenges the traditional view of technology finitude from the aspects of artificial intelligence technology can automatically identify the environment and make decisions independently. Guruduth Banavar argued from an evolutionary perspective that humans can reach their current level of power and can control over the world because of intelligence... “AI is augmented intelligence, which goes beyond the notion that technology is an imitation of nature”<sup>[16](Conn 2017a)</sup>. However, scholars represented by Angwin believe that even if super artificial intelligence can overturn the concept of “technology is the imitation of nature”, technological development still needs ethical guidance.

Second, narrow artificial intelligence is mainly used to perform specific tasks, its function and application originated from human beings, and human beings can manage and control it. However, Super AI has powerfully transformed our choices, values, and sources of interest<sup>[17]13</sup>. Today, the

<sup>13</sup> Mark Ryan. In *AI We Trust: Ethics, Artificial Intelligence, and Reliability*. *Science and Engineering Ethics*. <https://doi.org/10.1007/s11948-020-00228-y>.2-19.2020.

<sup>14</sup> Macnish, K., Ryan, M., & Stahl, B. Understanding ethics and human rights in smart information systems. *ORBIT Journal*. <https://doi.org/10.29297/orbit.v2i1.102>.2019.

<sup>15</sup> UK House of Lords. (2018). *AI in the UK: Ready, willing and able? – Artificial intelligence committee*. UK House of Lords Select Committee on Artificial Intelligence, Report of Sessions 2017–2019.

<sup>16</sup> Conn A (2017a) Guruduth Banavar interview. Future of Life Institute. <https://futureoflife.org/2017/01/18/guruduth-banavar-interview/>. 2017.

<sup>17</sup> Paula Boddington. *Towards a Code of Ethics for Artificial Intelligence* [M]. Switzerland: Springer International Publishing AG, 2017:13–62.

warnings from Bill Gates, Elon Musk, Stephen Hawking and Bill Joy about autonomous AI technology are the fear that AI will change and even shape our world in ways that are hard to detect, understand and control. When many persons are confused about what they should believe and what they should do is good or right, the essence of it is that the ideas of co-values or the co-ethics are distorted. In this regard, the traditional theories of technology ethics and the corresponding ethical constraints are facing the challenge.

Finally, super artificial intelligence transcends the separation of ontology and phenomenon. By simulating “human brain intelligence”, super artificial intelligence can perform complex tasks that can be accomplished by natural human intelligence. It can also deeply learn, predict and analyze behavior schemes to react to changing specific situations. Artificial intelligence technology raises fundamental questions about computation, perception, reasoning, learning, language, action, communication, consciousness, and makes significant contributions to the answers to these questions <sup>[18]</sup> (Muller 2012). The characteristic of artificial intelligence is not only that it expands or enhances human reasoning ability, but also that it can enhance or replace human behavior and perception and simulate human emotions <sup>[15]29</sup>. Through the enhancement of human initiative and reasoning and computing ability, so as to perform complex tasks that humans cannot complete without human assistance.

In general, creators of artificial intelligence need to know not only how a machine works, but whether it works ethically. Adhering to an ethical orientation in the development of technology helps to prevent humans from being manipulated by powerful machines or powerful intelligence. In general, creators of artificial intelligence need to know not only how a machine works, but whether it works ethically. Adhering to an ethical orientation in the development of technology helps to prevent humans from being manipulated by powerful machines or powerful intelligence. Professor Liu Xiaoting has pointed out that “although human beings have invested a huge amount of money in the development of high technology, modern technology can completely solve the problem of poverty alleviation on earth, but it has not been able to achieve, because the fundamental reason for human beings' continuous technological innovation is to seek capital appreciation”<sup>[19]80-93</sup>. But when technology becomes capital and is continuously used for infinite appreciation, the result must be to endanger the survival of man and the planet.

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<sup>18</sup> Müller, VC. Introduction: philosophy and theory of artificial intelligence. 2012, *Minds and Machines* Vol. 22: 67–69.

<sup>19</sup> Liu XiaoTing. Creating Co-philosophy Based on Biodiversity [J]. *Academic Frontiers*, 2022(2): 80-93.

### 3. The development of technology needs ethics first

According to traditional philosophers, “The essence of technology is to be created. The essence of human beings is self-growth”. However, when super-artificial intelligence is no longer dependent on human beings and realizes its own growth, and is not controlled by human beings, how to avoid the possible crisis of human existence caused by super-artificial intelligence? This is an important reason why the development of technology needs ethics first. How to insist on the precedence of ethics in the technological development is difficult for the traditional mainstream ethical theories to answer. We can introduce the idea of co-philosophy proposed by Professor Liu Xiaoting. The co-philosophy based on the second beginning can provide a possible way of thinking for the ethical precedence of technological development. Because “the fundamental cause of the common difficulty of human society is the tension between the whole and the individual, the disconnection between thinking and doing. One of the strategies to get out of this dilemma is to move beyond the opposition of whole philosophy and individual philosophy to a co-philosophy. Accordingly, we develop a third philosophical thought different from ancient and modern times, and reconstruct the philosophical paradigm of new civilization as the second beginning”<sup>[17]80-93</sup>, which is helpful to deal with the ethical dilemma of emerging technology.

The co-philosophy of the second beginning holds that “the world is one, everything is interlinked, and everything is co-existing in the vast universe”<sup>[17]80-93</sup>, which aims to eliminate the opposition between individual and group, self and others, get rid of existing state of “class construction” of individual sense, individual mind and individual view, and point to the “co-construction and co-existence state of co-person, co-heart and community”. It goes beyond the physical, data and representational understanding of people and technology, and walks out of the systemic structural defects of natural persons. Professor Zhang Shiying also put forward a similar explanation from the three stages of individual spiritual development and national cultural development. He believes that the early concept of human beings is “the original unity of man and nature”, which is a kind of pre-subject-object relationship between man and nature. In this stage, human beings lack independent self-consciousness. The second stage is the structure of the “subject-object” relationship, in which man highlights his subjectivity. The third stage is such a structure, which includes the 'subject-object' relationship, but goes beyond the 'subject-object' relationship, which is a 'higher unity of nature and man'. This is a structure of the unity of nature and man in the relationship of “post-subject-object”. In this stage, a man not only realizes himself, but also transcends himself and merges into one with

others”<sup>[20]</sup>. The co-philosophy of the second beginning is to explore what technology should do from the perspective of the intercommunion and coexistence of all things.

First of all, based on the perspective of co-philosophy of the second beginning, it is proposed that technology development needs ethics first, emphasizing that all technology-relevant person should have the sense of “co-responsibility” (shared responsibility) in addition to technology creators and users. In the traditional view, technical artifacts are created and used by people, and the moral responsibility falls on those who develop and use them<sup>[21]</sup>. However, in AI technology, the attribution of moral responsibility requires consideration of all stakeholders. From a co-philosophy perspective, all those who develop, create, use and even evaluate AI have a responsibility to develop and create AI, and to judge carefully the risks that the technology may cause to others and society.

In view of the technical finitude, from the international academic research institutions put forward The Montreal Declaration on the Responsible Development of Artificial Intelligence.<sup>[22]</sup> Non-profit social organizations have also proposed the Asilomar Principles of the Future of Life Institute<sup>[23]</sup>. The government department of the European Commission has proposed a Code of Ethics for Trusted Artificial Intelligence<sup>[24]</sup>. These documents all propose that AI technology is a tool, not an end, and that the development and use of AI should consider the growth of the well-being of all sentient beings and should aim at improving human well-being and freedom.

The more powerful AI is, the more it needs ethical guidance. When AI is endowed with autonomous judgments, decisions, and actions, its autonomous agents must be moral agents. Otherwise, an autonomous missile could set a target more accurately than a bullet. However, if the launch of an autonomous missile is out of human control, the disaster it will bring is devastating. We adhere to ethical guidance in technological development. If we absorb the co-philosophy of the second beginning, we will undertake our common responsibilities as members of the family community, the organization community, the regional community, the human community, the Earth community and even the universal community.

<sup>20</sup> Zhang Shiyong. The Philosophy of Connecting Everything [J]. *Foreign Philosophy*, 2021(6): 28-39.

<sup>21</sup> Himma, K. E. Artificial agency, consciousness, and the criteria for moral agency: What properties must an artificial agent have to be a moral agent? *Ethics and Information Technology*, 2009, 11(1): 19–29.

<sup>22</sup> MDRDAI. 2018b. Montréal declaration for a responsible development of artificial intelligence. <https://www.montrealdeclaration-responsibleai.com/> Accessed 30 September 2019.

<sup>23</sup> Future of Life. 2017b. AAIP: Asilomar AI Principles. 2017b. <https://futureoflife.org/ai-principles/>. Accessed 30 September 2019.

<sup>24</sup> European Commission (EC). EGTAI: the ethics guidelines for trustworthy artificial intelligence. <https://ec.europa.eu/futurium/en/ai-alliance-consultation>. Accessed 30 September 2019.

Secondly, technological development requires ethics first, not only because of the uncertainty it brings, but also because technology changes our symbiotic relationship with others and the world around us. As Professor Liu Xiaoting points out, “New technologies, especially the Internet and the metaverse, have highlighted 'common' problems in unique ways... The well-ordered structure of 'co-existence' faces a chaotic situation”<sup>[17]80-93</sup>. The appearance of babies edited by gene technology has changed the way of the natural evolution of human beings, and human beings have gradually become biological beings intervened by technology rather than natural persons. This makes a person, as an independent individual, able to live independently without considering how to coexist with others, which brings about the disappearance or confusion of traditional family ethical relations such as the relationship between husband and wife. Another example is that in order to seek profit maximization, businessmen use technology to develop and abuse natural resources, which constantly destroy the ecological environment and threaten the survival of endangered species. How to solve these problems, Professor Liu Xiaoting's philosophy of the second beginning can provide some ideas. This is to get out of the state of interdependence due to the lack of living materials, and out of the state of independence due to material abundance, so as to step into a new form of human civilization, that is, the full realization of human freedom in the material abundance mentioned by Marx. This turning of civilization is the transformation from outward expansion to inward self-restraint and from external freedom to internal self-discipline<sup>[25]102-110</sup>. This internal self-discipline is the fulcrum of ethics and an important foundation of co-ethics.

The development of technology will consider ethics first based on the common philosophy of the second beginning, because “the philosophy of the first beginning started from the natural philosophy of understanding nature and laws, and finally achieved brilliant natural scientific achievements in modern times, and then constructed a modern scientific knowledge mansion based on physics along the original way. The philosophy of the second beginning is the philosophy of responding to the call of nature. The person of the second beginning is the person who responds to the call of existence, who is civilized, humanoid and full, and who explores hope and self-salvation. It emphasizes the transformation from the philosophy of nature to the philosophy of practice and from the philosophy of law to the philosophy of rules”<sup>[23]102-110</sup>. The philosophy of the second beginning emphasizes the ethical concept of symbiosis and co-existence, which helps to cope with the one-sided prosperity of material civilization brought about by technological innovation and globalization after the Second World War, and helps mankind to get out of the blind optimism of technology. The sustainable

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<sup>25</sup> Liu XiaoTing. The Crisis of Civilization and the Philosophy of the Second Beginning [J]. *Theoretical discussion*, 2021(6):102–110.

existence and development of human beings depend not only on human cognition or intelligence, but also on human coexistence consciousness and symbiotic power. Technology and even artificial intelligence technology can replicate human intelligence, but how to conduct interpersonal/man-machine cooperation in a way of harmonious coexistence still depends on the co-philosophy, co-practice, co-ethics and co-responsibility of the second beginning.

Finally, the development of technology needs the precedence of ethics. The reason is that although technology, such as intelligent robots, can replace human beings to do hard work, it is difficult to solve the problem of the loss of people's sense of value and meaning. Today, technological development has indeed changed the way humans live and work. In some fields, intelligent robots have replaced humans to do heavy, tedious, time-consuming and dangerous work, reducing what Morris called “useless work and useless toil”<sup>[26]</sup>. If intelligent robots can do all the work instead of human beings, and can meet all the needs of ourselves and our families, they can also compile War and Peace, even they can compile better than human construction. We start to think about what we're living for. When we ask about the ultimate meaning and mission of life<sup>[27]</sup>, we will realize that the meaning of life is to communicate, cooperate and share, not to share a pasture and food like animals.

**Conclusion.** In general, technology, especially artificial intelligence technology, has crossed the boundaries of countries and cultures. We need to develop an ethical concept of symbiosis, coexistence and common responsibility based on the common philosophy of the second beginning to deal with technical ethical issues, instead of simply choosing a single theory in line with certain cultures and values. In terms of the function and structure of the human brain, we have different goals just like computers, and can achieve them by completing complex programs through computation. However, even if we are able to construct a moral robot, they can be like humans who have moral executive ability, even if they have the self-awareness, to assess the situation, automatic decisions and actions, they are hard to with the conception of co-philosophy, with the symbiosis, the co-responsibility, to make a sustainable, coexistence of ethical decision making.

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## Inexistence and Love of Montesquieu

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Несуществование и любовь Монтескье  
Киёказу НАКАТОМИ

**Abstract.** Starting in 2020, the world is experiencing coronavirus crisis; millions have already died in the onslaught of the COVID19 and its mutant strains. Humanity is facing inexistence<sup>2</sup> and darkness. In response, many countries have legally enforced lockdowns, the wearing of masks and vaccinations. China has declared “Zero Coronavirus Policy”. When even a small number of cases occur, cities are locked down, curfews are enforced and house doors are closed. In January 2022, a pregnant woman who was denied a diagnosis by a hospital for not having a negative proof of infection was stillbirth. The question is being asked around the world. Are strict laws good? No, they are not. Before World War II, Japan imposed the Security Maintenance Law which killed many good people. Then the Second World War occurred. As a lesson learned from this, Japanese people are reluctant to follow strict laws. I am advocating a human-friendly law called ‘Transcendent Law’. I call the god of religion the transcendent-being. The law that fears and respects this transcendent-being is the ‘Transcendent Law’. This is an application of my paper ‘A philosophical Synthesis of Christianity, Buddhism and Islam’ to law. Its foundation is based on the works of a Japanese philosopher of law Fusaaki Uzawa, who synthesized the natural laws of Asia and Europe. My ‘Transcendent Law’ has been developed in the articles ‘*Idea of Transcendent Law*’ and ‘*Transcendent Law and Noosphere Studies*’ (Moscow State University, Collection of Articles, 2021). The philosophy of Montesquieu is the further foundation and support for this transcendent law.

For Montesquieu, I first explore his life. In my articles, I hold the thesis that court is the inexistence (that is, though imperceptible, but efficacious forces), in establishing the separation of powers and in pursuing Montesquieu’s view of Asia and Japan, thus in bridging the gap between current reality and existing challenges. “The Spirit of Laws” begins with the relationship between law and things. This means the connection of things and the organic linkage of the world. His idea is compatible with the organic cosmology of Aristotle, the Biocosmological Association and also with my philosophy of inexistence and love. Montesquieu also applies Aristotle’s concept of ‘moderation’ (medianity; in Aristotle – μεσότης [mesotes], the middle between the opposites) in many places. In a sense he is Aristotelian. This exploration raises a new image of Montesquieu.

**Keywords:** Transcendent Law, existence of Montesquieu, relationship, organic cosmology, Biocosmological Association, Moderation of Aristotle, Inexistence (invisible power) and Love.

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<sup>2</sup> In his works for Western publishers, the author uses the term “nothingness”; but in relation to the *BCnA*-publishing aims and scope, he kindly agreed to apply the notion “inexistence”.

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**Резюме.** Начиная с 2020 года мир переживает коронавирусный кризис; миллионы людей уже погибли под натиском COVID-19 и его мутантных штаммов. Человечество сталкивается с тьмой, как с *отсутствием существования*<sup>3</sup>видимых причин происходящего. В ответ многие страны ввели юридические ограничения, ношение масок и прививки. Китай объявил «политику нулевого уровня коронавируса». Когда возникает даже небольшое количество случаев, города блокируются, вводится комендантский час, а двери домов закрываются. В январе 2022 года у беременной женщины, которой в больнице отказали в постановке диагноза из-за отсутствия отрицательных доказательств инфекции, родился мертвый ребенок. Этот вопрос задают во всем мире. Хороши ли строгие законы? Нет, это не так. Перед Второй мировой войной Япония ввела Закон о поддержании безопасности, который убил много хороших людей. Потом случилась Вторая мировая война. Из этого можно извлечь урок: японцы неохотно следуют строгим законам. Я выступаю за дружественный человеку закон под названием «*Трансцендентный закон*». Я называю бога религии трансцендентным существом. Закон, который боится и уважает это трансцендентное существо, называется «*Трансцендентный закон*». Это приложение моей статьи «*Философский синтез христианства, буддизма и ислама*» к праву. В его основе лежат труды японского философа права Фусааки

<sup>3</sup> В своих работах для западных издательств автор использует термин «ничто» (nothingness); но в отношении целей и сферы деятельности ВСнА-издания он любезно согласился использовать понятие «несуществование» (inexistence), т.е. что невидимо, но реально существует внутри, как неотъемлемая составная часть.

Удзава, в которых он синтезировал естественные законы Азии и Европы. Мой «Трансцендентный закон» получил развитие в статьях «Идея трансцендентного права» и «Трансцендентное право и ноосферные исследования» (МГУ, Сборник статей, 2021). Философия Монтестье является дальнейшим основанием и опорой этого трансцендентного закона.

Что касается Монтестье, я впервые исследую его жизнь. В своих статьях я придерживаюсь тезиса, что суд – это невидимая мощь (т.е. хоть и незаметные, но действенные силы), в установлении разделения властей и в проведении взгляда Монтестье на Азию и Японию, тем самым преодолевая разрыв между текущей реальностью и существующими вызовами. «Дух законов» начинается с отношения между законом и вещами. Это означает связь вещей и органическую связь мира. Его идея совместима с органической космологией Аристотеля, Биокосмологической ассоциацией, а также с моей философией несуществования (но неотъемлемости) и любви. Монтестье также во многих местах применяет аристотелевскую концепцию «умеренности» (medianity; у Аристотеля – μεσότης [mesotes], срединность между противоположностями). В определенном смысле он является последователем Аристотеля. Это исследование поднимает новый образ Монтестье.

**Ключевые слова:** трансцендентный закон, бытие Монтестье, родство, органическая космология, Биокосмологическая ассоциация, срединность Аристотеля, несуществование (невидимая мощь) и любовь.

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### *Заключение*

**Introduction.** Montesquieu (1689–1755) was a pioneer of phenomenology, gathering and describing as much information as possible in the 17<sup>th</sup> and 18<sup>th</sup> centuries. He described the events of the world which were open to most disciplines, including law, economics, politics, society and culture. This spread is Infinite Horizon of Consciousness of my idea and ‘Openness’ as pure experience of Kitarō Nishida, the first philosopher in Japan. Eliminating prejudice (phenomenological reduction, epoché), he strictly observed the world like the experimental observation of Francis Bacon and approached the events themselves.

This is not a mere disjointed description. Montesquieu’s passion for truth is like that of Socrates, Plato, Aristotle, Confucius and Buddha. Further his quest and life overlap with my principle of inexistence and love. Montesquieu lost his mother at the age of seven and his father at the age of twenty-four. This was the inexistence of parental loss. The same was true for Confucius and Aristotle. Both Confucius and Aristotle experienced the inexistence of losing their parents as orphans. Confucius taught that Benevolence (仁) was love. Because of this experience of inexistence from childhood, he sought and taught true love and benevolence. Aristotle, in the same way, sought and preached true love, Philia. Montesquieu did not preach this specific experience but he could understand the feelings of a child who lost a parent. This inexistence led to truth and he began his journey of truth-seeking after becoming a judge.

This was a three-year travel around Europe. Like Socrates’ life of questioning in the streets and Descartes’ wandering life, this was a journey in search of truth with boundless (infinite) passion. In “*De l’esprit des lois (The Spirit of Laws, 1748)*”<sup>1</sup>, which describes the customs, laws and political conditions of various lands and countries on earth, he was on an infinite cognitive horizon. So he described Europe, Africa, Asia and even Japan, making full use of the literature of the time. Comments were kept brief and to a minimum. He left the interpretation and judgment to the reader and focused on describing and writing the facts.

Montesquieu did not aim to construct his own metaphysics and worldview as Hegel did. Therefore, his writings are neutral and phenomenologically reduced. We can understand the situation of the time accurately even today. Of course, there are mistakes but the descriptions of the time are more valuable than those.

From inexistence to the horizon of infinity, he explored beyond time, going back to ancient Greece, ancient India and ancient China. It was a quest in the phase of eternity. Infinity and eternity lead to the transcendent-being. This is the theory of religion in “*The Spirit of Laws*”. He was a Christian but

he did not emphasize it. He examined various religions, including Islam, Buddhism and Shintoism and recognized the diversity of religions. This overview of religions from a rational standpoint was criticized by the Catholic Church for reducing Christianity to just one religion. In the end, some of his works were published abroad instead of in France and “*The Spirit of Laws*” was designated as a prohibited book by the Catholic Church and Sorbonne University. It was an unexpected setback.

However, his thoughts did not end there. His state of transcendent-being was ‘love’. Philosophy of Montesquieu is also explained by my principles of inexistence and love. Inexistence as the loss of a parent continues to the search for infinite truth, the description from the eternal phase and the religious theory of the transcendent-being and love. On his way, he has always had a phenomenological stance that did not adhere to prejudice and in this sense, he was a pioneer of phenomenology. In his later years, he lost his eyesight due to cataracts and experienced darkness, nothingness. He had a life that everyone envied but he encountered and suffered from inexistence as a lack of light. The publication of “*The Spirit of Laws*” left him with existential anguish. Conversely, “*The Spirit of Laws*” was the crystallization of these 20 years of suffering and the realization of the love of humanity and the love of God. This is my view of Montesquieu.

### **1. Death of Mother and Father**

Montesquieu, Charles-Louis de Secondat de Montesquieu, was born on January 18, 1689. This was 100 years before the French Revolution. In Japan, this was the era of the fifth shogun of the Edo shogunate, Tokugawa Tsunayoshi. Later, Montesquieu wrote about Iemitsu and Tsunayoshi Tokugawa in “*The Spirit of Laws*”. He was born into a privileged environment as the eldest son of an aristocracy in law in Bordeaux. The Château de Blades, where he grew up, is said to have been built in the early 15th century and is now a magnificent tourist attraction in Bordeaux. This wealth is immediately reminiscent of Buddha in the East. Buddha was a Nepalese prince who lived a life without any inconvenience.

There were summer and winter villas, beautiful silk costumes and feasts. However, when Buddha saw the old man at the east gate, the sick at the south gate, and the dead in the funeral procession at the west gate, he felt uncertainty and inexistence of life. On his way out of the north gate, he met a monk and was so impressed by his divine appearance that he became ordained. This is known as the Four Gates and the Great Renunciation. In search of truth, he devoted himself to Brahman practice. At first glance, Buddha and Montesquieu do not seem to be connected but Buddha taught the Middle Way and Montesquieu accepted Aristotle’s concept of moderation. Inexistence of my principle

connected the concepts of the Middle Way and the Moderation. The same can be said for Confucius' "Knowing what is sufficient".

Montesquieu was as fortunate as Buddha in wealth. However, when he was seven years old, his mother died. At the age of 24, he lost his father. At this time, he encountered the inexistence of lack of parents. The loss of his parents was similar to that of Confucius and Aristotle. His uncle also died and he inherited his family's name, so his name changed from Secondat to Montesquieu. Aristotle was an orphan but that did not stop him from searching for true love and preaching philia. Montesquieu wished for the peace of people as a broad benevolence. This came to fruition as "*The Spirit of Laws*". In fact, he wrote that the motive of the book was "love for goodness, peace and happiness of all people," in other words, love for humanity<sup>ii</sup>. He was a humanist. Montesquieu wrote "*The Spirit of Laws*" as a realization of love as a reaction to his experience of inexistence. However, this book was not written all at once. The ideas were developed and formed through decades of various itineraries.

The death of his mother foreshadows his lifelong achievements. In the beginning of "*The Spirit of Laws*", there is the statement, "A child born without a mother". It is said that there are several interpretations of this phrase. I believe it is referring to Montesquieu himself. The mother of Montesquieu gave birth to a younger brother and two younger sisters but after giving birth to the last sister, she died of postpartum hemorrhage. There were very few records of Montesquieu as a child. It is said that immediately after his birth, he was sent to a farmhouse as a foster child, and was raised among peasant children for three years<sup>iii</sup>.

His life as a farmer had made him robust and he had also learned the dialect of the farmers. Since he was a local nobleman, he had a lot of land. Many of them were vineyards, the cultivation of which required a lot of work. Since that time, if aristocrats were playing around, the hired farmers would not work for them. Montesquieu himself wrote that he worked hard in viticulture. The reason for this was that he had been working since he was a child.

At the age of seven, he entered the Royal School (Collège) of the Ordre Oratoire in the city of Jouy, near Paris (1700-1705). This school attracted the children of noblemen from all over the country. It was a free union belonging to the French bishops, and was in opposition to the Jesuit education of the time, closer to Jansenism that emphasized the sin of human. The philosopher Pascal (1623–1662) was a believer in this teaching. There were many teachers devoted to research. In the 17th century, the philosopher Nicolas de Malebranche (1638–1715) sometimes visited the school<sup>iv</sup>. He was here for five years but in the old documents of this school, the name of Charles-Louis de Secondat

(Montesquieu) was not found specifically, only the account of the medical office seemed to be mentioned. What does this mean? Charles was not a precocious genius. Schools of this kind had certificates and prizes to encourage students in their studies. Montesquieu was a normal student who did not fall into this category<sup>v</sup>.

It should be noted that Montesquieu created a tragedy during this period. It was called "*Britomare*," which was based on the popular historical novel "*Cleopatra*" by La Calprudone ("*Œuvres complètes*", I, pp. 1027–1031). It was only about 120 lines long but Montesquieu left a record of it. As for tragedy, I would like to remind you of "*Poetics*" of Aristotle.

In ancient Greece, tragedy was the highest expression of art. One of the best examples is "*Oedipus the King*". In this tragedy, he killed his father, committed incest with his mother, blinded himself and lost his sight. The tragedy questions human existence beyond time. Montesquieu already had this foundation of humanistic thought when he was a junior high school student.

In 1705, after finishing his studies at the school in the city of Jouy, he began studying law at the University of Bordeaux. His family was a noble family in law. His father was the highest official of the nobility in Bordeaux and was involved in the security and judicial affairs of the city. Naturally, Montesquieu dutifully inherited this. In his spare time, Montesquieu devoted himself to reading Greek and Roman classics, as well as French classical literature, although he may have been reluctant to study law because it was not his choice. "Learning was for me the best antidote to the weariness of life."<sup>vi</sup>

At that time, the University of Bordeaux had many old professors and absent professors. It seemed that proper education was not being provided. This was also the case in Japan 50 years ago, when the student movement was active all over the country and universities were often closed and there were no classes. This also happened in high schools. However, students who did not go to school due to the conflict did not have poor academic performance. Because they did not go to school, they read and studied on their own. In fact, it could be said that they learned on their own. Therefore, Montesquieu also learned to study at his own pace and studied on his own. In August 1708, he was admitted to the Bar of the Courthouse (Parliament, Appellate Court) of Bordeaux and became a full-fledged lawyer (counselor). At the same time, his uncle, who had no successor, gave him his estate and the title of Montesquieu. So he took the name of Baron de la Blade, Lord of Montesquieu.

However, Montesquieu, a lawyer could not be enthusiastic about legal practice which was not his choice. Perhaps it was this change of pace or perhaps it was his desire to learn, that led him to visit

Paris in 1709-1713. There is no doubt that the young Montesquieu was intensely stimulated by the vibrant city of Paris. He observed, criticized and recorded everything with a curious eye. A coffee shop in Paris was the perfect place for him. It was said that “anyone who enters one will gain four times as much wisdom”<sup>vii</sup>. Even today, cafes are places of discourse and culture.

