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Сборник статей ведущих российских и зарубежных ученых посвящен анализу современных методологических проблем развития историко-философской науки. В книге ставится задача обоснования единства истории философии и истории культуры; в этой связи в первом и втором разделах рассматриваются актуальные парадигмы западноевропейской мысли, представлены углубленные исследования национальных традиций в истории западной мысли и культуры, теоретические и социокультурные особенности англосаксонской, французской, немецкой и испанской философии. Третий раздел книги посвящен анализу проблематики универсального и национального в русской философии, дается целостная картина определенных периодов истории русской мысли и проводится концептуальный анализ отдельных направлений отечественной философии. Издание адресовано историкам философии и культуры, всем, кто интересуется вопросами формирования историко-философской науки и актуальными проблемами ее развития, историей отечественной философской культуры.

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Shaping German Evolutionary Biology: A Case Study of the Metaparadigm Hypothesis

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Although evolutionary theory can be regarded as a certain universal mediator that has embraced more and more domains of science since its early days and up to nowadays, each branch of biological science has developed in this context with its own specifications. The latter, either through hindering or promoting, have influenced the local scientific schools of evolutionary biology and, eventually, rendered them as national developments. We hold that the Darwinian theories interrelated with national exploratory traditions in such a way that eventually there emerged the conceptual body created as an alloy of a metatheoretical structure with the "purely empirical" theoretical

positions such as the theory of natural selection. We will also show that through the case of the German-language research tradition in evolutionary biology, and analyse this tradition comparing it to other major ones in evolutionary biology such as the Russian and English-speaking evolutionism. The issue of specific influences constituting the German, English-language (including the UK and the USA), and Russian-language discourses of the first and the second Darwinian revolutions will be addressed. Moreover, we will discuss the concept of "metaparadigm", which reflects the specificity of the German evolutionary theory and its Goethean inspiration through its development during the first and the second Darwinian Revolutions.

Keywords: national exploratory traditions, evolutionary biology, German evolutionary biology, metaparadigms, Johann Wolfgang von Goethe, Ernst Haeckel, Hans Böker, Bernhard Rensch.

ФОРМИРОВАНИЕ НЕМЕЦКОЙ ЭВОЛЮЦИОННОЙ БИОЛОГИИ: ПРИМЕР ИЗУЧЕНИЯ ГИПОТЕЗЫ МЕТАПАРАДИГМЫ

Г. С. Левит, У. Хоссфельд, А. А. Львов

Хотя эволюционную теорию можно считать универсальным посредником, с первых дней существования и до наших дней охватывающим все больше областей науки, каждая отрасль биологической науки развивалась в рамках этой теории достаточно индивидуально. Национальные особенности оказали влияние на местные научные школы эволюционной биологии и в конечном итоге превратили их в национальные разработки. Мы считаем, что дарвиновские теории, соединяясь с национальными исследовательскими традициями, стали концепцией, сплавом метатеоретической структуры с «чисто эмпирическими» теоретическими положениями, такими как теория естественного отбора. Мы покажем это преобразование на примере немецкоязычной исследовательской традиции в эволюционной биологии и проанализируем эту традицию, сравнивая ее с другими основными в эволюционной биологии, такими как русский и англоязычный эволюционизм. Будет рассмотрен вопрос о специфических влияниях, составляющих немецкий, англоязычный (включая Великобританию и США) и русскоязычный дискурсы первой и второй дарвиновских революций. Кроме того, мы обсудим концепцию «метапарадигмы», которая отражает специфику немецкой эволюционной теории и ее «гетевское вдохновение» через ее развитие во время первой и второй дарвиновских революций.

Ключевые слова: национальные исследовательские традиции, эволюционная биология, немецкая эволюционная биология, метапарадигма, Иоганн Вольфганг фон Гете, Эрнст Геккель, Ганс Бекер, Бернхард Ренш.

