International Symposium „Philosophy of Nature“ (19.-21. May 2016, University of Vienna)
Abstracts 2016-5-19

Philosophy of Nature in Cross-Cultural Dimensions

A b s t r a c t

Verein für Komparative Philosophie und Interdisziplinäre Bildung (*KoPhil*)

Association of Comparative Philosophy and Interdisciplinary Education, Vienna (*KoPhil*)

International Symposium: Philosophy of Nature

- In Regard on Neo-Aristotelism in All-Encompassing System of Knowledge
11. International Symposium on Biocosmology

Given at the **University of Vienna, on 19.- 21. May 2016**

Thursday, May 19th 2016, Campus, “Alte Kapelle” (“Old Chapel”)
A-1090 Wien, Spitalgasse 2-4 (Hof 2.8.) : Opening Session

15.40	Gathering
16.05-16.10	Greeting**: Opening Session**
16.10-17.00	Herbert Pietschmann (Vienna/Austria) **Can Scientific Knowledge be called "Truth"?** (incl. discussion)
17.00-17.20	Introduction of the Organizer, Board of the *KoPhil* (Vienna/Austria) **The Significance of the Meeting of BCA - *KoPhil* at the University of Vienna**
17.20-18.20	Vincent Shen (Toronto/Canada) **Zhu Xi’s Natural Knowledge and Philosophy of Nature** (incl. discussion)
18.20-19.30	*Cocktail*

Herbert PIETSCHMANN
(Emer. O. Univ.-Prof. Dr., Department of Theoretical Physics, Universty of Vienna
KM of Austrian Academy of Sciences)

Can Scientific Knowledge be called "Truth"?

Abstract

Galileo Galilei, the founding father of scientific method, said: "I do not feel obliged to believe that the same God who has endowed us with senses, reason and intellect has intended us to forgo their use and by some other means to give us knowledge which we can attain by them." He carefully distinguished between knowledge and truth. This distinction is blurred in our days, partly because of the definition of "understanding" by Lord Kelvin, who claimed that understanding something is identical with the ability to form a mechanical model of it. Although the mechanical frame of thinking has been overcome in physics by General Relativity and Quantum Mechanics, it still widely dominates scientific thought. Consequences will be exposed in the talk.

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Board of the *KoPhil* /Association of Comparative Philosophy and Interdisciplinary Education

The Significance of the meeting of BCA-*KoPhil* at the University of Vienna

An Introduction to this meeting

http://kophil-interdis.at

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Vincent SHEN
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Zhu Xi’s Natural Knowledge and Philosophy of Nature

Abstract
This paper takes Zhu Xi, a systematic neo-Confucian thinker in medieval China, an exemplar case of the attitude towards natural knowledge and philosophy of nature held by traditional Chinese philosophy; it also touches upon, where we find pertinent, the relation of such knowledge with the supernatural. Zhu Xi lived in the 12th century and made himself familiar with much of the natural knowledge that was available at that time. He read the works of Shao Yong, Shen Gua, Cai Yuanding…etc., who wrote on calendrical astronomy, botany, meteorology, and other domains of natural knowledge. Zhu Xi’s own Collected Writings and Classified Conversations reveal his rich knowledge in these realms and others such as music and harmony, geomancy, medicine…etc. He also liked to discuss matters of natural knowledge with his disciples. Yet Zhu Xi looked beyond the technical dimension of such knowledge and sought a deeper understanding of the principles of things, building up a holistic vision of reality.

Zhu Xi’s interest in natural knowledge should be understood in the philosophical context of his notion of the “investigation of things to extend knowledge”. In my interpretation, what Zhu Xi investigates when he conducts the investigation of things is the principle that exists in all things, which presupposes a certain “otherness”; while the attainment of knowledge includes both knowledge of self and knowledge of others, or better said, the return to oneself via the detour of the other, so that one might gain sudden insight into the nature of things and attain transparent self-knowledge. That is to say, the investigation of things entails a process of detour by which one, first going outside of one’s self to the other and having attained knowledge of the other, comes back to one’s own self.

This raises a question that might touch upon the relation between Zhu Xi’s philosophy of nature and religion, that between the natural and the supernatural: namely did this concern and curiosity about the other lead Zhu Xi to inquire into the Ultimate Other? Zhu Xi discussed the phenomena of ghosts and divinities (guei-sheng), therefore with the so called “supernatural,” and seemed to be very concerned with religious feeling. But the philosophical system he built upon the core concepts of li and qi is more a

system of immanence than of transcendence. His interpretation of the Great Ultimate as li deprives his concept of the Ultimate Reality of the Ultimate Other, though it retains a certain openness to it. He also tended to explain the phenomena of ghost and divinities by appealing to his theory of qi.
While a rational system might be immediately understood by the human intellect, but it will never be able to capture the ambiguity of reality itself. Zhu Xi’s interpretation of the Great Ultimate as li, though it thereby brings the Great Ultimate into his system, has the effect of missing the hidden dimension of Reality Itself and one’s relation to the other, on which a more reasonable idea of religion could be founded.

Key Words: Zhu Xi, Natural Knowledge, Li (Principle), Great Ultimate, Otherness

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Friday, May 20th 2016, “Neues Institutsgebäude” (NIG)
A-1010 Wien, Universitätsstr. 7, 2nd Floor, HS 2G :

	At the Border Region of Philosophy and Cognitive Science Chair: Hashi, Hisaki
9.30-10.30	Milan Tasić (Niš/Serbia) **FROM THE ANTHROPIC PRINCIPLE AND (BACK) TO THE ANTHROPOID PRINCIPLE** (incl. discussion)
10.30-11.30	Harald Walach (Frankfurt a.d.O./Germany) **Changing Figure and Ground: Connectedness as Primary – A Re-Reading of Leibniz in the Light of a Generalised Version of Quantum Theory and Entanglement** (incl. discussion)
11.30-12.30	Friedrich Wallner (Vienna/Austria) ***Philosophy of Nature from the Intercultural Perspective*** ***How Would Aristotle Do Philosophy of Nature Today*** (incl. discussion)
12.30-13.50	*Lunch break*
14.00-15.00	Włodzimierz Lugowski (Warsaw/Poland) **PHILOSOPHICAL FOUNDATIONS OF THE ORIGIN-OF-LIFE STUDIES** (incl. discussion)
15.00-16.00	Hashi, Hisaki (Vienna/Austria) **The “Field of ‘Between’” as the Principle toward an Integrative Cognition for Philosophy of Nature and Natural Science** (incl. discussion)
16.00– 16.25	*Coffee break*
16.30-17.15	Spyridon Koutroufinis (Berlin/Germany) **Biological Neo-Teleologism from an Aristotelian and Whiteheadian Perspective** (incl. discussion)
17.15-18.00	Walter Karban (Vienna/Austria) **No -Thing" (Nothingness) should be More than You can Imagine - Looking at „no Thing“ from a Systemic Point of View** (incl. discussion)
18.00-19.00	Erich Hamberger (Salzburg/Austria) and Herbert Pietschmann (Vienna/Austria) **The Difference between Communication and Interaction as the Constitution of Life** (incl. discussion)
19.00-20.30	***Buffet***

Milan TASIĆ
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FROM THE ANTHROPIC (BACK) TO THE ANTHROPOID PRINCIPLE

Key words: anthropic, anthropoid, physical, chemical, biological, evolution.

Abstract

As it is known the so-called "anthropic principle" is a thesis which in its "weak" form expresses attitude that: "Our existence in the universe is necessarily privileged as observers", and in a "strong" one: "It is in the nature of the universe, at some level of its evolution, to allow the emergence of an observer, as a necessary one". Just because its basic parameters - such as the gravitational constant, the mass of electrons, neutrons and others ─ have allowed the creation of organic matter (carbon), and what would be avoided if their values were different. Otherwise, the anthropic principle is not proven, one accepts or denies it on the basis of arguments being more or less likely.

We formulate here a (bold) hypothesis and bring arguments in favor of the so-called "anthropoid principle" which reads: "In what creates the nature (and human himself) is trying to reach creatures with anthropoid properties".

It is, of course, about the analogues - expressed in the most different extent: from traces to clearly identifiable ones - of particular characteristics related to humans on a large scale of species (plants and animals) in the organic world, and even in the inorganic one, so that in this case, say, Darwin's theory of evolution would acquire a wider validity.

Because one finds, first, that (some) physical, chemical and biological processes can be described in terms of this theory: some metal salts, iron oxides, DNA molecules, etc., as they may be self-defense, merge, move alone, replicate, and the like. And what all is more pronounced in plants, where - now in the absence of terminology – can be talk about "recognition" of touch, of smell, of sound, of communication, and even of memory.

Then, when it comes to animals, we find examples among species for already all human powers and features. We have in mind the curiosity, the power of learning, memory, culture, morals, until the feeling of death, of time. And finally, in what creates man himself (as a part of the same nature): communities, cities, machines … we equally recognize essentially more or less the same processes characterizing his own existence, as a human being.

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Changing Figure and Ground: Connectedness as Primary – A Re-Reading of Leibniz in the Light of a Generalised Version of Quantum Theory and Entanglement

Key Words: Leibniz, Quantum Theory, Entanglement, Internal Relations

Abstract
Gottfried Wilhelm Leibniz (1646 – 1716) is well remembered for his mathematical achievements and is very often seen from a disciplinary point of view only. However, the major thrust of his philosophy was to unify science and religion in a world-view that would combine the insights of a natural philosophy with theological and religious enlightened ideas (Antognazza, 2009). To that end he developed a philosophy that was based on ancient concepts, but modern. Although his starting point was the monad – radical individuality – the Leibnizian monad cannot be seen except as a converging point of relations. Thus, in a way, relationship and connectedness, from an individual perspective, is the basic constituent of Leibniz' philosophical system. This view of nature was in stark contrast to the one that Newton tried to propagate. In Leibniz' correspondence with Clarke, who was Newton's spokesman, this contrast is visible (Leibniz, 1966).
As we know, Newton's view of a mechanical treatment of nature with individual entities in separation, populating an empty space, became, together with Descartes' idea of mechanical laws in living organisms, the guiding principle of science. Hence, we often speak of a "Newtonian Worldview". This world view is pervasive in every respect and is still the guiding idea of most of modern science, except for some branches of physics.
This presentation starts from the twofold assumption that with the advent of quantum physics in the beginning of the 20th century a new model of nature has begun to arise, and that the epistemological and metaphysical assumption underlying quantum physics will also be relevant, by way of isomorphy and analogy, in other areas of physics, as well as for epistemology. We have therefore asked the simple question: What would be the conditions and the consequences of a generalized form of quantum theory? This was developed and published under the name of Generalized Quantum Theory (Atmanspacher, Römer, & Walach, 2002; Römer & Walach, 2011). This model is applicable also in other circumstances outside physics and is needed, whenever

incompatible concepts have to be dealt with. We hold that such incompatible concepts are generic in other disciplines as well. While a Newtonian approach, often also termed “classical”, deals with compatible concepts and compatible contexts, a non-classical, quantum theoretical approach is needed whenever the context – for instance the measurement – influences the measured object or if the notions referring to those objects are incompatible and hence the sequence of measurement operations relevant (Filk, 2016). The classical example is, in quantum physics, the incompatibility of measurements of location and momentum of a particle. This gives rise to the famous Heisenberg uncertainty. However, there are also many instances of incompatibility – from psychology, to methodology, to simple examples of daily life – where we have to deal with incompatible concepts. One of the more ubiquitous pairs is the incompatibility of individuality and society, or, psychologically speaking of separation and community. While both are constitutive for human nature they are incompatible in the sense that they seem to be opposites, yet they are both needed to describe an object or a situation, namely the human being.