The greatest achievement for Montesquieu during his time in Paris was his encounter with a Chinese man named Hoan (黃) in early 1713. Hoan was born in Fujian Province in 1679 and his parents were probably Christians. He was baptized as a Catholic. Eventually, he was invited by missionaries to come to France in 1703. Chinese were extremely rare in Paris at that time. He worked as a Chinese translator, got married and lived an academic life. From Hoan, Montesquieu received a great deal of new knowledge, which is included in his posthumous work “*Geographica*”<sup>viii</sup>. This deepened Montesquieu's interest in the East. The contents, though fragmentary, cover all areas of Confucian, Taoist and Buddhist religions, rituals, dress, family, language, literature, politics, economics, law, etiquette and history. Moreover, the content of the articles was accurate. In terms of the breadth of the subject matter, it was like a foreshadowing of “*The Spirit of Laws*”.

Here is an excellent example of this record. It is Chinese characters. It is said that there are about 80,000 Chinese characters. In general, it is enough to learn 18,000 to 20,000 characters. Europeans can read freely in three years. The advantage of this is that a single Chinese character, such as ‘horse (馬)’, is universally accepted in both China and Japan. This is a description that is as universal as a number, regardless of whether you are French, German or from any other country. What was noteworthy about this period of study in Paris was the emergence of a view of China. He admitted that it was a vast empire and had a long history. But “They see themselves as the only civilized nation. China is the center of the world and all surrounding nations are treated as barbarians.” “There are few courts in the world as brutal as the tribunals that try crimes in China.” “In spite of the civility of the people, there is always some element of barbarism lurking in it.” “The Chinese, though they revere learning and art, by no means sum up all the sciences. They respect only theology, public law, and private law, mathematics and the arts. Physics, geography and other sciences of that kind are neglected there. Even in mathematics itself, they have studied little except astronomy or rather astrology.”<sup>ix</sup>

He showed this harsh criticism. But in essence, he grasped the facts and eventually continued to “*The Spirit of Laws*”. Although it was a harsh criticism, he himself had some faults in his understanding. That is, he failed to calculate longitude. He researched the time of the crucifixion of Christ with Hoan, there was an eclipse of the sun which was checked to see if it was in the Chinese records. This was

during the reign of Emperor Hongwu of the Later Han Dynasty. Ten eclipses were recorded during this period. The third eclipse was the closest.

However, it was not a perfect match. Montesquieu assumed that it was due to the differences between the European solar calendar and the Chinese lunar calendar. However, France and China are two sides of the same earth. The assumption that the eclipse would occur on the same date and time was itself different. They did not include longitude in their calculations. The time difference between Jerusalem and Beijing is six hours. At the time of Christ's crucifixion, it was darkened from 12:00 noon to 3:00 p.m.<sup>x</sup>. Easter is close to the spring equinox, so 12 o'clock in Jerusalem is exactly sunset at 6 p.m. in Beijing. This means that the people of Beijing did not experience the darkness of the daytime.

At the end of 1713, after interacting with Hoan, Montesquieu returned to Bordeaux in a hurry due to the death of his father (encounter of inexistence). At the age of 24, he became master of the Château de Blades and took care of his brother and two sisters. In March 1714, he was appointed Counsellor (Judge) of the Courthouse of Bordeaux and later became its President. He began his ten-year career as a lawyer. The Courthouse was not just a court but a body similar to the British Parliament. In the UK, members of the House of Lords are members of the Court. In other words, the Supreme Court is made up of hereditary members of the House of Lords. The Supreme Court is similar to the House of Lords and also represents the will of the people. The Courthouse of France was alike. It also participated in national politics and sometimes had the right to speak and veto the king. In the history of the world, there was The Fronde Rebellion (1648–1653) that was resistance to royal power by nobles and judges. The stone-thrower used in this time was Fronde. I would like to remind you of that. In “The Spirit of Laws”, it was the most noble office as the ‘custodian of the law’<sup>xi</sup>.

## 2. Appointed to the Courthouse

Probably, the Courthouse in Bordeaux is the current Court of Bordeaux. I visited Bordeaux once. In the square, I looked up at the splendid statues of Montaigne, Montesquieu and other people who were active in the French Revolution. I knew that Montesquieu was a judge, so I found time to visit the courthouse. As a tourist, I could only see the exterior. The courthouse is a magnificent and dignified Greek-style building and has much more historical weight than the concrete buildings in Japan. Thinking that Montesquieu worked here gave me a sense of familiarity. Diagonally across the street is the office of prosecutors. The city of Bordeaux is beautiful. It is a fascinating city and I wished to stay longer.

Montesquieu worked as a judge in this Courthouse from 1714 to 1726. There was an opinion of Montesquieu that showed that the Courthouse was not only a court but also a parliament. It is the “*Declaration on National Parliament*”. Montesquieu's younger days were the golden age of the absolute monarchy of Louis XIV (1638–1715). In the shadows of the light, France was engaged in foreign wars in order to maintain its international status. The war of the Spanish Succession was the most important of these wars, and the cost of these wars resulted in huge debts.

In 1715, the year of Louis XIV’s death, Montesquieu married Jeanne de Lartigue, the daughter of a soldier. Jeanne was a Calvinist, somewhat lame and crippled<sup>xii</sup>. I sympathize with her father’s mixed feelings. He was happy for his daughter's marriage and anxious for her handicap in her leg. However, she was a sincere woman who was good at managing her family's finances and assets. For this reason, Jeanne was devoted to Montesquieu. She won a land lawsuit with the city of Bordeaux and acquired about 4.5 km<sup>2</sup> of land. As for official documents, Montesquieu had 254 and she had 154 that were an extremely large number considering the position of women at the time<sup>xiii</sup>. This was brilliance of Jeanne.

After the death of Louis XIV, Louis XV (1710–1774) was a child of only five years old. So the Duke of Orléans (Philippe II, 1674–1723) ruled as Regent. What to do about the huge debts? To answer this question, Montesquieu proposed the “*Declaration on National Parliament*”. Nowadays, it is impossible for a judge to propose a written statement on the financial reconstruction of a country. A written statement can only be issued by a member of the Parliament or someone related to the Parliament. A judge is required to make a neutral decision. However, it was possible to propose a written statement for the members of Montesquieu’s Courthouse. Even though they were judges, they were also members of the Parliament. That is what the Courthouse is all about. Louis XIV had experienced the Fronde Rebellion by the nobles of the Courthouse when he was young, so he suppressed the Courthouse. The Duke of Orleans asked for the cooperation of the suppressed Courthouse in order to justify his position. As a result, the Courthouse regained its power. The right to make recommendations was restored to the State. Montesquieu was able to propose a written opinion to the state on the following two points:

- (1). The enormous debt from Louis XIV is 3.5 billion livres. It is about 420 billion dollars in today’s term, if one livre is one day’s labor wage, 120 dollars. This is covered by government bonds. So, he proposes to discount the government bonds to 50% of their value. The public can buy 20,000 USD worth of bonds for 10,000 USD. With 10,000 USD in cash, the people can buy 20,000 USD worth of goods. In this way, the debt will be cut in half. Repeat the above.

(2). In this case, what is important is the credibility of the bonds. The local governments and state legislatures are the ones who guarantee it. The king's credit has reached its limit but the state legislatures can easily borrow money because they have credit. However, local governments and state legislatures are not elected as we know them today. They are not supported by the common people as they are made up of the local powerful people, landowners and aristocrats.

At first glance, it seems to work but it was theoretical logic. The premise was that Montesquieu did not understand the distortions of the time and the tax burden of the common people. Due to financial difficulties, Louis XIV imposed taxation after taxation, and the tax burden of the common people around 1700 was about 80%. In addition to direct taxes such as the basic national tax, per capita tax, and tenth tax, there were indirect taxes such as the salt consumption tax, the auxiliary consumption tax and the transportation tax. How could the common people who live on 20% of their income afford to buy government bonds whose value had declined? Today, it is almost impossible for a person with a monthly salary of 2,000 USD to live on 400 USD in Japan. Under these circumstances, Montesquieu's opinion was unconvincing and picture-perfect.

On guarantees of local governments and state legislatures, since legislatures have been suppressed by Louis XIV, they cannot guarantee huge debts. It was a temporary expedient to apply to local governments and state legislatures. Above all, the clergy and aristocracy were exempted from huge taxes as a privileged status. The tax burden of the nobility of the Courthouse is only 1%. Since the income of the nobility was four times that of the common people, in today's Japanese terms, the monthly salary is 8,000 USD and the tax paid is 80 USD. Montesquieu was also a beneficiary of this. It was impossible to ask the common people to change without reforming that discrepancy. Here, we can admit the positivity of his opinion to the government and the power of the members of the Courthouse. But as for his policy, it was an idealism from above<sup>xiv</sup>.

Through Montesquieu's work in the Courthouse, we could understand the function of the Courthouse. The fact that Montesquieu, a judge, was able to make these recommendations to the government meant that the job of a judge was not that strenuous. In fact, he only went to court on a limited basis. As his stable life continued and he had what was called 'scholē' in philosophy, he must have gradually remembered the conversation with the Chinese translator, Hoan in Paris. In the end, Montesquieu's intellectual and academic curiosity was aroused. It was his love for infinite knowledge. At the same time, in 1716, he was nominated for membership in the Academy of Bordeaux.

### 3. Activities at the Academy of Bordeaux

The Academy was originally an assembly of local ladies and gentlemen. It was founded in 1712 by a group of politicians and Louis XIV, following the example of the Academy of France. It was the Courthouse that authorized it. This was the reason that Montesquieu was recommended. This organization was responsible for three departments: natural sciences, techniques (arts and technology) and literature. With the support of philanthropists, prize scientific papers were solicited every year. These members were mostly young men of the same age as Montesquieu. The aim of the activity was to promote the development of the countryside through the enlightenment of knowledge. Montesquieu also made speeches with a high sense of mission. The scope of his work was broad and included all the empirical sciences.

Descartes, Pascal, and Montaigne had already emerged in France and the groundwork was already in place for the development of the study of all things. In those days, the academic disciplines were not as specialized as they are today. As a landowner, Montesquieu was involved in viticulture, so he learned natural science through agriculture. Reading books is not the only way to learn. Viticulture requires a wide range of biological and scientific knowledge about the natural environment of land, fertilizer, wind and rain as well as the improvement of varieties.

Such an organic linkage of the world is an organic view of the universe. The Biocosmological Association, in which I am dynamic, is now actively engaged in this field. This society aims to construct a world philosophy by reinterpreting organic cosmology of Aristotle in a modern way. It overlaps with my own philosophy<sup>xv</sup>.

Further I would like to remind you of Jean-Henri Fabre (1823–1915) and entomology. The study of insects is interconnected with the land and the natural environment. Fabre also published an illustrated book on plants. He conceptualized the idea of ecosystems before anyone else. When a disease of vines spread in France, microbiologist Louis Pasteur (1822–1895) visited Fabre. Organisms, the human body and the world are interconnected.<sup>xvi</sup>

Montesquieu was one of the steering committee members of the Academy of Bordeaux and in charge of organizing the presentations. There were many research presentations. Here are a few examples<sup>xvii</sup>. *Example 1: “Theory of Causation of Echoes”* (1718). This is a report on the review of a prize paper. The previous year, a call for papers was made on Echoes. Montesquieu lectured this report. It started with a ritualistic talk and the consensus was that the cause of Echoes was the reflection of sound. This would require knowledge of acoustics and could not be solved by mere mythological or fabled

literature. As a result, many questions were raised. If it is just waves, then sound should be duplicated and reflected. What is the relationship between sound and velocity? Sound, regardless of size, travels at the same speed. Why is this? Some philosophers have explained this acoustic phenomenon with the help of ray refraction and reflection studies. Just as there is an image of an object that catches the eye (refraction phenomenon), there is also an image of sound. In other words, the remainder of sound (reverberation) is Echoes. The theory of reverberation of sound is valid and persuasive but it did not solve all questions. Why is the same word repeated exactly? Why are there no highs and lows in sound? One would say that the lecture raised some big questions. (Physics, “*Œuvres complètes*” I, pp. 10–14).

*Example 2: “A Theory on the Utility of the Kidney Glands”* (1718). This is a report on a prize paper written the previous year under the title “The Utility of the Kidney Gland or Gall Bladder”. In philosophy, Descartes had studied the pineal gland in the brain. Montesquieu, inherited philosophy of Descartes, posed the problem of clarifying the kidney and bile. Various papers were submitted but none of them were worthy of the prize. An autopsy was performed in front of the members but the difficulty of this issue was recognized. (Medical field, “*Œuvres complètes*” I, pp. 15–20).

*Example 3: “A Plan of the Physical History (Natural History) of the Earth in Antiquity and Modern Times”* (1719). This is a history of the development of the earth and a theory of the formation of the earth. Montesquieu sought specific and accurate data about the earth. He sought data on the formation and disappearance of all land masses, oceans, islands, rivers, mountains, valleys and lakes. The guide was also published that year in the scientific journals “*Mercur*” and “*Scholars Magazine*”. The information was sent to Montesquieu, President of the Courthouse of Guyenne, Bordeaux. He openly solicited data about the Earth. At first glance, this grand plan seems reckless and outlandish. But remember the conversation with a Chinese translator, Hoan in Paris. The conversation gave him an enormous interest and fascination with distant Asia. Already Magellan's circumnavigation of the world has been completed, so he turned his attention to America, India and all over the world. (Geophysics, “*Œuvres complètes*” I, pp. 21-22).

Although the date and time of the crucifixion of Christ was out of focus from the start, he had his eyes on history, religion, culture, geology and natural science. Thus, at the age of 30, Montesquieu established the universal thought of world history and geology. The novelistic expression of this idea was “*Persian Letters*” which became a springboard for the later “*The Spirit of Laws*”. In that he described and explored politics, economics, religion, culture, geography and all other phenomena. It formed the germ of phenomenology. Unfortunately, the data of the Physical History (Natural History)

of the Earth was not collected. At that time, this reckless project was aborted and came to nothing. Although it was an experience of inexistence, this experience of global history eventually became an opportunity to move toward the search for infinite and eternal knowledge. This longing for inexistence, infinity and eternity is the principle of inexistence and love that I advocate. This fits with Montesquieu.

#### 4. Publication of “*Persians Letters*”

Prior to the research of this book, I will show the social confusion before and after the death of Louis XIV. Already I have written about the expenses incurred by the luxurious lifestyle such as the construction of the Palace of Versailles and the frequent expenses of foreign wars. As a countermeasure, an Englishman, John Law de Lauriston (1671–1729), was hired. Law was born in Scotland to a financier father and was blessed with financial talent. He made a name for himself in London but his opulent lifestyle brought him down. Eventually, he stabbed his dueling partner to death and was sentenced to death. But cleverly he escaped from prison and disappeared. He traveled to the Netherlands, where he learned about the banking system and was inspired by the credit economy in the advanced capitalist country of the Netherlands. He went to Germany, Italy, and other countries. In France, he made a name for himself among the Parisian aristocracy by earning money through gambling. The government was desperate to pay off its enormous debts and had no choice to adopt Law. He created a national bank to hold all the revenues of the king and paid creditors with banknotes. By using of the bank’s credit, he eliminated the huge national debt. This was the start of today's credit economy. This is how he managed to get out of the predicament. Next, he revived the hibernating “India Company” (American Colonial Development Company) and merged the “East India Company”, “China Company” and “Africa Company” into it. Then he issued stock certificates as the “Mississippi Company”. The Orléans regime lifted the ban on commercial activities by the nobility which had been prohibited. Financially strapped nobles and lords rushed to invest in banks and buy shares in colonial companies. People from all walks of life spent all their money to buy stocks. Stock prices soared. This is today’s bubble economy. At its peak in 1719, the stock price had increased 24 times. At the beginning of the following year, however, speculators decided that the time had come to sell and began to convert the faulty bank notes into positive currency. The British and opponents of Law, who felt threatened by Law’s policies, also contributed to this movement. The stock market began to plummet. Within a few days, the price of stocks dropped by half, causing panic. It was like the bursting of Japan's old bubble in 1990 or the Lehman shock of the global depression.

The stock was now worth less than 1% of its value. The stock certificate became a piece of paper. It had almost become inexistence. The French people and Law encountered inexistence. At the time, Law was the French Minister of Finance. In response to the crisis, he ordered to suspend the exchange of gold and silver and to ban the sale of jewelry. But these measures caused further unrest among the people. The bank was surrounded by the people. Law was attacked by the masses, barely escaping danger. He became the target of popular resentment and was unable to stay in France. Finally, he fled to the Netherlands with some money. He was almost destitute and died in Venice, Italy in 1729. Montesquieu met Law in Venice during a trip to Italy. The policy of enriching France created havoc in the opposite direction. Law's policies were effective in some respects because they preceded today's banking system and credit economy, but the rapid changes caused a loss of balance. In other words, the idea of 'moderation' was lacking. As I will explain later, Law's policy was also discussed by Adam Smith in "*The Wealth of Nations*".

In addition to this economic depression, there was the moral decadence within the court. The aristocracy of Paris lived an elegant life with luxurious clothes, feasts and plays. This was excessive luxury while the people were living in poverty. And then there was the decadence and adultery among the nobility. It was under these circumstances that Montesquieu wrote "*Lettres persanes*" (*Persian Letters*, 1721). It is a fictional novel of the observations of Usbek, the protagonist of the Persian royal family, who came to Paris from Isfahan of the Iranian city. The young attendant was Rica. It is a correspondence between five wives of Usbek and retainers in his harem in Persia. There are detailed records of the situation in Paris and in various countries. In the end, the wife in the harem has an affair with one of Usbek's retainers. Usbek returns to Ispahan but the wife commits suicide. As this is a fictional novel, it is tiring to draw a line between what is fact and what is fantasy. However, there are some surprising facts when you check the truth one after another and there is an eye-opening enlightenment and progressiveness with sharp criticism. It exposes the decadent court and society of the reign of Louis XIV.

This protagonist, Usbek, overlaps with Montesquieu who used to live in Paris with the Chinese translator, Hoan. It is an attitude of looking at society objectively from the perspective of a different country, changing the Chinese into Persians. Since Montesquieu has already opened his eyes to the world, the contents he covered were broad. There was a lot of speculation why Montesquieu wrote this book. I think it was a simple diversion from his life as a judge. He wanted to use his growing knowledge and insight from his academic studies at the Academy of Bordeaux in some way. For example, he criticized the contradictions in a society that was becoming increasingly dissatisfied. His motivation for writing the novel was a change of pace, a distraction and something like this. The

lightness and melancholy of the novel touched the hearts of the people. It was a high-class venting of the dissatisfaction of people.

As a novelist, Montesquieu was unknown in Paris, so he sought a publisher. This was because he wished to remain anonymous. He also paid for his own publication<sup>xviii</sup>. The reason why he chose to remain anonymous was probably because he was the president of the court which required him to be socially neutral. His private novels were not allowed. Today, even Japanese judges are allowed to write academic books but not novels. The words and deeds of judges have a great influence on society and they are obligated to devote themselves to their duties. Montesquieu also had good sense in this area. The publisher was not French but Dutch. This country was one of the bases of secret publishing at that time. Montesquieu's cautiousness made sense. Indeed, the book was an unexpected sensation and became a best seller. In 1751, Father Gauthier published "*Persian Letters*" which deserved to be condemned for its profanity and impeached for it. Catholicism also attacked in "*The Spirit of Laws*", Montesquieu had to take this suppression into account. After the death of Louis XIV, even though there was a release from the chains, the Catholic surveillance continued. He was blessed with a good social status and a good life. But the yoke of Catholicism was heavy.

The following sentence describes the situation in social circles and in Paris. In social circles, adultery was the norm:

Frenchmen hardly ever talk about their wives; they're afraid to speak of them in front of men who know them better than they do themselves. ...Over here, a man who loves his wife is a man who lacks the qualities to win the love of another woman."<sup>xix</sup>  
Paris is, perhaps, the most sensual city in the world, the city where pleasures are most highly refined and cultivated; but it is also, perhaps, the one where life is hardest. For one man to lead an epicurean life, it is necessary for a hundred others to work unremittingly. A woman has decided that she must appear at a gathering wearing a particular style of finery: consequently, from that moment, fifty artisans can no longer sleep, nor have time to eat or drink; she commands, and is obeyed, more promptly than our monarch would be, because self-interest is the greatest monarch on earth.<sup>xx</sup>

He wrote about Louis XIV as follows:

The king of France is the most powerful prince in Europe. Unlike his neighbour the king of Spain, he owns no gold-mines, but he possesses greater riches than that king does; he draws these riches from the vanity of his subjects, which is more inexhaustible than mines; he has been able to undertake or support great wars with no other resources than titles and honours to sell, and by a miracle of human vanity, his troops have been paid, his strongholds provisioned, and his fleets equipped.<sup>xxi</sup>

I have studied his character and have found in it contradictions which I simply cannot understand; for example, he has a minister who is only eighteen, and a mistress who is

eighty, he loves his religion, but cannot tolerate those who declare it must be strictly observed.<sup>xxii</sup>

As mentioned above, Montesquieu was strict with the king. The king of France established Versailles and other places of luxury and fought many wars to boast his power. Louis XIV had at least six mistresses but his 80-year-old mistress was Madame de Maintenon (1635–1719), with whom he had a private wedding. He had sexual relations with a number of women. Those below emulate those above. Why did Louis XIV live in such luxury and invite the nobility to his palace? This is similar to the policy of the feudal lords, Daimyo of the Edo shogunate in Japan. In other words, by gathering the nobility in the palace, it was meant to prevent them from revolting<sup>xxiii</sup>. If the couple spent every day at the palace, the local nobles would not think of revolting. At the palace, the king made a rule of luxurious clothing and created a strict class system. It was a way to win over the nobles. The ladies in the palace were hostages. On the other hand, luxurious clothes led to the development of the fashion industry. Today, France is still the world's leader in fashion.

This was the same as the Edo period, when the feudal lords, Daimyo went to Edo every other year. In addition, wives were stationed in Edo. This was to prevent rebellion by the feudal lords and samurai. Attendance at Edo Castle was similar to that at Versailles, with all formalities and expensive formal wear. There were detailed rules and regulations for the attendance of local feudal lords to Edo and they were required to spend a lot of money. By this attendance, the local feudal lords lost their financial power. They could not revolt. Therefore, the Edo shogunate lasted for 250 years. Although this attendance was a heavy burden on the feudal lords, the roads to Edo and the post towns prospered. Further local industries developed.

Versailles was a symbol of the power of the king. At the same time, it was a clever policy to seduce the nobility and influential people. The king probably had the advice of his aides, including Jules Mazarin (1602–1661) and Jean-Baptiste Colbert (1619–1683). It was financed by the taxes of the people who had been taken 80% of their income. I have already mentioned the economic woes. The French Revolution had been prepared for.

Montesquieu published “*Persian Letters*” with some trepidation. But despite its anonymity, it hit the nail on the head with the facts of the time and became a best seller. As Montesquieu could have confidence in his literary talent, he went to Paris for further development.

## 5. Achievements in Paris: Personal Connections and “*Treatise on Natural Law*”

He was, however, the President of the Courthouse in Bordeaux, a local literary figure. In Paris, he naturally met with the President of the Courthouse of Paris and broadened the scope of his contacts. As a novelist, politician and Judge, his greatest achievement was probably his meeting with Robert Walpole (1676–1745) who was the first person to implement the English system of responsible cabinet and the Duke of Bourbon, Prime Minister. The Duke of Bourbon was a particular admirer of Montesquieu's work. Walpole was a major step in the introduction of English politics and the parliamentary system in “*The Spirit of Laws*”. His life in Paris was a luxurious court life. There were several works that he wrote about it. For example, “*Histoire de la Jalousie*” (*History of Jealousy*) and “*Le Temple de Gnide*” (*The Temple of Gnidos*, a prose poem; 1725, “*Œuvres complètes*”, I, pp. 387–413), a sensual love story. Though “*The Temple of Gnide*” was recommended by the Duke of Bourbon to the upper class in Paris, it seemed that there were many unsold copies<sup>xxiv</sup>. To put it bluntly, it was a dud and did not inspire much confidence in Montesquieu. In other words, in these novels, Montesquieu experienced frustration and nothingness.

However, there was something worth mentioning at this time. That is, Montesquieu fell in love at the age of 35, even though he already had a wife and three children in Bordeaux:

At thirty-five, I was still in love.<sup>xxv</sup>

‘A l’âge de trente-cinq ans, j’aimois encore.’

According to Professor Fukukama, it was believed to be Miss Clermont and Madame Grave who were related to the royal family. To Madame Grave, he sent books and letters. I don't know the extent of their relationship, but it shows the human side of Montesquieu who preached moral theory.

The result of this academic work in Paris was “*Treatise on Natural Law*”. In the beginning, Montesquieu's eyes were opened to the world when he met the Chinese translator when he was a young man of 20. It was a yearning for a world of infinite openness that was not limited to the humanities and natural sciences. After experiencing frustration and inexistence in his novels, Montesquieu's desire to explore the infinite world was ignited. One of these was his activities at the Academy of Bordeaux. There, he studied the natural sciences, the nature of the human condition, morality and duty. After his failure in Paris, Montesquieu turned his attention from the study of literature and the natural sciences to human nature, morality and society. This was natural, since he was a judge himself. Natural science had its own laws. This is what Montesquieu was pursuing. These

laws do not only apply to natural phenomena. They also apply to the laws of human society. In the first place, law is a universal truth that transcends time and space, including natural law.

Today we distinguish between the laws of natural sciences and the laws of the state and society. But this is the emphasis of modern rationalism. Originally, Aristotle did not make the distinction. This is discussed in my articles, “*Great Japanese Philosopher of Law – Fusaaki Uzawa*” (Humanum, 2021), “*Idea of Transcendent Law*” and “*Idea of Transcendent Law and Noosphere Studies*”<sup>xxvi</sup>. It was inherited by Thomas Aquinas (1225–1274) in the Middle Ages and became the divine law that ruled the world and the universe. The Catholic position of Montesquieu also inherits this line. Since God gave man reason, man makes laws and controls the world according to this reason. This is natural law. From here, when nature is the main target, it becomes natural science law and then it is divided into natural law for humans and society. This is a characteristic of modern times when science has developed. Montesquieu thought of natural law before the differentiation in mind. This idea of natural law which is described at the beginning of “*The Spirit of Laws*” became, so to speak, the foundation of this book. It examines the spirit of the establishment of law from the standpoint of the universal and eternal. The content of “*The Spirit of Laws*” emerged, so to speak, in the course of his life between Paris and Bordeaux around 1725–1729. In 1749, “*The Spirit of Laws*” was published, he wrote that he had pondered the idea of that for 20 years.

When Montesquieu returned home from Paris in 1725, he wrote a valuable account. The first is a description of the civic spirit:

The civic spirit is the desire to see order in the state and to enjoy the public peace and justice in the stability of a monarchy or republic ...

The civic spirit is the zealous, joyful, and satisfied performance of the kind of public office entrusted to each person in the politic body. For there is no one who does not participate in governance, whether in his profession, in his family, or in the management of his property.<sup>xxvii</sup>

In short, the civic spirit is the desire for stability, security, and peaceful life in the nation and in public life. Since all people participate in governance, the prosperity of the motherland is the foundation of the happiness of its citizens. The well-being of citizens is the well-being and love of mankind, which is the purpose of “*The Spirit of Laws*”. The prosperity of a nation is the prosperity of the world. This thesis has been discovered. To realize it, it needs a synthesis of all knowledge that brings together the real issues. He found a hint of this in the words of Georges-Louis Leclerc, Comte de Buffon (1707 – 1788).

It may be said that the love of the study of nature presupposes in the mind two seemingly opposed qualities: the vision of the fierce genius which encompasses everything at a glance and the detail attention which adheres to only one point by the diligent instinct.<sup>xxviii</sup>

One of the pleasures of the human spirit is to make general propositions.