INTRODUCTION

Evolutionary biology is among those scientific disciplines that are intertwined especially strongly with their social-cultural surroundings dependent on the national intellectual traditions. To grasp such nation-

al peculiarities, we have introduced the notion of "metaparadigms", by which we mean the relation to a mental tradition detectable by language use rather than by politically determined national borders [1, p. 268–278]. For example, we speak about German-language or English-language evolutionary biology. Metaparadigms are not the same as the famous scientific "paradigms" discussed by Thomas Kuhn (1922–1996), with their seclusion and revolutionary shifts from one steady state to another. The closest analogies of metaparadigms are probably those "strange attractors" in the chaos theory (as, for instance, G. Boeing reconstructs it [2]) — while in the case of a social-cultural system, an "attractor" appears at a certain time, flourishes and then gradually disappears. There are affinities between "metaparadigms" and the concept of "cultural attractor" as well [3, p. 377–394], since a metaparadigm is a transformation pattern effecting scientific evolution. A metaparadigm crystallizes as a result of internal and external influences.

Simplified examples of metaparadigms are the Russian bias towards inclusive interpretations of living systems (an organism plus its environment) [4]. Such a bias tended in Russia towards a cooperation model in the biosciences [5], in contrast to an emphasis on the competition model in the English-speaking world. In German lands the monistic principle, which had appeared in biology long before Darwin and persisted through the first and the second Darwinian revolutions, became a certain conceptual rod, around which such a metaparadigm has crystallized. Generally speaking, monism is a doctrine trying to reduce the manifoldness of the whole universe to a single explanatory principle. The term was coined by the most consistent Leibnizian successor, philosopher Christian Wolff (1679–1754), who stood for thoroughness and accuracy in metaphysical enquiry; by it he labeled a philosophy postulating that the world can be comprehended by the means of only one basic substance — matter, spirit or soul. In the second half of the 19th century monism takes on its contemporary meaning of a philosophy claiming the unity of the universe as a fundamental condition of reality, as well as reducibility of diversity to the postulated unity [6]. Around 1900, a heterogeneous movement takes form, which became known as 'naturalistic monism': its champions aimed to integrate natural science and monism and develop monistic ethics, based exclusively upon scientific views, avoiding any religious or philosophical speculative per-

spectives. Thus, as a modern perspective, monism has the ambition to elucidate the most basic principles of being.

Monism was tightly coupled with typology, since the latter was the logical effect of the former (in this very case). The purpose of our paper is to reconstruct this "strange attractor" of German evolutionary biology and scrutinize its fundamental principles as they represent the specificity of the development of the mentioned metaparadigm. We would also like to contrast it with English-speaking and Russian national movements in evolutionary theory together with some philosophical ideas of investigators into the universal basis of the natural phenomena rather through meditation than an experiment.

1

Johann Wolfgang von Goethe (1749–1832) was an influential figure not only in the field of German national literature or culture. Much like Mikhail V. Lomonosov (1711–1765), who incorporated in his personality the entire Russian Academy of Sciences rather than being just its member, Goethe played a similarly outstanding part in various fields of German science. Unsurprisingly, he was considered to be one of the crucial predecessors of the first and the second Darwinian revolutions in biology in Germany by their major figures — Ernst Haeckel (1834–1919) and Bernhard Rensch (1900–1990). At the same time, it is hard to name Goethe an evolutionist in a modern sense: what he offered to the following generations of bioscientists was a certain world outlook and epistemological pattern of biological, primarily, biomorphological, investigation. Goethe was among those who inspired a whole tradition of *natural romanticism* in American philosophy, especially within the circle of the transcendentalists [7, p. 12–13], and also (along with J. G. Fichte) strongly influenced British philosopher and author Thomas Carlyle (1795–1881).

Goethe's cosmos is an interdependent whole, within which organic and inorganic are tightly interlaced. He searched for differences and similarities between organisms and their parts in order to discover the universal doctrine of form, to grasp the idea of a certain structure by means of experiment and intuition. It is noteworthy that Goethe championed the establishment of a veterinary school in Jena and visited it

regularly from 1816 until the year of his death [8]. Remarkably, Goethe did his best to engage the veterinary school in fundamental anatomical studies as well, because he always regarded comparative anatomy to be a principal science, which was the foundation of his worldview. This shows that morphology was Goethe's priority even in the 1820s and early 1830s. From this perspective it is quite clear that morphology was for Goethe a fundamental enquiry into the most substantive features of life and ultimately of the whole universe. It was for a worldview forming science. The "high Church" epistemological tenets controlled his "morphological philosophy" (by which he meant typology) whereas the "low Church" tenets controlled the empirically based morphological studies. His methodology taken in the broadest sense was an influential opposition to the mainstream Newtonianism, which played the main part in the then contemporary France and which was grounded in Kant and Spinoza's holism, as well as in the hylozoism of the latter.