Generalized Quantum Theory was developed to be able to formally deal with such situation. One interesting consequence of this formalism is that it predicts a generalized form of entanglement, similar to physical entanglement correlations. Quantum physical entanglement correlations are systemic properties of quantum systems. They are due to the fact that elements of a system behave in a coordinated fashion even though there are no classical signals – travelling at the speed of light – that are causal carriers of this coordination. In analogy, generalized entanglement could be a coordinating principle on top of causal signals that coordinate intrinsic behaviors of systemic elements. In that sense they would be natural expressions of internal relations, as conceptualized by Leibniz.

We have some empirical hints that this concept is viable, and will present some data on that. If this conception is indeed scientifically valid, we might be able to develop a new kind of natural philosophy that is not based on isolated entities, whose relations are secondary, but on a mesh of relations that constitute entities. Relations would be primary, entities or individuals co-emergent or secondary. This, it seems, is a late vindication of the Leibnizian concept of a monad and a potentially new vantage point for an epistemology and natural philosophy that opens interesting vistas. In a way, it is like changing figure and ground.

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'***Philosophy of Nature from the Intercultural Perspective***.' The subtitle should be, ***'How Would Aristotle Do Philosophy of Nature Today'***.

Abstract
The essential condition of Aristotelian Philosophy is the background of a closed culture. Who wants to philosophize in an Aristotelian manner must presuppose a closed culture, which, today, must be regarded as a fiction. This we can see already in the history of philosophy after Aristotle and in the reception of the Aristotelian thinking. a good historical example is the Islamic reception of Aristotle which was very important. This reception is based on the fact that the Quran stipulates a closed cultural system.
The Christian reception is totally different as we can already see in the work of Augustine. The concept of a closed culture is replaced by the Christian Universalism. The rise of metaphysics loses the Aristotelian philosophy of nature to a high degree.
In the philosophy of the Vienna Circle, the idea of metaphysics is overcome through a reduction of subjectivity, but as we know this reduction does not work because of principled misunderstandings. The ongoing loss of insights into nature makes need for a new philosophy of nature. This is clearly not possible by a return to Aristotle, but through methodical intercultural reasoning that offers indirect insights into nature.

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PHILOSOPHICAL FOUNDATIONS OF THE ORIGIN-OF-LIFE STUDIES

Keywords: protobiology, theories of biogenesis, paradox of life’s origin.

Abstract

The essence of the science dealing with the origin of life, called protobiology, is based on the idea of evolutionary formation of the first living beings from non-living matter. This thesis is generally accepted by both scientists and philosophers. However, the agreement stops at the same point at which it begins. At least the agreement between the scientists, while the philosophers appear to be amazingly concordant where consensus – owing to different orientations – could rather not be expected. I'll demonstrate that at the source of many lately declared views concerning the philosophical foundations of the origins of life studies – views both of scientists and philosophers – there is a misconception of fundamental nature. I'll try also to reveal some sources of this misconception and its sometimes peculiar consequences.

During the last sixty years over two hundred theories of life’s origin has been published. What concerns the mode of explanation of the transition "non-life into life", i.e., the driving force of the prebiological chemical evolution, a great variety of solutions have been observed: chance formation of the first information-carrying molecule; chance formation of the first autocatalytic loop; physicochemical interactions; mineral prescription; the universal law of integration; selforganization explained in physico-chemical, biochemical or environmetal terms; spin-glass formalism; broken symmetry and the biogenesis as a cosmos-earth joint venture. The differences between the theories, however, as well as the current controversies in the scientific community (RNA-world first, thioester world first, inorganic pyrophosphate first, proteinoid first, primitive metabolism first, thermosynthesis first, etc.) were shown to be of secondary importance in comparison with the main ontological assumptions underlying the origin of life studies [1]. The common denominator of the current theories of biogenesis (and the main philosophical premise of the idea of prebiological chemical evolution) may be expressed briefly: life is a natural emergent property of matter. It is nothing more and nothing less than the essence of the new (non-mechanistic) philosophy of nature, as postulated by Ilya Prigogine: nature must be described in such a way that man’s very existence becomes understable.

However, what makes protobiology perhaps more attractive from a

philosophical point of view than even biology itself, is its deep internal tension, caused by the duality of its philosophical roots. Protobiology, namely, is born both from the spirit of the Hegelian and the Comte'an metaphysics. Only by keeping in mind such a double philosophical genealogy of the origins of life studies it is possible to avoid several paradoxes – order without order, information without information, etc. – commonly claimed to be inherent to all theories, except ones own, and to overcome some stereotypes, eg. on the crisis of the chemical evolution theory caused by the discovery of geological eternity of life [2]. And in spite of several declarations by scientists (and by philosophers) that it is possible – and needed – to be free of metaphysics (especially of the former kind) I'll end up with the conclusion that the question can be not how to reject one of them, but should instead be how to be conscious of both [3].

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“*The Field of Betwee*n”

A Principle to an Integrative Relationship between Philosophy of Nature and Natural Science

Abstract

“The Field of *Between*” is my term to denote the space-time that is found between two particular things in reality: in the time-space of the micro-, mezzo- and macro-world.

A) *The Construct of Natural Phenomena from the Perspective of Natural Philosophy*

The starting point for the construct of the term of “the Field of Between” is one of the well-known phenomena in the microworld explained in experimental physics: A light quantum emitted from a certain point is received by a detector. If it is recorded as either a *light particle* or a *light wave* depends on the structure of the facility, as well as the method of observation and measuring. From the perspective of physics as a pure Natural Science, the result of measuring depends on the *interaction* between the flying light quantum and the physical material of the detector. However, in Natural Philosophy, the same phenomenon results from “the *Field of Between*”, the *area between the flying quantum* and *the material of the detector.*

“The Field of *Between*” is also actualized in the mezzo-world in classical physics. A light beam is divided by a prism into 7 different colors, corresponding to the 7 different values of light frequency. A pure physical interaction *between a shooting beam and a prism* takes a place in “the Field of *Between*”. In the macrocosmic world, “the Field of *Between*” takes a place in the dynamics of high tide and low tide: From the *interaction between the gravitation of the moon and the earth* (in its rotation with centrifugal power) results a dynamic exchange on the surface of oceans.

In Natural Philosophy, the principle of “the Field of *Between*” presents a Theory of Relation between different things, [*A*] and [*non-A*], through which it constructs the micro-, mezzo- and macro-world phenomena.

B) *“The Field of Between” as a pure philosophical principle to search for and actualize a productive knowledge*

This principle is available, especially in case of grasping a completely new problem, new knowledge or a new phenomenon in its circumstance. If we remain only in our previous scheme of thinking, the new knowledge is *rejected and isolated* from our environment: It results “the Field of *Isolation*”. If we take it only on its surface in an easy relationship, we come down to “the Field of *Relativizing*”. A true reflection to grasp the thing in its entirety begins only step by step, when our consciousness sets our thinking with cautious view *between* [ours state and the state of the new knowledge]. Then our consciousness works by the *comparative thinking method*, in comparing [the well-known *and* unknown components of a new knowledge] step by step. This process must be executed dialectically. Every aspect that seems to be acceptable in an affirmation also needs a dialectical negation. Vice versa, every negative aspect should be examined by the contrary aspect, i.e. the aspect of affirmation. The dialectic confrontation goes on step by step, until we achieve an enriched dimension of the dialectic integration of [*A* and *non-A* in] an *intra-relationship*. In this state the thinking human being *embodies* “the Field of *Between*”. The human being realizes the relevance of this principle and actualizes it in real life.

C) *Application of the Principle of the Field of Between in Relationship of Humans and Nature*

This principle of the Field of Between as an intellectual process is applicable to the phenomenon of the acting human being in the real world. In interaction [referring to the relationship *between* two completely different persons and their ways of thinking] humans often show a tendency to a grave rejection or to a relativization of everything in a less interested way. A true “Field of *Between*” works as a principle to understanding between humans in a fundamental level of human relationship.

In our contemporary world, humans are often reduced to punctual stations of receiving and sending digital information quickly within a time limit. Even if the *surface of the world is linked through digital networks, humans are often isolated in their reality.* In the presence of the dialectic tension [between *A and non-A*] the “third position” is “the Field of *Between*”. It should not absolutize its own position: It is neither a dogma nor an ideology. It works as a developing station in the striving for a construct of an original system, characterized by the *inter-action* and *intra-relation* of one and the other.

The tenor of this discourse clarifies the critical phenomenon in the contemporary

world: Dependent on one’s own IT instrument, one becomes a part of the IT media networks. Reflection of this phenomenon is lacking. “The Field of *Between*” contributes significant fundamentals to grasp and realize this fundamental truth and to construct the relationship between human and non-human Beings and Nature in our contemporary world.

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Biological Neo-Teleologism from an Aristotelian and Whiteheadian Perspective

Key words: Teleology, biophilosophy, Aristotle, A. N. Whitehead

ABSTRACT

In the first half of the 20th century the attempt was made to banish all teleological thinking from biology. In the last few decades, several biologists and philosophers of biology have claimed that organisms may be considered teleological entities, spurring on a movement that is often celebrated as the renaissance of teleological thinking and that I describe as ‘neo-teleologism’. While biologists and philosophers of biology talk about ‘teleology’, it is not always clear what they mean by this term.

In Aristotle’s work *Physics* the term ‘telos’ has a double meaning: *final state* on the one hand and *purpose*, *aim*, or *goal* on the other. In Aristotelian hylomorphism, the final state of living processes is something aimed at.

In neo-teleological approaches provided by some philosophers of biology, the concept of ‘telos’ is understood as final-state-directedness, but here the final state of a material process is considered to be achieved by blind, deterministic, non-mental factors alone. Embryogenesis, physiological processes, the search for food, achieving a certain geographic position (e.g., in the case of migratory birds) and final acts of behavior (e.g., in the case of mating) are considered to be typical examples of final-state-directed processes. Philosophy of biology gives to all neo-teleological approaches great credit for providing interpretations of ‘purpose’ and ‘aim’ without any reference to mental or psychical factors. According to Aristotle, in contrast, organismic final-state-directedness is the result of *striving factors – there is a desire (ὄρεξις) towards a final-state*. I will claim that from an Aristotelian perspective achieving a certain final state requires that an experiencing being, even a non-conscious *proto-experiential* one, desires to achieve this final state. In my presentation, I will explain why Aristotle would never assume that

(blind) mechanistic processes would be able to produce something as ordered as even a single cell. This does not, however, mean that Aristotle ascribes a human-like conscious mentality to biological processes. Aristotle's biology is based on the presupposition that an organism is shaped by *proto-experiential factors* acting within it. The idea of a mental non-mechanistic teleological factor is rooted in two main presuppositions:

- Firstly, that there are causal factors oriented towards something *physically absent*.
- Secondly, that the operations of such factors can**not** in principle be exhaustively explained by referring to the material structure of something physically present.

Aristotle's concept of *striving* or *desire* (orexis) may be interpreted in terms of non-conscious *proto-experiential* agency, as it was introduced by Alfred North Whitehead in the early 20th Century. According Whiteheadian panexperientialistic metaphysics actual entities at all levels of complexity are able to enjoy some degree of subjective experience. This is often misunderstood since we usually ascribe experience only to conscious beings. But, as Whitehead says, "consciousness presupposes experience, and not experience consciousness."

Whitehead regards every becoming of an elementary process (actual entity) as a "teleological self-creation." Whiteheadian natural philosophy and its understanding of process introduces a new non-mechanistic conception of teleology which clearly goes beyond the mechanistic neo-teleologism of many contemporary philosophers of biology. His most basic hypothesis is that all actual entities are acts of experience striving towards the ultimate determination of their own aim and purpose: "Process is the growth and attainment of a final end", says Whitehead. I will claim that his metaphysics offers to biophilosophy a modern basis for a re-conception of genuine Aristotelian insights concerning 'telos' and biological organism.

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"No -Thing" (Nothingness) should be More than You can Imagine

- Looking at „no Thing“ from a Systemic Point of View.

(Theory of Cognition / Epistemology)

Abstract:
For the symposium „Philosophy of Nature“ in the cooperation of the KoPhil (Association of
Comparative Philosophy, Vienna) and BCA (International Association for Bio Cosmology) atthe University of Vienna on May 19th-21st 2016.