It does not take much wit to confuse everything but it takes a lot of wit to make everything work together.<sup>xxix</sup>

This proposition is a general principle. It is this principle that was intuited. It was a revelation, as Professor Fukukama said: “I define a talent as a gift that God has secretly given to us and that we reveal to others without knowing it.”<sup>xxx</sup> Montesquieu intuited and became aware of his foundation for infinite truth from heaven. It was the truth and the law to eternity. With this intuition principle, he decided on the path he should take. Immediately, he began to put his affairs in order. He withdrew his son from school and began the process of inheriting the family estate.

He also put his position as a judge up for auction because his son refused to inherit the position. He threw away his blessed position for the sake of truth-seeking. This was similar to Buddha who once became ordained to seek the truth. It was a great renunciation. Fortunately, a deputy prosecutor of the same court purchased the post. The only problem was that it was for a limited time and only for his lifetime. In this way, he collected funds and prepared to travel to Europe. At the same time, since he had already made acquaintance with the prime minister, ministers, court nobles and other powerful people as well as literary and academic experts, he applied for admission to the Academy of France. In 1727, he was selected as one of the ‘Immortal Forty’<sup>xxxi</sup> that was the highest honor he could receive as a man of letters.

## 6. Travel to Europe

After making preparations, Montesquieu left Paris for Vienna. He was accompanied by an old acquaintance, an English diplomat, Lord Waldegrave. It was a three-year philosophical observation travel to Austria, Hungary, Italy, Switzerland, Germany, the Netherlands and England. Today, it would be equivalent to a round-the-world travel. To begin with, it was a dangerous trip, as there were rebel groups in France and foreign wars. However, his infinite curiosity overcame this. He was accompanied by the British diplomat who had just been transferred from Paris to Vienna and was treated well at the destination.

He arrived in Vienna on April 26, 1728. His impressions of the city were extremely positive. “I used to say, ‘Ageing is only wonderful in Vienna. Even a woman of sixty has a man there. Even ugly

women have their mistresses there. In short, one dies in Vienna but one never grows old.’’<sup>xxxii</sup> The court was comfortable and the great nobles and ministers were willing to meet with them. This was thanks to the British diplomat who accompanied him. Montesquieu must have been surprised at the broad dignity of the prerogatives of a diplomat.

He had once renounced the hereditary judgeship but now he yearned to be a diplomat with wide and glamorous connections and authority. He immediately sent a letter to the government in Paris, expressing his desire for a diplomatic position. But it did not materialize. He was more of a socialite and diplomat than a solid practitioner. His welcome in Vienna was evidenced by his audience with Emperor Charles VI and his wife on May 20. A French novelist, a former judge, was received by the Emperor. Montesquieu could never have done it alone. About a month later, he left Vienna and went to Hungary. The reason was that every country in Europe used to be like Hungary and he wanted to see the customs of their ancestors.

He spent twelve days in Bresburg (now Bratislava, the capital of Slovakia), listening to the Congress, meeting all the nobles of Hungary and drinking much wine. He had a talk with a bishop of Belgrade named Nadaszthy, drank wine. Then he received an invitation to Belgrade. Montesquieu replied, “You are such a drunkard that I will be killed by you the same day”. The next day, he went to visit the mine in Kremnitz. As French was barely understood in Hungary, he conversed in Latin. Montesquieu, as a natural scientist, was interested in mining but he was also interested in the development of mining and industry. Before his travels, he had held a research presentation at the Academy of Bordeaux. Montesquieu was a member of the steering committee that accepted presenters on mining. He also gave a presentation on the mine at the academy at a later date.

The development of mines has in mind Spain's successful development of silver mines in South America. However, in “*The Spirit of Laws*” he is critical of it. Spain’s development of the Potosi silver mine in Bolivia led to temporary prosperity but the massive release of silver led to inflation. Also, Potosi used local natives to develop the area. It meant that the Spanish people were not used. Spaniards were not able to get jobs. There was no effective demand for Spaniards. In the end, it was an extreme slavery policy that was a failure. That was the perspective he had. The idea of mining development was to connect the local people to their jobs. It would also lead to the development of people's skills and abilities. He was thinking about the development of the entire industry.

After his trip to Hungary, Montesquieu returned to Vienna and headed for Italy and Venice. “The first glimpse of Venice is enchanting. As far as I know, there is no other city in which one desires to live more than here on the first day, because of the novelty of its scenery and its pleasures.’’<sup>xxxiii</sup> At

first glance, it was a world-famous tourist destination for its gondolas. Montesquieu was delighted by its beauty. However, this tourist attraction, the Republic, had fallen into disrepair upon sober observation. He could see the depravity of theft, greed, and indulgence in pleasure:

When it comes to freedom, there are freedoms enjoyed here that most gentlemen would rather not have. To go to see a prostitute in broad daylight, to skip Easter communion, to be completely uninformed and selfish about one's actions, these are the freedoms here...<sup>xxxiv</sup>

Not going to church on Easter is not a problem for other religions. But going to see a prostitute in the daytime, what kind of depravity is that? The famous city of water had fallen into a tourist city where prostitutes roamed. According to Professor Fukukama, Montesquieu also enjoyed the ‘freedom’ of this pleasure city and played with women<sup>xxxv</sup>. He also got to know art lovers and appreciated their works of art. It was here in Venice that Montesquieu met former Minister of Finance, John Law. Law’s only asset was a single diamond, which he used to gamble with. Law had this to say. “In England, money was all that was needed to embrace Parliament. In France, however, money did not work. It's hard to win them over.” And so on. Law died the following year. After staying in Venice for a month, he traveled to Padua and Verona before arriving in Milan on September 24. He stayed there for three weeks, visiting famous people, libraries, churches, gardens, a private nursery school and watching “*The Last Supper*” by Da Vinci in Milan.

From Milan, he next visited Turin. He had an audience with the King of Sardinia. The king asked him about his uncle Joseph de Seconda (died 1726). Montesquieu was surprised at the good memory of the king and must have been happy that the king remembered his uncle. He replied as follows:

Your Majesty, you are like Caesar, who never forgot anyone's name.<sup>xxxvi</sup>  
Sire, Votre Majesté est comme César, qui n'avoit jamais oublié aucun nom.  
He met with the Crown Prince, the royal family, major nobles and politicians. So, his impression of Turin was very positive.  
Turin is small but well-built. It is the most beautiful city in the world.<sup>xxxvii</sup>

However, as for the political situation, because of the small country, so every detail was checked. There seemed to be a spy in every house and the walls spoke for themselves. Even the marriages of the townspeople were being monitored. He felt so suffocated by this that he said he had no desire to serve in this country and left for Genoa.

He arrived in Genoa on November 9. The Genoese nobles all seemed to be merchants. They kept their money in banks. The few wealthy people did not spend their money but stored it, so there was no circulation of money. In the end, many people were poor. The country as a whole was also poor

with less than 5,000 soldiers. Montesquieu seemed to be bored. He took a boat to Pisa. November 24. He arrived in Pisa. He visited the famous Leaning Tower and Livorno, a beautiful city similar to Venice. December 1 is the day of arrival in Florence. This was the birthplace of the Renaissance and a city of art. Here, too, he was welcomed by government officials, scholars and famous people. He asked anecdotes about the Medici family. However, the masterpieces in the city of art opened his eyes to appreciate art in a new way. Because of the excellence of the museum, he delayed his plans for a month.

Arriving in Rome happened on January 19, 1729. Here Montesquieu visited Cardinal Polignac, the French ambassador in Rome. Then he interacted with the political and upper class people to investigate the current situation. As a result, he was amazed at the poverty and corruption in the country:

Benedict XIII is greatly despised in this country, that he is a kind of madman, playing the fool.<sup>xxxviii</sup>

L'homme Benoit 13 est souverainement méprisé dans ce pays-ci: on dit que c'est une manière de fou, qui fait l'imbecile.

The reason is that the sale of holy objects and positions is rampant in Rome. In the past, Martin Luther led the Reformation because of the buying and selling of clergy positions. Everything was driven by money and it had fallen into the worship of money. However, Montesquieu himself traded in judgeships. At this time, he was not aware of his self-contradiction. This is Self-Identity of Absolute Contradiction in Japanese Philosophy. There was also the luxury of eating lavish meals. The disparity between the rich and the poor was great. The city had become a place where people stole, demanded money when they saw someone and relied on donations. There was no longer any semblance of the Roman citizens of the past. The glory of the past had faded into inexistence.

However, he felt a sense of greatness when he saw the historical ruins, buildings and artifacts of Rome. This was the very place where he contemplated the eternal Rome. It was an intuition from inexistence to infinity and eternity. And when he looked at Raphael's paintings, he intuited the Divine, the Transcendent-being.

What I find in Rome is one eternal city. 'He lived in the eternal city', I read in one of the epitaphs in Florence. It has lived for 2,500 or 2,600 years and this city is in some way the motherland of most of the world. It is a treasure of incomparable things, the accumulation of which the Romans, Greeks and Egyptians possessed. For they plundered from those who plundered them. I feel that everyone should live in Rome and find his own motherland.<sup>xxxix</sup>

It was a simple admiration of Montesquieu for Raphael at the Vatican:

First, Raphael's Room, a divine, marvelous work. What precision in drawing! What beauty! How natural! It's not a painting; it's nature itself. ...It seems as if God has finally used Raphael's hands to create.

Primo, les Loges de Raphaël, ouvrage divin et admirable. Quelle correction de dessin! Quelle beauté! Quel naturel! Ce n'est point de la peinture; c'est la nature même... Il semble que Dieu se sert de la main de Raphaël pour créer.<sup>x1</sup>

Here, we could recognize the intervention of God, Transcendent-being. Montesquieu was a Christian. But why did this great Roman Empire collapse? He already had a good background in Greek and Roman classics at school. He respected Cicero, who had Romanized Greek philosophy and courageously confronted Caesar. This basis gave him an opportunity to seriously think about why the Roman Empire collapsed. The Empire was a model of civilization with its republican politics and military power over a vast empire and had advanced culture. This question eventually led to the writing of "*Considerations on the Causes of the Greatness of the Romans and their Decline*" which preceded "*The Spirit of Laws*". The idea is that since Rome was the concentration of the culture and history of the world, we could find the laws of prosperity and decline of the world by examining the prosperity and decline of Rome.

From Rome, he passed through Naples, Bologna, Modena, Parma, Trento, and Innsbruck. The arrival in Munich was on August 3. It was a beautiful city with wide roads and beautiful buildings. He had an audience with the Elector and his wife. On August 16, he left Munich after a long illness. He had difficulty in finding a doctor in Augsburg. Despite his illness, he arrived in Heidelberg, the oldest university in Germany. He visited the famous large barrels for making wine. I looked at them in 2012, too. After passing through the Rhine cities, he headed for Cologne and Hanover. On September 24, he traveled to Braunschweig, where the King of Prussia, Friedrich Wilhelm I, was the talk of the town.

This king, also known as the King of Armies, was the one who militarized Prussia. With his tyrannical wealthy and powerful policies and foreign policy, he was a threat to the people around him. Instead of going to school, children were made to register with the military at the age of 10. Foreign merchants never entered the Prussian state as they were grabbed by officials and put into the military. Under the conditions of tyranny, Montesquieu did not like the country. However, he was invited to banquets by the nobility and had exchanges with them. On September 28, he went to visit the Harz mines. Then he headed for the Netherlands.

Arrived in Utrecht on October 12. He had heard of the greed and viciousness of the Dutch. It was more than he expected. When he entered a restaurant, the owner demanded 50 or 100 times the price. The officials would not listen to us, even if he tried to make a point. The people who gave us directions demanded money. It was completely corrupt. Arrived in Amsterdam on October 15. The city was clean and beautiful and famous for its canals. For Montesquieu it seemed to be preferable to Venice. It was one of the most beautiful cities in the world. The citizens are hard working. After passing through The Hague that is famous for the International Court of Justice today, he entered the United Kingdom. There were no travel records about this stay in England and it is unknown. We could only know fragments of it from other sources.

He spent the longest period of time in England of all the countries he traveled to, interacting with many people, including the King, Walpole, nobles and literary figures. He spent a year and a half in England during his three-year trip. It meant that England was the most interesting place. The first thing that stood out to him during his stay in England was that he discovered the idea of separation of powers. It was said that he was inspired by an article in “*The Craftsman*”, a political newspaper sponsored by Bolingbroke<sup>xli</sup>.

However, he was not inspired by the British political system, as Britain did not have a separation of legislative, executive and justice powers at the time. John Locke (1632–1704) had already advocated the separation of powers. Bolingbroke (1678–1751), Walpole's political opponent, drew Montesquieu's attention to the sentence, “Our monarchy stands at the midway point between tyranny on the one hand and anarchy on the other”<sup>xlii</sup>.

In other words, the idea of the three branches of government was born out of the concept of balance of power. The formation of this concept was also the process of the later formation of the Constitution of the USA. The political system based on the concept of equilibrium is a ‘moderate government’ or a ‘mixed government’. The vision of a political system in which the monarchy, aristocracy and democracy are in balance was seen by Montesquieu. His basis of political system was monarchy.

The second was his encounter with Pierre Coste (1668–1747), a disciple of John Locke. Coste was a Locke connoisseur who translated Locke's books into French and spent the last years of Locke's life with him. The French study of Locke was due to Coste. Montesquieu seemed to have been interested in the human Locke but not in scholasticism. In fact, we cannot find Locke in “*The Spirit of Laws*”. Locke preached the right of revolution, so it was natural to assume that Montesquieu, who did not want a revolution, was not interested in him. However, Locke did have an influence on the French Revolution.

Thirdly, Montesquieu sent a letter to the French government, hoping for another diplomatic post in England. However, it did not materialize. He probably thought that Montesquieu's insights would be useful to the French government, since a diplomatic post involved learning about the politics, economy, society and culture of the country in question. However, he and the Minister of Foreign Affairs did not get along well and it did not happen.

Fourth, Montesquieu became a member of the Royal Society of London. This, like the Academy of France, was the highest academic organization of the nation. Montesquieu was recommended for membership in this organization. This post would have allowed Montesquieu to travel, visit and study in England quite freely.

Fifth, he learned about the gentlemanly liberties of England. It was an orderly and well-balanced liberty<sup>xliii</sup> not a libertine liberty that was infested with thievery, greed, and prostitutes. With these achievements, he returned to France in April 1731.

This was the situation in France before his return. It was Cardinal Fleury, Louis XV's educator, who calmed the financial collapse and political and economic confusion caused by John Law and others. At the age of 72, he was not as flamboyant as Richelieu, but adopted a gentle and steady policy of fiscal consolidation. In 1743, at the age of 90, he died, having served as Prime Minister for 18 years. Due to his efforts, he was able to balance the books in 1739. He also quelled a long-standing religious conflict between Jansenists and Jesuits. Jansenism, which originated with the Dutch religious figure Jansen, was a Catholic sect that preached the extreme sinfulness of man and the grace of God. Among philosophers, it was represented by Pascal and was also supported by the Parliament (court of justice). It was also a symbol of the conflict between the Parliament and the king. An incident occurred in Paris.

A deacon named Paris, who died at the age of 36, healed the crippled right arm of a believer who came to worship at the tomb. Believing in the miracle of the healing of a tumor on his arm, many sick believers came to the tomb and had convulsions. This phenomenon quickly swelled and turned into madness. Some claimed to be prophets of Christ, others spoke of the Last Judgment and the city of Paris was in turmoil and confusion. Eventually, the cemetery was closed. The government had already declared that Jansenism was wrong and used this opportunity to calm the movement. Following his religious policy, he was also active in foreign policy and contributed to peace in Europe by concluding the Treaty of Paris in the War of the Polish Succession and the conflict with Spain<sup>xliv</sup>. There were prime ministers who worked steadily for the country, not for their own merits. It stabilized the country.

### 7. “*Considerations on the Causes of the Greatness of the Romans and their Decline*”, “*The Spirit of Laws*” and its Influence on Adam Smith

When Montesquieu returned from his travel, he must have been surprised at the rise and fall of Rome. On the one hand, there was the eternal prosperity of great architecture and many works of art. On the other hand, there was the moral decadence of Rome. It was only the second republic in the world after Greece. Looking at the subsequent prosperity and decline of Rome, it is logic that we can see the world by looking at Rome. Rome was connected to East Asian civilization through the Silk Road to China. “*The Travels of Marco Polo*” had already made Europeans long for Asia. Persia and India were on the way to the Silk Road. Rome was pregnant with the civilization of the world. Therefore, if we study the rise and fall of Rome, we can understand the rise and fall of the world and the principles of world history.

When I was in high school, we spent a lot of time on Greece and Rome, maybe two or three months. It was a lot considering that we had to cover everything from the beginning of mankind to World War II in one year. “Why do we have to do it for so long?” One student asked. The teacher said, “Greece and Rome are the epitome of world history. If you do this well, the rest is just application”. I thought that was his reply. I do not know how much this teacher knew about Montesquieu but there were many world history teachers with this view. Japanese teachers are not to be discarded. Montesquieu realized this and put it into practice.

He, too, was drilled in the Greek and Roman classics during his time at the College. He had already written a Greek tragedy and later wrote a treatise on Cicero. At first glance, “*Considerations on the Causes of the Greatness of the Romans and their Decline*”<sup>xlv</sup> seemed to be lacking in freshness for newcomers to Roman history, as they have already learned about it in school history or in TV programs. At first, I, too already knew that Rome's rise and fall. The causes of its decline were also well known: it became too big, lost control and moral decadence. So, reading “*Considerations on the Causes of the Greatness of the Romans and their Decline*” would have to wait.

However, as you can see, Montesquieu’s empirical theories and views were incorporated into the development of Roman history, making it extremely varied. He also compared the republican system with that of England and the situation in France at that time. The book seemed like a living essay. This, “*Persian Letters*” and “*The Spirit of Laws*” when taken as a set, provided an organic linkage. In other words, reading “*The Spirit of Laws*” on its own would only be boring. It needs to be grasped together with “*Persian Letters*” and “*Considerations on the Causes of the Greatness of the Romans and their Decline*” in an integrated, same as trinity and Triadic logic (three-one fold) to be understood

accurately. The *“Persian Letters”* gives us a sense of the geographical spread of Persia and France as well as Russia and other foreign countries. It is a spatial expansion. On the other hand, *“Considerations on the Causes of the Greatness of the Romans and their Decline”* looks at history under the eternal phase from ancient Rome to the 18th century England and France. In other words, it is a temporal expansion. It is *“The Spirit of Laws”* that synthesizes this expansion of time and space. Interpreting it in this way, the understanding of Montesquieu broadens and deepens. It is an example of the adaptation of dialectic and the Triadic logic of Aristotle. In Montesquieu's books, Aristotle's moderation and the Triadic logic are utilized in many places. This is the point where one needs to be extremely patient and the reason why readers cannot get close to it. In other words, it is the depth and breadth of his books.

*“The Spirit of Laws”* begins, “Law, in its broadest sense, is the inevitable relation derived from the nature of things”. Laws here refers not only to modern laws but also to the laws of nature. Since it is a relation of things, it means a linkage of things. It is not an idea that things exist individually. But things exist in a linkage of organic relations. We can think of Aristotle's concept of law or his view of nature. Aristotle meant by natural law a universal law that transcends time and place. It also implies the ethical universality of justice and the heat of fire. Aristotle defines natural law that includes the laws of natural science and social rules. This is natural from the point of view of Aristotle, who possesses an organic worldview. This concept of natural law is linked to Judeo-Christianity and is largely developed by Thomas Aquinas.

Montesquieu inherited Aristotle and as a Christian, he inherited the concept of natural law of Thomas Aquinas. In short, Montesquieu considers law to include natural law that is based on an organic worldview. Because this view begins so abruptly, people today are stumped by *“The Spirit of Laws”*. However, if we consider natural law including natural science law, it can be taken rationally. As mentioned above, Montesquieu makes no distinction between the natural sciences and the humanities.

This is the reason why Montesquieu started his book *“The Spirit of Laws”* with an explanation of natural law in the first chapter. This understanding would be possible if one knew that Montesquieu had written his *“Treatise on Natural Law”* in Paris at the age of 35 before his travel. *“The Spirit of Laws”* is organically connected to all the events in his life. If one thinks of it that way, he won't be tripped up by cases that suddenly appear in *“The Spirit of Laws”*. In addition, the law is linked to the world, which in Asia is the concept of law of Buddha.

In Buddhism, Dharma is synonymous with truth and it means the linkage of things, the causation. Buddhist law also includes natural law. Montesquieu's definition of law is also common to Buddhism,

along with the Middle Way. Of course, it is common to ‘Knowing what is enough’ and ‘Do not exceed the standard’ of Confucius. According to organic view, as Chinese ancient philosophy is based on ‘Inexistence (Mu, 無)’ that is flow of life, energy in the universe, everything is organically interconnected by inexistence. And, as mentioned above, Montesquieu was a pioneer of phenomenology because he used the entire earth world as his target description. Instead of describing objectified dead things, he described the experienced facts without prejudice. This is an epochal, phenomenological reduction in that it removes prejudice.

He focused on everything that interested him. Geographically, Asia, Africa, even the Americas. So, his attitude can be said to be the driving force behind comparative thought and comparative civilization theory. He is also interested in economics and discusses economic theory. In this sense, he is ahead of Adam Smith. In Adam Smith’s “*An Inquiry into the Nature and Causes of the Wealth of Nations*”, there are often quotations from “*The Spirit of Laws*”. Here is a list of what seems to be the major influences<sup>xlvi</sup>.

(1) *The phenomenological method*

Montesquieu’s faithful description of the entire world is similar to that of Adam Smith. We can find descriptions of politics, economics, religion, society, law, military, culture, customs, and other aspects of the world. The information must have already come from the East India Company. There are many analytical descriptions of Japan, China, Asia and the Americas. This method is phenomenology. Adam Smith also inherited the method of Montesquieu. Furthermore, these events are not considered in isolation and are not a mere enumeration of cases. They have connections, organic linkages and world linkages. Montesquieu inherited the organic worldview from Greek and Roman studies, especially from Aristotle. The same is true for Smith who was trained in Greece and Rome as a young man. Although he is analytical, he is trying to convey the subject as it is. This is his attitude.

(2) *Use the virtue of moderation*

In “*The Spirit of the Laws*”, Montesquieu explains Aristotle’s virtue of moderation. This moderation forms a moderate or mixed government of monarchy and republic. This moderation is inherited by Adam Smith. He preaches moderation as an individual virtue:

The first of those causes or circumstances, is the superiority of personal qualifications, of strength, beauty and agility of body; of wisdom and virtue; of prudence, justice, fortitude and moderation of mind.<sup>xlvii</sup>

Also, in regard to the nature of the state.

...it is surely time that Great Britain should free herself from the expense of defending those provinces in time of war, and of supporting any part of their civil or military establishment in time of peace; and endeavor to accommodate her future views and designs to the real mediocrity of her circumstances.<sup>xlviii</sup>

It is used in this way. Use the virtue of moderation both for the individual and for the national level. Of course, Adam Smith, as a moral scholar, would have been familiar with Aristotle, but the influence of Montesquieu is also evident in the quotations from his works.

(3) *Seeing the world through Rome*

As I mentioned Aristotle, Montesquieu thoroughly studied Greek and Roman history with the logic that “If one can see Rome, one can see the world.” and Adam Smith inherited this spirit. Adam Smith not only analyzes the world situation in the 17<sup>th</sup> and 18<sup>th</sup> centuries but also analyzes Greece and Rome. The titles of the relevant chapters alone tell the story:

Book III: Of the different progress of opulence in different nations  
Chapter II: Of the discouragement of agriculture in the ancient state of Europe,  
after the fall of the Roman Empire  
Chapter III: Of the rise and progress of cities and towns, after the fall of the  
Roman Empire.<sup>xlix</sup>

(4) *About John Law*

Montesquieu discussed the mismanagement of John Law, the French Minister of Finance. The stock of the Mississippi Company rose to unprecedented levels, creating a huge boom. However, due to the British refraining from buying the stock, the stock fell sharply. The company's vast stock assets disappeared at once and came to nothing. It was an encounter into inexistence for both Montesquieu and Adam Smith. John Law barely escaped with his life and fled to Holland. During the travel to Italy, Montesquieu met John Law in his later years. Smith did not meet John Law but he did describe him. Smith also knew the fear of this stock and the inexistence of it. So, Smith preached solid labor.

(5) *The introduction of the separation of powers*

Montesquieu preached the separation of legislative, executive and judicial powers. Smith also adopted it. The judicial power should be separated from the executive power and made independent. This is to avoid arbitrary trials by the rulers. The introduction of this idea was the biggest influence of Adam Smith from Montesquieu. Smith also mentions the Parliament (Court of Justice). This is an obvious acceptance of Montesquieu. As it is important, I will note the relevant part of the division of

power. The independence of the legislative power is already a prerequisite since John Locke, so the relationship between the executive and judicial power becomes a problem:

When the judicial is united to the executive power, it is scarce possible that justice should not frequently be sacrificed to what is vulgarly called politics. The persons entrusted with the great interests of the state may even without any corrupt views, sometimes imagine it necessary to sacrifice to those interests the rights of a private man. But upon the impartial administration of justice depends the liberty of every individual, the sense which he has of his own security. In order to make every individual feel himself perfectly secure in the possession of every right which belongs to him, it is not only necessary that the judicial should be separated from the executive power, but that it should be rendered as much as possible independent of that power.<sup>1</sup>

#### (7) Emphasis on customs

Montesquieu said that geopolitically, northern peoples live in cold regions, so they drink a lot of alcohol to keep their bodies warm. The Russians drink strong vodka. On the other hand, people in the south, for example, in the hot desert areas of Arabia, do not drink alcohol due to their religious beliefs. Drinking alcohol in the heat would make them thirsty, which is not rational. People in the south do not rely on alcohol. There are descriptions of these practices. Smith describes the customs of the French soldiers.

When a French regiment comes from some of the northern provinces of France, where wine is somewhat dear, to be quartered in the southern, where it is very cheap, the soldiers, I have frequently heard it observed, are at first debauched by the cheapness and novelty of good wine; but after a few months residence, the greater part of them become as sober as the rest of the inhabitants.<sup>li</sup>

#### (8) *The Military*

Montesquieu wrote about military affairs, and Smith followed him in discussing defense in Part 5 in “*An inquiry into the nature and causes of the Wealth Of Nations*”. Montesquieu was interested in the military of each country during his travels in Europe and studied it in detail. In a sense, this can be called military history. Roman history is also a military history. What is interesting about Smith, though not as interesting as Montesquieu, is his description of the psychology of soldiers. He seems to be a runner of psychology:

As a military officer submits, without reluctance, to the authority of a superior by whom he has always been commanded but cannot bear that his inferior should be set over his

head; so men easily submit to whom they and their ancestors have always submitted; but are fired with indignation when another family, in whom they had never acknowledged any such superiority, assumes a dominion over them.<sup>lii</sup>

These are the influences of Montesquieu. In another paper, I will discuss the specifics of “*The Spirit of Laws*”. Before and after the publication of this book, Montesquieu lost his eyesight and encountered inexistence and darkness. I will write about this.

### 8. Loss of Sight, Inexistence and Darkness

Montesquieu died suddenly of an inflammatory fever that affected every part of his body. It seems that he himself had a premonition of death. In a fragment of the draft of the preface to “*The Spirit of Laws*”, he wrote:

I had a plan to discuss some of the passages in this work more extensively and in detail, but it became impossible for me. My reading has debilitated my eyes. And what light I still have left seems to be nothing more than the dawn of a day when my eyes will be closed forever.

What I am about to reach is the time when I should begin and end things, when I should reveal and conceal everything and when I should lose even my weaknesses. The “time” is a mixture of hardship and joy.

