Theses of PhD Dissertation

The Metamorphosis of Consciousness

A Philosophical-Hermeneutical Analysis of the Interdisciplinary Consciousness Studies

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1. Aims and the subject matter of the dissertation

At the end of the 20th and the beginning of the 21th century the problem of *consciousness* became the subject matter of an interdisciplinary research. At the outset of the dissertation I analyse the essential concepts of *mind* and *consciousness* and recall the concept of phenomenal consciousness, which stems from the tradition of analytical philosophy. Thomas Nagel formulated the classic notion of phenomenal consciousness: one organism has phenomenal consciousness, if "there is something that it is to *be* that organism". This definition leads to an another basic concept of philosophy of mind, to the notion of *qualia.* Qualia – in a broad sense – means the *subjective character* of the conscious experiences (for example it means the *redness* or the *vividness* of a red experience). I will use Thomas Nagel's thesis as a main guide in this dissertation, because Nagel stated that the brain-mind dualism – which inherited from Descartes – and the problem of phenomenal consciousness are deeply related problems. The science of consciousness was created in a very paradoxical situation, because it tries to *naturalize* the concepts of phenomenal consciousness and qualia; it attempts to explain these phenomena with natural or mostly brain mechanisms. The primary objective of the dissertation is to reveal, in a semantic and research-methodology sense, the difficulties of the scientific approaches to phenomenal consciousness and qualia. On behalf of this, in the introduction I made a comparison between *interdisciplinary consciousness studies* (subsequently experimental consciousness research) and *cognitive sciences*. It is an interesting consequence, that the science of consciousness in contrast to the cognitive sciences tries to surpass the multiplicity of explanation levels and it rises the question of a united and coherent

discourse. The secondary objective of the dissertation is to analyse the questions of the united view of a Science of Consciousness. Briefly, the most significant aim of the dissertation is the critical analysis of the naturalized phenomenal consciousness and the utopian Science of Consciousness; with the help of various examples and consciousness models. At the end of the analysis two question arising, the first is a question of philosophy of science and the second is a hermeneutical question. Is it possible that the science of consciousness is a postmodern science in the sense of Lyotard? Are there any chance that the experimental consciousness research would be able to surpass the cultural oscillation of the mechanistic-materialistic tradition and dualism?

2. Methods

2.1. Historical-Hermeneutical method

In order to determine the semantic changes of the concept of consciousness while the discourse of the science of consciousness have had arisen the historical-hermeneutical method seems to be the most appropriate. I will examine especially the concepts of mind and consciousness, which were formulated at the 17th century, and I wrote a whole chapter about the Cartesian dualism. Furthermore, the hermeneutical viewpoint is relevant in other aspects of the theme too. At the outset, I briefly summarize the main ambivalences of the hermeneutical approaches of natural sciences, than I will follow the "hermeneutics of science" approach in case of the experimental consciousness research, as well. Before all of these, I need to focus on the discussion (between György Márkus and Patrick Haalen) about the questions of the hermeneutical approaches to sciences. Because of the lack of a united "hermeneutics of science method", in the course of the critical analysis of the science of consciousness I will apply a few directive of the hermeneutical analysis of sciences.

2.2. Approaches from the philosophy of science

The hermeneutical method is – in the actual case, regarding the concrete examples of the experimental consciousness research – able to examine the phenomenon from various points of views. I will accomplish the hermeneutical analysis of the science of consciousness with the subsequent directives:

a) The historical-hermeneutical analysis of the basic concepts are very relevant (In the case of qualia and phenomenal consciousness the meaning and referent undergone a fundamental shift, because the mental states are no more inside of the *spirit* or in the *mind*, rather we localize them in the brain.)
b) The kuhnian philosophy of science is very relevant theoretical framework in the hermeneutics of science projects. And its basic concepts (for example paradigm and incommensurability) are very useful in the case of the experimental consciousness research, furthermore the problem of the empirical underdetermination will be a significant problem, too.

3. Thesis

Thesis 1. The cultural and historical affect of the Cartesian dualism is very significant in the science of consciousness.