Systems Theory deals with the ability of observing and describing recurring events (patterns) and thus deduce certain principles concerning interacting groups of elements (called systems) and their respective environment.Thinking in systems needs an observer, who describes what he calls an observable system to tell another observer about his observation. Complexity is reduced with this observation andapparently chaotic situations can be described.
From this point of view two essential questions arise:

a) the intention of the observation
Every observer at least is a human beeing, even if the respective pattern recognition will beachieved by computers or other technical tools nowadays. The rules and at the end laws derived from this observations shall prove the ability to predict the future development of theenviroment of men. This way what we call philosophy of science tries to combine truth ofreason and truth of fact.
b) the way this observation is made
Every observation needs a sequence of distinctions, made by the observer, to defne patterns and this way get a description of a system. You might call this sequence of distinctions cognition and you might call this observed system a „Thing“. This thing is embedded in a world named environment. Looking at the oberserver, a possible second order observer is able to recognize some kind of restricted ability to make observations, depending on the system(s) the respective observer is embedded in.

Assuming, that „No – Thing (nothing)“ is defned (yet), there should be what we may call the whole (environment) with the possibility to defne more things than we can imagine (becauseimagination is restricted to an observer, who likewise is limited).

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Erich HAMBERGER and **Herbert PIETSCHMANN**
Erich HAMBERGER (PD. (Dr. habil.), Dr. phil., University of Salzburg/Austria)
Herbert PIETSCHMANN (Emer. o. Univ.-Prof. Dr., Department of Theoretical Physics, University of Vienna, KM of Austrian Academy of Sciences, Vienna)

The Difference between Communication and Interaction as the Constitution of Life

Abstract

A central characteristic of modern western culture is undoubtedly the triumphant sucess of Natural Sciences since the 17th century. Primary applied in the context of matter, this scientific method became also important in research fields of living entities during the further progression of the modern era, especially in relation with the prevalance of molecular biology in the second half of the 20th century. The associated reductionistic perspective of life was supported by Rene Descartes strict differentiation between mind (*res cogitans*) and matter (*res extensa*), without consideration of life (*res vivens*) as a distinct dimension of reality. Therefore the mechanistic frame of thinking could become so dominant not only in science but also in everyday life. In our contribution - based on central insights of quantum physics and communication theory - we try to show, that living entities cannot be fully accounted in terms of the principles and laws of physics and chemistry alone. With the help of the fundamental differentiation between (physico-chemical) *interaction* and (behavior-variabel) *communication* the constitutive characteristic of all living entities will be pointed out: *dialogical relationship.*

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Saturday, May 21st 2016, “Neues Institutsgebäude” (NIG) topos-α
A-1010 Wien, Universitätsstr. 7, 2nd Floor, HS 2G:

	Cosmological Aspects in Natural Philosophy in East Asia – Classic Theories and Innovation for a global World Chair: Werner Gabriel
9.30-10.30	Karl W. Kratky (Vienna/Austria) **Human Typology in Integrative Medicine** (incl. discussion)
10.30-11.15	William Kigen Ekeson (Los Angeles/USA) **Understanding Nature and Human Consciousness via the Zen Interpretation of Dependent Origination** (incl. discussion
11.15-12.00	Werner Gabriel (Vienna/Austria) **On the Concept of Nature in Chinese Philosophy** (incl. discussion)
12.00-12.30	*Discussion*
12.30-13.50	*Lunch break*
	Natural Philosophy and Natural Science – In View of Comparative Philosophy Chair: Walter Karban
14.00-14.45	Gerhard Crombach (Vienna/Austria) **THE EXPERIENCE OF SPACE** **Western, Eastern and Recent Perspectives** (incl. discussion)
14.45-15.30	Gerhard Klünger (Vienna/Austria) **Goetheanism –Another Way to Look at Nature** (incl. discussion)
15.30-16.00	*Discussion*
16.00– 16.25	*Coffee break*
	Chair: Gerald Virtbauer
16.30-17.15	Nakatogawa, Koji (Sapporo/Japan) **How can we view the Nature in the Philosophy of Tanabe as the “Philosophy of Manifold”?** (incl. discussion)
17.15-17.45	*Discussion*
18.00 HS 2i 2nd Floor	Final Gathering : *Board of the KoPhil* (Group Photo)

Karl W. KRATKY
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Human Typo logy in Integrative Medicine

Keywords: Physiology, regulatory types, elements, geometric model, chaos research

Abstract

If we consider physiology and pathology, we find common features in all humans as well as ethnical and individual differences. For decades, orthodox Western medicine considered humankind as a whole, which was maybe influenced by political correctness ("All human beings are ... equal in dignity and right ... without distinction of any kind, such as race, colour, sex ...", The Universal Declaration of Human Rights. 1948). As a first deviation from that attitude, the so-called gender medicine appeared around 2000. Due to genetic engineering, even the idea of a personalized medicine has emerged in the last years.

In complementary medicine, an intermediate position is widespread since centuries. A smallish number of principles or regulatory types are considered in order to differentiate between categories of (physiological) behavior. Treatment is type-specific and does not only depend on the symptoms of a given disease. Sometimes, ternary systems of types can be found, e.g., the 3 doshas in Ayurveda or the 3 miasmas in homeopathy. The general structure is 1+2: one type (dosha vata, miasma psora) is at a higher level. In a way, it integrates the 2 other types that are complementary to each other.

Another class of types is the so-called elements. In Greco-Roman antiquity, 4 temperaments (phlegmatic, sanguineous, choleric and melancholic) were considered, corresponding to the 4 elements water, air, fire and earth. They were often arranged in pairs (water – fire, air – earth) with reference to a temperature and a moisture axis. Later, ether was added as 5th element, which played a specific role. Thus, the total structure can be symbolized by 4+1.

In Chinese medicine, 5 elements (or elemental phases) can be found, too: earth, wood, water, metal and fire. In the present "Traditional Chinese Medicine", fire plays a specific role, sometimes also splitting up into ruling fire and minister fire. This is a indication of a latent system of 6 elements. In the literature, several further hints can be found that go back into ancient times. It seems that different elements have played a

specific role at different times: earth, later wood, then water, and at last fire.

In Ayurveda and Tibetan medicine, one can find a system of 5 elements, too. Contrary to Chinese medicine, the Indo-Tibetan elements have essentially the same names as in late Greco-Roman antiquity (just "wind" instead of "air" and "space" instead of "ether"). In Ayurveda, the 5 Indo-Tibetan elements are allocated to the 3 doshas. In Tibetan medicine, the situation is even more intricate. In addition to the 3 doshas (called nyepas in Tibetan medicine) and the 5 Indo-Tibetan elements, also the 5 Chinese elements are considered there. To keep track of this complex situation, a geometric model has been developed (2-dimensional version: health disc).

Firstly, the health disc displays three doshas vata, pitta and kapha in Ayurveda. According to the literature, it is also possible to map the elements onto the disc. If one does this for the five Chinese elements, the result is the following: metal, wood and water can be attached to the center of the doshas, whereas fire and earth are located at two of the three boundaries. At the boundary between vata and kapha, there is a sixth Chinese element "missing". Several aspects of this hypothetical element are inferred from the characterization of this boundary in Ayurveda: e.g., birth and death, taboo, spirituality. By the way, the name "flora" was chosen for this element.

Possible extensions of the health disc to higher dimension are also discussed. This has to do with the following question: Which spatial dimension is optimal for representation of human physiology and pathology? If we start with 4 elements on 2 axes, a 2-dimensional representation emerges. To display up to 6 elements, a 3rd axis is also included in the health disc, but this may be interpreted as a projection from 3-dimensional space. If we abandon the concept of axes after all, the 5 or 6 elements define independent directions, resulting in a 5-6 dimensional space. The idea behind is that we increase the number of elements or dimensions up to a value that is high enough to describe the essential features of physiology.

This may be compared with recent Western scientific developments (complexity theory, chaos research). There, an abstract phase space is used to describe a given complex dynamical system. Strictly speaking, the system is embedded in an N-dimensional space, N being high enough so that the system can be described very well. Then, mathematical techniques (principal component analysis) is used to reduce N as far as possible, resulting in an n-dimensional space.

In our group, the so-called heart rate variability was studied in some detail. It may be considered as the Western counterpart of Eastern pulse diagnosis. Taking the 20

calculated variables for the 20-dimensional embedding space, a principal component analysis resulted in n=5 to n=6. This is an indication that human physiology and pathology may be described quite well by a 5-6 dimensional space. A close connection to the above-mentioned elements in complementary medicine systems seems plausible. Chinese and Indo-Tibetan elements just point to (slightly) different directions in this space.

Basis for the considerations:

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A Zen Buddhist Interpretation of Nature and Subjectivity Based on Dependent Origination

Abstract
It can be argued that the only fact any of us can be one hundred percent sure of is the fact that we are conscious. What consciousness actually *is* is up for deliberation, but the subjective experience of our own consciousness is the only evidence necessary to prove that we are indeed conscious. If our own consciousness is beyond question, it can also be asserted that our own subjectivity must also be beyond question. Subjectivity is perhaps more philosophically accessible than the broader term “consciousness” because the existence of a subject necessarily implies a relationship with objects. This relationship in turn, includes the unique role of *qualia* for every species and/or individual expression of subjective consciousness. Philosophers often use the term ‘qualia’ to refer to the subjectively accessible, phenomenal aspects of our consciousness. What is it like to actually *see* the color red as opposed to just having complete but second-hand *knowledge* about the experience of seeing red? The actual quale of, ‘seeing red’ is the only truly direct way to answer this question.

The Zen Buddhist approach towards understanding subjectivity by way of qualia differs from most western approaches in that it teaches a systematic way to understand and express nature in its broadest sense, based on the doctrine of Dependent Origination. The doctrine of Dependent Origination, formulated by the Indian philosopher Nagarjuna (d. circa 250 CE), states that all natural phenomena are completely conditional, and therefore “empty” of any fundamental unconditioned reality, character, or characteristics. Thus, Dependent Origination negates the idea that a complete understanding of nature can be had through reductive means; through either material (e.g. various particles or forces) or immaterial constituents (e.g. consciousness), as any “irreducible” constituents must always themselves also somehow be conditional expressions. This presentation explores how the “hard fact” of subjective experience supports the doctrine of Dependent origination. The Zen approach uses a systematic and detailed form of study

(koans) that directly employs the student’s subjective experience of qualia in order to teach in ways that integrate subjectivity as a form of direct knowledge, rather than imparting only objective (necessarily second-hand) knowledge *about* qualia.

Formal Zen koan study developed in China around 800 CE and continues today in various countries around the world. Through careful study under a qualified master, a detailed map of the subjective experience is slowly made clear to the student, with the ultimate goal being to learn to fully and freely demonstrate insight rather than being constrained to only describe it. This presentation shows that a Zen map of subjectivity can be useful for creating new ways to understand and describe the phenomenon of subjectivity in both animate and inanimate expressions of nature. It introduces an evolving topological model providing a description of both animate and inanimate expressions of subjectivity (i.e. nature), as well as a single common principle that unifies them.

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On the Concept of Nature in Chinese Philosophy

Abstract

The concept of nature in the European tradition sways between two meanings. On the one hand it means everything that exists, world, on the other hand the world which is not created by man, into which he is thrown. This problem is found in the Chinese tradition as well. A specific problem of the European tradition compared with the Chinese is found in a third concept which plays no role in China. This third concept is formulated in the popular formula "God and the world". World is immanent in comparison to the transcendence of the divine. These different elementary concepts are “mixed” in a variety of relations. The third concept approaches to the first, if the totality of being is divided into creative and created nature (natura naturans and natura naturata). Natura naturans has a trend to the concept of man, if the control of nature is placed beyond nature. In this point the European tradition comes near to those Chinese concepts which think highly about the differentiation of the natural world from the artificial world of man.