Goethe was also an advocate of the cognitive method as an epistemological aspect of his morphology. He discussed it in his illustrious sketch *Judgment through intuitive perception* [9, p. 31–32], where he offered an effective critical analysis of Kant's argument that the cognition of man is restrained by the "discursive judgement" (logical, analytical thought) as opposed to the intuitive "viewing of a whole through the parts". On his part, Goethe claimed that the "intuitive perception of a whole is a valid scientific method" [10, p. 65]. In *A Study based on Spinoza*, he abandoned empiricism and stressed that a living thing may not have another artificial or abstract measure but itself, for its essence is spiritual and it is impossible to find it by means of senses [9, p. 31–32].

The "archetype" was, for Goethe, the "main thread" running through the maze of Gestalts, a general pattern to be found thanks to empirical generalisations. According to him, the archetype is an ideal structure of an organism somewhat expressed in the essential elements of a real non-machinery organisation: "Thence appears a proposition about an anatomical type, a general entity, which covers (as far as possible) the structures (*Gestalten*) of all animals and allows to specify each animal in a certain system (*Ordnung*)" [11, p. 135]. The investigations into a vertebrate archetype yielded, for instance, the discovery of the intermaxillary bone in man [9, p. 111–116]. Another instance is interconnections between an organism and the milieu: Goethe's fish exists in the water,

and that is why the animal gets its form and functions within a certain environment. Also, Goethe did not believe that the humans are nature's final goal [12, p. 99]: since he offered a dynamic picture of the universe, any forms of anthropocentricism were indeed alien to him. Thus, the search for an archetype anticipates the exploit of intuitive perception, and an intrinsic part of experience is the presence of the divine in nature and in the entire cosmos.

To conclude, one may propose three of Goethe's methodological principles which became pivotal for the subsequent German-language evolutionary biology:

1. the first one was typological thinking, which Ernst Mayr later unfairly equated with essentialism [13; 14];
2. the next major epistemological idea Goethe introduced was the monistic principle;
3. finally, the third tenet, which Goethe championed and we have emphasised here, was holism appearing in both poetic [15, p. 157] and scientific writings of his [16].

These tenets determined the paths of German evolutionary biology by creating a logically consistent "metaparadigmatic" framework. Yet, the ways these tenets were applied within Darwinian and non-Darwinian traditions were not the same.

2

The most prominent supporter of both the early Darwinism in Germany and the monistic perspective, which came to be known as *neutral monism*, was certainly zoologist Ernst Haeckel. After the publication of Darwin's seminal *On the Origin of Species*, Haeckel did not hesitate to start a profound research along the Darwinian lines. It is now more than 150 years ago that Haeckel published his first major scientific work, *Generelle Morphologie der Organismen*, in 1866, which consists of two volumes: the first one titled "The General Anatomy of Organisms", the second one — "General Developmental History", with the full subtitle: *General principles of the organic form — science, founded mechanically through the theory of descent as reformed by Charles Darwin*. The first volume Haeckel dedicated to his teacher Carl Gegenbaur (1826–1903),

the anatomist who renewed comparative morphology by incorporating Darwin's theory of evolution into it and founded an influential research tradition. The second volume was dedicated to the "founders of the theory of descent": Darwin, Goethe and Lamarck. One may view this book as the clue to Haeckel's further research, its aim being to attach Darwin's doctrine to biology as a whole and in particular to morphology. Haeckel articulates here his early ideas on the relationship between ontogeny and phylogeny and introduces a system of the existing groups of organisms based on genealogy rather than the previous typological or idealistic concepts [17]. In this monograph, he, for the first time, addressed his Biogenetic law, which he further developed in a later research on calcareous sponges [18]. Another perspective of this book was his attempt to establish a universal theory of basic forms (promorphology) in the first volume, whereas the second volume can be considered to be the first attempt to establish evolutionary morphology and evolutionary embryology as novel domains of investigation.