Descartes contributed to the realization of the mechanistic worldview not just with his physiological and geometrical workings but with the bold turn, that (opposite to Galileo) he applied the mechanistic thinking not alone to the nature, but to the human too. The human being is a language user, thinking creature, while the animal become a simple automaton, which activities are just simple reflex-mechanisms. Descartes on one hand is one of the inventors of the 18th century's medical materialism, on the other hand he is the father of the substantial dualism. He uses a methodological scepticism in his books, and according to his thinking there is a real, ontological difference between the mind and body, between the two substances. This is the way in which the human being becomes the citizen of two different world: the metaphysical and the physical world. Descartes interpreted the pineal gland as the place of the spirit, but this was a simple *ad hoc* hypothesis, which is incapable to override the gap between the metaphysical mind and the mechanical description of the bodily functions. The cultural impact of Descartes's dualism manifests itself in the science of consciousness. One of the relevant problems of the experimental consciousness research the use of the mental terms in the description of the brain functions, and so it cannot detach itself from the dualistic tradition.

Thesis 2. The definition of phenomenal consciousness resists the reductionist and naturalist approaches. The scientific examination of consciousness is a paradoxical enterprise.

The definition of phenomenal consciousness is introduced by Thomas Nagel in his essay (*What is it like to be a bat?*). According to Nagel's claim during the definition of consciousness a specific extra content arises which is unexplainable by means of the materialist (where the mind is identical with the *brain*) and the functionalist approaches (where the mind is a function or a *program*). So the regular forms of reductionism – which are useful in natural sciences – are cannot be extend to consciousness, and the physicalist approaches incapable to describe the phenomenal character of sensations. Furthermore the sensations are inseparable from the subject's viewpoint, who possess these sensations. Because of these circumstances, the physicalist approaches have to give up the subjective viewpoint. Nagel shows the difference between the first person and the third person viewpoints with the example of the bat. We are able to examine the bat's physiological architecture with the instruments of modern natural sciences, but the *third person* descriptions are incapable to reproduce what is it like to be a bat in his *own perspective*. While we can state hypotheses about the bat's experiences – for example with the model of a sonar –, we cannot "put on" the viewpoint of the bat; and so the *experience* of what is it like to be a bat remain a *mystery* for us. Nagel argues that the phenomenal facts are only accessible from species-specific, subjective viewpoint. As a result, the reductionist success stories are worth less regarding the problem of consciousness. The analogies from natural sciences cannot help concerning the explanation of the mind-brain dualism and as a consequence Nagel says: "we have at present no conception of what an explanation of the physical nature of a mental phenomenon would be". But, the science of consciousness and the Science of Consciousness utopia are taken every opportunity to shed new light on the mind-brain relationship. It is a particular *paradox* in the science of consciousness, that, it tries to create new naturalist conceptions – about consciousness and qualia – because of the antiphysicalist arguments. Meanwhile the newest naturalistic approaches are ineffective too, because they cannot convince the *new mysterian* thinkers – they would like to see the explanation of the mind-brain dualism inside the borders of the philosophy of mind; and they do think that science of consciousness is doomed to failure. The interdisciplinary science of consciousness responds to the epistemological gap between philosophy and natural sciences with a "crisis symptom" – with the proliferation of theories. According to Nagel's scientism criticism we live under the spell of the applied *methods*, and sometimes we use them improperly for not suitable problems – in this case for the problem of phenomenal consciousness .

Thesis 3. In the mirror of the neuroscience the phenomenal consciousness and qualia concepts are become deformed – they undergone a semantical and referential transformation.