For what reason should I still bother my mind with a few trivial writings? I am in search of immortality. But it resides within myself. Expand, my soul! Dive into the vastness of the boundless! Go back into the Great Being (le grand Etre)! In my present miserable condition, it was impossible for me to make any final touches to this work. And I would have burned it a thousand times if I had not thought it a beautiful thing to be of service to people until my last breath itself... Immortal God! Mankind is your most valuable work. To love mankind is to love you. And at the end of my life, I offer this love to you.<sup>liiii</sup>

This is where my principle of inexistence and love is summed up. Inexistence as the weakness of the eyes, the lack of sight, inexistence as death ending life, the infinity of the vast boundless world, the quest for immortality is eternal, the transcendent-being of the great being, and love for God, humanity. Is the principle of inexistence, infinity, eternity, transcendent-being and love coincidental? No, it is not. Montesquieu experienced the same principles as I did. It is the arrival of the ultimate in learning.

**Conclusion.** I talked about inexistence and love of Montesquieu. In the presented paper, I discussed friendship and family love. I have already written about Montesquieu's achievements. However, it is rare to find a man as blessed with friendship and love of family as he was. He had a father who cared for his career and an uncle who passed on his inheritance, which was his financial stability. When he traveled to Europe, he was accompanied by James Waldegrave, British diplomat. He was fortunate

enough to meet the Emperor in Vienna and the future Pope in Italy, something he would not normally have had the opportunity to do. Of course, his friends must have respected his humanity and wanted to meet him with them. How he was blessed! He had many friends who helped him in the publication of his books and in the suppression of the Catholic ban. In addition, Montesquieu was blessed with a loving family. His wife, Jeanne, had a leg disability. Montesquieu was naturally protective of her. She was crippled and because of her appearance, she had no connection to the glamorous court of Paris. However, her contribution to supporting the family and the household at the château in Bordeaux in the absence of his master was significant. Because of this, Montesquieu was able to work. In his later years, Montesquieu lost his eyesight. His wife had a crippled leg. In 2021, the Tokyo Olympics and Paralympics were held and many people were impressed by the activities of people who were blind or lame. Montesquieu and his wife worked together to leave behind a world-famous book. Further they also had three children. The daughters became hands and feet of Montesquieu, carefully transcribing their father's dictation. The son, after Montesquieu's death, left a splendid memorial note. Philia and familial love completed the masterpieces of history and made them shine as human love. This supports my idea of both *transcendent* (supernatural) and *inexistent* (natural, immanent to the subject) law.

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- <sup>i</sup> “De l'esprit des lois (The Spirit of Laws, 1748)” Montesquieu Œuvres complètes, I, II Gallimard, 1949, I sketched it; “Œuvres complètes”, “The Spirit of Laws”, English version, Great Books in Philosophy, Prometheus Books, Amherst, New York, 2002 (likewise, I sketched “The Spirit of Laws).
- <sup>ii</sup> “The Spirit of Laws”, 3 volumes, bottom volume, Translated by Yoshiyuki Noda and others, Iwanami Bunko, Tokyo, 1989, p. 504.
- <sup>iii</sup> Montesquieu [Life and Thought], 3 volumes, Tadahiro Fukukama, I, 1975, Sakai Shoten, p. 8; I sketched it MLT.
- <sup>iv</sup> “*Montesquieu*”, Great Books of the World, translated by Kōji Inoue Chuōkōron-sha, 1972, p. 15.
- <sup>v</sup> MLT I, p. 14.
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- <sup>vii</sup> Ibid. p. 20.
- <sup>viii</sup> Ibid. p. 22.
- <sup>ix</sup> Ibid. p. 25.
- <sup>x</sup> “New translation Bible” Luke 23:44–48, Inochinokotobasha, Tokyo, 1960.
- <sup>xi</sup> MLT I p. 30.
- <sup>xii</sup> “*Montesquieu*”, Great Books of the World, Chuōkōron, 1972, Tokyo, p. 15.
- <sup>xiii</sup> “*Montesquieu*”, man’s intellectual Heritage, Eisaburō Koga, Kōdansha, Tokyo, 1982, p. 45.
- <sup>xiv</sup> MLT I, pp. 45–62; “Mémoire sur les Dettes de l’État”, “Œuvres complètes”, I, pp. 66–71.
- <sup>xv</sup> The *Biocosmological Association* is an international society that is also associated with the World Congress of Philosophy. The society is chaired by Professor Liu Xiaoting (Beijing Normal University) and publishes the electronic journal *Biocosmology – neo-Aristotelism*. Meetings are held alternately in Beijing, Russia and Europe. The theory of Aristoteles, the ancestor of all studies, is reconsidered in a modern way and the world and the universe are regarded as the movement and development of organic energy. It can be compared to realism of Bergson. Creative papers, Nishida and Tanabe are also actively published with the intention of integrating European and Asian philosophies. The editor-in-chief is Konstantin S. Khroutski (Russia, Novgorod University), a philosopher and doctor. The Journal’s scope of research is wide-ranging. The most recent BCA’s meeting was a participation at the Congress held at the Moscow State University (on-line) in June 2021, co-organized with the Russian Academy of Sciences and the Club of Rome.
- See also my “*Philosophy of Nothingness and Love*”, Kiyokazu Nakatomi; Lambert Academic Publishing, Germany, 2016.
- <sup>xvi</sup> See: ‘Evolution and Non-evolution: Bergson and Fabre’, (Japanese version) “*Revue de Philosophie Française*” No. 14, Société franco-japonaise de philosophie, Tokyo, 2009; ‘Evolution and Non-evolution. Bergson and Fabre’ (English version) *Spoleczeństwo i Edukacja, Międzynarodowe Studia Humanistyczn*,

Poland 2014; ‘Evolución y No Evolución –Bergson y Fabre’ (Spanish version) *Spółeczeństwo i edukacja*, Międzynarodowe Studia Humanistyczn, Poland, 2017; ‘Ewolucja czy nie-ewolucja? Bergson i Fabre’ (Polish version) *Spółeczeństwo i Edukacja Nr 1/2009*, Międzynarodowe Studia Humanistyczn, Poland, 2009.

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xxi “*Lettres persanes*”, N.24, “*Œuvres complètes*”, I, Gallimard, pp. 165-166, “*Persian Letters*”, A new translation by Margaret Mauldon, Oxford World’s Classics, 2008, p. 31.

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xxiii See: [https://en.wikipedia.org/wiki/Palace\\_of\\_Versailles](https://en.wikipedia.org/wiki/Palace_of_Versailles)

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xxv MLT I, p. 297, “*Œuvres Complètes*”, I, Mes Pensée 4 (213), p. 978.

xxvi ‘*Great Japanese Philosopher of Law-Fusaaki Uzawa*’; “*Humanum*” Międzynarodowe Studia Społeczno-Humanistyczne, Poland, 2021; ‘*Idea of Transcendent Law*’ “*Humanum*”, scheduled for publication; ‘*Idea Of Transcendent Law and Noosphere Studies*’ “*Collection of Articles*”, Moscow State University, The 7th International Scientific Conference, 2021.

xxvii MLT I, p. 114, “*Œuvres Complètes*” I, 1949, Mes Pensée 618, pp. 1143-1144.

xxviii Buffon: “*Histoire naturelle*”, Tome I (1749), ‘*Premier discours : De la manière d’étudier et de traiter l’histoire naturelle*’, cf. MLT I, p. 115.

xxix MLT II, p.115, “*Œuvres Complètes*” I, Mes Pensée 1158 (1597), 1159 (2162), p. 1295.

xxx MLT II, p. 116, “*Œuvres Complètes*” I, Mes Pensée 1155 (1428), p. 1295.

xxxi MLT II, p. 160.

xxxii MLT II, p. 171, “*Œuvres Complètes*” I, Mes Pensée 55 (2136), p. 985.

xxxiii MLT II, p. 176, “*Œuvres Complètes*” I, p. 546.

xxxiv MLT II, p. 177, “*Œuvres Complètes*” I, p. 548.

xxxv MLT II, p. 178.

xxxvi MLT II, p. 182, “*Œuvres Complètes*” I, Voyages, p. 605.

xxxvii MLT II, p. 182, “*Œuvres Complètes*” I, p. 605.

xxxviii MLT II, p. 189, “*Œuvres Complètes*” I, Mes Pensées, p. 674.

xxxix MLT II, p. 192, “*Œuvres Complètes*” I, Voyages, p. 676.

xl “*Œuvres Complètes*” I, p. 692.

xli MLT II, p. 380.

- xlii MLT II, p. 380.
- xliii MLT II, p. 220.
- xliv MLT II, pp. 267–273.
- xlv *Considérations sur les causes de la grandeur des romains et de leur décadence, Œuvres Complètes II* pp. 69–209.
- xlvi “*The Innovation of the Study of Society: Montesquieu and the Scottish Enlightenment*,” Hideo Tanaka, Kyoto University, *Journal of Economics and Management* ” (1995), 156(4): 141–162.
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- xlix Ibid. pp. 173–178.
- <sup>1</sup> Ibid. p. 328.
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- <sup>lii</sup> Ibid. pp. 323–324.
- <sup>liii</sup> MLT III, pp. 231–232, “*Œuvres Complètes*” II, Dossier de l’esprit des lois, 206, p. 1041.

## Book of Abstracts

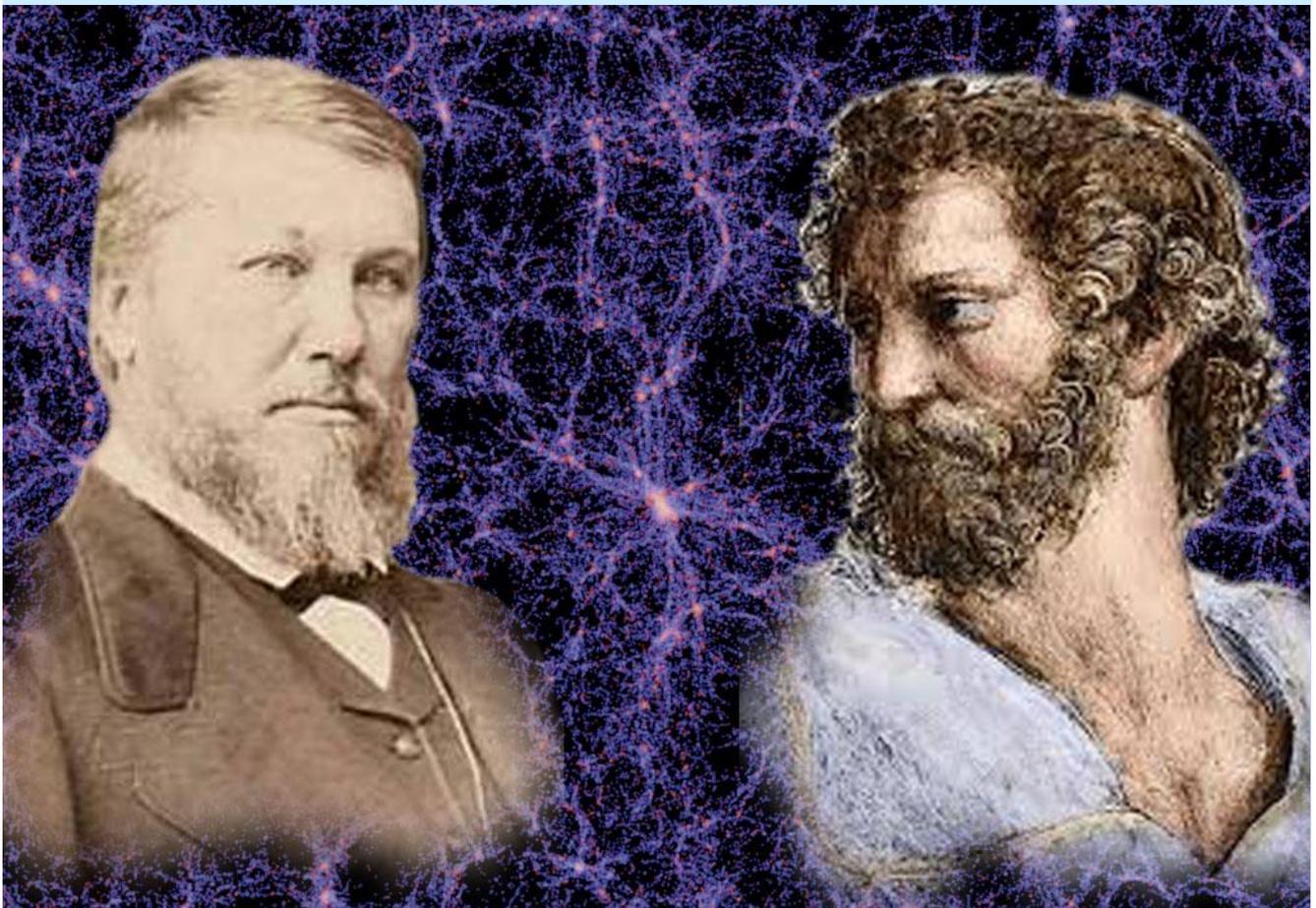
### *the 23<sup>rd</sup> International Symposium on Biocosmology (23ISBC)*

held as part of the *II International Scientific Assembly*  
«*International Cooperation for Sustainable Development*»;

October 4-7, 2022; Moscow State University named after M.V. Lomonosov;  
at the *Faculty of Global Studies, MSU*

*on the topic:*

*“In the year of the 200<sup>th</sup> anniversary of the birth of N.Ya. Danilevsky :  
Towards a worldwide (peaceful) Biocosmological (Organicist) U-turn – through the  
fundamental cultural reorganization of the Russian scientific and educational process ”*





Московский государственный университет имени М.В. Ломоносова  
**ФАКУЛЬТЕТ ГЛОБАЛЬНЫХ ПРОЦЕССОВ**

Lomonosov Moscow State University  
**FACULTY OF GLOBAL STUDIES**



**Biocosmological Association**

*for Universalizing Scientific and Philosophical Research  
 based upon the Original Aristotelian  
 Cosmological Organicism*

*23<sup>rd</sup> International Seminar on Biocosmology*

*/ XXIII Международный семинар по Биокосмологии*

*по теме / on the topic*

**“In the year of the 200th anniversary of the birth of N.Ya. Danilevsky : Towards a worldwide (peaceful) Biocosmological (Organicist) U-turn – through the fundamental cultural reorganization of the Russian scientific and educational process”**

*«В год 200-летия со дня рождения Н.Я. Данилевского : К реализации мирового (мирного) Биокосмологического (Органицистского) разворота – через первичную реорганизацию культуры Российского научного и образовательного процесса»*

Дата: 6 октября

Время: (6 октября, 10:00 – 17:00)

Модератор: Хруцкий К.С.

Date: October 6

Time: (October 6, 10:00 – 17:00)

Moderator: Khroutski Konstantin

**Авторы докладов / Authors of presentations**

| ФИО / Name  | Тема доклада / Topic  | Место работы/ Affiliation   |
|---|---|---|
| <p><b>Opening session / Открытие заседания</b></p> <p>KHROUTSKI Konstantin S. – <i>Opening remarks by the moderator</i></p> <p>LIU Xiaoting – <i>Welcoming speech by the President of the Biocosmological Association</i></p> <p>GRINCHENKO Sergey N. – <i>Welcome Address by the Vice President of the BCA from Russia</i></p> |   |   |
| <p>Prof. LIU Xiaoting</p>   | <p align="center"><i>Starting Again After Fifty Years<br/>(Welcoming Speech by the President of<br/>the BCA)</i></p> <p align="center"><i>/ Начать все сначала через<br/>пятьдесят лет<br/>(Приветственная речь<br/>Президента БКА)</i></p>   | <p>Beijing Normal University,<br/>Beijing 100875, CHINA</p>   |
| <p>Проф. ОРЛОВ<br/>Александр Иванович</p> <p>/ ORLOV Alexander<br/>Ivanovich</p>  | <p align="center"><i>Управление наукой в<br/>современных условиях с точки<br/>зрения Биокосмологической<br/>Инициативы</i></p> <p align="center"><i>/ Governing Science in<br/>contemporary conditions from the<br/>Biocosmological Initiative<br/>perspective</i></p>  | <p>Московский<br/>государственный<br/>технический университет<br/>им. Н.Э. Баумана, г.<br/>Москва</p>   |
| <p>Проф. ГРИНЧЕНКО<br/>Сергей Николаевич</p> <p>/ GRINCHENKO Sergey<br/>Nikolaevich</p>   | <p align="center"><i>О месте и роли науки и<br/>образования в<br/>самоуправляющейся иерархо-<br/>сетевой системе Человечества: с<br/>информатико-кибернетических<br/>позиций</i></p> <p align="center"><i>/ On the place and role of science<br/>and education in the self-governing<br/>hierarchical-network system of<br/>Mankind: from informatics-<br/>cybernetic positions</i></p> | <p>Института проблем<br/>информатики<br/>Федерального<br/>исследовательского<br/>центра «Информатика и<br/>управление» РАН, г.<br/>Москва</p> |

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|---|---|---|
| САВЕЛЬЕВА Тамара<br>/SAVELYEVA Tamara   | <i>Вернадский и Юлгок: Незападный диалог об устойчивом развитии</i><br>/ <i>Vernadsky meets Yulgok: A non-Western dialog on sustainability</i>  | Hong Kong Institute of Education for Sustainable Development; HKSAR of CHINA            |
| Prof. ZHANG Xiuhua  | <i>The Methodological Value of the Biocosmology Initiative and Its Contemporary Implications for the Construction of a New Civilization</i>   | China University of Political science and Law, Beijing, CHINA                           |
| NAKATOMI Kiyokazu   | <i>Theory of peace by Montesquieu</i>   | Matsuo High School and Asahi Agricultural High School in Chiba Prefecture; Sammu, JAPAN |
| NAKATOMI Kiyokazu   | <i>Approaching World Mutual Understanding – The Route of Aristotle and Montesquieu in the field of justice</i><br><br>/ Приближение к мировому взаимопониманию – путь Аристотеля и Монтескье в области справедливости | Matsuo High School and Asahi Agricultural High School in Chiba Prefecture; Sammu, JAPAN |
| Prof. ZHOU Guowen & CAI Xinyi   | <i>Reflections on environmental ethics of boundary and domain – Based on the Taoist View of nature</i>  | Beijing Forestry University, CHINA  |
| Prof. ZHOU Guowen   | <i>Localization of environmental philosophy in a global perspective</i>   | Beijing Forestry University, CHINA  |
| Prof. ZHANG Peter   | <i>Deleuze and Khora</i>  | Grand Valley State University, Michigan, USA  |
| <b>Обсуждение выступлений первого дня работы Семинара</b><br><b>/ Discussion of the Presentations made on the First day</b> |   |   |

## Second Day of the Seminar

Дата: 7 октября  
 Время: (7 октября, 10:00 – 16:00)  
 Модератор: Хруцкий К.С.

Date: October 7  
 Time: (October 7 10:00 – 16:00)  
 Moderator: Khroutski Konstantin

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|---|---|---|
| ХАРИТОНОВ Анатолий Сергеевич<br>/ KHARITONOV Anatoly Sergeevich       | <p style="text-align: center;"><i>Возникновение, развитие и гибель организма – трёхсущностное взаимодействие бытия и небытия</i></p> <p style="text-align: center;"><i>/ The emergence, development, and death of an organism – a three-substantial interaction of being and non-being</i></p>        | Российский экономический университет имени Г.В. Плеханова, г. Москва    |
| Prof. LI Ping   | <p style="text-align: center;">The Finitude of Technology and the Precedence of Ethics – the Common Philosophy based on the Second Beginning</p>  | Henan University of Economics and Law, Zhengzhou, Henan Province, CHINA |
| д.ю.н. КОЖЕМЯКОВ Алексей Семенович<br>/ KOZHEMYAKOV Alexey Semenovich | <p style="text-align: center;"><i>Единство органичного (заложенного – естественного) и разорванность современного (искусственного) миров</i></p> <p style="text-align: center;"><i>/ The unity of the organic (inherent – natural) world, and the brokenness of the modern (artificial) world</i></p> | Независимый эксперт по вопросам мировой политики, г. Москва             |
| Prof. ZHOU Guowen,<br>with XU Xiaonan, SUN Yelin & GENG Jiangyan      | <p style="text-align: center;"><i>Meaning and trend of future environmental philosophy</i></p>  | Beijing Forestry University, CHINA                                      |
| CHI Xuefang   | <p style="text-align: center;">On the organic nature of the two-way construction of ecological civilization and life civilization</p>   | Harbin Institute of Technology (Weihai), CHINA                          |

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|--|---|--|
| <p>Проф. МАКСИМЮК<br/>Николай Несторович</p> <p>/ MAKSIMIUK Nikolai<br/>Nestorovich</p>  | <p><i>Экологизация образования –<br/>необходимое условие<br/>формирования здорового образа<br/>жизни человека</i></p> <p><i>/ Ecologization of education – a<br/>necessary condition for forming a<br/>healthy human lifestyle</i></p> <p><i>e</i></p>  | <p>Новгородский<br/>государственный<br/>университет имени<br/>Ярослава Мудрого,<br/>Великий Новгород</p> |
| <p>ХРУЦКИЙ Константин<br/>Станиславович</p> <p>/ KHROUTSKI<br/>Konstantin Stanislavovich</p>                                     | <p><i>Биокосмологический разворот,<br/>сообразуясь с поразительным<br/>соответствием (в отношении к<br/>Российской цивилизации) выводов<br/>теории Н.Я. Данилевского (150<br/>лет назад) и текущего момента<br/>мировой истории<br/>(социокультурной эволюции)</i></p> <p><i>/ A Biocosmological U-turn,<br/>consistent with the striking<br/>coherence (in relation to the<br/>Russian civilization) of the<br/>conclusions of Danilevsky's theory<br/>(150 years ago) and the current<br/>moment in world history<br/>(sociocultural evolution)</i></p> | <p>Новгородский<br/>государственный<br/>университет имени<br/>Ярослава Мудрого,<br/>Великий Новгород</p> |
| <p>Общее дискуссионное обсуждение поднятых на Семинаре вопросов<br/>/ General discussion of the issues raised at the Seminar</p> |   |  |

## Starting Again after 50 Years Welcoming Speech by the President of the BCA

Xiaoting LIU<sup>1</sup>

Greetings : dear moderators, contributors, participants and experts!

In recent years the world has entered a special historical period, which I call the “Greatest Change in 10,000 years”, that is, a serious environmental situation which has never appeared over the past 10,000 years since the last Ice Age, also described by some as the “Anthropocene Crisis”. It is generally admitted that the ecology of the earth's surface has deteriorated to an almost irreversible state, which is, of course, very urgent and very worrying. There are many causes of this, some of which we cannot discuss and some of which are within the scope of our concern, such as the competition between the industrialization and modernization of mankind, the conflict between globalization and anti-globalization, the confrontation between tradition and modernity within developing countries, and so on. This year is just 50 anniversary of the United Nations Declaration of the Human Environment and Limits to Growth were published the Human Environment and the **Club of Rome** report of Limits to Growth were published. Humankind continuously work hard for half a century, but the earth environment does not improve. Because human society, ecological environment, etc., on the surface of the planet are, on the whole, deviating from the principle of organicity. That is to say, each side can find its own reasons for its choices, decisions and actions and seems to be able to justify them, but the overall situation of humanity and the planet is heading towards an irreversible abyss.

The call for and dissemination of organic philosophy is thus not optional, but a very urgent and even pressing intellectual and theoretical task. The role of ideas is equivalent to the slow covariance of complex systems, slow but at the same time persistent and firm. For this reason, it is only by constantly raising the organic literacy and level of consciousness of the entire population of society that the culture of mankind can be constantly transformed and that people can become considerate and cooperative towards each other and achieve the synergistic development by communication exhortation when confronted with a variety of conflicting choices of interest. Therefore, it is in this

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context today that we find that organicity is not only the intrinsic quality of each thing, but the essential connection among various things, even including the organic relationship among things that transcends interfaces and categories. The distant natural world, for example, and the present worlds of biology, society and thought, which used to be seen as separate interfaces with their own rules of operation, are today found to interact with each other on a regular basis and to be intrinsically connected as a whole. This requires us to constantly extend our mind beyond the appearances of things, to see more of the essential connections within them, walking steadfastly in the path of organic philosophy! Only in this way can we reveal the oneness of the world itself, discover the interconnectedness of all things, reconstruct new cultures and civilizations on new bases or foundations, and even save civilizations from their present peril.

In this respect, the International Bio-cosmological Association has done much work. Although this work is only like a drop in the ocean or a drop in the bucket for the fate of the whole planet, the principle of organicity is that if people can raise their voices, they should cry out, and the more people cry out, the more sand they may accumulate, and by spreading and diffusing their voices, they may achieve the effect of a starburst and a multitude. This is our hope, demonstrating our responsibility to the world today and to our children and grandchildren, signaling our moving into the future as the present generation, and further, indicating a proper responsibility and position as citizens of the modern world. Of course, these activities are inseparable from the organization of our Association and especially the active work of the team led by the Secretary General, Professor Konstantin, who initiated and organized most of the online Symposiums, especially during the years of the epidemic when it was difficult to get together offline, and whose responsible spirit is very touching. So special thanks go to them!

Finally, I hope that all of us in the Association can transcend geographical, national and cultural constraints and actively contribute our different insights, for it is only when various understandings are conveyed and united that the Association can be dynamic and have a positive impact on the building of our own culture and civilization on the planet. For this purpose, on behalf of the Association, I thank you all from the bottom of my heart! I hope that our Association will grow and that this Symposium will be a great success!

## Governing Science in contemporary conditions from the Biocosmological Initiative perspective

Alexander Ivanovich ORLOV<sup>1</sup>

We have been dealing with the problems of managing science for about forty years. In the 1980s, these works were related to the analysis of the effectiveness of scientific conferences (see, for example, [1]). Much has been done during the creation of the All-Union Statistical Association – the national scientific society in the field of statistics (see, for example, [2]). A forecast was developed for the development of Russian science in the conditions of the 1990s [3]. The forecast, unfortunately, came true, the state of science in the Russian Federation is much worse compared to the USSR in the 1980s. Then we turned to the problems of applying scientometrics and expertise in the management of science (see, for example, [4]). In particular, the use of the number of citations as a key performance indicator in fundamental science was justified (see, for example, [5, 6]). The next step is the analysis of the dynamics of the development of science [7, 8] based on the Biocosmological Initiative [9, 10]. In the course of our research work, a number of scientific problems have been identified, some of which we discuss below.

Let's discuss the relationship between world science and national science. We are primarily interested in the science of Russia. Globalization is usually understood as the concept of world economic, political, cultural and religious integration and unification, as well as the process of implementing this concept. An integral part of the concept of globalization is the idea of a single world science. In ideological terms, the concept of globalization was developed in detail in the first half of the 20th century. As an important milestone, we note the detailed monograph by G. Wells "The New World Order", published for the first time in 1940 and which had a great influence on thinkers around the world. In practice, a number of attempts at globalization have been made earlier: the Crusades, the Arab conquests, the creation of colonial empires, the activities of the Communist International, the League of Nations ...

In the mass consciousness of the world community, the concept of globalization was presented as the only possible one. However, by now it has become obvious that in modern conditions this concept

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reflects the interests of the Anglo-Saxons, who claim world domination. Currently, the main world power in economic terms is the People's Republic of China. Since 2014, it has surpassed the United States in terms of gross domestic product (measured in purchasing power parity). It can be expected that in the next decade, India will take the second place in the world in this indicator, pushing the United States to third place, and the ordering of economic indicators will come in line with the ordering by population. The next three – Japan, Germany, Russia – will continue to lag behind the top three both economically and in terms of population.

In the coming era of change, the Anglo-Saxons' powerful ideological weapon is the concept of globalization. The need to revise it in economic life was manifested in the real weakening of global contacts as a result of the pandemic and the consequences of the application of sanctions. The need to ensure the functioning of national economies in the mode of reducing dependence on the outside world, based on self-reliance, in particular, ensuring import substitution, has become obvious. However, the debunking of the concept of globalism is extended in time. Mass consciousness and production relations lag behind the development of the productive forces.