From the point of view of the European tradition, the dominating concept of nature in China can be seen as abolition of the difference from natura naturans and natura naturata. Nature is seen as eternal, always renewed process. So creation appears as a basic character of nature, Nature exists in different manners of production. So you can hardly look on heaven as a mechanical construction.

Have the concepts of nature in the Chinese tradition any importance for the modern world?

We can see that the modern world because of the breath taking tempo of the technical development and the adjustment of the modern sciences towards technology is in a crisis. Hence, one can demand that the crisis is not solved by simply renewing the means of technology. The sciences themselves must criticize their usual methods. This crisis can only be solved by a methodical change in science.

Therefore it is not allowed to overlook the possibilities hidden in other scientific traditions which already exist.

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THE EXPERIENCE OF SPACE

Western, Eastern and Recent Perspectives

Key words: space, phenomenology, transcultural, experiments

Part I – WESTERN

a) **Mainstream**: „In Western thought up to the present, space has only been seen in relation to bodies and objects, but never in relation to space as space for itself and as such“ (Heidegger, 1964). This means: Western thought and experience is focused on the place of objects, on their relations and extensions. The reason for this seems to be twofold – perceptual as well as cognitive: there is too much emphasis on the central field of vision (Schmitz, 1967) and on the question „Why does this particular phenomenon appear? “ (Hashi, 2015, on aristotle). – *I will demonstrate the function of „central vision“. What actually means „space“ in our daily lives?* – The archetype of this restricted approach to space is Europe’s first philosopher and astronomer: Thales of Miletus. Plato tells us a nice story: Thales fell into a well while gazing at the stars and a watching witty Thracian servant girl made fun of him. „The same jest applies to all who pass their lives in philosophy“ says Plato (Theaetetus)! The harmony of celestial motions (!) is seen as a mirror and model of the soul: „God invented and gave us sight to the end that we might behold the courses of intelligence in the heaven, and apply them to the courses of our own intelligence which are akin to them“ (Plato, Timaeus). Kant’s famous sentence seems to be an echo of this: „Two things fill the mind with ever new and increasing admiration and awe, the more often and steadily we reflect upon them: the starry heavens above me and the moral law within me.“ Note: it’s a „starry“ sky – and NOT an empty blue sky (as we will see in most Asian traditions)! In Western „mainstream“ the experience and conceptualization of „space“ – as confined to objects – is always external to us; – mind/soul/spirit are „spaceless“ (see Descartes: „res extensa“ unlike „res cogitans“).

b) **Subsidiary track**: In Western spiritual and poetic tradition there have always been persons who experienced and expressed – contrary to the mainstream – the spaciousness of mind: a kind of „worldinnerspace“ („Weltinnenraum“, Rilke).

Examples: „My Essence was Capacitie“; „The utmost Star, Tho seen from far, Was present in the Apple of my Eye“ (Thomas Traherne). „The Brain – is wider than the Sky – “ (Emily Dickinson). „For the essence of a tree to be real for you, cast inner space around it, out of the space that exists in you“ (R.M.Rilke).

Part II – EASTERN

In most Asian cultures mind has – surprisingly – spacious quality: so in Daoism, Hinduism (Advaita vedanta), Kashmir Shivaism, Chan/Zen–Buddhism. In Dzogchen (Tibet) spaciousness is the most prominent feature of mind. What may be the reasons? 1) a more existential approach to human life (= liberation from suffering) – leading to: 2) development of refined meditative practices, 3) the empty blue sky as the mirror of mind (= peripheral vision without fixation). – *I will demonstrate the function of „peripheral vision“ in experiencing space.* – 4) perhaps the plain Tibetan landscape with its outstanding deep blue sky. Examples: „Pure mind is like space“ (Longchenpa). „In the ultimate sense, space and awareness are a unity“ (Tulku Urgyen Rinpoche). „Space is what we truly are“ (Tenzin Wangyal Rinpoche). As the most impressive example I will present in full a „song“ of Shabkar, a tibetan Lama (1781–1851): „There is no difference between mind and sky“. BEING spacious, Shabkar is not in danger of falling into a well!

PART III – RECENT

a) **„Insight meditation“ without any religious cosmology, belief and ritual**: Globalization enables us to get easily in touch with old Asian mental practices and their related attitudes to life as well. In mastering „insight meditation“ we are learning to let go of control and to identify with awareness – instead of body, thoughts and feelings (Adyashanti, 2012). Many eminent scientists put this into practice today: „Meditators also report experiencing space and spaciousness of mind“ (Varela et al., 1991). „Presence is the bare awareness of the receptive spaciousness of our mind“ (Siegel, 2007). This – of course – does not indicate the three–dimensional space of geometry, but space as the most basic phenomenon („Urphänomen“) of expanse/ vastness/ openness/ emptiness – in contrast to narrowness/ restriction/ confinement (Schmitz, 1965, 1967).

b) **„Headlessness“**: It’s not that delightful for everyone to sit hours and hours in silence! So there is – fortunately – a different approach, too. It starts with a drawing done by Ernst Mach in 1886 – entitled ‘Self–regarding Ego’. It’s a self–portrait without a mirror – rather amateurish because it’s quite impossible to draw our visual field! But nevertheless it can give us an important hint: „This is truly how a person

sees himself all day: without a head“ (Bloch, 1934/1998). Ernst Bloch, the Marxist philosopher, was the first one who was moved by this picture: „its surface is an abyss“! The British architect Douglas Harding saw Mach’s extraordinary drawing in 1943, and it meant a profound revelation for him: „In appearance I’m a thing moving about in Space. In reality I’m that unmoving Space Itself“ (Harding, 1961/2002; 2000). Over decades Harding had developed many experiments to bring this experience of spaciousness into foreground. The astrophysicist Piet Hut considered them as „a form of phenomenological *epoché*, refreshingly unsophisticated and down–to–earth“(Hut, 1999). You can find the experiments in http://www.headless.org („The headless way“). – *I will demonstrate some of these experiments („in–pointing“, „in–the–tube“).*

As a psychiatrist I agree with Tenzin Wangyal Rinpoche (2012): „What can we do? I recommend taking the medicine I call spaciousness“. It seems to be an important but neglected aspect of our nature!

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Goetheanism –Another Way to Look at Nature

Keywords: Goetheanism, contemplative judgment, objective realism.

Johann Wolfgang Goethe (1749 – 1832) is well known as a famous German writer of lyrics and poetry and as the author of “Faust”. Less known is the fact that he was also a statesman. Rather view associate with Goethe the term “scientist”. Goethe’s theory of colors will be sometimes mentioned, but adding immediately, that this theory “lost” in competition with Newton’s theory of light.

A closer look at history shows that Goethe’s work had tremendous influence not only on his contemporaries’ time but also later. Many composers took poems from Goethe as a textual basis, painters got a deeper understanding of colors, Hegel, Scho-penhauer, Kierkegaard, Nietzsche, Cassirer, Carl Jung and Ludwig Wittgenstein were spurred by his ideas. Nikola Tesla learned “Faust” by heart and in reciting repeatedly a certain verse got the idea of the rotating magnetic field and the invention of alter-nating current.

Goethe published not only literature but wrote also an early work on linguistics, the theory of colors, and mineralogy. A special kind of iron oxide was named “goe-thite”. With 17800 rock samples, he had the largest private collection of minerals in Europe. In Faust II he mocked about the contemporary theory of volcanic activities to explain the occurrence of glacial erratics in northern Germany. His studies in mor-phology and osteology together with the concept of evolution convinced him that there has to be an intermaxillary bone not only in mammals but also in humans, what he could finally prove independently of other researchers. He established the view that the skull is a metamorphosis of a spinal vertebra.
In his “Metamorphosis of Plants,” he showed that all parts of a plant can be un-derstood as metamorphic forms of the leaf. He developed the “Goethe-Barometer” based on principles established by Torricelli. His “Theory of Colors” was widely adopted by the art world and based on it Schopenhauer developed his own theory in “On Vision and Colors” and inspired Ludwig Wittgenstein to write his “Remarks on Colour”. Goethe was the first who systematically explored the physiological effects of colors and anticipated Ewald Hering’s opponent color theory.

In his essay “The experiment as mediator between subject and object” Goethe gave a methodology on how to deal with phenomena and how to use experiments. Novalis, himself also a geologist, regarded Goethe as the first physicist of his time and as “epoch-making in the history of physics”.

Is it possible to learn from a genius “how to do”? When Goethe’s complete work should be published in the “Weimarer Edition” (“Sophien Edition”), Rudolf Steiner, who studied chemistry at the technical university in Vienna, 22 years at this time, and recommended by his professor Karl Julius Schröer, was asked by the Publisher, Joseph Kürschner 1883, to edit and comment Goethe’s scientific writings. Just fifty years after Goethe’s death, Kürschner felt the necessity to provide some introductions and additional comments to make Goethe’s view for the broad audience, often ex-pressed in an artist way, comprehensive. Steiner took strong efforts to demonstrate that it was Goethe’s method that was the key to his success. According to Steiner, Goethe’s methodology was not the result of philosophical considerations but was the result of a specific worldview. This worldview was already given in Goethe’s charac-ter and not adopted from others. Goethe studied different philosophers but stayed un-satisfied with their views, until he read works of Spinoza, where he found in clear words expressed what he had felt already since long. Steiner’s introductions covered the theory of metamorphosis, the formation of animals, organic formations, Goethe’s view of mathematics, geology, and meteorology, but also Goethe’s way of thinking and his relation to other views.

The talk will discuss some important features of Goethe’s methodology and views as described by Rudolf Steiner. Goethe’s interest never aimed at the discovery of new facts but to acquire new points of view to look at nature. He tried to find the rules and laws how phenomena are interconnected and – in contrast to contemporary and modern science – never tried to explain the phenomena themselves as the result of some constructed, hypothetic entities beyond observability. So, for example, he found the complementary colors and rejected Newton’s theory of some kind of invisible “waves” that produce finally the mental impression of “light”. In accordance to Aristoteles, Goethe tried to find the essence of the objects, the underlying ideas, *in* the objects and rejects rationalistic methods to immediately create a theory or hypothesis in connection with phenomena. It is called “contemplative judgment” how to find the essence. However, he rejects explicitly metaphysics and refers to natural sciences. The task of experiments is not to test hypotheses but to make in a “cleaned” environment the pure relations between phenomena “visible”. Only such hypothesis are allowed that can end to be a hypothesis – what reminds us of Popper’s falsification criterion.

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Prof. Shyoitsu Sawaguchi's attempt to reformulate Philosophy of Hajime Tanabe within the frame work of Philosophy of Manifold, and a view of nature arising from his reformulation

Abstract

Hajime Tanabe (1889 – 1961) was invited to Kyoto University as an associate professor in 1919 by Kitaro Nishida, the founder of Kyoto School in philosophy, and in 1927 he was promoted to become a professor as Nishida's successor. During 1922-23, he studied abroad in Germany. While in Friburg, Heidegger was his private tutor.

Tanabe's philosophical investigations into the foundations of mathematics and physics had been succeeded and continued by Toratato Shimomura (1902–1995) and Hiroshi Nagai (1921 – 2012). Shimomura wrote his Ph.D. thesis under Tanabe, and Nagai under Shimomura. Both theses are on the foundation of mathematics and on infinity. In recent years, Shinichi Nakazawa and Susumu Hayashi (Kyoto University) have re-evaluated Sawagushi's re-construction of Tanabe's philosophy as the philosophy of manifold. In broad terms, the world, or rather the actual world where we live in, is, according to the philosophy of manifold, thought of in analogy with the notion of differential manifold. The notion was hinted explisitly by Gauss when he proved Theorema Egregium in 1820's, and was further developed by Riemann to become the notion of differential manifold. It was applied to general theory of relativity to form the present view of the universe as a solution space of Einstein equation.