In the perspective of the experimental consciousness research the philosophical models of the mind seems to be obsolete. In the sense of the consciousness studies's "Copernican turn", mental states are correlated with neural mechanisms. This activity has a key role in the praxis of the clinical healing, in the healing of mental disorders, and in the very moment we can transcend the pragmatic standpoints and we can explain ancient philosophical problems too, for instance the mind-brain problem. According to my thesis, the second point of view is very doubtable because of the semantic changes of the philosophical concepts. Crick and Koch tries to lay the foundation of an *identity theory*, Gerald Edelman and V. S. Ramachandran are creating their own operational qualia and consciousness terms. The differences between their concepts are only technical differences, because they see the ultimate causes of the genesis of consciousness in very different brain structures and functions or brain dynamics. They attribute *technical meaning* to the qualia and phenomenal consciousness, but at the same time, they are unable to answer Chalmers's *hard problem:* why should physical processing give rise to subjective experiences? In another sense in these neurobiological models, we cannot see the heuristic value or the explanatory power of qualia and phenomenal consciousness. Koch himself admits that he is incapable to answer the philosophical question of the genesis of phenomenal consciousness; in conclusion, he did not moved forward in respect of methodology by tearing out the concept of qualia and consciousness from the philosophical discourse.

Thesis 4. The experimental consciousness research in its recent form suffers from empirical underdetermination, furthermore incommensurability problems occur between the traditional philosophical problems and their scientific "settle".

I have realized the situation with the analysis of three consciousness model that these neuroscientific models are suffering from *empirical underdetermination*. Without crucial experiments Koch, Edelman and Ramachandran reconcile their observations with their own preconceptions. They forced to take advantage of certain philosophical, psychological traditions, and so they are driven to do a *strong hermeneutical* activity. Besides the underdetermination problem we can observe the incommensurability problems too, in the neurobiological consciousness models.

The incommensurability manifests itself on conceptual level, because the concepts of phenomenal consciousness and qualia are infiltrated into the sphere of neuroscience. In this new context the main attribute, the "privacy" remained stable in the meaning of qualia; but its reference no more represents contents of the mind, rather it marks brain structures (for example *inferotemporal cortex*) or brain dynamics (for example dynamical core). I must emphasize that this sort of conceptual incommensurability is not radical just *weak,* because during the analysis of the consciousness models the semantical changes become transparent, but the radical incommensurability could be question the very possibility of this kind of analysis. The following level of incommensurability is the perceptual level. I introduce two wholly different interpretation of the blindsight experiment; in this insight I show that Christof Koch and Evan Thompson rationalizing differently the conception of neural correlations. Koch insist on that we can explore the neural correlations in "atomistic form", but Thompson argues that the perception is a very active process which is not reproducible in laboratory context, furthermore Thompson is – in contrast with Koch – interpreting the neural correlations in a more dynamic way. They are trying to interpret the blindsight experiments in two wholly different context; they are emphasizing the different aspect of the brain functioning.

Thesis 6. The mereological fallacy and the brain complexity are radicalizing the problem of empirical underdetermination and the incommensurability problems.

Bennett and Hacker argue that – in the line of Wittgenstein's philosophy – there is a *radical incompatibility* between the mental language and the language of the cognitive neuroscience. They thesis based on the mereological fallacy, which can be interpreted as a kind of conceptual incommensurability. The mereological fallacy is the fallowing: it is a fallacy to ascribe physiological predicates to the *spirit*, to the *brain*, or *parts of the brain.* In the descriptions of the neuroscientists the brain or a part of the brain can *see*, *think*, *create hypothesis*, or it *knows* something, it has *will* or *make guesses*. Furthermore, Bennett and Hacker state that the "original philosophical concepts" of qualia and phenomenal consciousness have wrong grammatical character too, so it is doubtful that these concepts are legitimate in the experimental consciousness research. I would argue against the thesis of Bennett and Hacker that phenomenal consciousness and qualia indicate a significant and legitimate philosophical problem and there are just weak incommensurability between the language of consciousness research and the phenomenal language. Bennett's and Hacker's