It is regrettable to admit that in the field of scientific activity the concept of globalization is still popular. At its center lies the idea of the primacy of world science, parts of which are national sciences that are not self-sufficient. It is believed that each individual scientist conducts his research in order to contribute to world science. Moreover, the science of the Anglo-Saxon countries is recognized as the central part of world science within the framework of the concept of globalization. As a consequence, the main scientific results must be published in English. Their significance is determined by the recognition of these results by Anglo-Saxon scientists, in particular, by their reflection in Western databases of bibliometric data WoS and Scopus.

The manifold negative consequences of such globalization for national sciences are quite obvious. The publication of articles in English not only hurts the prestige of the country, but also reduces the number of its readers – representatives of the national science. Since a journal has to be paid for publication, the focus on English-language science leads to an unjustified outflow of capital from the country. This orientation leads to increased contacts with Anglo-Saxon scientists and, as a result, to a reduction in contacts with domestic researchers, and this encourages a brain drain. As a result, not only do scientific results come to the West, carried out with the money of domestic taxpayers, but the scientists themselves leave the fatherland, which spent a lot of money on their preparation. We see that the uncritical acceptance of the concept of globalization gives a considerable income to the propagandists of this concept.

Note also the Anglo-Saxon tendency to appropriation of intellectual property. Such misappropriation is often carried out, so to speak, in a natural way. Having become acquainted with the work of a domestic researcher, the American scientist makes small additions to it, and further references are made to his work, while the author of the main result remains in oblivion. This effect is especially noticeable for significant achievements. Thus, the mobile phone and the Internet were first developed in Russia, while at present they appear as Anglo-Saxon achievements.

Modern management was developed in the 1870s at the Imperial Moscow Technical School (now Bauman Moscow State Technical University), while management textbooks in English claim that it was created at the beginning of the 20th century. in the USA (see, for example, [11]).

In Russia, kowtowing before the West has been implanted for more than 400 years, albeit with varying success.

We have to admit that the concept of globalization has caused great damage to Russian science. It got to the point that the official system for evaluating scientific activity gave priority to English-language publications over domestic ones. An article indexed in WoS or Scopus was valued several times more than a domestic one when compiling reports of research institutes and higher educational institutions on scientific activities. Only in 2022, there has been some departure from such distortions.

It is quite natural that the national sciences began to defend themselves against the Anglo-Saxon oppression. A few years ago, the PRC decided that the bulk of scientific results should be published in Chinese. Likewise, France defends its language. We have to admit that at present English is the language of international communication. It can be compared with Latin, which was used by the scientific world of the Middle Ages, although at that time no people spoke this language. Therefore, in the near future, publications in English are natural. As a result of the widespread introduction of computer translators, the language problem will become a thing of the past.

It is clear from what has been said that priority should be given to national science. In particular, the main results should be published for the first time in domestic publications, and such publications should be valued higher than foreign ones. This does not mean that foreign results should be ignored. Their analysis should be constantly carried out by organizations allocated for this purpose, and the results of such an analysis should be brought to the attention of the domestic scientific community. However, the organizational foundations in the field of scientific activity should be focused on the development of national science, acting in the interests of the country. Such an attitude is natural for applied science. However, it is not at all necessary for fundamental science to start with an analysis

of what has been done in world science. It is possible and necessary to work “from scratch”, as one of the most prominent physicists of the 20th century practiced. L.D. Landau.

The Anglo-Saxons are actively implementing requirements for publications that cause significant harm to the development of science as an information process. For example, a negative attitude towards self-citation, which deprives the reader of important information and makes it difficult to transfer knowledge from one scientific field to another. Or the requirement for mandatory peer review, which slows down the publication of new results.

We can expect the abandonment of scientific journals and the publication of scientific books as a result of the transition of scientists to the direct placement of scientific papers on the Internet. This will be a return (at the modern level) to the system of dissemination of scientific results during the exchange of letters between scientists, as was customary before the advent of scientific journals. (As you know, the history of scientific journals dates back to 1665, when the French *Journal des sçavans* and the English *Philosophical Transactions of the Royal Society* first began systematically publishing research results.) Scientific results obtained by a scientist : their evaluation for centuries has been carried out by experts, i.e. it is based on the subjective opinions of other scientists. The advantages and disadvantages of this approach have been repeatedly discussed, including by us (see, for example, [4, 5]). It is worth noting here that the author of this article published the most famous textbook on expert assessments in Russia [12].

In recent decades, the information barrier has become an obstacle to the reasonable application of expert assessments. The number of publications on the research topics of a particular scientist has become several orders of magnitude higher than his ability to perceive scientific information. Thus, the number of scientific articles and books that a researcher is able to get acquainted with in a lifetime does not exceed 10 thousand, while there are millions of publications on his subject, and the flow of newly incoming publications does not dry out. Therefore, we can talk about the general ignorance of scientists.

It is possible to overcome, at least partially, the information barrier with the help of scientometric methods, i.e. statistical methods of studying science. The world's first monograph on scientometrics was published by V.V. Nalimov and Z.M. Mulchenko more than half a century ago, in 1969 [12]. In particular, it shows that the contribution of a scientist to fundamental science is most objectively assessed by the number of citations of his work in subsequent scientific publications. The application of scientometric methods is based on painstaking work with data. Therefore, scientometrics acquired

practical significance only in the 21st century. as a result of the use of big data technologies that allow you to analyze all (ideally) Internet resources.

Scientometrics makes it possible to analyze the contribution of specific scientists and their associations “according to the Hamburg account”, regardless of the subjective expert assessments of certain scientists. Therefore, managers in the field of science began to actively use scientometric indicators in solving current problems of science management. It is quite natural that the use of scientometrics was actively opposed by those scientists for whom the usual high expert assessment of the environment and superiors came into conflict with the objectively established relatively small real contribution to science, assessed using scientometric methods.

In addition, the practical application of scientometrics faces a number of objective difficulties. They are associated, for example, with the real limitations of the content of the analyzed bibliometric databases. Thus, the globalist bibliometric databases WoS and Scopus analyze only a small part of Russian publications. This is explained by discrimination in the selection of publications for indexing. As a result, the contribution of Anglo-Saxon authors to science is overestimated, while that of Russian authors is underestimated by orders of magnitude.

Therefore, when analyzing data on Russian publications, one should use Russian bibliometric databases, in particular, the Russian Science Citation Index (RSCI), which operates on the basis of the domestic scientific electronic library eLIBRARY.RU – the largest Russian information and analytical portal in the field of science, technology, medicine and education.

However, the RSCI is far from perfect. First, by the coverage of the array of publications. So, from the journal *Biocosmology – neo-Aristotelism*, eLIBRARY.RU includes only 6 articles out of several hundred, and none in the RSCI. From the oldest Russian economic journal “The Economist” (in 1924–1990 it was published under the name “Planned economy”), only 27 articles out of several thousand are included in eLIBRARY.RU, and not a single article is included in the RSCI. Secondly, of the entire eLIBRARY.RU library, only a part of the publications are indexed in the RSCI, and among the selected ones, those recognized as the most valuable, the so-called. “nucleus of the RSCI”. Decisions on where to include a particular publication are based on the subjective opinions of experts. A detailed analysis of the problems of applying scientometrics and expertise in the management of science is given in our numerous publications, including those indicated at the beginning of this report.

The next section is the dialectics of the development of science.

Scientometrics and expert assessments provide only a superficial analysis of the development of science. For an in-depth analysis of the dynamics of science, it is advisable to use other tools, in particular, the dialectic of the development of socio-economic processes. In 2021, we made attempts to implement this idea.

The application of the laws of dialectics made it possible to obtain a number of scientific results in the field of science of science.

We have identified 23 pairs of opposites, each of which is described with the help of two principles (entities), which we called poles. The law of unity and struggle of opposites has provided tools for describing and managing the development of science. Since, in order to consider the interaction of the opposites introduced by us, it is required to provide sufficiently voluminous texts, we refer the reader to our publications for 2021-2022 [7, 8].

The existence of an information barrier is an example of the transition from quantity to quality. The growth in the number of scientific publications has led to a fundamentally new situation – the impossibility for the researcher to get acquainted with the bulk of publications on their subject.

At the initial stages of the development of science, scientists exchanged letters containing their results. The negation of this information system was the emergence of peer-reviewed scientific journals, which, in particular, make it possible to obtain the recognition of the scientific community by the very fact of publication and consolidate their authority. Currently, we are witnessing the denial of denial – the placement of materials on the Internet, often by the author himself without the mediation of editors and reviewers, i.e. return at a new level to the information system of the initial stages of the development of science.

Let's summarize:

This report briefly considers a number of the author's results in the field of science of science. A more detailed presentation is given in the publications indicated in particular at the beginning of the report. Since the speaker is one of the most cited mathematicians and economists in Russia, I dare to hope that the above reflections will be interesting and useful to the audience.

It is necessary to further develop studies of the dynamics of the development of science, aimed at studying the processes of managing scientific activity. This report is devoted to a number of areas of possible research.

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## A New Organic Theory that Moves Towards the Second Beginning

Xiaoting LIU<sup>1</sup>

The new organic theory is relative to the traditional organic theory, because the traditional organic theory is the organic theory in the first beginning context and its basis is not really organic.

People can roughly divide the historical process of organic theory into several stages or levels, including: 1) early primitive organic theory, namely, natural organic theory, which is often called integrated organic theory and has been similarly discussed in ancient Chinese culture and ancient Indian culture; 2) the second is organic theory in the sense of subject-object differentiation, which emphasizes the organic connection between various components based on differentiation, along the mechanism theory to system theory, and then organically explains the system. Although this organic theory is also organic, as Heidegger has repeatedly pointed out in his middle-work *Contributions to Philosophy*, the basis of this organic thought is still only mechanical, not really organic. The organic thought, which transcends the subject-object relationship between these two, is what we call “new organicism.” In this regard, contemporary Chinese philosopher Zhang Shiyong proposed in his argument of “The Philosophy of Universal Connection” that philosophy in human history can be divided into three stages: philosophy in the early pre-subject-object dichotomy era, philosophy in the middle-subject-object dichotomy era, and philosophy in the future post-subject-object dichotomy era, which can be regarded as a support for the idea of new organic theory.

If there is a philosophical interpretation of such a new organic theory, it first highlights “organic”, that is, using organic as a premise and foundation, or as the background of all things to construct a comprehensive organic theory. Even if we are still in an inorganic state, it is some link in the organic process, so this organic theory can also be called “big organic theory” or total organic theory. That is to say, the nature of the various states in which things appear in operation is nothing more than the explicit and special manifestations of the different levels of fundamental organicity in the relevant processes and joints, and its goal is to move towards higher organicness.

Secondly, this kind of organic theory highlights “organic”, that is, as a kind of holistic thinking and vision, insisting on seeing the world from an organic point of view, that is, refusing to use an inorganic

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vision to understand our universe and world. Even if the object is non-organic, all questions must be organic and “implement organic to the end”. This is actually equivalent to the dialectical relationship between the positive and negative joints in Hegel’s logic, and all the purpose and root are for “union”. In the past, people have provided a variety of organic resources, such as organic matter, organic connections, etc., but they are still about the relatively narrow primary meaning of the word or concept of “organic”. However, today it is a new discussion of organic, which is to absorb and integrate all existing ideological resources to complete the organic transition. In short, organicization has the meaning of a verb, which promotes organicity from partial organic to comprehensive organic, from organic different from inorganic to comprehensive organic, from the external organic of the interrelationship between things to the natural organic of existence. Organic is reflected in action and practice through organic ways to do and act, such as the establishment of ethics which “based on” organicism, that is, organic ethics, as well as organic pedagogy, organic practice, organic science, organic culture, organic action system, especially humanities and humanistic practice. The core here is still anthropology, because in the world of technology or artificial age. People are the secret of everything, especially after the emergence of virtual worlds and robots, human problems will trigger various issues of debate. So, without solving human problems, the rest cannot be fundamentally solved, let alone complete the organic reconstruction of the human world. This means that we need to shape a new kind of sublime subject, the organic man, armed with organic ideas that can bridge the gap between two beginnings.

In addition, organicism, as one of the ideological foundations for the second beginning, together with the apocalyptic dilemma of human reality and the subjective consciousness initiative of people, together constitute the three realistic premise foundations for the second beginning, and it is also the basis and bridge for the transition between the first and second beginnings. The problem at the beginning of the first is due to organic loss or incomplete implementation, which leads civilization to the end of the world. The second beginning is to get out of the end times, and to achieve a fundamental turning point in the development of human society and civilization through organicness. But this organic nature is not the organic nature of the past, but emphasizes the intrinsic connection between all things, that is, organic “general”, so that the first beginning is its own organic link. This means that organic, as a universal thinking platform or qualifier, is both the goal of all previous efforts and the starting point of all subsequent action processes, requiring that all people’s thinking and actions be based on organic. Some people may say that this is “pan-organicism”, but this evaluation is actually not understanding the deep organic nature of the universe, otherwise it is not really completely organic.

Based on the above discussion, the future society that is advocated and desired by the second beginning is also an organic society. Similarly, the organic Marxism that the academic circles talk about is not organic matter and Marxism, but organic Marxism, so that it has also brought the development of Marxism to a new stage. In the same way, the so-called new modernization road must also be an organic modernization, not only the organic of man and nature, but also the organic of society and man himself, similarly, Organic farming, organic food, organic organization, organic thinking, and so on. As an organic civilization, the new form of civilization is a fundamental improvement and revolution in organic nature. Therefore, the truth is clear: as long as things are laid on a new organic foundation, the nature of things is very different from the original.

Finally, given that the second beginning and organic nature are mutually exclusive, although many traditional organic ideological resources can be investigated and utilized in the process of organic construction, they must be understood and carried forward based on the second beginning, otherwise it is not to talk about “organic” in the sense of “being” (existence), but only the method of the first beginning or the expedient “organic” (opportunity). Today’s human civilization has entered an era of pluralistic coexistence, and it is normal for different organic ideas to have some differences or even different ideas and exchanges in basic philosophical judgments and positions. As long as there is a desire to be responsible for mankind and to contribute to the salvation of the world, and to promote the ecological environment and human life on the surface of the earth to a better situation, some inconsistencies or differences are positive fortunes for pluralistic dialogue, mutual learning, and increased inner vitality and richness, which is also the situation expected by the constructive principle.

## On the place and role of science and education in the self-controlling hierarchical-network system of Humankind: from the informatics-cybernetic positions

Sergey N. GRINCHENKO<sup>1</sup>

As you know, the term “**organism**” has long been successfully used in science to indicate such properties of a living organism as **integrity**, organization, **relative autonomy**, a certain **expediency of behavior**, high survival rate, etc., manifested by one or another biological, social (or other complex) formation. Thus, a single integral Humanity can be considered as an “organism”, and then “world science” acts as its “organ” – along with “world production”, “world education”, “a set of world languages”, etc.

Indeed, within the framework of *integral Humankind*, **science significantly depends on** the *production* of industrial (directly, through the creation of scientific tools and infrastructure) and agricultural (indirectly, through the need to supply its personnel with products), on *education* (preparing current and supplying its future personnel), from a set of *languages* – the oldest of IT communication (between people in general, not only between scientists), **indirectly depends on** *defense and law and order*, etc.

The author's informatics-cybernetic model (ICM) considers integral Humankind as a self-governing hierarchical network system, permanently tracking, according to search engine optimization algorithms, target criteria of an energy nature, with fixing its results in the form of system memory of the corresponding hierarchical subsystems [Grinchenko, 2007-2022]

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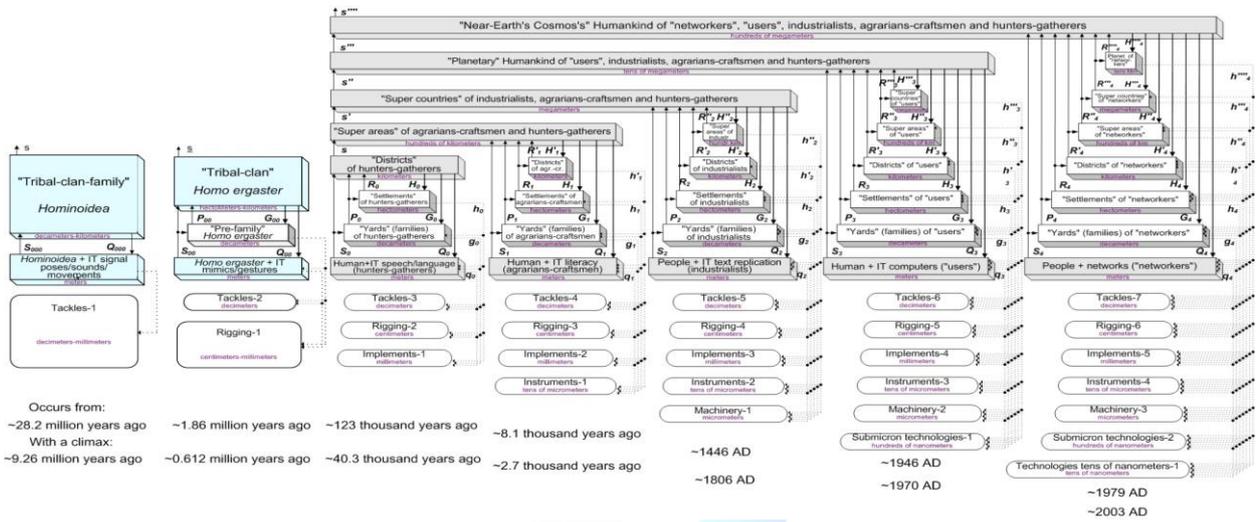


Fig.1. Stages of the global evolution of the hierarchical network system of Humankind.

The spatio-temporal characteristics of global evolution in the framework of the ICM are some modification of the numerical series of Zhirmunsky-Kuzmin – a geometric progression with a denominator  $e^e = 15,15426$ , revealed by them in the study of critical levels in the development of biosystems [Zhirmunsky, Kuzmin, 1982].

**A few words about the languages of science in relation to its genesis.** At the 2th stage of the complication of the scientific and educational structures of the self-controlling system of Humankind (**based on IT writing**), for oral communication and writing in the Western local civilization, mainly languages such as ancient Greek and Latin were used.

Table 1. Stages of complication of scientific-educational structures in the context of the systemic genesis of Humankind.

| Information technology                                      | Start time, climax, area - equivalent circle radius         | Prevailing scientific and educational structure  |
|---|---|--|
| Speech/Language (S/L)-1                                     | ~123, ~40.3 thous. years ago, up to 15 km, "okrugs"         | tribal proto-science and proto-formation of proto-civilization cores   |
| Writing/reading (W/R)-1+S/L-2                               | ~8.1, ~2.7 thousand years ago, up to 223 km, "super-region" | science and education of local civilizations {S&E-LC}-1  |
| Replication of texts (RT)-1+W/R-2+S /L-3                    | ~1446, ~1806 up to 3370 km, "super-country"                 | science and education of subcontinental civilizations {S&E-SC}-1+(S&E-LC)-2  |
| Local computer (LC)-1+RT-2+W/R-3+ S/L-4                     | ~1946, ~1970 up to 51 thousand km, planet Earth             | science and education of the Planetary Civilization {S&E-PC}-1+(S&E-SC)-2+(E&E-LC)-3                                   |
| Telecommunications/networks (T/N)-1+LC-2+RT-3+ W/R-4+ S/L-5 | ~1979, ~2003 up to 773 thousand km, Near-Earth Cosmos       | science and education Civilizations of the Near-Earth Cosmos {S&E-NEC}-1+(S&E-PC)-2+(S&E-SC)-3+(S&E-LC)-4              |
| Nano-IT (NIT)-1+T/N-2+LC-3+RT-4+W/R-5+ S/L-6                | ~1981, ~2341 up to 11.7 million km, Intermediate Space      | science and education Civilizations of the Intermediate Cosmos {S&E-IC}-1+(S&E-NEC)-2+(S&E-PC)-3+(S&E-SC)-4+(S&E-LC)-5 |

At the 3th stage (**on the basis of IT replication of texts**), such national languages as German, French, English, Russian, etc. were added to them, which were used in scientific and educational activities in the territories of “super-countries” – subcontinental civilizations.

Starting from the 4th stage of this process (“planetization” or “globalization” **based on IT local computers**), the situation began to change dramatically, since there is no established universal language for the Civilization of the entire Planet (and artificial languages such as Esperanto have not been widely). In relation to science: English-speaking science, French-speaking, German-speaking, Russian-speaking, Chinese-speaking, etc. are being formed.

The 5th stage, which began soon (exploration of the Near-Earth Space, **based on IT telecommunications/networks**), changed the situation dramatically, providing a person, unprecedented in history, with information connectivity available according to the “cost-effectiveness” criterion “each-to-each” on the entire Planet – through communication satellites and other technical means.

As a result, at the 4th stage, the process of vigorous competition between the existing languages of “supercountries” (subcontinental civilizations) – including the languages of science – for leadership on the Planet, began, and at the 5th, actively continued. Today, in the “Western-civilizational” embryo of the Planetary Civilization, where Russia has so far adjoined too closely, the English language is absolutely leading in this process. Plus, since the 90s. in the twentieth century, the leadership of science in Russia, moving in line with the current political orientation of the country, intensively planted precisely English as a scientific language, to the detriment of its own system-forming language, Russian.

In recent months, a change in the state political course is planned with a focus on a significant increase in the level of “territorial sovereignty” (understood as a historically hierarchical and multidimensional structure, i.e. including 6 main components: linguistic, cultural-state, economic, high-tech, informational and (promising) personality-cosmic [Grinchenko, 2022]). This allows us to hope for the same shift in relation to the positioning of the Russian language, science and education in the louder and louder subcontinental civilization of Russia, with its systemic relative autonomy within the framework of a promising Planetary-Space Civilization.

The final refusal, after the transitional year 2022, from forcing Russian scientists to publish only in English in Western journals from the WoS and Scopus databases, and more broadly – from Russia's participation in the Bologna educational system, is long overdue.

## Vernadsky meets Yulgok: A non-Western dialog on sustainability

Tamara SAVELYEVA<sup>1</sup>

The author conducts research on educational projects in the areas of sustainability education and development goals. The key points of the presentation reflect on a socially inclusive philosophy of cooperation and care for the other, much in line with the universal goals of sustainable development; as well traditions that promotes cultural confluence and syncretism. A special part of the author's talk argues that active mindset education can be achieved by fostering core sustainability values and strengthening the science of sustainability as a focal arena of durability; in this regard, making a correlation with the 2030 UN Agenda and its Sustainable Development Goals.

Aat the same time, and which is the main topic of the presentation – this is a pressing problem of the general lack of acknowledgment of alternative traditions in the dominant western sustainability discourse in education. After critically analyzing the western human-nature relationship in the context of Enlightenment, modernity and colonial expansion, this talk introduces two non-western ecological discourses from Eurasia and Asia, Noöspherism and Neo-Confucianism, which offer clear contrasts to the western sustainability framework. Using theoretical argumentations, the presentation aims at examining the cosmological and ontological categories expounded by Vladimir Vernadsky of Russia and Yulgok Yi of Korea, whose philosophical foundations meet each other in unique foci on the anthropocosmic and cosmoanthropic types of human-nature relationships. The author strongly supports that both could well be alternatives and/or additions to the dominant western discourse. As a conclusion it is proposed to consider a twofold comparison: between Eurasian (Russian) and Confucian heritages, and these two with the mainstream western ecological discourse.

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## The Methodological Value of the Biocosmology Initiative and Its Contemporary Implications for the Construction of a New Civilization

Xiuhua ZHANG<sup>1</sup>

Facing the difficulties of modernity from the environmental pollution, ecological degradation and human existent crisis, humankind is once again standing at the crossroads of death or survival. Undoubtedly, Addressing the scientific community – the Biocosmology Initiative issued by the Biocosmological Association, in order to reiterate the stance, principles, modes of thought and methods of the Neo-biocosmology, possesses important theoretical value and practical significance. The Initiative has illustrated its own naturalistic standpoints of organism, holism, generative theory and theory of process, highlighted the dialectical and relational thinking, proposed some interpretational principles of the Neo-biocosmology, led in the perspective of historicism and the approach of theory of practical activity, so that it has manifested the meaning of methodology of scientific cognition.

Meanwhile, from the core viewpoints of the Initiative, the worldview of the Neo-biocosmology, as a new cosmology of organism, has not only deconstructed the radical anthropocentrism of the Anthropocene, but also affirmed the ideas of the “a community of life for man and nature” and “a community of shared future for humankind”. Thus, the Initiative will help to promote harmonious intercourse and interaction between man and nature, man and man, and national countries, and help to realize human sustainable development and construct ecological civilization. Moreover, it can further help to acquire a win-win situation for achieving the unity of “making things” (making new beings, cheng wu 成物) and “shaping human beings” (cultivating new ecological individuals, cheng ji 成己) in the course of practice. Therefore, The Initiative has the contemporary implications for constructing a new civilization at its beginning.

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## Theory of Peace by Montesquieu

Kiyokazu NAKATOMI<sup>1</sup>

Last June at this international conference, I presented “Idea of Transcendent Law and Noosphere Studies”. Transcendent law is the law of fearing and paying respect to the transcendent-being beyond human beings, that is, God and Buddha. Not only believers but also leaders of nations around the world are to fear and respect the transcendent-being. The philosophy of Montesquieu supports this view of mine. Although he was a Christian, he recognized various religions and he also demanded humility from his kings.

Throughout the ages, humanity has suffered from plague and war. In the time of Montesquieu, despite the absolute monarchy of Louis XIV at its height, the plague and successive wars left many people exhausted. From this plight, Montesquieu hoped for peace and stability, which he expressed in “The Spirit of the Law”. He began with the idea that law is the relationship between things. Law is the relation that things have in the world and all things have law. In nature, there are laws of nature, laws of matter. Animals and plants have laws, and there are herds of animals and communities of plants. Humans also have laws. From these, everything in the world has laws and relationships. In other words, the world is connected and that interconnectedness is organic. The law of Montesquieu expresses this.

From his philosophy of the organic relation of nature, the world and the universe, emerges a way of life that unites and harmonizes humanity. All humankind become brothers, sisters and friends. This leads to a theory of peace in which we respect each other and help and support each other. At the same time, it develops into a theory of environmental protection, living in harmony with nature and the world. Like Montesquieu, the organic world relation and cosmology of the Biocosmological Association provide the basis for peace and environmentalism.

This essay explores a brief history of Montesquieu, his concept of law and the energies that make world interconnection possible.

**Keywords:** Law and World Relation of Montesquieu, Light and Darkness, Energy of World Relation, Philosophy of Inexistence and Love.

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## **Approaching World Mutual Understanding – The Route of Aristotle and Montesquieu in the field of justice**

**Kiyokazu NAKATOMI<sup>1</sup>**

This presentation is a follow-up paper to the earlier “Theory of Peace by Montesquieu”. Montesquieu wrote “The Spirit of Laws” for world peace and tranquility. In that book, law is the relation of things. From this point, all things have relations in the world. It is the philosophy of the world relation of things and the organic world connection proposed by Aristotle and the Biocosmological Association. This presentation continues this philosophy. Today, in the midst of the global crisis caused by COVID19 and its mutant strains, world countries have adopted various policies. They are city lockdowns, behavioral restrictions, mandatory wearing of masks and Vaccinations. In 2022, the “Zero Corona Policy” of China led to a months-long lockdown in Shanghai. Everyone thinks. Are strict laws better or are human-friendly laws better?

I have already developed this idea at the 7<sup>th</sup> International Scientific Conference in 2021 at Moscow State University on “Transcendent Law and Noosphere Studies” among others. The theories of Aristotle and Montesquieu support my theory. Aristotle preached *Philia*, the friendship of the virtuous. Punishment is not necessary there. Montesquieu also said that when the people are virtuous, the punishment should be slight. It is the court, the keeper of the law, who determines this punishment. Montesquieu was a judge until he was 37 years old. From that experience, he advocates the ideal of the court. His thesis is that “The court is Inexistence”. This has three meanings.