Sawaguchi's attempt became abstruse and hard to follow when Tensor Calculus comes into consideration with respect to the interaction of the manifold and operators. He seems to have stumbled in philosophically grasping the meaning of operators acting on to the world, partially due to his unfamiliarity with Category Theory, and partially due to his reluctancy to associate the manifold with the materialistic and dialectic view , according to which the world develops and accumulates through history and social activities. (Sawaguchi was a Zen Preacher belonging to Rinzai Sect.) One would be able to have a better way to overcome the stumbling block of Sawaguchi via Hyper-Doctrine of B.W. Lowvere. Category theoretic semantics provides indispensable tools to

overcome deficiencies of Set theoretic Tarski Semantics. Sets are determined and completed in the sense of G.Cantor. Tanabe and those belonging to Kyoto School, including Hideki Yukawa (1907 – 1981), sought after non-substance, or what is not determined. Izumi Ojima, a physicist belonging to Kyoto school, seems to seek after what is in continual flux or is always in motion at the very basis of nature.

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Saturday, May 21st 2016, “Neues Institutsgebäude” (NIG) topos-β
A-1010 Wien, Universitätsstr. 7, 2nd Floor, HS 2i :

	Bio Cosmology and Neo-Aristotelism in a Contemporary World Chair: Walter Karban
9.30-10.30	Rudolf Klimek, Ryszard Tadeusiewicz, Piotr Gralek (Crakow/Poland) **Virtual information links matter and energy: E =^{i} mc^{2}** (incl. discussion)
10.30-11.30	Hans Martin Sass (Bocum/Germany) **INDIVIDUAL AND GLOBAL CHALLENGES IN INTEGRATING BIOS** (incl. discussion)
11.30-12.15	Dariusz Szkutnik (Łańcut/Poland) **HANS DRIESCH** **THE PHYSICAL PARAMETER OF NATURE** (incl. discussion)
12.15-12.30	*Discussion*
12.30-13.50	*Lunch break*
	Comparative Philosophy in a Crossing Cultural Dimension Chair: Felix Badelt
14.15-14.45	**Introduction: Systemic Aspects of Old Chinese Natural Philosophy** Felix Badelt (Vienna/Austria)
14.45-15.30	Marianna Benetatou (Athens/Greece) **Aristotelian Organicism, Yin Yang Theory and Our Representation of Reality** (incl. discussion)
15.30-16.00	*Discussion*
16.00-16,25	*Coffee break*
16.30-17.15	Felix Badelt (Vienna/Austria) **“Yin-Yang –Taiji” and the “Five phases’ rotation system” as rational tools to explain psychosocial progress and risks** (incl. discussion)
17.15-17.45 18:00	*Diskussion* Final Gathering : *Board of the KoPhil* (Group Photo)

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Virtual information links matter and energy: $E =^{i} mc^2$

Key words: virtual information, informational resonance, equation of equivalence

Abstract

The universe exists due to the eternal, progressively more known and understood natural laws, that is, due to – information. Only in the late twentieth century the newly discovered law of natural dissipative self-organization was understood and described. Modern physicists call this the local formulation of the second law of thermodynamics stating that any evil generates the greater good. They simply do not think of evil as something opposed to good, but as a decrease of natural processes in nature, including actions by man or his thoughts. For example, reducing the activity of biophysical and/or biochemical changes in a cell can result in the risk of a multicellular organism’s existence, but can also help to control the further growth of the species in depending on the state of reproductive health, which plays a decisive role in the intergenerational transmission of human life with the participation of information that even can ... be seen.

Medicine is one of those unique areas of human activity in which man is not only the object and also the subject of interest, but primarily connects all the theoretical (cognitive) achievements directly with the art of the possible protection of life and bringing people back to health. This obliges doctors to continuously track the progress of both general knowledge and its technological use. Information is virtual (from the Latin: virtualis - effective, virtus - power, virtue) and is concerned with what is theoretically possible (potential) to occur, actualizing the conversion of matter and energy through pure informational resonance. One can compare the information in matter and energy with a virtuoso surpassing his students' proficiency and skill. Virtual reality becomes understood, widely considered as something unreal, since it is morphologically unimaginable, but functionally verifiable. Truth, which is itself a particle of information - is full and unequivocal at the time of occurrence of any process or structure. Everything which is later linked with this: the description, evaluation and/or the consequences of it - is just zooming in to that new reality. In the same cause of each event from the point of view of teleology there is information in the form of a program, a potential target, awaiting its execution.

Cancer is a most complex problem for every man, because according to its psychoneurocybernetic essence it is a natural, although suicidal, advocate of living cells in multicellular living organisms. Therefore, overcoming cancer is still the subject of academic discussion in order to effectively treat patients with, unfortunately, the still significant percentages of unwanted harmful effects of currently used methods and procedures. Both man and cancers arising from his own cells come from individual cells whose further development, in accordance with the equivalence of matter, information and energy is carried out by the same elementary particles of the universe. A man's life is distinguished by the ability for informational self-assessment of the status of their health in an socio-economic environment as described by the universal equation of equivalence: $E =^{i} mc^2$ in which information (i) is of fundamental importance in the mutual, continuous and spontaneous alternation of matter (m) and energy (E) of the universe, directly and/or indirectly perceived by people ($=^{i}$). A beginning is real information about the existence of a new being, on the one hand belonging to its source, while on the other belonging to the newly created process or structure, i.e. the organization of intrinsic forces that determine the biological, personal, social and ecological development of a living being. Human life begins with the formation of the zygote, literally at conception, but the end of man’s death is not so clearly defined, although the information in this regard does not pose any doubts. Man is not only figuratively moving from his conception to his death, but his personal life is informationally determined by the reproductive cells, which, during the sexual intercourse, gain the genetic identity of the father via millions of sperm cells lodged in the mother body, only one of which co-creates the nuclear DNA of the zygote.

Each person can immediately see their own informational character by looking in a mirror in which the image seen (the mirror form), does not contain a single atom of his body, but is only the resonant result of feedback information. Resonance is the condition of a system in which there is a sharp maximum probability for the absorption of electromagnetic radiation or capture of particles as well as information, i.e. the power to evoke enduring images, memories, and emotions by the synchronous vibration (action) of a neighbouring object or environment. Resonance, already described by Galileo, occurs widely in nature in the form of generating all types of vibrations and waves at a distance, for example mechanical, electrical, optical, chemical, electro-mechanical, nuclear and electron. Also, the phenomenon of feedback is a similar example of information’s action, which is found on both sides of the equation of equivalence and in the environment of every cause-and-effect relationship in all events in nature. The most important feature of living organisms is not life itself, but the ability for its intergenerational transmission; hence it is important to distinguish between living beings and the universal existence of life from the inanimate world. The existence of cancer confirms the superiority of life in general over the life of every multicellular

organism, since all cancer cells, to sustain their own life, can result in self-organization due to active virtual information.

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INDIVIDUAL AND GLOBAL CHALLENGES IN INTEGRATING BIOS

Abstract
Abstract: The world of bios is integrated from diverse multiverses to biological and human social biotopes and to the multitudes of microbiome colonies. Individual bios is terminal, but well integrated and integrating bios will continue. In order to live healthy and happy lives humans have to recognize that they (a) need to adopt to forms of bios, such as the seasons and geographies, which they cannot change, and (b) to change, what they can change and cultivate human and non-human biotopes for healthy and happy individual and collective human bios and the global bios. Reference will be made to specific properties of the human bios, such as cooperation and competition, to handle these challenges.

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The mosaic theory of complexity

– A working hypothesis for the complexity of living organisms*

* (This lecture was given in May 2015 in the guest lecture series of the KoPhil, Depratment of Philosophy, University of Vienna.)

Summary: Biological complexity emerges through the repeated application of two basic principles: juxtaposition of similar units and integration of these modified units into higher “mosaic” structures which leave a degree of autonomy to their component parts. These processes underlying the complexity in living beings can be extended to a diverse range of fields of knowledge such as psychology, art, sociology and philosophy. The philosophical repercussions include an epistemic rehabilitation of asexual reproduction, a need for a new moral stance, a focus on the Neo-Aristotelian/Biocosmological approach, the General System Theory and the concept of dialectics.

Marianna BENETATOU
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Aristotelian Organicism, Yin Yang Theory and

Our Representation of Reality

Abstract
The paper discusses Aristotelian organicism and the yin yang theory from the view-point of their overall adequacy to provide a comprehensive conceptual context to aspects, at least, of our contemporary representation of reality. The context may refer to specific fields of scientific research, to our everyday mode of thinking and acting, or to both. As the survey goes on, it is increasingly made clear that we deal with two different types of conceptuality. The yin yang bipolarity may be defined as a pattern of change with a practically unlimited field of applicability. The Aristotelian organicism outlines a model of change which stirs our rational faculties to search for a purpose amidst the accumulated data. In the first case the pattern may be creatively used within a vast variety of contexts. In the latter, the theory creates a conceptual context based on the four causes as first principles.

I start from the observation that the yin yang bipolarity, in its endless declinations, seems currently to gain in popularity in the most heterogeneous fields, from medical science to interior decoration. Notwithstanding the fact that European thought most frequently favors a binary conceptual pattern, the reason for such a “rush” may well be due to the practical aspect of the Chinese bipolarity. First, the yin yang theory describes natural processes by spontaneous alternance of pairs of opposites. It gains in precision by the complementary theory of the five phase (*wu xing*) cycle of production and obstruction. It presents a model of becoming ruled by automation (*ziran*, lit. *self-so*) characteristic of nature. Laozi and subsequent philosophers, both Daoists and (Neo-) Confucians, underline the impersonal character of the activity of opposites. They expressly reject any idea of purpose, even unconscious instinctive, or of a conscious agent as creator or regulator of natural processes. The incessant alternance of successive pairs of opposites suffices to account for reality as becoming.
Aristotle, near contemporary of Mencius and Zhuangzi, is familiar with similar theories. Empedocles was the first philosopher to develop a theory of nature based on pairs of

opposites. In *Physics I,* Aristotle refutes the explanatory adequacy of such a theory. He argues that change may well take place within the limits of a given pair of opposites, but pairs of opposites cannot account for continuity in change. They merely determine the limits within which any concrete change takes place. In sum, they account for differentiation. Modern scholarship has also expressed concerns of the same order. The second Aristotelian argument concerns the vagueness or extreme generality of pairs of opposites as explanatory principles. Aristotle argues that pairs of opposites do not exist as abstractions, but are predicated to a concrete subject. It is the subject which undergoes modifications by passing from one extreme to the other or to the in between.

Aristotle introduces the four cause theory in order to answer to the abovementioned logical difficulties. The introduction of the final cause (*to hou heneka*) creates new dynamics in the concept of nature. It allows for a departure from the classical imagery of universal harmony. In its place, Aristotle studies concrete beings as finalizing or finalized organisms conditioned by their species, by concrete specificities of their genitor and by external factors. The theory acquires its full significance within the context of the *dynamis-entelecheia*, or potentiality- actuality, conceptual pattern.

Dynamis (lit. *power, potency*) covers phenomena of latency and potentiality. *Entelecheia* (derived from the expression *to have the end in the self* or, according to others, from another expression meaning *to be perfect and complete*) accounts for the full activation of what potentiality encloses. The famous example is the seed and the plant. Aristotle takes care to underline the primacy of the end or purpose already present within any potentiality. In order to get a plant out of a seed and not a horse, he argues, the form of the plant already exists in the seed and stirs it towards its (the plant’s) self-realization. Therefore, form precedes matter and the plant precedes the seed as the hen precedes the egg.

The last point opens the debate with the modern theory of evolution. It is problematic whether substantialism may provide a satisfactory explanation of novelty, as, for instance, the apparition of a new species or the evolution from simple to complex organisms. Instead of delving in the biological interpretation of the theory, I examine its potential as inspirational force, as conceptual model for a vast array of current issues. The introduction of finality in the natural and man made world changes priorities. Technology has arrived at a crucial point where questions of ethical and existential order are pressing. The question of finality and purpose are discussed in the form of ethical doubts, regrets, wise warning, etc. It is all too clear that there is absence of forethought. Further, the question of purpose as inherent coefficient of growth and activity comes to the foreground with the advent of a new era in the production of

artificial intelligence. Robots accumulate an enormous amount of data, comparable, before long, with human intelligence. The question of purpose, independently from their makers' planning, starts rising doubts. If robots are complex enough to compare with human activity, they may or may not develop a will of their own. The final cause is clearly inherent to the product without having been introduced by external agency. It all seems to work as if the accumulation of data comports by its nature its proper finality. What this entails in real situation, it is yet to discover.