From Haeckel's point of view, evolution appears as a universal phenomenon affecting every single thing from inorganic matter to human beings. He believed in the unity of body and soul as well as in the unity of spirit and matter. This kind of monism guided Haeckel's research from the *General Morphology* to his last paper on Crystal souls [19]: monism and evolutionary theory were for Haeckel parts of one research programme entitled the "monistic doctrine of evolution" (*monistischen Entwicklungslehre*). His monistic worldview was based on the idea that "all sciences exploring humans and their soul activities [and especially so-called humanities] <…> as well as special fields of zoology can be interpreted as natural sciences" (our translation from [20, p. 48]). Thus, Haeckel, simultaneously with other crucial figures such as Wilhelm Ostwald (1853–1932) und Auguste Forel (1848–1931), tried to conjoin monism with science [21].

For Haeckel, the most fundamental tenet of monism was the Law of Substance. In his *The Riddles of the Universe (Die Welträthsel)* [22] Haeckel holds that it is actually a combination of Lavoisier's Law of the Conservation of Mass and Meyer and Helmholtz' Law of the Conservation of Energy. In *The Wonders of Life* (*Lebenswunder)* [20] he coins the third element, the tenet of perception, or, as he put it, the psychoma. In 1914, he conjoined all these three attributes (*Grundeigenschaften*) of the substance: the space occupying matter, the acting energy, and the

perceiving psychoma [2]. It is important to emphasize that Haeckel's worldview overlapped significantly with the positivist (in fact, empiriocriticist) philosophy of a physicist and positivist philosopher Ernst Mach (1838–1916) and psychologist Max Verworn (1863–1921), and his category of psychoma was elaborated basically within the same context. Thus, the psycho-somatic appears to be the substantial tenet of his pantheism [24]. Starting from Haeckel's theory of substance, Spinozism and the monistic concept of energy, Max Verworn concluded that a comprehensive monistic perspective can only be substantiated as psychomonism [25]. The idea of psychomonism remained influential in Germany as late as at the time of the Modern Synthesis, and conceptually it could be considered an attempt to create a combined scientific worldview on empiriocritical foundations. An illustrious, however uncommon, example of such a *Weltanschauungslehre* was a self-titled project [26] of *kosmotheoria* by Heirich Gomperz (1873–1942), probably the most comprehensive advocate of the Mach-Avenarius positivist analysis of perception in the 1910s.

But the main source of inspiration for Haeckel to create a universal monistic worldview, to build a all-embracing theory of organic life, to introduce epistemological attitudes, such as analysis and synthesis, — such a source of inspiration was certainly Goethe (see, e.g. [27, p. 74]). It was Goethe who offered the foundations to describe the principles of evolutionary morphology, because, as Haeckel insisted, Goethe 'established the fundamental principles of morphology, especially the proposal that various animal and plant characters could be understood as variations on some basic types' [28, p. 119]. Hopwood explained this in the following way: "Haeckel's synthesis recalls Goethe's much more ambitious intuition of the 'original plant' from accumulated observations, and Haeckel, who with a bit more talent might have become an artist, was as strongly committed to aesthetic judgment in science" [29, p. 260–301]. Haeckel's famous "oecologie" (later turned into an adapted notion of 'ecology') can be explicated as a by-product of the revolution in biology he started in the 1860s [30]: "oecologie" was for him a certain branch of physiology substituting the goals and subject matter of a previous discipline named "economy of nature". Insofar, Haeckel succeeded in re-introducing the research programme of natural history into the sphere of his post-Darwinian monist project. Another source of Haeck-

el's inspiration was obviously Alexander von Humboldt's (1769–1859) holistic attitude: "Haeckel similarly emphasized a unique form of holism, describing the unity of nature in his philosophy of monism" [31, p. 65]. To this end, Haeckel created his pro-Darwinian theoretical construction along the lines of Goethe's methodological principles.