First, it is the inexistence of court in the sense that it does not inspire fear. On the contrary, a trial of fear is a substitute for the politics of fear. People can live in peace when they do not know who the judge is. Second, the Senate Court that once existed in Rome or permanent court are unnecessary. Instead, he advocates a jury system with one-year terms. In doing so, he explains the need for a repository of laws like the Court of Justice (Parliament) in which Montesquieu worked. This is to prevent the Permanent Court from being manipulated by interference from the King. Third, as the Court is not supported by the citizens as Parliament, it has a weak foundation. Symbolizing this, it is inexistence. However, because it is inexistence, it is not subject to interference and can maintain its independence. This philosophy has further developed the theory of separation of powers, which began

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with Aristotle, to a great extent. The hallmark of Montesquieu's theory of separation of powers is the Independence of the Court. The political philosophy derived from Aristotle laid the foundation for the modern court system when it came to Montesquieu.

The first half of this presentation will focus on the "Decree of Mercy for All Living Creatures" (1687) considered the worst in Japanese history and the Security Law (1925) that promoted fascism in Japan during World War II. The second half of the presentation will discuss Sulla who was the Roman military dictator and Thomas More, who was executed for opposing the divorce and marriage of Henry VIII of England. Thomas More was a Lord Chancellor, now Chief Justice of the Supreme Court. The Chief Justice of the Court was executed and became inexistence. His life ended but his courageous advocacy lived forever. In 1935, 400 years later, as he was a Christian, he became a saint of the Catholic Church and the Anglican Communion. As an extreme example, he became like a transcendent-being, transcending time and space. His achievement was his high aspiration to protect "Independence of judges" and "Conscience of judges" in spite of the King's repeated blackmail.

The spirit of "Independence of the Judiciary" and "Conscience of judges" has reached the Japanese judiciary today. It is an eternal and infinite influence on the Japanese judiciary and the realization of the love of humanity. Montesquieu, a former judge who lived in England for two years and observed Parliament, would have been impressed by the spirit of Thomas More. The judge was reduced to inexistence. Over this, I believe that Thesis of "The court is Inexistence" was described. Furthermore, I would develop it by superimposing it on the principle of inexistence and love leading to eternity, infinity, transcendent-being and love. This development of philosophy is what Montesquieu would have wanted. He expected his readers to think, not just read.

Below, we will examine the ideal of the court, whether it is a strict law or a human-friendly law.

**Keywords:** Aristotle, Montesquieu, Decree of Mercy for All Living Creatures, Security Law, Thomas More, Independence of the Court, Principle of Inexistence and Love, Biocosmological Association

## Reflections on environmental ethics of boundary and domain – Based on the Taoist View of nature

Guowen ZHOU<sup>1</sup> & Xinyi CAI<sup>1</sup>

In the new era, our protection of the natural environment should not be limited to specific fields, but should focus on the existence of the entire nature. Humans need to deepen their understanding of the natural world in order to better fulfill the responsibility of protecting the ecological environment. From Taoist culture, we can further refine the natural concept of environmental ethics in traditional Chinese thought, and cultivate the ecological concept of citizens who treat the realm and domain of nature kindly. To integrate it into the practice of human social life, it is necessary to understand and respect the boundaries and domains of the natural environment. Respect the boundaries of ecological awareness, the world is in nature, and the domain is in the earth. It has a degree of forming boundaries and is good at pursuing a concept of natural system integration, creating an ideological basis for the actions of harmonious coexistence between man and nature. The Taoist view of nature has profound and profound ideological essence in the boundary and domain, and the environmental ethics thinking based on this is based on the current state of national park construction in the world, so that the environmental ethics of human beings in the environment and integrated into the natural community of life becomes a protective construction Conceptual guidelines for national parks.

### 1. The Environmental Ethics Implications of Boundaries and Domains

Life has boundaries and the earth has domains. Boundaries and domains exist in the natural world and take the form of time and space. But in a more macroscopic, larger and broader realm, there is a dynamic, infinite and all-encompassing place, which we call the universe. The four directions, up and down, along with the ancient and modern times, is called the universe. The universe, in the broadest sense of the natural world, contains the spatial and temporal dimensions from the past to the present, generating the world of history, the present world and the world of the future. In the exploration of boundaries, we can go deeper into how they are delineated. From the ontology, the existence of a person or anything has a definition in time or space and belongs to the domain from the dimension of its existence, that is, the boundary is in the domain.

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The so-called boundary can be expressed ontologically as boundary, border, which also refers to a certain limited category. The domain, on the other hand, refers to the field, space, and realm, and it also refers to the scene of existence in general. From the cognitive point of view, the two concepts of boundary and domain are both referred to and merged into one. Boundary and domain represent a limit and breadth, covering space and time, and reflecting the location and scene of people. The boundary and domain represent the fact, relationship, starting point, direction and goal of the existence of people and things. The environmental ethical implication of boundary and domain is associated with the difference between scene and matter, the classification of species and their ecological environment connotation cognition or understanding, and the construction and deconstruction of field space, which is closely related to the concept of environment. Interpreted from an objective perspective, the environment originates from the humanized crystallization of nature, and thus as a mapping of anthropocentric concepts, the environment embodies the actions and characteristics of humanized nature. Since both humans and the environment originate from nature, transcending the objectification of humans is the key to clarifying the concept of environment based on a philosophical perspective.

Human beings, creatures and natural things are all in the boundary and domain, which are real and objective, and also interactive and persistent. The “realm” represents the boundary where everything in nature is located, while the “domain” is the place where natural things exist and the overall ecosystem. The ultimate goal of human life is the pursuit of freedom and happiness, and the ability of consciousness to transcend the boundaries of the realm and not be limited by the environment in which it exists. Though the history of nature shows that human development can transcend the limits of nature, it could never escape from the limits of the realm of objective existence in nature. Human existence needs to follow the limits of time and space. From the perspective of the long-lasting development of social civilization and the continuity of human life, both social groups and individual human beings need to cross the limits of the realm from a relative perspective and maintain the balance of the realm on an absolute level.

## **2. Consciousness of boundary and domain in the Taoist view of nature**

The concept of boundary and domain in the Chinese traditional environmental ethics presents both the solidity to the original source and the original Chinese culture of Chinese descendants, and the openness to what is beneficial to the external world and its culture. It makes the concept of boundary and domain in the process of separating all things, integrating all things and achieving the unity of heaven and human, not only in the differentiation between the internal and external worlds in the

antagonistic arrangement of the boundary, but also in the unification of the domain. Today, the global environment is changing every moment, and the impact of nature on human ecology is crucial. Therefore, the protection of the earth's ecological environment not only exists within the boundaries of the concept of "the Way of Nature", but also in the understanding of the realm of each person's heart, that is, to grasp the relationship between the finiteness of human beings and the infinity of nature, and to realize the concept that boundaries are in the nature and the realm lies in human hearts. In another word, the realm of nature and the domain of human spirit should blend organically.

The Taoist concept of nature contains a full sense of boundaries and domains. It not only examines the various interpretations of ecological concepts in traditional Chinese philosophy in terms of the way of nature, but also constructs a "limited pluralism" pattern that fully implies the range of possibilities for such environmental ethical thought or ecological theory in the Taoist approach to nature. It indicates that the construction of a Taoist view of nature requires a conceptual consensus in the context of a community of harmony and coexistence between human beings and nature. This conceptual consensus requires traditional Chinese philosophical reflection and values to return to the Taoist concept of nature at the level of the consciousness of boundaries and domains. The boundaries and domains, no matter the size or quantity, are all located in nature. It is the higher realm of human consciousness. No matter how nature changes, human thinking and ecological environment exist in nature and change with it.

We introduce the concept of boundaries and domains into Taoist thinking, and consider what kind of environmental ethical thinking is needed as a reference for human social systems that depend on nature. The examination of boundaries and the discovery of domains cannot be done without the support of environmental ethics and ecological wisdom in the Taoist view of nature. This cosmology organically unifies human beings and nature, demonstrating the multidimensional and all-round pattern of Taoism in grasping the origin of things, and then, through systematic grasping and dialectical thinking of boundaries and domains, forming a wisdom that transcends itself and follows nature and is still relevant and forward-looking today. The Taoist concept of nature is based on a sense of reverence for nature through the concept of boundaries and domains.

With the consciousness of the realm, we set the position of man in nature, observe rationally toward the problems between man and nature, and analyze the problems between man and all things. To seek the stability, beauty and integrity of nature with the concept of domain, human rely on the inner cycle mechanism of nature itself. Nature is the source of the life of man and non-human plants and animals and the beauty of their inner goodness and expression. This state is similar to Plato's explanation of

the world of ideas, which must be returned to the original state in order to find that world of ideas. The so-called return to nature is the substitution of consciousness into the true state of nature when grasping the boundaries and fields of nature, not a regression back to the original state, nor a passive avoidance of the world; since man exists in the field of nature, he needs to recognize the position of self in nature again, in a position of unity and equality with all the other things.

In the face of the deterioration of the natural ecological environment and the increasingly tense relationship between human beings and the nature, the theoretical significance and social value of Taoist philosophy are further highlighted by reflecting on the status and role of human beings in the nature with the concept of the boundary and domain. It is guided by the idea of going with nature and advocating harmony, with the purpose of returning to nature and the way of heaven, and with the evidence of the principle of living the way of nature. Today's human beings are at a new crossroad that require to be self-reflective at all times. Demand from nature with restraint avoid the destruction of the earth's ecological environment from getting worse and worse, which also prevents human beings from endangering their own living environment. Both boundaries and domains point to nature and are dependent on Taoism which includes all things in the world and contains the rules of all changes. The Dao De Jing, in explaining the relationship between man and nature, holds that man should assist in the development of nature, but not be reckless or harmful to nature.

### **3. The Enlightenment of the Concept of Boundary and Domain to the Construction of National Parks**

The concept of boundaries and domains is both the essence of profound environmental ethics and the core essence of traditional Chinese Taoist philosophy. It has an important inspirational value for the construction of national parks in today's global society in terms of the discovery and protection of natural beauty. According to the German philosopher Heidegger, "Beauty is a way of being present as the unclouded truth." A national park exists in human life by relying on the field of nature reserves. It is an upgraded version of traditional nature reserves and an important carrier of ecological civilization construction in contemporary society. Taking the idea of boundaries and domains as a source of inspiration, we must see national parks as an important source point of natural aesthetics. A park is a public green space that has been transformed by human beings. It is a public natural area that is built and operated by the government and can be enjoyed by the public. The United States was the first to build national parks, which are government-led, managed, and set up in a large area to provide a place for people to relax and to protect natural ecosystems.

Reviewing the geographical distribution of China's national parks is both reasonably balanced in layout and vast and long-standing, with very rich ecological and tourism resources. National parks provide the people with a beautiful ecological environment, which is conducive to the economic growth, social resources and the comprehensive development of human customs in China. Based on the natural environment, the national parks have a beautiful original ecological environment and a territory with the value of scientific education and excursion. After scientific protection and moderate construction, national parks provide people with a certain degree of specific natural places for tourism, sightseeing, recreation and scientific and cultural activities. Therefore, it is necessary to take the concept of boundaries and domains as the basis to build a nature reserve system with national parks as the main body, to build a complete, comprehensive and balanced spatial planning of national land, to rationalize the relationship between national parks and national land, and to grasp the relationship between the boundaries of parks and spatial domains.

In the process of national park conservation, the concept of boundary and domain reveals that we should pay attention to one of the basic elements of environmental ethics: the recognition of "values" and "rights" are not unique to human beings. In the *Dao De Jing*, Laozi argues that human beings must follow the laws of nature to survive, but he also argues that there is no need to make meaningless efforts, mainly emphasizing that human beings should respect objective existence and act in accordance with objective laws. The integration of the great wisdom of Laozi's view of nature in the construction of national parks can contribute to the sustainable development of the natural world and the continuation of human beings. Based on the philosophical perspective to think about the current environmental issues, and then reflect on the relationship between human and nature, and build a world view that incorporates environmental issues, and use it as a guide to regulate human production behavior, which is conducive to a holistic grasp of the natural and social environment.

Standing at the base of national park protection in the construction of ecological civilization in the new era, we use the revelation of the concept of boundaries and domains as a reference to solve the problem of the integration of national park and human habitat environment boundaries and domains. We integrate the concept of ecological environment into the scope of thinking about boundaries and domains, so as to pay attention to the use of spatial patterns. We focus on the concept of boundaries and domains after the interchange of human and environmental situations and the integration of horizons, so that we can more clearly discover the basic value of using the concept of boundaries and domains as the core object of philosophical research. Only by focusing the concept of environmental ethics as the core value of philosophical research can we truly touch on the important principle of national park construction as an atmosphere that supports the value of the ideal future habitat for the

nation and humanity. In order to build the future development of our national parks based on the future environmental ethics, it is inseparable from the consideration of the connection between the concept of boundaries and domains, and the philosophical object has its environmental connotation and environmental extension, and the development of the future national parks has more image connotation and the spatial scope of construction is also more reasonable.

From the Taoist concept of boundary and domain in nature, we perceive the philosophy of heaven, earth and nature, and based on the position of national park conservation construction, we take the boundary of creation as the action, and the domain of environment as the medium, and consider the way of harmonious coexistence between human and nature. The Taoist ideal of environmental ethics is not only the design of a site, but also a process of clarifying boundaries, a situation that holds up the site. Taking the conservation-style construction of a national park as a carrier, it integrates multiple elements, wide perspectives, and the whole process of human-nature, human-human, and human-society exchanges; it is a systematic project of designing the ecological harmony of nature as a whole. The construction of national parks integrates the natural ecological environment and local customs in a universal sense, brings the relationship between man and nature closer, and promotes the harmonious coexistence between man and nature. The construction of national parks embodies the ecological restoration of nature reserves and the creation of a humanistic environment, embodying both material promotion of natural development and the enlightened concept of ecological spirit. The environment needs to be maintained through human actions and regulated in a balanced manner with reasonable moral standards of moderation.

## Localization of environmental philosophy in a global perspective

Guowen ZHOU<sup>1</sup>

To rethink the concept and meaning of “localization of environmental philosophy” in the current vision of globalization is to seek the orientation function of environmental philosophy its knowledge category and the value trend of ecological ethics. “The localization of environmental philosophy” requires us to carefully consider the conditions, forms, subjects and direction of localization, as well as the performance and trend of localization in the field of environmental philosophy. The meaning of localization can be understood as the local position, local content and local perspective. In a space of homogeneity, it returns to its own local responsibility, has insight into the blood of thought, and bases on the material soil, historical soil and spiritual soil of regional ethics. In this sense, it can be equivalent to sinicization.

Sinicization is a context of overall context, and also an idea system. There are three types of localization: one as the object of examination; one as the knowledge status; one as the guiding ideology. If localization is the product of a historical process and space-time change adaptation. It is not a unidirectional return to the traditional imperial life framework, but a discourse space for constructing more folk fields. The establishment of the localization of environmental philosophy as a belief system is the product of collision and fusion in the process of long-term coherence. It is not a priori, but empirical. The localization of environmental philosophy is to integrate the inherent essence of environmental philosophy and root it in the local historical and cultural tradition and the real social, political and economic environment.

The key to localization lies in the dialectical and dialectical analysis between regional ethics and universal ethics, local culture and national culture, national value and world value. The localization of environmental philosophy is more important to incorporate the dual dimension of environment and philosophy. In the sense of being more dependent on the generation, function and extension of the environment, the research object of philosophical reflection is localization.

At present, to rethink the concept and meaning of “the localization of environmental philosophy” is to seek the positioning function of the knowledge category of environmental philosophy and the value trend of ecological ethics. The key point of this measurement, or the first proposition in the concept system, is: can environmental philosophy be localized? If the localization of environmental philosophy is both possible and realistic, then what does it mean in connotation, and what characteristics does it contain?

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The “localization of environmental philosophy” also requires us to carefully consider the conditions, forms, subject and direction of localization, as well as the performance and trend of localization in the field of environmental philosophy. If localization is understood from a semantics level, can it present another real region? To study the environment in which each of us is located from the root of our territory is not only a living space close to our ideas, a place to share spiritual ideas with the people around us, but also no longer the distant place of heterogeneous values. From the perspective of regional determination, it more respects the local behavior habits and public order and good customs; from the perspective of ethnic identity, it better understands the origin of its blood and national identity;

From the perspective of living environment, it knows better about local language and historical culture. In a homogeneous space, it returns to its local responsibility, sees the idea of life, and focuses on regional ethics, historical soil and spiritual soil, can it be equivalent to sinicization?

Sinicization is a whole context, and also an idea system. Just as the localization needs to be confirmed in the negotiation, the sinicization also needs to be understood in the belief. Localization is not only the deconstruction of the cultural values of the nation state, but also the formation and strengthening of the national historical and cultural soil. It is a powerful refutation of the nihilism of local values. “After the end of the Cold War, Western culture is uniting the world culture with unprecedented penetration, and materialism, hedonism and economism are influencing all nations in the world with unprecedented penetration. Material greed and wild global economic competition seem to be leading humanity to disaster; the global environment is increasingly polluted and the ecological balance is increasingly damaged.” [Attfield, 2014]

Following the way of Sinicization, there are three types of localization here: one as the object of examination; one as knowledge status; one as the guiding ideology. The localization as the object of examination is the connotation and understanding of the localization tempered and recognized in the previous consciousness test stage. The localization of knowledge status is the role and status of the possible localization of knowledge, which has been shaped and confirmed by the scientific concept system. As the guiding ideology, the localization is the localization trend and trend of playing the intermediary role of the spirit and defining the future development trend.

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## Deleuze and Khôra

Peter ZHANG<sup>1</sup>

The concept of *khôra*, which was elaborated but quickly repressed by Plato in *Timaeus*, has caught the attention of a whole coterie of contemporary philosophers. It is often interpreted as “receptacle” or “uterus.” Its presence in Deleuze’s corpus is largely covert and easily overlooked. Foregrounding its significance in Deleuze’s work allows us to get a firmer grasp of his vitalistic thought. Following the lineage of Plato-Leibniz-Whitehead, Deleuze takes *khôra* to be a screen, sieve, filter, or membrane that makes something issue from chaos, “*even if this something differs only slightly.*” *Khôra* is the mother or locus of genesis, becoming, negentropy, and the event. Roughly speaking, the function of *khôra* is twofold: prehension and negative prehension, or simply selective prehension.

Two statements made by Deleuze deserve our particular attention: first, “the brain is the *mind* itself”; second, “the brain is the screen.” For our purposes, the second statement can be productively misinterpreted as, “the brain is the *khôra*.” There is textual evidence in Deleuze’s book, *Negotiations*, to support such an interpretation. After sorting out the rationale of Deleuzian vitalism through the lens of *khôra*, this article moves on to such notions as the intermind, composite *khôra*, and the global superbrain to probe into the human condition in the era of mental symbiosis between humanity and its artificially intelligent counterparts, and to negotiate the tension between control and becoming.

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## Возникновение, развитие и гибель организма – трёхсущностное взаимодействие бытия и небытия

Анатолий Сергеевич ХАРИТОНОВ<sup>1</sup>

Археология показала, что объекты биологической природы смертны, имеют предысторию возникновения, развития и гибели. Популяция человека сформировала искусственную среду своего обитания в виде материального производства и идеальной информационной среды, упрощающей взаимодействия человека с природой, с искусственной материальной средой и между людьми. При этом развитие популяции человека описано рядом Фибоначчи на интервале времён от 7 млн. лет до 5 тыс. лет до новой эры (Ю.Л. Щапова).

Первое, возникновение, развитие и гибель живых организмов – это взаимодействие бытия и небытия, которыми пренебрегают известные законы механики, термодинамики и статистической механики.

Второе, К. Бернал заметил, что живой организм ближе к модели вихря, который не может находиться в равновесии. Как отметил Э. Бауэр живое уходит от равновесия, и причем ускоренно, как показала Ю.Л. Щапова. При этом вихрь – это асимметричная в пространстве и времени организация, состоящая из трёх разных взаимодействующих осцилляций: продольной, поперечной и вращательной. Последние три типа осцилляций сложно взаимодействуют между собой в трёх границах: геометрической, температурной (импульсной) и структурной (например, по химическому составу), создавая внутренние движущие силы, которые могут приводить к развитию популяции вихрей.

Третье, известные же законы физики построены на модели материальной точки, которая вечна и пренебрегает структурой физического тела. Её движение описывается в двух классах переменных, у неё есть только две идеальные границы. Известные законы, определённые на её основе, справедливы для замкнутой, консервативной системы, удовлетворяющей эргодической гипотезе.

Для физики живых организмов давно сформулированы проблемы. Как обобщить модель материальной точки? Каковы свойства открытой сложной системы? Какова модель трёхсущностных взаимодействий? Как учесть структурную энергию в модели сложной открытой системы?

Мы разработали в методологии холизма модель взаимодействия бытия и небытия, которая позволяет исследовать ответы на эти актуальные вопросы [1-5].

1. Харитонов А.С. Математические начала синтеза принципов дуализма и триединства // *Метафизика*, 2012, №1(3), с. 147–155.
2. Харитонов А.С. Теория симметрии хаоса и порядка, закон Предустановленной гармонии. // *Science and Education*. Sheffield, UK. v.17, September 5-6, 2014, Physics.p.19–27.
3. Харитонов А.С. Структурное описание сложной системы // *Прикладная физика* №1. 2007, с. 5–10.
4. Харитонов А.С. Ускоренный рост сложности организации нашей планеты и общества // Сборник статей участников VII Международной научной конференции «Актуальные проблемы глобальных исследований: глобальное развитие и пределы роста в XXI веке», с. 518–524.
5. Харитонов А.С. Модель развития открытой сложной системы (новая парадигма) // *Метафизика*. РУДН, М., №1 (43), 2022, с. 41–49.

<sup>1</sup> Российский экономический университет имени Г.В. Плеханова, г. Москва.

## The Finitude of Technology and the Precedence of Ethics – Research based on The Co-philosophy of the Second Beginning

Li Ping<sup>1</sup>

With the influence of artificial intelligence technology in various fields of society, from driverless cars to the use of big data cloud computing, to the construction of smart cities, digital finance construction and even the maintenance of national security, artificial intelligence technology continues to break through the finitude of technology. Dietrich, E., the representative of super artificial intelligence, believed that AI could have the perception, cognition, thinking, reasoning, calculation and other abilities of human beings <sup>[2]</sup>. Sharkey, A proposed that artificial intelligence could surpass human intelligence <sup>[3]</sup>. In this regard, scholars represented by Stewart Clegg and others believe that if we regard the ultimate goal of the development of artificial intelligence as creating a kind of Homo sapiens, we not only forget that real robots are highly specialized and limited machines, but also face the ethical risks of anthropomorphizing robots <sup>[4]</sup>. When super artificial intelligence continuously breaks through the finitude of technology, it is difficult for us to use traditional ethical concepts to deal with the ethical dilemma of technology. The co-philosophy based on the second beginning emphasizes that technology continues to break through its own finitude and will eventually break through the carrying capacity of the Earth. Therefore, this article puts forward that technological development needs ethics guidance, which is of great significance to the sustainable survival of human beings.

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<sup>2</sup> Dietrich, E. Homo sapiens 2.0: Why we should build the better robots of our nature [J]. *Journal of Experimental & Theoretical Artificial Intelligence*, 13(4),2001:323–328

<sup>3</sup> Sharkey, A. (2017). Can robots be responsible moral agents? And why should we care? *Connection Science*, 2017, 29(3):210–21.

<sup>4</sup> Clegg S., Berti M., Simpson A.V., Cunha M.P. Artificial Intelligence and the Future of Practical Wisdom in Business Management. In: Schwartz B., Bernacchio C., González-Cantón C., Robson A. (eds) *Handbook of Practical Wisdom in Business and Management*. International Handbooks in Business Ethics. Springer, Cham.2020

## 1. Traditional interpretation of technology finitude

The **finitude** of technology mainly refers to the highest level that technology can present in a specific period of human activities, and also reflects the highest technological ability that human beings have. In traditional philosophy, there are three main views on technology **finitude**. One is that “technology is an imitation of nature”; Second, “the emergence of technology comes from human being”; Third, “Technology is governed by the dichotomy of ontological and phenomenological boundaries”.

First, technology has finitude because “technology is an imitation of nature”. In the classical Greek period, “technology originated from the learning and imitation of nature”<sup>[5]</sup>. In Democritus, “house-building and weaving were originally invented by imitating swallows and spiders in building nests and weaving webs, respectively”<sup>[6]</sup>. Heraclitus proposed that “the exemplary role of nature is the original source of technology”<sup>[4]</sup>. Plato proposes that the thing that is real is an imitation of the thing that is idea. To create an object, a craftsman needs to have the idea of the object in his mind. Since technology, and all sentient and created things, are regarded by Plato as the imitation of the highest paradigm of nature, “for Plato the true craftsman is the Creator, and the true artifact is the form, outside of time and space, even from the most exquisite contingency of experience... Forms exist independently. They are the transcendent reality, the cause of the perceived (aistheta)”<sup>[7]</sup>. In early Greek philosophy, the finitude of technology is determined by human's highest ability to learn and imitate nature, and the finitude of human determines the finitude of technology and its dependence on the ethical concept of good.

Secondly, the finitude of technology is that “the emergence of technology comes from human being”. For Aristotle, technology was understood as an artefact distinct from nature. Aristotle makes an ontological distinction between natural things and artefacts. According to Aristotle, natural things have their own internal laws of generation. For example, plants and animals grow and reproduce by natural movements and natural purposes. Technology as an artifact is generated by human goals. Aristotle pointed out that “technology accomplishes what nature cannot in some cases and in others imitates nature” [4]. Although there are differences between τεχνη and modern Technology in the context of Aristotle, the subject matter they deal with is in common, that is, what Technology deals with is the thing with variable origin and can be generated, and its purpose is to seek some external product based on production, creation and labor. Since technological activity depends on the tools and materials it uses, it can only show certain controllable objects in this changing world, and it cannot pretend to dominate the whole world of existence. Although people want to use technology to

<sup>5</sup> Plato, *Laws*, M. Schofield (ed.), T. Griffith (tr.), Cambridge: Cambridge University Press, X 899a ff.2016.

<sup>6</sup> Franssen, Maarten, Lokhorst, Gert-Jan and van de Poel, Ibo, “Philosophy of Technology”, The Stanford Encyclopedia of Philosophy. Edward N. Zalta(ed.), URL  
=<<https://plato.stanford.edu/archives/fall2018/entries/technology/>>. 2018.

<sup>7</sup> [美]拉里·希克曼·杜威的实用主义技术[M].韩连庆译.北京:北京大学出版社,2010:126.

control the world, but because the beginning of the world is not in people, people cannot control those whose beginning is not in their own things.

Finally, the domain limits of technology are defined by the dichotomy between ontological and phenomenological boundaries. In Kant's view, technology is understood as "the means that people need to achieve a certain end or intention"<sup>[8]</sup>. Technical activities are different from practical activities (serving the pursuit of happiness) and moral activities (aiming at unconditional goodness). Technical activities are placed in the field of phenomena and regarded as activities that transform nature and the world, which is in contrast to moral activities that are placed in the ontological world. To transform nature and the world in the service of unconditional good, technology is regulated by "unconditional good". Since Kant regards moral ontology as the highest being, the goodness of technology needs to be influenced by the dualism of ontology and phenomenon.

We need to note that Heidegger no longer understands technology in terms of the separation of noumenon and phenomenon. Although, influenced by the idea of causality in ancient Greek philosophy, he believed that the two traditional views of technology, technology as a tool for a purpose; "Technology is human behavior"<sup>[9]</sup>, which is correct but not true. Because, these two views of technology do not disentangle the nature of technology. We should question the impact of technology on human existence. From mountains and rivers are our home, to mountains and rivers are mined and exploited. When our understanding of mountains and rivers from the survival theory to the tool theory, mountains and rivers become a kind of technical objectified existence. When mountains and rivers are seen as available "sustenance"<sup>[10]</sup>, all beings (including humans and nature) are seen as resources and energy for technology to use. When technology continues to break through its own finitude, how to rethink the relationship between human and technology, how to arouse human's care for nature rather than invasion, ethical guidance of technological development becomes necessary.