The almost infinite applicability of the yin yang pattern does not need to be overstressed. However, Aristotle remarks that pairs of opposites, taken as natural principles, work within a context of necessity and pure determinism. On the other hand, chance can hardly qualify for the status of natural principle. It may account for some occurrences but it cannot explain regularity in natural processes. The final cause makes room for freedom and personal initiative in an otherwise deterministic or purely accidental world (or both). Between determinism and randomness, Aristotle opts for a third way, namely purpose. Humanities may profit the most from such a sophisticated model of intelligibility. The concept of purpose brings to the foreground human action, initiative and responsibility. It further expands our perception and comprehension of things beyond the current mechanistic model of reality. It creates an alternative model by introducing the dimension of duration and growth. Indeed, it takes into account the coefficient of time in respect to individual tendencies and their pursuit. Time is rooted in the experiential field of living beings as they develop their potential. The introduction of the final cause does not come in conflict with the current mathematical model of reality. It simply defines the latter's limits within specific scientific fields, such as the mathematical and physical sciences. The yin yang theory tends to be flexible enough to meet the intellectual tendencies of current scientific thought and common experience. Aristotelian organicism, with emphasis on the final cause, points to pioneer ways of modeling our representation of reality.

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Yin – Yang – Taiji and the Five phases´ rotation system as rational tools to explain psychosocial progress and risks

Placing suitable western terms into Old Chinese patterns (into the Yin-Yang System and into the “5 phases rotation system wu-xing”) is helpful to explain psychosocial progress and cope with psychosocial risks.
Opposites and their ways of interactions enable us to describe rather stressful or healthful dynamics. Old Chinese Yin-Yang interpretations (looked upon also from a western psychological point of view) are here completed by use of an additional approach, according to *Hegel´s* western dialectic philosophical concept*: Thesis – Antithesis – Synthesis*, which is put into analogy with *Yin–Yang– Taiji*. Whereas well balanced opposite components of our thinking, feeling and behaviour usually go along with better social relations and psychosocial progress, dysfunctional patterns like misbalances, extreme fluctuations, conflicts or deficiencies of both opposite aspects easily lead to personal or social risks. Well balanced cooperation of opposite partners (resulting in “Taiji” or western “Synthesis”) also resembles *Aristotle´s “mesotes”* and possible “ *causae finales*”, whereas dysfunctional constellations of opposite sides (appearing as dysfunctional patterns or “*causae formales”*, apart from” *mesotes*”) can be understood as aberrations. Examples from everyday life will be presented.

Whereas the *Yin–Yang* system describes natural *Polarity, Wu-Xing, the five phases´ rotation system* – in the West better known as the Traditional Chinese System of 5 Elements – deals with the *Diverse* in nature.
Today *Wu –Xing* can be interpreted as a cybernetic network – describing possible changes and interactions of main diverse aspects in nature and human beings. The processes can be illustrated with a pentagram and its diagonals, perpetuating stability in the system by clockwise promotion and diagonal (clockwise) limitation among the 5 different partners.
The same network – applied to psychology – underlines five main human aspects (*Contact, Care, Order + Responsibility, Motivation due to Self-limitation and own Realization (effort)* which are interacting in the same way as the “Chinese elements” fire, soil, metal, water and wood. Typical examples of behaviour, emotions and thought patterns are attributed to each of the five aspects. Each phase is characterised by typical pairs of opposites, which are listed in the sense of thesis – antithesis, active – passive, towards oneself – towards others as well as positive – negative. Such a combination of the Wu-Xing system with the Yin-Yang system – now appearing as one complex

system – can be illustrated with a Taiji –Symbol and its stepwise rotation.

Additionally the western sixth element “air” is regarded – here interpreted as the whole *network´s atmosphere* with both: inside and outside aspects. Its inside emotional aspect appears as personal libido (or personal life pleasure), its cognitive tool for better interactions represents our language. From outside the atmosphere represents our personal environment. All the components of this atmosphere have remarkable influence on the duration and thus on the weight of each of the five main qualities of this “Five Phases Rotation System” in ourselves – nested in our atmosphere. Due to these considerations the (former) closed system of the five phases changes into an open system – a picture of man´s existential situation.
As illustrated with help of the pentagram, harmonious psychosocial progress easier goes along with clockwise support and diagonal limitation of their components– equally distributed influences of environment and sufficient own libido close to all phases – especially to the phase “contact” – provided.

In contrast to such idealized dynamics among well balanced phases, everyday life is frequently threatened by symptoms of *domination or deficiency* of single *phases* – in many cases due to various possibilities of *malfunction in the system*, like partial contra-clockwise rotation, mutual stimulation of two phases in neighbourhood, dominating phases causing diagonal suppression or even contra-clockwise diagonal disregard and shortcuts (neglecting one phase in-between) leading to diagonal promotion instead of limitation. Examples taken from everyday life concerning frequent thinking, behaviour and emotional processes underline the value of this originally Ancient Chinese pattern – extended and applied to Psychology from my personal point of view.

The whole construct helps to handle complexity concerning our thinking, behaviour and emotional changes. In cases of psychosocial stress a reduction of complexity by concentration upon single aspects of the whole system (e.g. a dominant phase or unbalanced pairs of opposite components in it) helps to cope with a complex problem step by step, in slight cases directly, otherwise rather indirectly. The simple language encourages using the system to help oneself. Thereby the subjective feeling of rather balance or imbalance works as a personal scale. For this purpose special evaluation sheets are available. In case of severe problems the evaluation of everyday stress factors can be a base for later psychosomatic treatment or psychotherapy.

The system as a whole offers a comprehensive theory of “*Salutogenese*” (a new science researching psychosocial healthful development, healthful patterns). It is

suitable to encourage dialogue between intercultural philosophers, medical psychologists and pedagogic trainers. It underlines, that Philosophy of Nature not merely has theoretical aspects but can also put into practice.

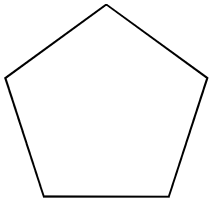
KEYWORDS: Yin-Yang, Taiji, Wu-Xing, Polarity, the Diverse in nature, patterns of health, complementarities and pairs of opposites in emotions, behaviour and thinking, balanced dynamics, misbalance, dialectic Psychology, cybernetic processes in the 5 Phases rotation system; System –Nestedness, Diversity in Psychology: Contact, Care, Order + Responsibility, Motivation due to Self-Limitation, own Effort – all exposed to libido, environment and time; natural cyclic progress, domination and deficiency of phases, dysfunctional patterns, “Salutogenese”

From social risks to social progress

Progress from wars, aggressive, reckless competition towards personal effort, help, more cooperation, more honorary work and thus progress

Progress from frustration to pleasure, from speed acceleration and fights for living space towards suitable living space, enough time for relaxation, communication, entertainment

Progress from fanaticism, egoism, greed (for power), domination or complete dependency towards more comprehensive education, insight into own limits and (in) competence, into own destination, personal sense, own motivation for common growth, (spiritual) openness,



Progress from senseless hostility, pain and depression towards more exchange of ideas, more empathy, love, friendship, joy, happiness + progress towards common (spiritual)

Progress from crime, (legal) discrimination and privileges towards responsibility (duties and rights), fairness (also of prices, income and taxes), law, order; Scientific progress: From pure materialistic reductionism to a comprehensive sight of sciences - also in regard of sustaining psychosocial worth and

Progress from poverty, waste of goods and resources towards more balance between taking and giving, more (social) care, relief of sorrow, welfare, comfort and hospitality

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Saturday, May 21st 2016, “Neues Institutsgebäude” (NIG), topos-γ
A-1010 Wien, Universitätsstr. 7, „NIG“, 3rd Floor, HS 3C :

	The ‘Co-Existence’ of Human, Culture and Nature – In search of a new cognition for a global world Chair: Gerald Virtbauer:
9.30-10.15	Leonardo Chiatti (Viterbo/Italy) **HYLOZOISM, TRIADICITY, MANIFESTATION: ECHOES FROM THE MICROWORLD** (incl. discussion)
10.15-11.00	Takahashi, Takao (Kumamoto/Japan) **Spiritual Power and Hierarchy of Nature in Ancient Japanese Myths** (incl. discussion)
11.00-11.45	Gerald Virtbauer (Vienna/Austria) **Mindfulness and Suffering: Ontological and Psychological Dimensions** (incl. discussion)
11.45-12.30	Tatiana Yu. Bystrova (Ekaterinburg/Russia) **LIFE AS IMPLEMENTATION: APPLICABILITY OF ONTOLOGIES BY ERNST BLOCH AND NIKOLAI BERDYAEV** (incl. discussion)
12.30-13.50	*Lunch break*
	Chair: Werner Gabriel
14.00-14.45	John Mercer (Melbourne/Australia) **Morita Therapy: an experiential reconciliation of human being and nature** (incl. discussion)
	Bio Cosmology for a Future (incl. discussion) Chair: Werner Gabriel
14.45-15.05	Kung, Wai-han (HongKong/China) **Emergence Theory: A Christianity-Buddhism-Science Trialogue**
15.05-15.25	Huang, Chuangen (Beijing/China) **Review the Interpretations of Relationship between *De Anima* and *Parva Naturalia***
15.25-16.00	*Discussion*
16.00-16.30	*Coffee break*

Leonardo CHIATTI (ASL VT Medical Physics Laboratory; Viterbo/ Italy)

HYLOZOISM, TRIADICITY, MANIFESTATION: ECHOES FROM THE MICROWORLD

Keywords: philosophy of nature, synchronicity, manifestation

A philosophy of nature that aspire to be more than a mere philosophy of natural sciences must propose, as the core of its reflection, recovery of the cosmological notion of *manifestation*, as the process that connects the Wholeness and the manifold, the *Natura Naturans* and *Natura Naturata*. It must accomplish this in line with the current scientific understanding of nature.

Such a research field, certainly in connection with the natural sciences and the epistemology but distinct from these disciplines in that additional level of data synthesis and comparison, propose itself as the natural scope for a real and meaningful understanding of the world, potentially open to multicultural contributions.

But is the manifestation worldview sustainable? To answer this question in a definite way we start our investigation from the fundamental structures of physical matter. In particular, two concepts of microphysics appear particularly important from this point of view: those of "micro-event" and "quark".

The micro-event is a discontinuous, abrupt transformation of the state of a micro-process. It can be induced by an observation of the micro-process (reduction or "collapse" of its wavefunction) or more generally from its interaction with the outside (quantum leap). Its essential feature is that it is an individual choice that nature operates among the various possibilities, the collection of which is defined by the specific physical situation in which the micro-event occurs. This is the *quantum randomness* that so worried the founding fathers of quantum physics, as Bohr and Pauli. We can, with less anxiety, see in this phenomenon a form of genuinely creative capacity of nature, a sort of hylozoism. In a recent work published in *Biocosmology-neo_ Aristotelism* [4 (3), 271 -283 (2014)] I conjectured that the micro-events are the final result of the process of differentiation of a principial Oneness of the physical world; or, *vice versa*, the starting point of a process of reunification which leads from spacetime domain to eternal Oneness. This proposal thus assumes an undifferentiated, timeless and a-spatial level of physical reality connected to spacetime continuum by means of a bi-oriented process, whose ends are the micro-events that form the physical matter.