Yet, German non-Darwinians thought of themselves as Goethe's successors as well. Sometimes they were even more explicit in declaring their affinity to his ideas. Such an example of a non-Darwinian, yet not predominantly typological theory, obviously referring to Goethe as its inspiration, was Hans Böker's (1886–1939) neo-Lamarckian holism. Böker was a German anatomist and zoologist, and in 1924 he published a paper entitled *Justification of Biological Anatomy* (*Begründung einer biologischen Morphologie*), in which he announced his Lamarckian research programme by holding that species "vary before our very eyes by means of inheritance of acquired features" [32, p. 20]. Like a number of other biologists of his time, he was sure he could create a new "evolutionary synthesis", although he antagonised with the search for those "separate features" and championed the holistic research programme, which was a combination of idealistic morphology, genetics, evolutionary morphology in its Lamarckian version, functional explanations, ecology and even ethology [33]. He called his doctrine "comparative biological anatomy" and proceeded from the proposition that the organism is a certain "construction" that consists of parts while being confronted with its environment. For our paper, it is important to highlight that Böker considered himself belonging to the tradition founded by Goethe [32].

In summary, all idealistic morphologists clearly referred to Goethe's tenets as the origin of their inspiration. Holists, like Böker, saw themselves as Goethe's successors too. Considering the influence of Haeckel's version of Darwinism in German lands, one can say that both Darwinian and non-Darwinian pre-Synthetic evolutionary schools were under the strong influence of Goethean ideas.

3

Observing the wide panorama of scientific debates on the united biological, primarily empirically-based theory at the dawn of the 20th century, one cannot help noticing the two cornerstones of the further

advancement of our metaparadigm. The first was Ludwig Plate (1852–1937), one of the most influential pre-Synthetic (but post-Haeckelian) Darwinians [34], whereas the second one, Bernhard Rensch, was among the "founding fathers" of the Modern Synthesis in German lands [35; 36].

During his lifetime Plate made an outstanding impact on science through his both empirical and theoretical works, and even today they continue to be quoted in morphological literature (e.g. [37]). It is noteworthy that he was translated into Russian early on, in 1928. Plate championed for a restoration of the "original Darwinism", or the so-called old-Darwinism, joining selectionism with neo-Lamarckian ideas, and was regarded by many of his contemporaries all over the world as a proper advocate of Darwinism [38; 39]. A famous American evolutionary biologist Vernon Kellogg (1867–1937) argued in *The American Naturalist* that Plate "takes the real standpoint of Darwin" [40], whereas a prominent Russian biologist, geographer and anti-Darwinist Leo S. Berg (1876–1950) considered Plate to be his main scientific opponent [41].

Following Plate, one should agree that old-Darwinism accurately abided the Darwin's initial ideas while at the same time accomodating and retaining all the sound and empirically verifiable scientific accomplishments. Plate aimed to encompass all prolific theoretical strategies, including Lamarckism, selectionism, and orthogenesis, into the most pioneering sphere of experimental biology. The core of Plate's evolutionary theory could be comprehended by studying two principles: the first, that Darwinism is a "stochastic theory" considering variations appearing by chance in the individuals of a certain species [42, p. 222]; and the second, that the harmonic modification of various features is more handily understandable from the Lamarckian perspective [42, p. 224]. As to Plate's general "philosophical" standpoint, he "distanced himself from what he saw as the atheism and antireligious politics of monism, but not necessarily from the scientific agenda", Gliboff holds. Plate "continued to consider himself a monist, but emphasized a unity of nature that could include aspects of the divine and need not entirely exclude his Christian and Germanic identity" [43].

Meanwhile, Bernhard Rensch made his contribution to the "Darwinisation" of biological systematics through his criticism of various anti-Darwinian currents in the German lands, but more importantly he

reconciled the Darwinian concept of macro-evolution with the tenets of gradualism (see: [35; 36]). Time passed, and Rensch's version of the Synthetic Theory of Evolution (usually abbreviated as STE) developed into a universal metaphysical conception based on a kind of Spinozism located within the same tradition as Goethe's hylozoism and Haeckel's monism. Lacking the explications of the directedness of evolution in terms of experimental science, he "pre-programmed" the appearance of intelligence on the level of humans by a sophisticated monist philosophy joined with a presumably naturalistic evolutionary biology.