In a word, in traditional philosophy, whether "technology is the imitation of nature" or "the origin of technology lies in man", technology is mainly to make up for the systematic structural defects of human body by lengthening human organs. Such as the excavation capacity of human hands is low, so there are excavators and shield tunneling machines. Human vision is extremely limited, hence the Hubble Space Telescope, etc.<sup>[11]</sup> However, when a natural person's body, brain, cognition and executive power become "substitutable" objects, technology moves from "agent" to "surrogate".

<sup>8</sup> [德]康德:《道德形而上学原理》[M]. 苗力田译. 上海:上海人民出版社, 2002:33-35.

<sup>9</sup> 《海德格尔选集》下卷, 孙周兴选编. 上海:三联书店, 1996, 第25页.

<sup>10</sup> Heidegger M. The Question Concerning Technology, and Other Essays [M]. New York: Garland Pub, 1977:15.

<sup>11</sup> 李河:《从'代理'到'替代'的技术与正在'过时'的人类》[J]. 中国社会科学, 2020(10): 116-140.

While technology breaks through its own domain, it also brings various challenges to people's survival.

## 2. The challenge of artificial intelligence technology to the traditional concept of technology finitude

Artificial intelligence usually refers to those technologies that are independent of human intelligence or intelligence level. It is a kind of structured, artificial or machine intelligence, which makes it different from human natural intelligence<sup>[12]</sup>. According to its application in various fields, artificial intelligence is classified into three major types. The first is narrow artificial intelligence, which is designed to perform specific tasks<sup>[13]</sup>. The second is general artificial intelligence, which has broad human cognitive abilities. Its level of intelligence is similar to that of humans. When faced with unfamiliar tasks, it can find solutions without human intervention, and can engage in mental work in a human way and like a human<sup>[14]</sup>. The third is super artificial intelligence that is smarter than individual humans in all aspects of intelligence. From the perspective of "technology is the imitation of nature" or "the origin of technology lies in man", narrow artificial intelligence and general artificial intelligence still retain the traditional understanding of technology finitude. However, super AI poses a major challenge to the traditional concept of technological finitude. This is a challenge to the traditional technology domain view. Representatives of super artificial intelligence claim that robots can not only think and act like humans, but also perceive the environment, process language, learn deeply, adjust goals, and make moral reasoning and moral decisions like humans. This is a challenge to the traditional technology domain view.

First of all, the representative of super artificial intelligence challenges the traditional view of technology from the aspects of artificial intelligence technology can automatically identify the environment and make decisions independently. Guruduth Banavar argued from an evolutionary perspective that "humans have reached their current level of power and control over the world because of intelligence... AI is augmented intelligence"<sup>[15](Conn 2017a)</sup>, which goes beyond the notion that technology is an imitation of nature. However, scholars represented by Angwin believe that even if super artificial intelligence can overturn the concept of "technology is the imitation of nature", technological development still needs ethical guidance.

<sup>12</sup> Mark Ryan. In *AI We Trust: Ethics, Artificial Intelligence, and Reliability*. Science and Engineering Ethics. <https://doi.org/10.1007/s11948-020-00228-y>. 2-19. 2020.

<sup>13</sup> Macnish, K., Ryan, M., & Stahl, B. Understanding ethics and human rights in smart information systems. *ORBIT Journal*. <https://doi.org/10.29297/orbit.v2i1.102>. 2019.

<sup>14</sup> UK House of Lords. (2018). *AI in the UK: Ready, willing and able? – Artificial intelligence committee*. UK House of Lords Select Committee on Artificial Intelligence, Report of Sessions 2017–2019.

<sup>15</sup> Conn A. (2017a) Guruduth Banavar interview. Future of Life Institute. <https://futureoflife.org/2017/01/18/guruduth-banavar-interview/>. 2017.

Second, the narrow artificial intelligence is mainly used to perform specific tasks, its function and application originated from human beings, and human beings can manage and control it. However, Super AI has powerfully transformed our choices, values, and sources of interest <sup>[16]</sup><sup>13</sup>. Today, the warnings from Bill Gates, Elon Musk, Stephen Hawking and Bill Joy about autonomous AI technology are the fear that AI will change and even shape our world in ways that are hard to detect, understand and control. When people are confused about what they should believe and what they should do is good or just, the essence of it is that the values of “commune” or the ethical judgment of “commune” are distorted. In this regard, the traditional concept of technology ethics and the corresponding ethical constraints are facing the challenge.

Finally, super artificial intelligence transcends the separation of ontology and phenomenon. By simulating “human brain intelligence”, super artificial intelligence can perform complex tasks that can be accomplished by natural human intelligence. It can also deeply learn, predict and analyze behavior schemes to react to changing specific situations. Artificial intelligence technology raises fundamental questions about computation, perception, reasoning, learning, language, action, communication, consciousness, and makes significant contributions to the answers to these questions <sup>[17]</sup> (Muller 2012). The characteristic of artificial intelligence is not only that it expands or enhances human reasoning ability, but also that it can enhance or replace human behavior and perception and simulate human emotions <sup>[15]</sup><sup>29</sup>. Through the enhancement of human initiative and reasoning and computing ability, so as to perform complex tasks that humans cannot complete without human assistance.

In general, creators of artificial intelligence need to know not only how a machine works, but whether it works ethically. Adhering to an ethical orientation in the development of technology helps to prevent humans from being manipulated by powerful machines or powerful intelligences. In general, creators of artificial intelligence need to know not only how a machine works, but whether it works ethically. Adhering to an ethical orientation in the development of technology helps to prevent humans from being manipulated by powerful machines or powerful intelligences. Professor Liu Xiaoting has pointed out that “although human beings have invested a huge amount of money in the development of high technology, modern technology can completely solve the problem of poverty alleviation on earth, but it has not been able to achieve, because the fundamental reason for human beings' continuous technological innovation is to seek capital appreciation”<sup>[18]</sup><sup>80-93</sup>. But when technology becomes capital and is continuously used for infinite appreciation, the result must be to endanger the survival of man and the planet.

<sup>16</sup> Paula Boddington. *Towards a Code of Ethics for Artificial Intelligence* [M]. Switzerland: Springer International Publishing AG, 2017:13-62.

<sup>17</sup> Müller VC. Introduction: philosophy and theory of artificial intelligence. 2012,22 (2): 67–69.

<sup>18</sup> 刘孝廷 基于生物多样性的共哲学之构建[J]. 学术前沿, 2022(2): 80–93.

### 3. The development of technology needs ethics first

According to traditional philosophers, “The essence of technology is to be created. The essence of human beings is self-growth”. However, when super-artificial intelligence is no longer dependent on human beings and realizes its own growth, and is not controlled by human beings, how to avoid the possible crisis of human existence caused by super-artificial intelligence? This is an important reason why the development of technology needs ethics first. How to insist on the precedence of ethics in the technological development is difficult for the traditional mainstream ethical theories to answer. We can introduce the idea of co-philosophy proposed by Professor Liu Xiaoting. The co-philosophy based on the second beginning can provide a possible way of thinking for the ethical precedence of technological development. Because “the fundamental cause of the common difficulty of human society is the tension between the whole and the individual, the disconnection between thinking and doing. One of the strategies to get out of this dilemma is to move beyond the opposition of whole philosophy and individual philosophy to a co-philosophy. Accordingly, we develop a third philosophical thought different from ancient and modern times, and reconstruct the philosophical paradigm of new civilization as the second beginning”<sup>[17]80-93</sup>, which is helpful to deal with the ethical dilemma of emerging technology.

The co-philosophy of the second beginning holds that “the world is one, everything is interlinked, and everything is co-existing in the broad universe”<sup>[17]80-93</sup>, which aims to eliminate the opposition between individual and group, self and others, get rid of the existence state of “class construction” of individual sense, individual mind and individual view, and point to the “co-construction and co-existence state of co-person, co-heart and community”. It goes beyond the physical, data and representational understanding of people and technology, and walks out of the systemic structural defects of natural persons. Professor Zhang Shiyong also put forward a similar explanation from the three stages of individual spiritual development and national culture development. He believes that the early concept of human beings is “the original unity of man and nature”, which is a kind of pre-subject-object relationship between man and nature. In this stage, human beings lack independent self-consciousness. The second stage is the structure of the “subject-object” relationship, in which man highlights his subjectivity. The third stage is such a structure, which includes the 'subject-object' relationship, but goes beyond the 'subject-object' relationship, which is a 'higher unity of nature and man'. This is a structure of the unity of nature and man in the relationship of “post-subject-object”. In this stage, man not only realizes himself, but also transcends himself and merges into one with others”<sup>[19]</sup>. The co-philosophy at the beginning of the second is to ask what technology should do from the perspective of the intercommunion and coexistence of all things.

<sup>19</sup> 张世英 万有相通之哲学[J]. 外国哲学, 2021(6): 28-39.

First of all, based on the perspective of co-philosophy of the second beginning, it is proposed that technology development needs ethics first, emphasizing that all technology relevant person should have the sense of “co-responsibility” (shared responsibility) in addition to technology creators and users. In the traditional view, technical artifacts are created and used by people, and the moral responsibility falls on those who develop and use them <sup>[20]</sup>. However, in AI technology, the attribution of moral responsibility requires consideration of all stakeholders. From a co-philosophy perspective, all those who develop, create, use and even evaluate AI have a responsibility to develop and create AI, and to judge carefully the harm that the technology may cause to others and society.

In view of the technical finitude, from the international academic research institutions put forward on the development of artificial intelligence responsibly declaration of Montreal <sup>[21]</sup>. Non-profit social organizations have also proposed the Asilomar Principles of the Future of Life Institute <sup>[22]</sup>. The government department of the European Commission has proposed a Code of Ethics for Trusted Artificial Intelligence <sup>[23]</sup>. These documents all propose that AI technology is a tool, not an end, and that the development and use of AI should consider the growth of the well-being of all sentient beings and should aim at improving human well-being and freedom.

The more powerful AI is, the more it needs ethical guidance. When AI is endowed with autonomous judgments, decisions, and actions, its autonomous agents must be moral agents. Otherwise, an autonomous missile could set a target more accurate than a bullet. However, if the launch of an autonomous missile is out of human control, the disaster it will bring is devastating. We adhere to ethical guidance in technological development. If we absorb the co-philosophy of the second beginning, we will undertake our common responsibilities as members of the family community, the organization community, the regional community, the human community, the Earth community and even the universal community.

Secondly, technological development requires ethics first, not only because of the uncertainty it brings, but also because technology changes our symbiotic relationship with others and the world around us. As Professor Liu Xiaoting points out, “New technologies, especially the Internet and the metaverse, have highlighted 'common' problems in unique ways... The well-ordered structure of 'co-existence' faces a chaotic situation”<sup>[17]80-93</sup>. The appearance of babies edited by gene technology has changed the way of natural evolution of human beings, and human beings have gradually become

<sup>20</sup> Himma, K. E. Artificial agency, consciousness, and the criteria for moral agency: What properties must an artificial agent have to be a moral agent? *Ethics and Information Technology*, 2009, 11(1): 19–29.

<sup>21</sup> MDRDAI. 2018b. Montréal declaration for a responsible development of artificial intelligence. <https://www.montrealdeclaration-responsibleai.com/> Accessed 30 September 2019.

<sup>22</sup> Future of Life. 2017b. AAIP: Asilomar AI Principles. 2017b. <https://futureoflife.org/ai-principles/>. Accessed 30 September 2019.

<sup>23</sup> European Commission (EC). EGTAI: the ethics guidelines for trustworthy artificial intelligence. <https://ec.europa.eu/futurium/en/ai-alliance-consultation>. Accessed 30 September 2019.

biological beings intervened by technology rather than natural persons. This makes a person, as an independent individual, able to live independently without considering how to coexist with others, which brings about the disappearance or confusion of traditional family ethical relations such as the relationship between husband and wife. Another example is that in order to seek profit maximization, businessmen use technology to develop and abuse natural resources, which constantly destroys the ecological environment and threatens the survival of endangered species. How to solve these problems, Professor Liu Xiaoting's philosophy of the second beginning can provide some ideas. This is to get out of the state of interdependence due to the lack of living materials, and out of the state of independence due to material abundance, so as to step into a new form of human civilization, that is, the full realization of human freedom in the material abundance mentioned by Marx. This turning of civilization is the transformation from outward expansion to inward self-restraint and from external freedom to internal self-discipline<sup>[24]</sup>102-110. This internal self-discipline is the fulcrum of ethics and an important foundation of co-ethics.

Based on the common philosophy of the second beginning, the development of technology will consider ethics first, because “the philosophy of the first beginning started from the natural philosophy of understanding nature and laws, and finally achieved brilliant natural scientific achievements in modern times, and then constructed a modern scientific knowledge mansion based on physics along the original way. The philosophy of the second beginning is the philosophy of responding to the call of nature. The person of the second beginning is the person who responds to the call of existence, who is civilized, humanoid and full, who explores hope and self-salvation. It emphasizes the transformation from the philosophy of nature to the philosophy of practice and from the philosophy of law to the philosophy of rules”<sup>[23]</sup>102-110. The philosophy of the second beginning emphasizes the ethical concept of symbiosis and co-existence, which helps to cope with the one-sided prosperity of material civilization brought about by technological innovation and globalization after the Second World War, and helps mankind to get out of the blind optimism of technology. The sustainable existence and development of human beings depend not only on human cognition or intelligence, but also on human coexistence consciousness and symbiotic power. Technology and even artificial intelligence technology can replicate human intelligence, but how to conduct interpersonal/man-machine cooperation in a way of harmonious coexistence still depends on the co-philosophy, co-practice, co-ethics and co-responsibility of the second beginning.

Finally, the development of technology needs ethics first. The reason is that although technology, such as intelligent robots, can replace human beings to do hard work, it is difficult to eliminate the problem of human's sense of value and sense of meaning loss. Today, technological development has indeed changed the way humans live and work. In some fields, intelligent robots have replaced humans to do heavy, tedious, time-consuming and dangerous work, reducing what Morris called

<sup>24</sup> 刘啸霆 文明危机与第二开端的哲学[J]. 理论探讨, 2021(6), 102-110.

“useless work and useless toil”<sup>[25]</sup>. If intelligent robots can do all the work instead of human beings, and can meet all the needs of ourselves and our families, they can also compile *War and Peace*, even they can compile better than human construction. We start to think about what we're living for. When we ask about the ultimate meaning and mission of life <sup>[26]</sup>, we realize that the meaning of life is to communicate, cooperate and share, not to share a pasture and food like animals.

In general, technology, especially artificial intelligence technology, has crossed the boundaries of countries and cultures. We need to develop an ethical concept of symbiosis, coexistence and common responsibility based on the common philosophy of the second beginning to deal with technical ethical issues, instead of simply choosing a single theory in line with certain cultures and values. In terms of the function and structure of the human brain, we have different goals just like computers, and can achieve them by completing complex programs through computation. However, even if we are able to construct a moral robot, they can be like humans have moral executive ability, even if they have the self-awareness, to assess situation, automatic decision and action, they are hard to with the conception of co-philosophy, with the symbiosis, the co-responsibility, to make a sustainable, coexistence of ethical decision making.

Of course, we also need to be aware that just as telling a child about ethical principles does not guarantee that the child will behave ethically, when we embed ethical principles in a robot, the robot will not behave ethically either. Therefore, corresponding to the research and development of super artificial intelligence, the future ethical education on super artificial intelligence is also an important topic that we need to pay attention to.

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<sup>25</sup> Morris W. *Useful work versus useless toil* [M]. Hammersmith Socialist Society, London, 1893.

<sup>26</sup> Wajcman J. Life in the fast lane? Towards a sociology of technology and time [J]. *Br J Sociol* 2008, 59(1):59–77.

## **Единство органичного (заложенного-естественного) и разобщенность современного (искусственного-сложившегося) миров**

**Алексей Семенович КОЖЕМЯКОВ<sup>1</sup>**

За сложным названием выступления – извечный вопрос о первопричинах разделённости и разобщённости внутри сложившегося мира и соответствующего миропорядка. Попробуем поискать ответ на этот вопрос выйдя за пределы современной науки о международных отношениях (т.е. отойдя от позиции большинства учёных из разных стран, «удерживающих» общее знание о предмете в устоявшихся и строгих рамках неких созданных ими «правил»).

На фоне происходящей на данном семинаре дискуссии о важнейших мировоззренческих вопросах (органицизм, биокосмология, системность, самоорганизация, и т.п.) особенно впечатляет принципиальный разрыв между доминирующей у всех выступавших идеи органического единства мира (как космического, материального, так и производного от него социального), с одной стороны, и нарастающей конфликтностью в современном реальном мире, в частности в международных отношениях, с другой. В общественном сознании сегодня прочно устоялось представление не просто о «кризисе», но всё более даже о «конечности» сложившегося мира, о необходимости некоего «перехода» к новому, отличного от прошлого, мироустройству.

В этой связи встает ключевой вопрос: является ли столь устойчивое противоречие 1) субъективной человеческой ошибкой (ошибкой, прежде всего, политических лидеров и их идей), или 2) закономерной исторической заданностью – новым вызовом (задачей) для Человечества?

### **1. От Аристотеля, к Н. Данилевскому, и П. Сорокину – этапы долгого пути Человечества в космологическом понимании того, «как устроен мир»**

Надо признать, что мироустройство (само по себе) не было (да и не могло тогда быть) в центре внимания Стагирита – его мир был ограничен своим и ближним окружением - полисами и видением всей тогдашней истории, как «нескончаемой череды войн». Однако, это не помешало гению развить само понятие «государства» и «политики», как имманентной характеристики бытия («людей, живущих вместе») и, что ещё более значимо, «этических основ политики» (право, как «мерило добродетели» и необходимое служение государства «справедливости» и «интересами общего блага»).

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Николай Данилевский (а именно его юбилею посвящено данное мероприятие) сделал в видении мира новый и весьма существенный шаг: наш мир будучи «общим», разделён в то же время на «культурно-исторические типы». «Разделённость» эта изначально стала системообразующим, и, вместе с тем, движущим моментом мирового развития (за чем, позднее, появились известные концепты т.н. «цивилизационного многообразия и разных путей развития»).

Памятуя тему нашего семинара, необходимо упомянуть и весьма заметную (но на сегодня намеренно «стертую из истории науки») роль концепта «флуктуации социальной и культурной динамики» Питирима Сорокина. Её суть: циклические смены «культурных доминант», грядущий поворот Человечества от прежних (материальных и чувственных) к новым, синтезирующим весь прошлый опыт «идеациональным ценностям».

Три упомянутых автора (как и их последователи) – не альтернативны, а взаимодополняемы, находясь в органической связи.

## **2. Новое время – потребность переосмысления «теории международных отношений»**

Интуитивно, участники мировой политики («акторы» в современном русском научном языке, наполненном заимствованиями) изначально выстроили главные смыслы её содержания – экспансия, завоевания, территориальные расширения, контроль над новыми территориями, получение прибыли и наращивание влияния, и т.п. Разумеется, они и не могли тогда выйти за «положенные» (эпохой) рамки. Однако, как это ни парадоксально, прошли тысячелетия, но эти правила (в их многократно преобразованном «научно-оправдательном оформлении») остались прежними и сегодня!

Со времен Гуго Гроция и до начала XXI столетия (на фоне всё нарастающего подъема «теоретических исследований мировой политике» на Западе, причем в обеих сформировавшихся школах – «реалистов» и «идеалистов») сама «внешнеполитическая мысль» не далеко ушла от первоначальных замыслов и времён греко-персидских войн («от конкуренция, к соперничеству, а затем враждебности, конфликтам и войне...») – эта цепочка, несмотря на все «гуманистические ограничения», введённые международным правом) и сегодня она видится, как «нить Ариадны» в мировых делах, а м.б. и как сам *raison d'être* существования государств в их множестве.

Всё более комплексные по составу и скрупулёзные подсчёты концептов «силы» и «потенциала», «соотношения сил», «национальных интересов», «лидерства», «союзников», и «коалиций», «степени влияния», и всех этих бесконечных «игр», «ставок» и «цен» (список этих «старых клише» можно продолжить...сегодня к ним добавились хитросплетённые и

изменчивые «красные линии»), которыми, якобы, должны быть «ведомы и ограничены» все участники, – всё это так и осталось (изменяясь лишь по форме) главными «постулатами» современной «науки о международных отношениях». К сожалению, подобное видение мира сложилось и в России, политическая наука которой полностью вписалась за последние 30 лет в эти «концептуальные рамки» (так и не выработав своих собственных).

### **3. Откуда ждать появления новых идей в науке о политике и международных отношениях?**

Несмотря на «тягостное» (полностью зависимое и «удерживаемое» доминантным влиянием) положение в этих областях науки, альтернативы этим взглядам неизбежно возникают («Биокосмологическая Инициатива» и осознание «космологической недостаточности» – одни из многих подтверждений этого тренда).

Как ни парадоксально, «возвращение к Аристотелю» даёт этому не совсем пока осознанную всеми, но важную опору – это его «Этика», концепты «самоценности морали» и «этический абсолютизм», «счастья, как следствие добродетели», вписанные в его целостное мировоззрение (дохристианское понимание этих ценностей только усиливается в дальнейшей истории «христианским откровением»).

В силу сказанного выше, на мой взгляд, следует включить в «Биокосмологическую инициативу» и размышления о преодолении центральных постулатов прежней «науки о международных отношениях», рассматривая её, как «начальный (прошедший, уходящий) этап в науке мироустройства для будущего». Некоторые мысли на этот счёт были сформулированы мной на конференции в Женеве в 2016 г. (см. ссылку в приложении).

Следует добавить в заключение: поскольку китайская доктрина «единого человечества общей судьбы», как представляется, остаётся на сегодня единственной новаторской и поистине «глобальной концепцией», следует уделять ей постоянное внимание на семинарах ISBC (например, сделав постоянной темой программы, разумеется, с согласия китайских участников).

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## Meaning and trend of future environmental philosophy

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Currently, the world environmental questions have triggered the profound concern of human society. Contemporary people can no longer take from nature as a hero as before. People begin to reflect on their own ecological environment, thinking about ideas and theories that can provide and adapt to them. Environmental philosophy is the source of the concept of global ecological civilization theory in the new era, and it is related to the theoretical basis of the new practice of socialist ecological civilization construction with Chinese characteristics. Future environmental philosophy is manifested as the new viewpoint, new system and new journey of environmental philosophy in the new era as the focus of the new environmental philosophy. Meanwhile, its orientation and trend lies in clearly responding to the development trend of globalization, with thinking about a changing world of internal and external environments.

### 1. The conceptual implication of the new Environmental Philosophy

This paper calls the future environmental philosophy as the new environmental philosophy. The connection between the preceding and the following, the new environmental philosophy, which is a theoretical system generated in response to global climate change and a profound understanding of the orientation and trends in Xi Jinping's Theory on Ecological Civilization, has unique conceptual implications. It opens up a new vision, new interface and new scope for the Marxist view of the environment. In response to the great changes in the mode of green development, the new environmental philosophy integrates the modernization concept of harmonious coexistence between man and nature into the construction of ecological civilization in the world. It shows a new condition, a new pattern and a new style. With the development of green economy, the construction of ecological harmonious society and the construction of human and natural life community for ecological environmental protection, the trend of new environmental philosophy can be endowed with a new connotation of The Times, reflecting the philosophical essence of the world environmental spirit in the new era.

With the deepening of the construction of global ecological civilization, the new environmental philosophy is not only the theoretical basis for global green development as a reference for the Marxist

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concept of the environment, but also the organic integration of Chinese and Western philosophical concepts and ecological environmental protection. Chinese president Xi has pointed out: “Nature is the mother of all living things on earth. Moreover, man and nature are a community of life”; “Mountains, rivers, forest, farmland, lake, grass and sand are a community of life.” With the co-construction and sharing of Chinese ecological harmonious society, the environmental philosophy of the new era highlights the future orientation for the construction of a beautiful world of harmonious coexistence between man and nature.

The new environmental philosophy is based on the new environment, which is derived from the new environment. Along with its own productive labor and its improvement over the external world, the material world into which human beings have successively integrated will become more and more concrete and closer to the real appearance of everyone with philosophical thinking. Based on the procedural understanding of its essence, the new environmental philosophy will be more global, life-oriented, three-dimensional and scene-based in the new world field. On the basis of the current characteristics of matter, movement, connection, shift and development, it will cover the currently unknown environmental conditions, the field of things and the situation of universe more deeply and comprehensively.

With the new context for unprecedented changes in the world in a hundred years and the great rejuvenation of the Chinese nation, the new environmental philosophy clearly takes the new environment as the object of philosophical research, studying the spiritual conditions of the human living environment at the metaphysical level. Feng Youlan considered that “philosophy is a systematic reflection on life.” Influenced by the universal living environment, the new environmental philosophy feels the diversity of life in a specific way in a particular environment. It is the central issue of environmental philosophy to explore the value relationship between human beings and all natural things.

The new environmental philosophy is a philosophical ethics that directly faces the new problems and challenges of the current global ecological environment. The inter-generational environmental ethics contended that human beings should bear moral obligations to the natural world. Furthermore, the future generations of human beings have the same right to enjoy the earth's natural resources and a good living environment as we did before. The new environmental philosophy is the study of environmental wisdom in the new era, the source of concepts for the theory of ecological civilization in the new era, and the theoretical basis for the new practice of ecological civilization. It is the new environmental philosophy for the future and the world. Indeed, it is an intellectual integration of new

questions, new methods and new thinking in environmental philosophy.

The positioning of the new environmental philosophy is a philosophy of the times with inclusiveness and depth, which is embodied in the theoretical reconstruction of the restoration of the status of national subjects and local cultural concepts. Based on the Chinese national condition, facing the world and revitalizing environmental philosophy in the future, the new environmental philosophy is not only to clarify the positioning and role of philosophy, but also to clarify the orientation and trend of environmental construction. In the process of the great rejuvenation of the Chinese nation, we will fully practice the function of the new environmental philosophy, completing the purpose and mission of environmental philosophy in the green development of the new era. The new environmental philosophy, which continues to expand inherent disciplinary territory in the frontier field of interdisciplinary, actively explores the development law of future environmental philosophy. At the same time, it deeply refines the value orientation of future new environmental philosophy in its development and change to construct a theoretical system.

## **2. The Orientation and trends of the new Environmental Philosophy**

The conceptual implications of the new environmental philosophy set the foundation for its orientation and trends. The Orientation is the refinement of the general direction of the trend, in other words, the decomposition and description of the trend at the medium view and the micro level. After nurtured in a diverse world environment, the orientation of the new environmental philosophy is derived from the excavation and interpretation of the harmonious and authentic relationship between human beings, nature and society. To correctly predict the trend of the new environmental philosophy, it is necessary to achieve the following orientations: First of all, we must correctly interpret the environmental culture based on the traditional Chinese people; In the second place, we need pay attention to reconstructing the ecological harmony between man and nature in thinking; Moreover, we should follow the needs of the green development of the real society in the process of conceiving the future; Furthermore, we have to serve the natural and happy life of citizens from the material and spiritual needs of the people; Finally, we ought to comprehend the ecological concept in the background of the Times and cohesion of habitat and vibrant green ecological purpose.