After the publication of that paper I became aware of previous work of Ulrich Mohroff, a scholar of the ashram of Sri Aurobindo in Pondicherry (India) which proposed ideas in some ways similar, albeit with significant differences of detail. Mohroff openly speaks of "manifestation" of micro-events and states that he was inspired by the Vedantic cosmology.

It is important to emphasize that in these approaches the unitary condition of Oneness is not something overdetermined to the physical world, but rather a sort of synchronistic (trans-spatial and trans-temporal) connection between the micro-events. Neither this connection nor the formative causation associated with the process of manifestation are reducible to the efficient causation in the spacetime domain, the only currently recognized mode of causation in the natural sciences.

This irreducibility leads to effects that perhaps are already within the reach of our observation. As is well known, the members of the most numerous family of elementary particles, the so-called "hadrons", are composed of entities called "quarks". Quarks were introduced in 1964, in order to explain how the hadrons interact between them. Part of their interactions were (and are) in fact explainable as exchange of quarks. However, free quarks, isolated from other quarks have never been observed despite of intense research campaigns. For a long time it was then thought that quarks were logical and/or mathematical properties of hadrons and not real physical entities. However, since 1968, it was possible to "see", with equipments that ultimately are ultramicroscopes, the quarks inside hadrons. Quarks are therefore physical entities, but exist only in well defined combinations that reflect rules of triadicity. These combinations are the hadrons. Any attempt to pick up away a quark from its hadron only produces new hadrons. The energy used to "break" the hadron in quarks is converted in the creation of new quarks combined to give new hadrons. It is therefore evident that the impossibility to isolate single quarks is due to their nature. We can't strip a quark from the hadron, just as one cannot separate the end of a rope from the rope itself. Also pulling the string up to break it, eventually we get two ropes each with its pair of ends.

However, it is difficult to understand, on the basis of the only diachronic efficient causation, how quarks can exist in separate places of space only in the presence of other similar entities. But the problem takes a different look if we assume that the hadrons are manifested; in that case the manifestation of a hadron includes synchronic and simultaneous manifestation of the quarks it contains.

If this hypothesis is true, the law that governs the manifestation of these particular micro-events shows a triadic structure. It is interesting to note that *manifestation* (from Latin "manus fendere") is ultimately a production of signs. And Peirce teaches us that the structure of the sign is triadic. On this basis Beil and Ketner have proposed a triadic theory of elementary particles, which I have discussed in some recent works [*e.g. Biocosmol.-neo-Aristot*. 4 (1,2), 42-53 (2014), with an afterward by I. Lantsev].

The importance of the triadic (trinitary) structure of the process of creation, annihilation, and sustenance of states in the material world is well recognized in the various traditional cosmologies, which brings us back to the problem of a philosophy of nature as a discussion of these correspondences.

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Spiritual Power and Hierarchy of Nature in Ancient Japanese Myths

Key words: Ancient Japanese myths, Hierarchy of nature, Status of plants

Abstract

It can be said that even now Japanese people regard nature, including animals, plants and various ecosystems such as mountains, rivers, seas, lands, as having lives. For example, every year in spring or in early summer they hold the open ceremony of a mountain, and before the construction work they hold the ground-breaking ceremony. By holding ceremonies, they express the respect to gods and nature. These examples show that the present Japanese idea of nature is much influenced by that of ancient Japanese myths in which everything has a life, soul, i.e. the idea of animism. At the base of such animism, we can find the experiences repeated over again and again in the lives of Japanese people. In that sense, such animism is an empirical thought. Ancient Japanese myths tell us about the characteristics of nature that people grasped in their lives. According to this understanding, nature is produced by gods of producing powers and nature is hierarchized. The criterion of the hierarchy is a spiritual power which natural things (including animals, plants) appeal to us. We are emotionally moved by that power which seems to spring from the bottom of the life or soul and cannot be grasped by rational thought. For example, every day we see plants but their status is rather low because, in an ordinary situation, we don’t feel a spiritual power in them, but their assemblage, i.e. a forest has much more spiritual powers and has higher status in the hierarchy. However, in special contexts even a plant becomes more powerful. In this presentation, plants which, in a normal situation, are still and powerless but become powerful in some contexts are focused on. Through this consideration, the applicability of the idea of spiritual powers to the present environmental ethics, the border transgression between humans and plants, and an animistic interpretation of natural disasters will be referred.

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Mindfulness and Suffering: Ontological and Psychological Dimensions

Keywords: Suffering, Buddhism, mindfulness, phenomenology, therapy

Abstract

The goal of Buddhist practice is to “perceive things as they really are” (Pali *yathā-bhūta-ñāṇa-dassana*). According to early (Pali) Buddhism, if one sees things as they really are, one will find out that all things (all conditioned phenomena) are transient (*anicca*), suffering (*dukkha*), and without a self (*anattā*). What does this mean? Considering original Pali Buddhist sources and recent Buddhological and psychological research I suggest that suffering in Buddhism and in the Western Buddhism-derived interventions is best addressed in two dimensions: ontological and psychological. Ontologically, (human) nature is identified by the three characteristics (*ti-lakkhaṇa*s) of transience, suffering, and non-self. Suffering, the first noble truth (*ariya-sacca*) in Buddhism, is an ontological fact. In this sense, it cannot be changed but it constitutes nature. However, Buddhism is concerned with how a human being perceives things, nature, and his/her world. Hence, suffering also refers to how one psychologically relates to one’s experience. If one perceives phenomena as they really are (transient, suffering, and without a self), one psychologically will reduce one’s suffering; or, if one can reach the goal of the Buddhist path, one will overcome suffering entirely (the third noble truth in Buddhism). This may seem as a paradox: The clearer one sees that ontologically life is suffering, the less one psychologically suffers in life. Unlike natural sciences, Buddhism, ultimately, is not concerned with objective facts. It focussed on phenomenological qualities in human experience. The clarity of one’s direct perception is critical for one’s well-being. The main practice to reach such clarity is mindfulness (*sati*), which within the last four decades has been received in Western medicine, psychology, and psychotherapy. In this paper, I discuss the ontological and psychological dimensions of suffering in detail. This discussion fosters a reflection of how mindfulness works in the Buddhist and clinical fields.

Keywords: Suffering, Buddhism, mindfulness, phenomenology, therapy

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LIFE AS IMPLEMENTATION: APPLICABILITY OF ONTOLOGIES BY ERNST BLOCH AND NIKOLAI BERDYAEV

Keywords: philosophy of the development, implementation, “das Prinzip Hoffnung”, anthropology, human being, creativity, Ernst Bloch, Nikolai Berdyaev

Beauty is the "sublimity of that
which carries with it the presentiment of our future freedom". E. Bloch.

"A human being should pass from the religiously passive and receptive state
to the state that is religiously active and creative." N. Berdyaev

Abstract

There are a few major scientists in the philosophical science of the 20th century, whose views began to be interpreted in a conventional way. In the new socio-cultural context of the 21st century there is a chance to rediscover the productive ideas of a number of their precursors, in particular, of Ernst Bloch, a German philosopher (1885–1977), and Nikolai Berdyaev (1874–1948). Their ontological ideas regarding place and objectives of a human being in the world possess some common features, and clearly bear the mark of differently perceived Aristotle's principles, though the interpreters of these ideas rarely relate them to Aristotle. There are also lexical similarities: for example, life is deemed to be a creative process, which cannot be imagined without freedom. In return, future is impossible without active human efforts and creativity.

According to E. Bloch, life is the implementation of the principle of hope (das Prinzip Hoffnung), the process of transferring the potential opportunities of being, of "Not-Yet-Become", into its implemented form by means of the active human actions. For N. Berdyaev, life is a movement towards the personalized freedom that allows a person to move from a state of "obedience" to the state of creativity. It is only on this road where a human being can justify their existence and complete the creative act,

initiated by God. Both of these ontologies, secular and religious, similarly treat life as an implementation of the original human potential. It is clear that the configurations are different due to the presence of the absolute origin in the specifically religious world-view of N. Berdyaev. We are much more interested in the general elements within the interpretation of human being and their attitude towards the world, aiming to identify them in this report.

These elements may include:

- the theme of correlation and interdependence between human being and nature (being);
- the interpretation of the human being as an active creature with complex mental structure;
- the philosophers' critical rejection of basic attitudes and values of culture of their days;
- the overcoming of the absolute priority given to the cognitive ability as the basic activity of the human being;
- the desire to form an original model of a human being "in the face of the future".

According to E. Bloch, a human being is material and corporeal. The human being begins with "hunger", "absence", and desire to make up for something that is missing. The consciousness does not play the main role here, because the present is so short that it cannot be comprehended. A human being exists in the "twilight of the moments being lived in" (Dämmerung des gelebten Augenblicks). The human being, as seen by Bloch, lives in the situation of the hindered reflection. The self-comprehension begins through the comprehension of the external world. The human being exists not only as Ego, or as Self, but also as "Inside", "Am", "Related to Ego," "Lonely" and even "Home" (Nachhause). The feelings and states of a human being are faster, and more basic, if not more important, for the existing world.

Hope is the most important of these states. It transforms the human being into the "answer" to the "question" posed by the world. If Walter Benjamin, a friend of E. Bloch, saw helplessness, futility and inactivity in hope, the philosopher himself emphasized its practical nature and the correlation with something that is really possible. Hope determines "day dreams" (Tagträume): a human being is busy not with processing the past, as Sigmund Freud believes, but with striving to the future – to a much greater extent. Not-Yet-Conscious eventually turns out to be not just a product of pure fantasy, but a psychic representation of Not-Yet-Become in the being. The mission of human being is "a concrete anticipation", a foundation, a revelation of the opportunities offered by the world (literally, in the sense of bringing them to light). This is a kind of "obstetrics" or, in other words, pre-vision of the being, which is pre-senting itself. And at the same time, it is a meeting with yourself, filling a kind of void, and creating yourself. The development of a human being is the development of the world, and vice versa. Therefore, a human being is the sense of the world.

The world is a process of continuous trials and implementation of an infinite number of trends and latentions constituting it. The future is born every second, and every moment bears the responsibility for it. Here there is no division into more and less important trends, or into major and minor ones: it is those revealed trends that become essential for the being's fates. In turn, only the "real" opportunities i.e. the opportunities, which correspond to a given state of the world, become implemented. In this respect the world is a kind of experiment, trial, attempt; it continually boils, and tries to break out of itself. "Anguish" and "passion", "desire" and "incompleteness" are rooted in it. Everything waits to be discovered, and lives not only in the moment of now, but also in the moment of tomorrow. Hope is the state of the world.

Speaking about anthropodicy – the possibility of justifying a human being with creativity – N. Berdyaev also understands a human being as an actively existing (and not only actively perceptive) origin. A human being is a "microcosm," says the philosopher in his work "The Meaning of Creativity", written in 1916 (note that E. Bloch defined the idea of the "philosophy of hope" in 1918). God expects from a human being to be creative, and this creativity should be a kind of revelation, i.e. discovery of the human essence.

Here the Russian religious philosopher understands the world as something dual, that is, composed of matter and spirit, but they are not separated with an insurmountable barrier (e.g., the concept of cognition as an intuitive-mystical experience is filled with criticism of the "streamlined, rational being"). Human life can and should be the overcoming of "objectification" process, which is "the kingdom of the ordinary", the priority of "obligatory forms of life." In this world, a human being is in a state of slavery: matter enslaves them. This state is constantly opposed to "life in freedom", which is achievable through creative acts. Freedom is inherently present in the world, and, according to N. Berdyaev, it is from it where God and human personality are disclosed.

Creativity is the creation of something fundamentally new, something that had not existed before. To fulfil their mission, a human being should overcome the customary forms of life, which are full of "selfish and narcissistic self-absorption" and lead to the separation of a human being from the macrocosm. In this aspect the creativity is understood as more symbolic, rather than real, act.

Studying of philosophical ideas of E. Bloch and N. Berdyaev is important, because today the problem of the future comes to the fore. The trajectories of achieving it directly depend on axiological and world-view dominants, which can be determined by philosophy.