critique become self-contained because they are unable to acknowledge that the "top-down" strategy of consciousness research stand in need of the use of philosophical and psychological predicates. Of course, it is possible, that none of these traditions is the most appropriate regarding the problem of consciousness but the experimental consciousness research is cannot be wholly untied from the actual cultural context or the ancient traditions (dualism, materialism). György Buzsaki criticised the application of the philosophical and psychological tradition from a research-methodological standpoint. The neuralgic point of the top-down approaches is that the independent variable stems from the lexicon of philosophy and psychology (for example *voliton*, *imagination*, or *qualia*) and the neuroscientists manipulate these words as *representations of entities* and then they correlate these with brain processes. According to Buzsáki's opinion the inverse method would be the right one. I argue that in these conceptual-methodological problem we encounter the same dilemma which was crucial for Descartes: the natural scientific examination of the conscious states give rise to contradictions. And in this context we can turn our attention to the incommensurability between worldviews. The mechanistic-materialistic tradition (and the biomedical knowledge in nowadays) and the dualism are characterising the mind and consciousness from two – wholly different – perspectives and conceptual environment.

Thesis 6. With the careful examination of the anomalistic phenomena we can recognize the borders of the neurobiological paradigm, and we can be aware of the oscillation of dualism and materialism in the history.

With the analysis of the anomalistic phenomena I withdraw from the problem of phenomenal consciousness and qualia and I emphasize that there are phenomenon in which the application of the neurobiological framework is very immature. These are the hypnosis, the placebo phenomenon, and there are two anomalistic phenomena: the out of body experiences and the near death experiences. In this insight I focus on the issue of the neurobiological interpretation of these phenomena. In the course of examination I recognized that the conceptual and perspectival gap between the neurobiological framework and the phenomenal dimension is very significant. The problematic relation between the personal and subpersonal explanatory levels involves contradictions in the neurobiological explanations, and it could turn out – according to certain authors – that the experimental consciousness research need to be revised. The examination of anomalistic phenomena shows that the historical oscillation of the mechanistic-materialistic and the dualistic traditions is a very active process which is

actual in nowadays too; this has a serious impact on the current methodological problems of consciousness research.

Thesis 7. Science of consciousness in its current form is not a fully-mature interdisciplinary communication, it has several open questions about its own legitimacy.

The main question is the following: is there any chance to escape from the historical oscillation of the materialism-dualism oscillation? It seems to be that the engineer perspective of the neurosciences is more suitable with the mechanistic-materialistic worldview opposite to dualism. At the same time, we could consider a pragmatic standpoint in which there is no such constraint that the identity of consciousness research must be established by the opposition to dualism. According to György Ádám's opinion, the authentic researchers are not in the right position to decide between the *reductionism* and *emergentism*. We were able to follow the lead of this sort of underdetermination in the examination of Koch's, Edelman's and Ramachandran's conceptions. In the hybrid discourse of the consciousness research the concepts of phenomenal consciousness and qualia did not possess a precise meaning and referent, they are in the middle way between the philosophical and scientific interpretation. It needs to be discriminate the scientific "How?" and the philosophical "Why?" questions inside the practice of consciousness studies. The instances of the science of consciousness seem to be in a *prescientific* phase, if they gain their legitimacy to answer scientifically the question of the genesis of subjective experience.

Thesis 8. The Science of Consciousness has the features of a postmodern science – in the Lyotardian sense.

The utopia of Science of Consciousness is a postmodern innovation, in the sense of Lyotard's conception about postmodern science. *Opposite to physics or chemistry, the science of consciousness project has features which fit in Lyotard's vision about the postmodern condition of sciences.* Without *metalanguage* the experimental consciousness research is more or less *differentiating* and not the "model of the stable system". Furthermore we can risk the claim that the science of consciousness is ultimately a *paradox* enterprise, although its aim is to create a new paradigm – the Science of Consciousness –, but the results are the "paralogy of explorations". *The science of consciousness must admit the multiplicity of explanatory levels opposite to the alternative of monism*; it is only a possible case of inter- and

multidisciplinary communication similar to the cognitive science. Meanwhile these insights refer to the situation, that because of the dominant scientific thinking (or the biomedical knowledge) our ideas about phenomenal consciousness and qualia are determined by science "from above", too.