At the heart of Rensch's "philosophy" is the idea that the only unquestionable objects for an investigator are their own psychic phenomena resulting from the immediate experiences: perceptions, imaginations, feelings and thoughts. Only an analysis of such experiences makes it possible to elaborate the concepts of extra-mental reality, which appear to be visible and testable phenomena (*Gestalt*). Rensch appeals to the reductive realism of the German philosopher and psychologist Theodor Ziehen (1862–1950), one of the most quoted authors in Rensch's works, who raised the question of the admissibility of "matter" as a scientific term. However, Rensch himself did not just share Ziehen's philosophy; he demonstrated that it was absolutely crucial for his entire theoretical system. Rensch labelled Ziehen's epistemological views a "monistic principle" [44, p. 29], and as any type of philosophical monism, the "monistic principle" establishes an ultimate, ontologically determinable reality, which cannot be multiplied or decomposed into further elements, thus representing the very basis of the Universe and providing it with the elements of an individualised whole.

To put it in a nutshell, monism implies elements of holism, and Rensch was looking for this kind of universal foundation [45]. Thus, Rensch did not accept psychological identity as a "philosophy" accomplishing his biology; rather, it should be regarded as the core of his worldview and his scientific methodology. Rensch was a proponent of the universal evolutionism and selectionism.

The combination of anthropocentric progressionism and pantheism championed by Rensch along with selectionism was certainly in sharp contrast to what other influential selectionists thought. Rensch's basic trick was to turn consciousness into the ostensible object of pre-organic determined evolution and natural selection. However, the postulation

of the pre-phenomenal nature of matter consequently had it that every particle of perceivable reality became ensured with a puny particle of intelligence. As intelligence is now a fundamental attribute of the Universe, the evolution of the Universe implies a "pre-programmed" movement towards intelligence in the form of human being. To make his concept compatible with the natural-scientific worldview, Rensch disguised this clearly teleological concept as the concept of universal selectionism, since selectionism was already widely acknowledged to be a respectable "teleology-free" concept. In other words, Rensch's anthropocentric determinism is dressed up as universal selectionism.

CONCLUSION

Monism, Typology and Holism were the three tenets offered by J. W. von Goethe, that the most prominent German evolutionists persistently applied to their theoretical systems. They were well-known among the Russian-speaking and Anglo-American scientists (see [46]), however in Germany their role should be recognized as crucial. It was a system of conjoined epistemological propositions that overcame years of political disturbances and paradigmatic changes in science and culture. At the very core of these language-centered national movements in science was holism as a certain way of thinking, whereas the foundations, theoretical context and methodological effects of holism as such varied in different language realms.

Monism found few followers either in Russia or in English-speaking countries, remaining a specifically German bias in evolutionary biology. Bernhard Rensch, an obvious supporter of a "cosmic view of evolution" [47], also stood for a type of holism. Although he developed his theoretical principles on a qualitatively different theoretical level, they followed the methodological tenets of Goethe and Haeckel. It should be stressed that this search for a unifying principle of every process in the Universe became crucial in a clearly speculative field as well. Thus, George Santayana (1863–1952), a famous American proponent of naturalism, thought the Matter to be the dominant factor of the activity of all biological substances, and differentiated himself from the Goethean tradition: "Naturalism <…> is something to which I thoroughly wed-

ded that I like to call it materialism, so as to prevent all confusion from romantic naturalism like Goethe's, for instance, or that of Bergson. Mine is the hard, non-humanistic naturalism of the Ionian philosophers, of Democritus, Lucretius and Spinoza" [48, p. 333–334]. He even saw the root of the moral attitude in Nature, which itself generates human ideals. However, he acknowledged Matter (in his *Realms of Being*) as only one of four realms, the others being Essence, Truth, and Spirit. Yet, Santayana's naturalism remains too contemplative compared to the case of such German metaparadigm, the representatives of which demonstrate close relations of theoretical tenets and empirical data. In this respect the English-speaking countries tended to demonstrate a binary construction: there are philosophers who search for the Truth from the first principles, and there are scientists who investigate into the truth of facts. Idealistic morphology obviously remained barely influential in Great Britain and the USA during both Darwinian revolutions, while it was strikingly prominent in Germany.