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Morita therapy: an experiential reconciliation of human being and nature

Key words: Morita therapy; Nature; Non-theistic Zen; Self-overcoming.

Abstract:
We are natural beings dwelling in a built, abstract, and increasingly virtual world. For many, there is a discordant relationship between the human being and the context in which that being lives their existential ‘thrown-ness’, a profound alienation of the human being from their lived body and their living environment. This divergence of the human being away from their original human nature (Jap. *shizen kokoro*) - as an aspect of nature (Jap. *shizen*) - often results in an unnatural human condition, manifesting as various forms of anxiety.
The Japanese psychiatrist MORITA Shōma (1874-1938), a contemporary of Freud, James, Husserl and Nishida, understood anxiety as an excessively abstracted, extrapolated and resistant relationship with reality and the natural place of the human being in the greater natural order (Jap. *shizen no honsei*). He aimed to therapeutically reconcile the human being with their place in the natural order, by returning them from an unnatural human condition, to a natural blending with reality as it is (Jap. *aurgamama*). Long before the term ‘Morita therapy’ was coined by his descendants, Morita referred to his own system as his “natural or experiential therapy” (Jap. *Taiken ryōhō*).
Underpinned by non-theistic Zen as meta-theoretical perspective, Morita therapy is permeated by Zen’s epistemological presuppositions, making it a radical theoretical and practical alternative to western forms of therapy. Based on experiential learning and tacit understanding, Morita also harnessed some of the same phenomenological principles as the Zen practice systems. Just as Zen facilitates a philosophical self-overcoming of a deluded self, so Morita therapy facilitates a form of therapeutic self-overcoming of an anxious self, and does so by resituating the human being in their natural contexts.
Morita therapy offers an example of how an alternative philosophy of the person - and

the relationship between the person and nature - can be applied toward the therapeutic self-overcoming of anxiety. It reflects a Zen conceptualisaion of the ‘self’ as an inseparable and unique manifest expression of nature. The place of nature in Morita therapy is as both context and therapeutic process, and Morita employed natural principles and experiential processes to amend a dischordant relationship between human being and reality. Natural rhythms and processes, context-as-process, progressive forms of being-as-activity, ecology and community, are all fundamental aspects of Morita’s uniquely phenomenological therapeutic method.

Morita therapy re-introduces the individual to their natural intra-personal condition during a period of Secluded Bedrest (Stage 1), before progressively re-situating them in the physically natural world (Stage 2). It then re-situates them in the interpersonally natural world (Stages 3 & 4). Through this progressive process, Morita therapy re-orients the individual toward various aspects of phenomenal reality *as it is*.

This presentation provides an overview of Morita therapy as ‘skilful means’ (Skt. *upāya*). It is an example of how a non-theistic Zen-based philosophy of the person and nature, can be employed to reconcile the human being with their place in the natural order, contextualised in the natural world, and toward the alleviation of anxiety.

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Emergence Theory: A Christianity-Buddhism-Science Trialogue

Keywords: Amos Yong; Christianity-Buddhism-Science Trialogue; Emergence theory

Abstract

Emergence theory is a metaphysical principle inspired by sciences about the integrative levels and of complex systems of the natural world. It raises discussions in various scientific disciplines (e.g. molecular biology, evolution biology, neuroscience, etc.) the 19th century. The concept of emergence also advanced some important theories in philosophy and science-theology dialogue. Such as the process philosophy of Alfred North Whitehead and Charles Hartshorne, Terrence Deacon and C. D. Broad emergentism in philosophy of mind, the theology of Pierre Teilhard de Chardin and Philip Clayton.

Appropriate to the needs of the religiously plural world of the 21st century, Amos Yong, an Asian American Pentecostal theologian uses emergence theory as a platform to construct a trialogue between Christianity, Buddhism, and science. He argues that emergence theory intersects with the pneumatological reading of the cosmology in Christianity and Mahāyāna Buddhism. More specifically, he proposes that the Mahayana Buddhism understandings of nature and human beings as emptying (*Śūnyatā*) and interdependently originating (*Pratītyasamutpāda*) will open up surprising connections with the concept of Spirit (*Pnuema*) in Christianity.

However, Yong suggests that the trilogue breaks down when it comes to the theological quest on human becoming in both traditions. It is because the soteriology in term of the union with God in Christianity is absent in Buddhism and the idea of liberation from Saṃsāra is incomprehensible to Christian.

I would like to suggest that trilogue can still carry on if we focus on the understanding of anthropology in Mahāyāna Buddhism with special reference to the Tathāgatagarbha tradition and the idea of deification in Orthodox tradition. More importantly, this may provide a more comprehensive and fruitful trilogue about nature and humanity in Christianity, Buddhism and Science.

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	The Final Session: Bio Cosmolgy and Neo Aristotelism Chair: Hashi, Hisaki and Walter Karban
16.30-17.30	Sergey N. Grinchenko (Moscow/Russia), Julia L. Shchapova (Moscow/Russia) (Video) **Archaeological epoch as the succession of generations of evolutive subject-carrier's archaeological sub-epochs** (incl. discussion)
17.30-18.00	*Discussion*
18.00 HS 2 i 2nd Floor	Final Gathering: *Board of the KoPhil* (Group Photo)

Sergey N.Grinchenko [(1)]**, Julia L.Shchapova** [(2)]
(1) full professor, doctor of technical sciences, principal scientific researcher of the Institute of Informatics Problems, Federal Research Centre "Computer Science and Control" of the Russian Academy of Sciences Russia, (2) full professor, doctor of historical sciences, professor of Archaeology Department, Historical Faculty, M.V.Lomonosov's Moscow State University
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Archaeological epoch as the succession of generations of evolutive subject-carrier's archaeological sub-epochs

Keywords: archaeological epoch, archaeological sub-epoch, development, evolution, generations butt, generations overlap, subject-carrier of archaeological sub-epoch

Abstract

1. Having defined "*subject-carrier of the archaeological sub-epochs* (ASE)" as the holistic virtual sequential totality of all individuals-participants (consolidated by unified level of information complexity) of corresponding ASE development/evolution process, let us characterize it as the *generation* in development/evolution of archaeological epoch (AE).

2. Not everyone evolvement successive steps of arbitrary form object it is possible to present as joined "butt" (i.e. replacing each other). If developing object is the

sequence being replaced – by means of generations chain (replacements) – relatively short-lived elementary components, then appears more complicated scheme, combining corresponding life cycle steps-stages of these components "overlap" (i.e. synchronously and parallelly).

3. The situation of "overlapping" as superposition of developing AE – its ASE – components fragments on general time scale, for the first time in world literature was noticed, theoretically comprehended and mathematically formalized by J.L. Shchapova within frameworks of developed by it multidisciplinary archeology (Shchapova 2001, Shchapova 2005, Grinchenko, Shchapova, 2015).

4. In fig. 1 is presented historically ancient fragment of chronology and periodization AE model. Intervals between adjacent dates in scheme, measured in millennia up to BC are called by AE-periods. The figure visually educe the common tendency of duration increasing "overlap" from characteristic for biological prehistory of alone AE-period up to characteristic for social origin triad of AE-periods. Beyond that, and so important for the understanding of interaction peculiarities between subject-carriers of adjacent ASE the factors, as moments of information coups and informational revolutions (Grinchenko, Shchapova 2010; Grinchenko, 2011).

As is seen from, "overlap" is realizing here three latest periods of Lower Paleolith ASE and three first periods of Middle Paleolith ASE. In other words, the descendants of relatively primitive *Homo erectus* and them similar continued to exist and even to develop – as dominant – their material culture and social origin after their development branch out more complicated *Homo neanderthalensis*. Whereby made this in parallel with dialing its evolutional potential *H.neanderthalensis*. It is clear that at the stage of "overlap" these ASE and the contacts between these branches of *Homo* genus representatives has not been excluded.

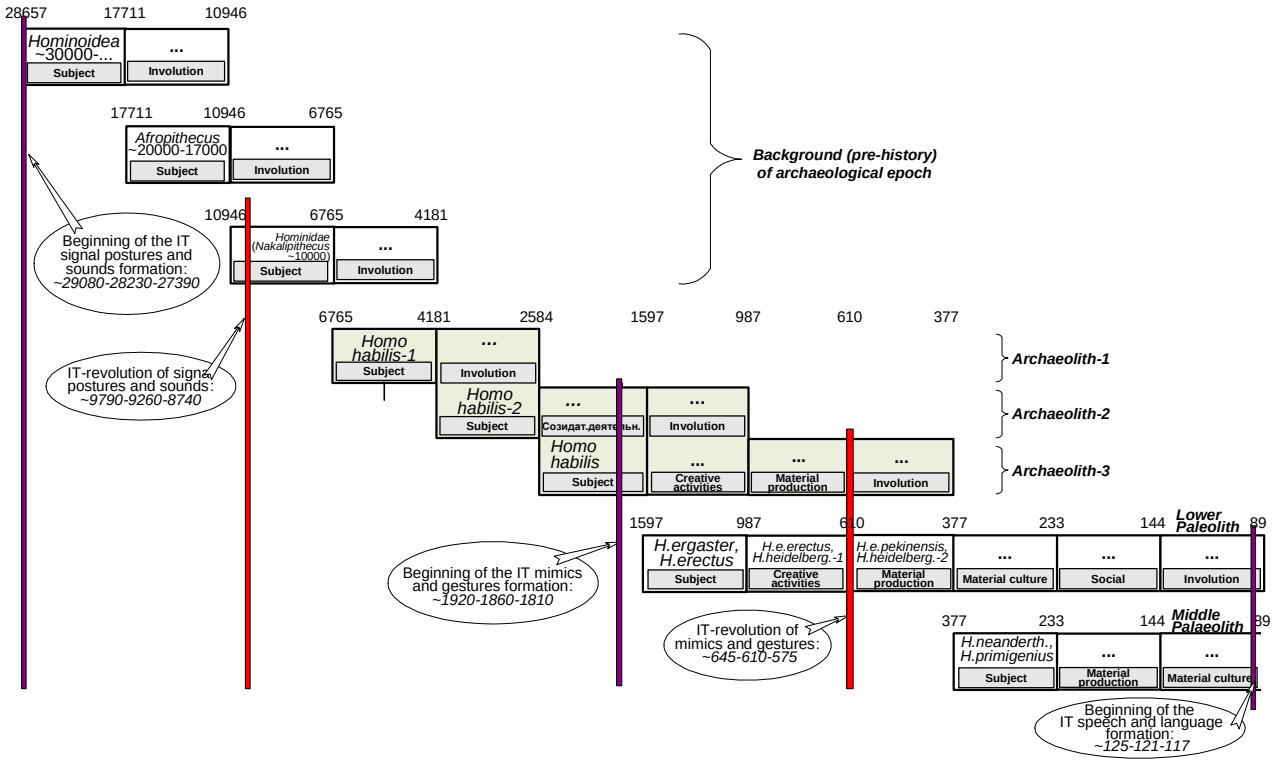

Fig 1. Stages comparison of evolutional development of human ancestor forms (model conceptualization).

5. Conclusions:

1) generations chain at the stage of biological pre-history AE (and all the more earlier) evolves with "overlap" on minimal variant "one-to-one" AE-period;

2) the transition regime from minimal biological variant of "overlap" "one-to-one" AE-period to typical for AE social variant "three-to-three" AE-periods was realized in the course of bio-social archaeolith ASE;

3) beginning from Lower Paleolith ASE generations chain being replaced social ASE evolves with "overlap" on typical social variant "three-to-three" AE-periods;

4) the parity of some time segments in AE-periods, i.e in dimensionless logarithmic time scale, do not means their parity in dimensional metric scale: e.g., three latest periods have lasted at Lower Paleolith ASE near 288 millennia, but at Upper Paleolith ASE only near 16, – with coincident of important properties of occurring in them series processes.

5) overall, the proposed synthetic (multidisciplinary) understanding of the archaeological science subject, being included in the educational context, it acquires the status of worldview.

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