Thesis 9. I reduce the problems of phenomenal consciousness and qualia to the problem of sensibility; with this option I will try to contribute to clarify the demarcation criteria between the empirical and philosophical questions, which is one of the main neuralgic points of the consciousness research.

I would like to reduce the philosophical and neuroscientific qualia and phenomenal consciousness concepts to a deeper dilemma; this problem is the dilemma of *sensibility*. At the firs insight it seems to be clung to the concept of sensibility; I only reconstruct Chalmers's hard problem: why is consciousness arises from the information processing. The concept of sensibility is more fundamental opposite the hard problem because it lives open the question of the genesis problem. Of course Chalmers himself emphasized the problem of sensibility when he recapitalized the hard problem as it were the problem of experience. But Chalmers followed the traditional thinking of Nagel and he tried to solve the genesis problem with his own non-reductive naturalism. According to my suggestion, we can use the concept of sensibility in that sense, where we admit that nowadays the science of consciousness unable to decide between the *cell-level reductionism* and *emergentism*. *Therefore, the concept of sensibility or the phenomenon of sensibility as a factum opens up gates to the horizon of several ontological commitments about the nature of sensibility.* What is the difference between this proposal and Chalmers's option where experience becomes a fundamental, irreducible phenomena of the natural order? I view Chalmers alternative as one of the various possible alternatives to grab the problem of sensibility. I suggest to use the concept of sensibility in a very wide range, which is able to point out to dualism, materialistic monism or panpsychism. A*lternatively, in another sense, there are wholly different answers to the problem of sensibility in the different worldviews, philosophical systems, or scientific communities. Furthermore these answers or worldviews are occasionally seems to be incommensurable – in the kuhnian sense. The structure of the answers to the problem of sensibility systematically influences the characterization of qualia and phenomenal consciousness.*

The above mentioned concept of sensibility does not eliminate the concepts of qualia and phenomenal consciousness, rather it shows the common ground, the basic ontological problem where this dilemmas came from. What is it like to be in a certain experience, in a perception, or in any other kind of bodily experience? What is it like to be a penis, an amoeba or a bat? These questions are remaining relevant philosophical questions in the future too. Nevertheless, that is a question of worldviews, lifestyles, or narrower (scientific) communities to commit oneself to the dualism or mechanistic-materialistic, or for example pansychism.

4. List of publications

Horváth Lajos – Szabó Attila (2008): *Az elme rejtélyei – Az elmefilozófia XXI. századi feladatai*. In: Debreceni Disputa 2008/02. 37-40. o.

Horváth Lajos – Szabó Attila (2009): *A tudat mélystruktúrája – Lenni (v)agy nem lenni?* In: Élet és Tudomány 2009/08. 230-232. o.

Horváth Lajos – Szabó Attila (2009): *A tudat mélystruktúrája – Kísérletek és bonyodalmak*. In: Élet és Tudomány 2009/10. 308-310. o.

Horváth Lajos (2009): *Hermeneutika és természettudomány: a tárgyalkotás dilemmái a kvantumelméletben.* In: Világosság – online publikáció, 2009/ősz [http://www.vilagossag.hu/new/index.html]

Horváth Lajos (2009): Változó természetképek. A technikafilozófia találkozása a hermeneutikai tudományfilozófiával. Kellék, 39. sz., 23–42. o.

Horváth Lajos (2009): *Intellektuális imposztorok? – Terminológiai fosztogatás az interdiszciplináris kutatásban.* Magyar Tudomány 2009/08. 914-925. o. [http://www.matud.iif.hu/2009/09aug/04.htm]

Horváth Lajos – Szabó Attila (2010): *Energia, Anyag, Elme: A tudat materialista és dualista megközelítései.* In: Debreceni Disputa 2010/02. 42-48. o.

5. Further publications

Horváth Lajos (2006): Áramló világtér az időtlen szimmetriákkal szemben. In: Veres Ildikó (szerk.), *Megidézett reneszánsz – Magyar filozófiatörténeti könyvtár* IX., Miskolc, 2006. 195-209. o.