On the other hand, holism in the Russian investigatory context was the result of experimental studies, which showed close interrelations between organisms and their environments. An "environmentalist holism" was characteristic for both Darwinian and non-Darwinian doctrines, the case in point being Leo Berg's "Nomogenesis" accompanied by the theory of landscape zones. In its extreme variety, Russian-speaking holistic school created the theory of biosphere. Prominent evolutionists such as Alexander Kowalevsky (1840–1901), Elie Metschnikoff (1845–1916) or Kliment Timiryazev (1843–1920) were critical not only of Haeckel's monism but also of Haeckel's speculative theories in general. Haeckel, by contrast, appreciated Kowalevsky's work very much. In his *Anthropogenesis*, Haeckel wrote: "The most significant germ histories in the recent time were those of Kowalevsky" [49, p. 49]. It is astonishing in this respect that both Kowalevsky and Metschnikoff were either indifferent or even hostile to Haeckel and his theories. Vladimir Vernadsky (1863–1945) developed a holistic methodology while elaborating his biosphere theory, but his holism, in contrast to the German tradition, was based on "empirical generalisations" and excluded any references to "typology" or "essentialism" [50].

To summarise, Haeckel's monism, as well as other versions of German monism (such as Ostwald's), was well known in the pre-revolutionary

Russia, but its relatively marginal position in Russian evolutionary biology cannot be compared to its central role in Germany. As to the third Goethean principle (typology), it is well known that typology under different names (e.g. idealistic morphology) was widespread in Germany lands before the First World War and even after the Second World War. While the English-speaking countries experienced the rapid expansion of the Evolutionary Synthesis, the growth of evolutionary theory in the Soviet Union and, partly, in East Germany was distorted by the political repressions associated with the infamous Trofim D. Lysenko (1898–1976) and his partisans [51; 52]. The history of science here transforms into the philosophy of science, because such examples of stability and steady character of ideas within this or that scientific domain bring us back to the classical Hegelian concept of *Volksgeist*. Although we have mentioned earlier that we consider mental traditions to be detectable by language use rather than by politically determined national borders or whatsoever, one cannot but try to interpret the reason, in which the specific features of traditional articulation of concepts and notions are rooted. For instance, there exists a serious problem of translation and borrowing of newly born terms, the most vivid example here being, perhaps, the realisation of Weltanschauung in the English or Russian-speaking traditions. The answer to the question of why and what made Spinozian monism so influential primarily in German lands and not in the Russian Empire or the English-speaking cultures does not lie on the surface, because in all the three regions Spinoza had been both translated and well-known by the turn of the 20th century. However, investigators' best supporters are facts, and lacking definite clues, one should follow Wittgenstein's famous proposition and continue their work.

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«Философия откровения» и проблемы прагматики культуры

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Берлинские лекции по «Философии откровения», впервые прочитанные Ф. В. Й. Шеллингом в 1841–1842 гг., рассматриваются не в философском, а в историко-культурном контексте, включающем их рецепцию. Подход автора статьи продиктован самой тематикой и методом Шеллинга — рассуждать о действительности (существовании) Бога не в категориях чистой мысли, т. е. «отрицательной философии», а в категориях фактичности. Объявляя своей темой действительность, «положительная философия» тем самым сополагает бытие Бога и исторический опыт христианства включая современный. Устное и письменное обнародование учения Шеллинга приводит, однако, к прагматическому конфликту, вызванному несоответствием между сообщением и реакцией адресатов. Повестка 1840-х годов, перехваченная левым гегельянством (с присущим ему критическим отношением к религии), правым гегельянством и представителями консервативного лагеря (и их стратегией подчинения христианства целям государственного строительства), позитивизмом (претензией естественных и социальных наук на собственное обоснование действительности), на фоне общего раскола веры и знания делает невозможным восприятие философии откровения, адекватное замыслу ее создателя. Кризис христианства и ширящийся нигилизм создают для этого дополнительные условия. Сопутствовавшие философии откровения смысловые диссонансы рассматриваются в статье в статусе историко-культур-