The trend is the prevision of the future development direction and of macro direction. Dependence on Chinese president Xi's Theory on Ecological Civilization, the new environmental philosophy combines the four core concepts for green development, along with political, economic, cultural, social, ecological development to transform into an ecological civilization society. The new environmental philosophy is a new concept philosophy advocating innovation, coordination, green,

openness and sharing; The new environmental philosophy is a new perspective philosophy led by orderly, powerful and effective concepts; The new environmental philosophy is a new natural philosophy based on the inclusion of all things, symbiosis and coexistence in nature, and the circulation of matter; The new environmental philosophy is a new habitat philosophy in which the environment and ecology are integrated; The new environmental philosophy is a new world philosophy about all organic integration of man, the earth and the universe; The philosophy of the new environment is a new philosophy of imagery applicable to multiple environments; The new environmental philosophy is a new earth philosophy based on the symbiosis of the whole human race, moving towards poetic in habitation; The new environmental philosophy is a new structural philosophy with real existence, synaesthesia, feelings and ideals; The new environmental philosophy is a new strange philosophy that integrates different paradoxes of at all times and in all countries.

There is no doubt, the new environmental philosophy is a new chapter of philosophy for the new era, the new world and the new pattern. Its spiritual essence is philosophy. Its research object is the new environment, the coordinates of time and space are the future world. It is not only connected with the deepest and most primitive theory of natural values, but also with the ecological and environmental problems that human beings are currently facing that urgently need to be solved.

To sum up, the new environmental philosophy will accumulate in the era of everything interlinked, striving to gradually move from the periphery to the center, with its goals of playing important significance and value for the economic transformation, political progress, social development, cultural renewal and ecological harmony in the world. Through the establishment of a new ethical concept and moral standard at the concept of green development, the new environmental philosophy will improve the green development model of the entire human society to be more coordinated and efficient, and the community of human destiny to be more vigorous and energetic in the new state of the world environment. Under the guidance of Chinese president Xi's thought on Ecological Civilization and the Marxist view of the environment, the new environmental philosophy applies the ecological ethics concept of socialism with Chinese characteristics in the new era and forward-looking world environmental ideas to better improve the global ecological environment, even as the modernization of harmonious coexistence between man and nature.

## On the organic nature of the two-way construction of ecological civilization and life civilization

Xuefang CHI<sup>1</sup>

The COVID-19 exposed a new life relationship between human beings and viruses,<sup>2</sup> projected the inherent internal vitality of Aristotle's physical subject, the power of entelechy, which means unlock the potential.<sup>3</sup> Some scholars suggested that viruses will rewrite the history of human beings and become a natural factor that influences or even governs the fate of human beings, and some scholars even suggested that "we definitely do not live in the Anthropocene, but in the Microbial World (微生物世)"<sup>4</sup>. These views are worth analyzing and discussing from the organic perspective of "two-way construction of two civilizations" of ecological civilization and life civilization.

### I

Why do viruses, as one living state in nature, occur at a specific time and place in the relationship between humans and nature, and then infect and mutates between bodies? Is it natural or human inspired? Or both? This type of ontogenetic question can also be translated into a consequential question: how can humans live in harmony with viruses? The answer is obviously that humans need to be civilized about ecology as well as about life. On the one hand, COVID-19 essentially reveals the conflict between life and development. We propose the urgent need to build a civilization of life along with an ecological civilization. It is necessary to issue relevant regulations in the context of the "two-way construction of civilization", crack down on indiscriminate hunting and illegal wildlife trading, ban illegal wildlife markets, overhaul wildlife artificial breeding and management and utilization institutions, and stop all management and utilization activities of terrestrial wildlife for food purposes.<sup>5</sup> Of course, to effectively change people's views and bad habits as well as to clarify

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**Fundamental project:** 'Research on the History of Chinese Eco-Philosophical Thought in the Past 40 Years' (18ZDA028), a major project of the National Social Science Foundation of China.

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<sup>2</sup> Living matter is the sum of the organisms on Earth. See: [USSR] V.I. Vernadsky. *Living Matter*. Beijing: The Commercial Press, 1989: p. 64.

<sup>3</sup> Addressing the scientific community – the *Biocosmology Initiative* [J]. *Biocosmology – Neo-Aristotelism*, Vol. 11, Nos. 3&4 (Summer/Autumn 2021), pp. 147–164.

<sup>4</sup> Song Bing, ed. *Out of the Anthropocene: Philosophical Reflections on the Harmonious Coexistence of Man and Nature*, CITIC Press, 2021: p. 21.

<sup>5</sup> See "Decision of the Standing Committee of the National People's Congress on the comprehensive prohibition of illegal wildlife trade, the elimination of the bad habit of indiscriminate consumption of wildlife, and the effective protection of the life, health and safety of the people", issued in February 2020.

the organic nature of the “two-way construction of civilization”, it requires not only the inculcation and education of social culture such as ethics, morality, philosophy and literature, but also a new scientific view of knowledge that intersects science and philosophy to provide the epistemological and methodological basis

On the other hand, the COVID-19 did awaken mankind and made humans realize the fact that the human-virus conflict is essentially an extreme expression of the human-nature conflict at the level of interaction between viral microorganisms and humans and the Earth's universe. COVID-19 captures humans as hosts and produce mutated strains in the struggle with humans. The prevalence of COVID-19 will refresh traditional concept of the relationship between human being and virus microorganisms, thereby changing the production mode, lifestyle and daily living habits of humans. Especially it will influence the decision making of various major engineering projects involving the relationship between man and nature, it should take into account not only ecological civilization considerations, but also the awareness and concept of life civilization. Thus, in this sense, “we definitely do not live in the Anthropocene, but in the Microbial World.” This viewpoint defines the new relationship between human subjects and viral microbial subjects in the post-epidemic era by comparing with the human world, and proposes a new concept of the microbial world “which refers to the world from the perspective of viruses,” thus forming a new cognitive framework and thinking mode of the relationship between human and virus microbe, which is mainly reflected in the organic nature of the “two-way construction of two civilizations”, i.e., the inseparability of the civilization of ecology and the civilization of life.

## II

From the ecological perspective of the external manifestation of the relationship between man and nature and the vital perspective of the internal essential connection, we find that the Anthropocene perspective lies at the ecological level and the Virus-Microbe perspective lies at the vital level, and both are organisms that virus microorganisms and other animals, plants and humans all have two inseparable levels. (1) The ecological level contains things visible to the naked eye, embodying the manifest order universe. While the life level contains things invisible to the naked eye, reflecting the implicit order universe. (2) The existence of human beings and other diverse organisms - ecological manifestations, reflecting the species nature of species diversity, such as tigers and lions are the same genus but different species.<sup>6</sup> It can be seen that humans and other animals are both different genus and different species phase. However, human beings and other living beings have the essential connection at the level of life. Any living species, including human beings, is alive and active, or

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<sup>6</sup> Li Chaodong. On Plato's Dialectics of the Theory of Idea, *Northwest Normal University Journal* (Social Science Edition), 2001 (6).

*entelechia*, and human beings and other living beings have a living nature as opposed to the dead things.

(3) From the perspective of biological diversity as a whole, the accelerated extinction of wild species manifests itself in the accelerated extinction of individual species. However, the reason for the accelerated death of individuals is the loss or destruction of the entelechy or living nature, which is due to the destruction of the hidden order at the level of microorganisms, that is, the destruction of the subjectivity of the living form that maintains life.<sup>7</sup> Therefore, in this sense, “we definitely do not live in the Anthropocene, but in the microbial world”, because, in fact, viral microorganisms have always been with us humans. If we only pay attention to the construction of ecological civilization and ignore the construction of life civilization at the level of viruses and microorganisms, as we did in the past, then it is not only a problem of perception that human and viruses and microorganisms are a community of life, but also a violation of the overall law of human and nature, ignoring the basic principle of “ecological dependence on life” and cutting off the organic nature of “two civilizations constructed in two directions”.

### III

From the perspective of ontology, the claim that viruses are microorganisms stems from analogous reasoning with microorganisms, but strictly speaking, it is problematic. Because microorganisms are living things, while viruses are not. Viruses are simple organic matters, which are 100 times smaller than microbial bacteria. From the perspective that virus is a microorganism: after entering host cells, Viruses replicate and release their progeny viruses by virtue of the energy and metabolic system of host cells and display microbial characteristics. While perspective from Vernadsky’s living matter: viruses, as part of the total of organisms in the biosphere, are potentially active organic chemical substances.

If we take a broader view, from the perspective of organic cosmology, we find that “the real world is a unified, natural, dynamic, living and indivisible universe.” This includes every physical subject, “from physical fields and energy, to particles, atoms, molecules, bacteria, and the plant, animal, and socio-cultural worlds”; as well as the geosphere, biosphere, social sphere, and intellectual sphere, in which every physical subject naturally obeys the same laws. In this universe, the physical subject can refer to both the modern conception of physical entities, such as river life<sup>8</sup>, (wandering) viral organisms; (entering the host) viral microorganisms. It can also refer to human social material existence entities and aggregates, such as artificial objects: driverless cars, or intelligent robots; artificial nature: urban aggregates; humanized nature: rural aggregates; wilderness aggregates. This organic cosmological perspective not only embraces the microbial perspective and the living matter

<sup>7</sup> Ye P. Environmental theory analysis of biodiversity conservation, *Journal of Poyang Lake*, 2010: No. 4.

<sup>8</sup> Ye P. *Theory of River Life*, Zhengzhou: Yellow River Water Conservancy Press, 2007 edition.

perspective, but also extends to human society and its material entities. This opens up a broad logical starting point for understanding and interpreting the organic nature of the “two civilizations constructed in two directions”.

#### IV

The emergence of the COVID-19 is not an isolated incident, it certainly has extensive and very complex background. It is undeniable that the human scientific and technological revolution has the power to trigger the material revolution, the energy revolution, and the information revolution. And now the life revolution is taking place. If we superimpose the many industrial revolutions that have occurred in history to date, the result will be subversive. As the Soviet biogeochemist Vernadsky states – man becomes a geological factor and the biosphere becomes the wisdom sphere – Noosphere.<sup>9</sup> It is documented that every 20 minutes, one species is extinct and biodiversity is destroyed. Bill McKibben published “The End of Nature” to describe the future of the natural world. He also wrote in the preface to the 10th anniversary edition of the book, “When I wrote The End of Nature in the late 1980s, I made observations from two aspects. Firstly, we have misrepresented time, we once thought that the earth was changing very slowly, but in fact this change is accelerating. The earth’s change is drastic, dangerous and mysterious, however, this is due to our own change.

Secondly, we misconceive the space. We used to think that humans are tiny while the earth is huge, but in the time we live in, the situation has changed.<sup>10</sup>” This is the author’s reflection on the impact of human beings on the ten-year changes of the earth’s space-time. Now it has been more than 20 years (2022), we continue with the author's observations and conclude that: firstly, we have misrepresented the nature of the earth. We used to regard the change of the earth as the ecological change of the earth's surface, but in fact this ecology is only a surface phenomenon, while life activity change is the essence of earth change, and now, the change has touched the bottom line of human life. Secondly, our ideas about the origin of human intelligence are also limited. We used to believe that human intelligence originated from human beings and the natural world, but in fact it also originated from the (viral) living world. A change of beliefs from the traditional concept of life to a pan-life concept heralds the advent of an epoch-making era of civilizing life while civilizing ecology.

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<sup>9</sup> [USSR] by V.I. Vernadsky. *Living matter*. Beijing: The Commercial Press, 1989: p. 1.

<sup>10</sup> Bill McKibben. *The End of Nature* [M]. Translated by Sun Xiaochun, Ma Shulin, Changchun: Jilin People’s Publishing House, 2000: Author's preface.

## **Ecologization of education – a necessary condition for forming a healthy human lifestyle**

**Nikolai N. MAKSIMIUK<sup>1</sup>**

The ecological crisis of the modern world has shown that industrial civilization no longer corresponds to the processes of progressive development of human society, and cannot control the relationship between man and nature. Long-term consumer attitude to nature everywhere contributed to the emergence of factors that destroy the natural environment. Humanity has entered the stage of a global ecological crisis, which cannot be overcome by the forces and means of technogenic factors alone. In historical development, primitive civilization has been replaced by rural, rural industrial civilization, and at present it is necessary that industrial civilization be replaced by a completely new type – ecological civilization. To get out of the widespread crisis of industrial civilization, it is necessary to carry out the difficult process of turning the consciousness of mankind. This can be facilitated by environmental education, as the main means of shaping the modern generation of environmental consciousness, responsibility and creative attitude towards nature.

The current environmental situation and the presence of a worsening crisis puts forward new requirements for specialists in various fields: they have not only functional mobility, but also environmental competence, as well as a sense of responsibility in making decisions. One of the priority values of modern education can be considered the creative thinking of a future specialist, which will allow making effective constructive decisions not only in professional, but also in specific life situations.

Many years of pedagogical experience shows that the most solid knowledge and ethical norms of behavior in society are reliably assimilated from an early age. Therefore, in the learning process, it is necessary to emphasize the real negative consequences of pollution, the consumer attitude of man to nature, and also to strengthen the sense of responsibility of each member of society to protect the environment and natural resources [1].

One of the first tasks in environmental education is to increase people's awareness of activity in protecting the environment, the pollution of which has become a serious threat today, and not in the distant future. In environmental education, the definition of time must be transferred from the “future” to the “present”. Based on vivid examples and available data, it is necessary to conduct the educational process in such a way that students feel a direct, threatening danger in real life. Since the field of environmental education is related to the objects being taught, teaching methods, learning content

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and the breadth of learning activities, it is necessary to develop environmental education in all areas of training [2].

For the effective implementation of comprehensive environmental education, it is necessary both to expand the objects of environmental education, and to form new criteria for educating a caring attitude to the natural environment and natural resources. It is necessary not only to form in a person the qualities of a caring attitude towards nature, but also to teach him to take into account the laws of nature for mutually beneficial harmonious existence and development. Then it will be possible to get out of the ecological crisis. Therefore, environmental education plays a significant role [4].

Increased attention to environmental education is also needed on the part of managers. Compared with ordinary citizens, civil servants have greater opportunities to make appropriate socio-economic decisions and control their implementation. Given the influential position of civil servants and leaders at various levels, it is necessary to organize their environmental education by organizing an appropriate system of training and control. It is also possible to include the ecological state of the territories as an indicator of the assessment of the activities of regional officials.

It is advisable to conduct environmental training at enterprises to improve the model of the technological cycle of production and the lifestyle of employees of enterprises. Since industrial enterprises of different forms of ownership as a result of their activities create a positive or negative impact on nature, they should be the main objects of environmental education. While training entrepreneurs in the basics of environmental knowledge, it is necessary to strengthen their environmental responsibility in economic activities. This will facilitate the transition to environmental models of work, as well as the development of an assessment of the consequences of the impact of economic activity on the ecological state of the natural environment. These factors will help reduce or even abandon such economic decisions and activities that harm nature and its resources [3].

Environmental education of consumers will be justified to realize the need to protect the natural environment in their daily activities. It is necessary to form an understanding that their lifestyle of uncontrolled consumption and accumulation of mass waste also negatively affects the natural environment. As a result of educating consumers to change their attitude towards nature, they will strive to create goods and products that would not harm nature and humans, and thereby accelerate the creation and development of environmentally friendly production.

The main way of implementing environmental education is the educational process. Its success and effectiveness have already been proven in practice. Given the experience gained, in the future, it will be necessary to pay attention to the environmental training of teaching staff, the development of curricula, teaching aids and methods [1, 2].

In addition, in environmental education it is necessary to use the potential of the media. The Internet, various instant messengers, television, radio, and the press have now become the main channels for

obtaining information and knowledge. With their help, environmental education can not only expand its sphere of influence, but also lead to universal environmental education. It will be effective due to its advantages: expressiveness, convenience, specifics of modern information technologies, the possibility of introducing business games, excursions and others into the educational process. Using all these tools, environmental education can be widely promoted and its benefits can be demonstrated.

The relevance of the formation and development of environmental competence is due to changes in the life of society: socio-economic transformations, new requirements for the introduction of modern production technologies, the need to optimize various areas of environmental protection, as well as the spread of flexible, adaptable to new constantly changing conditions, forms and methods of environmental education among the population [3, 4].

Being engaged in public activities in the field of ecology and life safety and communicating at the same time with students of schools and universities, we came to the conclusion that most of them need to replenish environmental knowledge. The lack of environmental principles in relation to the environment and environmental ignorance is observed in many people, despite a good special education. The vast majority of university graduates have not systematized environmental knowledge.

Therefore, productive educational and educational work among the younger generation can also bring a positive result in that it will contribute to the involvement of their families, peers, and teachers in the discussion of modern environmental problems.

The formation of an ecological outlook and ecological culture through environmental education is justified by a vital necessity, which is determined by the interaction of man and nature.

**Keywords:** natural environment, nature protection, ecological safety, ecological crisis, ecological education.

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## **Биокосмологический разворот, сообразуясь с поразительным соответствием (в отношении к Российской цивилизации) выводов теории Н.Я. Данилевского (150 лет назад) и текущего момента мировой истории (социокультурной эволюции)**

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Обрушившиеся на РФ в 2022 г. санкции (т.н. «санкции из преисподни»), как и другие (гибридные) формы внешнеполитического давления и принуждения России – все это отчетливо имеет двойственный характер. Да, безусловно, с одной стороны – это явное подавление и принуждение; но, с другой стороны – здесь нельзя не усмотреть (и здесь обнаруживается поразительное сходство с выводами цивилизационной теории Н.Я. Данилевского), что Российский общественный организм в настоящем претерпевает свое непосредственное стимулирование и активизацию (теперь уже не в научно-рекомендательном, как в теории Данилевского; а в прямом значении) – свое возбуждение к раскрытию и реализации собственного (присущего) цивилизационного потенциала, и его всемерного осуществления на благо развития всего мира.

Николай Яковлевич Данилевский родился 4 декабря [16 декабря] 1822, в селе Оберец, Орловской губернии. В 2022 г. исполняется 200 лет со дня его рождения. В 1869 г. на свет явился его феноменальный труд, заложивший последующее (научное) развитие мировой цивилизационной теории – «*Россия и Европа*». В 2019 г. мы отмечаем 150-летие выхода в свет этого великого произведения; в этой связи, в *ВСнА*-журнале появился труд «Данилевский 2.0 (150 лет спустя)» (DOI: 10.24411/2225-1820-2020-00006). Известный исследователь Дэвид Уилкинсон, профессор Калифорнийского университета в Лос-Анджелесе и один из руководителей Международного общества сравнительного изучения цивилизаций (ISCSC); видный ученый в статье “*Comparative Civilizations*” делает заключение, что «в истории мировой культуры отмечены всего пятеро мыслителей, кто соответствует уровню классиков в изучении макросоциальных систем – подобной оценки заслуживают только работы Гегеля и четырех других ученых – Николая Данилевского, Освальда Шпенглера, Арнольда Тойнби и Питирима Сорокина [Wilkinson, 2010; DOI: 10.1093/acrefore/9780190846626.013.125]».

При жизни ученого, его авторитет и научные достижения не могли быть поколеблены. Но, после его смерти, теория Данилевского подверглась атакам со стороны ее противников. Когнитивную агрессию возглавил публицист, теолог и философ Владимир Соловьев. Усилия антагонистов цивилизационной теории Данилевского преследовали (и, к сожалению, достигли) целей дискредитации величайшего вклада (в мировую науку и культуру) русского гения. В этой связи, автор включает (к обсуждению в своем выступлении) вопрос

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чрезвычайной важности : об активном применении в современной социокультурной жизни средств воздействия, направленных на подавление и подчинение (движущих сил) у неприятельских цивилизаций – т.н. «когнитивных ловушек». Так, в отношении к теории Н.Я. Данилевского, главным образом, ‘когнитивная дезорганизация’ достижений русского ученого заключала себя в навязывании ‘критиками’ (во главе с Вл. Соловьевым) общественному мнению – принадлежности Данилевского к *славянофилам* (подробнее в этом, см. ВСнА-публикацию «Данилевский 2.0 (150 лет спустя)»). Нельзя не отметить, что в результате проведенной (виртуозной) работы – в эту ‘славянофильскую ловушку’ угодили даже оба редактора последних изданий «Россия и Европа» – Н.Н. Страхов и А.А. Галактионов.

Также из средств Внешнего (в отношении к *внутренним* присущим потенциалам культурного развития цивилизации) воздействия, в т.ч. именуемых как ‘мягкие’ (и включаемые в ‘гибридные’ способы современного, военного и невоенного), но насильственного подавления и подчинения себе цивилизаций, претендующих на самостоятельность в своем развитии : в этом плане в выступлении (и поддерживающих его опубликованных работах) – фигурирует уже ‘ловушка’ Марксизма; но которую мы именуем как ‘Марксистская суперловушка’; см. ВСнА-публикацию [2022; DOI: 10.24412/2225-1820-2022-12-37-261], здесь рассматриваются две исторические фазы в существовании советского (марксистского) общества. В этой взаимосвязи, в выступлении также отмечается событие (и его столетие), но уже иного (мрачного, негативного) свойства. Дело в том, что в XX в. первая русскоязычная публикация «Россия и Европа» состоялась только в 1995 г. (это стало ее 6-м изданием, под редакцией А.А. Галактионова), тогда как предыдущее (5-е издание, под редакцией Н.Н. Страхова) появилось в 1895 г. – ровно 100 лет назад! Таким образом, для всех поколений советских (русскоязычных) людей : достижения Данилевского, основателя цивилизационной науки в России оказались принципиально недоступными; т.е. их намеренно (искусственно, включая и ученых страны) сделали невежественными, значит – неспособными разобраться в вопросах цивилизационного развития. Но Питириму Сорокину удалось прочитать «Россия и Европа», изданную на французском языке, в 1930х гг.; в последующем Сорокин стал убежденным последователем Данилевского. В целом, несмотря на тяжелые условия исторически обусловленной несостыкованности (искусственно созданной разорванности в культурной жизни) научных достижений русских ученых : но, тем не менее, в российской культуре на свет явилась научная школа цивилизационных исследований; а, здесь – мировая культура приобрела существование и ресурс ‘Большой Пятерки’ выдающихся ученых: Данилевского, Леонтьева, Вернадского, Сорокина и Гумилева.

В трудах и консилиумах ученых Биокосмологической Ассоциации (БКА) сложилось мнение, что ‘Большая Пятерка’ представляет собой важнейший ресурс научных знаний, способный обеспечивать проведение стратегических инновационных изменений в мировом развитии – в отношении как разрешения возникших глобальных проблем, так и обоснования и целеорганизации движения человечества в безопасное и благодетельное мирное (peaceful)

будущее; подробнее, см. ВСпА-публикацию «Россия и мир (peace)» [2022]. Существенно, что всех (и каждого из) пятерых русских гениев, помимо колоссального вклада каждого в развитие цивилизационной теории : каждого отличает уверенность в неотъемлемом значении (для успешного мирового развития) как Западных, так и не-Западных КИТ<sup>2</sup>-субъектов мирового развития, начиная с Российской цивилизации и её Восточной ориентации; а также, что является отличительным для всех – это устремленность цивилизационной науки в новое и лучшее (и более сложное по организации), востребованное Ноосферное Органицистское Общее Будущее, равноправное (для осуществления собственного вклада) каждым задействованным активным субъектом Общего Дела и Общего Блага.

До сих пор, достижения ‘Большой Пятерки’ остаются в тени; хотя они являются неотложно востребованными как для России, так и для всего мирового развития. Главной причиной подобного состояния дел, как ее устанавливает Н.Я. Данилевский – является тяжелая (и угрожающая благополучию России и мира) «болезнь русской жизни». Ученый устанавливает ‘диагноз’ этой болезни, поразивший русский общественный организм – это «Европейничанье» [Данилевский, 2011, с. 315]. Ученый отмечает прогрессирующее развитие этой болезни, отсюда малоуспешность цивилизационного развития России в (современном ему) XIX в. Его строгое прогностическое предупреждение звучит как набатный звон:

*Болезнь эта в целом препятствует осуществлению великих судеб русского народа (здесь, и далее, курсив мой. – К.Х.) и может, наконец (несмотря на все видимое государственное могущество), иссушив самобытный родник народного духа, лишить историческую жизнь русского народа внутренней зиждательной силы, а, следовательно, сделать бесполезным, излишним самое его существование, ибо все, лишённое внутреннего содержания, составляет лишь исторический хлам, который собирается и в огонь вметается в день исторического суда» [Данилевский, 2011, с. 359].*

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<sup>2</sup> **КИТ** – культурно-исторический тип : ключевое понятие из цивилизационной теории Н.Я. Данилевского; и что обозначает Саморазвитие (т.е. за счет внутренних присущих потенциалов) общественно-исторического организма; и который (КИТ) принципиально способен реализовывать и осуществлять вселенский вклад в мировое историческое (эволюционное) развитие. Сам Данилевский, в изложенных им «законах исторического развития» : ученый дает (в «Законе 1») следующее определение: «Всякое племя или семейство народов, характеризуемое отдельным языком или группой языков, довольно близких между собой для того, чтобы сродство их ощущалось непосредственно, без глубоких филологических изысканий, – составляет самобытный **культурно-исторический тип**, если оно вообще по своим духовным задаткам способно к историческому развитию и вышло уже из младенчества» [Данилевский, 2011, с. 113]. В свою очередь, в «Законе 3» русский гений выводит, что «Начала цивилизации одного культурно-исторического типа не передаются народам другого типа. Каждый тип вырабатывает ее для себя при большем или меньшем влиянии чуждых, ему предшествовавших или современных цивилизаций» [Там же].

Со своей стороны, в изучении этого вопроса : мы пришли к выводу и утверждаем существование в России и мире в целом **ХИПЗ** – хронического иммунопатологического заболевания (см. *ВСпА*-публикацию «*Россия и мир (peace)*» [DOI: DOI: 10.24412/2225-1820-2022-12-37-261]); здесь понятие ХИПЗ применяется не только к физиологическому, но и к организму исторического процесса – человечеству; и его цивилизационным органам-субъектам (этническим и суперэтническим).

Наконец, чрезвычайно важным является открытие Данилевским четырех основополагающих принципов успешного существования любой мировой «положительной» цивилизации (в прямом его цитировании; и что он также называет как «*Геркулесовые Столбы*» цивилизации; **ГрС**, в сокращении) – раскрытых гениальным ученым «общих разрядов культурной деятельности, в обширном смысле этого слова, не могущих уже быть подведенным один под другой, которые мы должны, следовательно, признать за высшие категории деления, – их насчитывается не более и не менее четырех» [Данилевский, 2011, с. 566]. Соответственно (следуя теории Данилевского) : мы выделяем в исследовании четыре ГрС [2022]:

- космологический – 1ГрС;
- научно-теоретический и других сфер культуры – 2ГрС;
- военно-политический – 3ГрС; и
- общественно-экономического развития – 4ГрС.

В общем сложности, выдвинутая учеными БКА *Биокосмологическая Инициатива* приобретает в современных условиях действительно актуальное значение. Обоснованно полагаясь на естественнонаучную состоятельность Биокосмологических фундаментальных оснований – все ученые мира, сегодня, вправе чувствовать себя свободно и уверенно – в плане выдвижения и реализации целей построения нового общего (более сложного) будущего (как раз на Органицистских – нео-Аристотелевских), безопасного и мирного (peaceful) сосуществования и благодетельного развития основаниях. Поэтому, для реализации этого генерального вектора : нам требуется реализовать решительный организованный *Биокосмологический разворот*. Последний осуществляет кардинальный (на 180°) разворот генерального вектора мирового социокультурного (космологического) развития : от общей организации жизненной активности на основаниях Трансценденталистского полюса – к новой эре доминирования Органицистского полюса в общемировом порядке; естественно, что во всем этом полагаясь и содействуя уже действительной реализации великого плана Китайской культуры по построению мирного Общего Будущего для всего Человечества.

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**Сборник тезисов докладов**

**XXIII Международного семинара по Биокосмологии (23ISBC)**

**по теме:**

**«В год 200-летия со дня рождения Н.Я. Данилевского : К реализации мирового (мирного) Биокосмологического (Органицистского) разворота – через первичную реорганизацию культуры Российского научного и образовательного процесса»**

**В рамках II Международной научной ассамблеи  
«Международное сотрудничество в интересах устойчивого развития»;**

**4-7 октября 2022 г., на факультете глобальных процессов,  
Московского государственного университета имени М.В. Ломоносова;  
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