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OUTLINE OF A GENERAL ONTOLOGY FOR CONSCIOUSNESS RESEARCH\*

(The Problem of the Starting Point)

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**Abstract**

Lack of a coherent general starting point in consciousness studies is a major obstacle in explaining consciousness. I argue that consciousness considered as a capacity of a living organism is a fruitful explanandum. Consciousness is a *reducible* third person and first person phenomenon. It is existentially dependent on the activity of a nervous system (brain) profoundly shaped by the socio-cultural environment. This paper rejects theoretical usefulness of ontological and epistemological gaps between first person and third person approaches on consciousness. Treating consciousness as a natural phenomenon open to empirical research is a necessary prerequisite of any systematic theory of consciousness.

*Consciousness is, in effect, the key to a life examined, for better and for worse, our beginner's permit into knowing all about the hunger, the thirst, the sex, the tears, the laughter, the kicks, the punches, the flow of images we call thought, the feelings, the words, the stories, the beliefs, the music and the poetry, the happiness and the ecstasy. At its simplest and most basic level, consciousness lets us recognize an irrestable urge to stay alive and develop a concern for the self. At its most complex and elaborate level, consciousness helps us develop a concern for other selves and improve the art of life.*  
Antonio Damasio

Past decades brought profound insights into the nature of conscious phenomena. Scientists and philosophers proposed several methodologies and a number of testable models and theories of consciousness [2]. In spite of these advances

it seems that theorizing about consciousness<sup>1</sup> is still facing a whole range of theoretical and methodological problems.

In the present paper I argue that the fundamental problem in current consciousness studies lies in the fact that consciousness *has not* been fully recognized as a natural phenomenon. „Natural“ signifies existing in the world as a real phenomenon open to scientific research. Treating consciousness as a fruitful explanandum presupposes that we adopt scientific (empirical) ontology and openness to a whole range of empirical methods.

In the following text I intend to emphasize the need of a plausible general starting point in consciousness research. Section I. considers consciousness as a fruitful *variable* based on the reconciliation of naive realism of common sense and of that of science on the existence of *what needs to be explained*. Section II. concentrates on the main types of arguments in studying consciousness. Reducibility of states of consciousness and possibility in overcoming confusions concerned with first person and third person approaches is the subject matter of section III.

## **I. WHAT IS THE EXPLANANDUM?**

The problems surrounding the phenomenon of consciousness are expressed in a variety of questions: How does consciousness arise from its underlying structure? What are the media and mechanisms of consciousness? Where, if anywhere, is the locus of consciousness? Why is neural activity accompanied by conscious experience? Who can be

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<sup>1</sup> In the paper I abstract from more subtle differences between concepts of consciousness, awareness, selfconsciousness and between conscious states, events and processes.

said to be a conscious being? Which function does consciousness serve in an organism's mental life and behaviour? How does the brain create a sense of "I", a sense of seeming that an "orchestra of neurons" has its conductor? How was the holocaust possible?

Philosophers have a hard time answering these questions. One of the reasons (quite fascinating) is that, *in spite of* the intimacy of our conscious experience and the ongoing interdisciplinary research on consciousness, some philosophers still *doubt* the existence of consciousness [30], they are not *sure* about the meaningfulness of the concept, of considering consciousness as a fruitful explanandum [35] or they somehow dismiss the search for a naturalistic theory of conscious phenomena [4].

In my view, the fundamental problem lies in philosopher's inability to combine the naive realism of common sense and that of science on the very existence of *what needs to be explained*.

Naive realism of common sense "tells us" that consciousness (an umbrella term which we *may* or *may not* use) exists as *something* which we experience as our thinking, remembering, feeling etc. Human beings of different cultures, using different languages, brought up in different traditions *share* conscious experiences (their existence, not the qualitative content) in perception, emotions, dreams and actions.

Evidence from everyday experience supports the *first assumption* of the paper: the existence of conscious phenomena *as appearances* with rich qualitative contents. Considering appearances as *real* does not automatically reveal their nature, as some philosophers suggest [31].

Common sense (folk psychology) does not reveal the *nature* of conscious phenomena, just as it does not reveal the nature of other physical or biological phenomena (section II.). It does not answer questions about underlying processes and principles of functioning or lawlike connections between them. That is the subject matter of further empirical and theoretical research.

Naive realism of (empirical) science „tells us“ that the surrounding world, including human beings, exists.

Scientific ontology is rich enough to encompass human beings, their behaviour and private „inner“ lives. The aim of science is to find satisfactory explanations for conscious phenomena. In order to do that, contrary to common sense, it has to apply the appearance/reality distinction on our thoughts, feelings, decisions and actions.

Evidence from neuropathology, neuropsychology, experimental psychology, neurobiology, cognitive neuroscience supports the *second* assumption of the paper: existential and functional dependency of consciousness on brain activity (neuro-humoral system - body - environment). A number of theories searching for neuronal correlates of conscious experience ([8],[11]) have brought evidence of the intimate relation between a variety conscious states and specific brain activity.

The second assumption of the paper is naturally linked with the *third* assumption - an evolutionary perspective applying to the explanation of consciousness. *Evidence* from paleoarcheology, comparative anatomy and morphology, molecular biology, embryology, biogeography etc. ([3],[9]) supports the claim that consciousness has evolved. It does

not exist in all times and not all systems are disposed to produce it. The evolution of consciousness runs parallel with the evolution of the brain. It can be understood, roughly, as a response of an organism to the selection pressures.

From an evolutionary perspective, the study of conscious phenomena presupposes that we treat them as biological and cultural products with various functions of adaptation. One of the important functions of consciousness in adaptation is based on the ability to monitor its "inner contents" in order to understand itself and others. The conscious mind (organism) communicates with itself and at the same time controls its cognitive processes. It has also a capacity of intramanipulation of possible actions and their effects. Conscious reasoning, decision making results in selecting the most desirable behaviour. It could be said that we are confronted with an internalized process of trial and error in which behaviour is preceded by a specific form of "prethinking". Consciousness thus becomes an "inner device" for testing future events and possible actions of others. It helps individual to benefit from past errors and to create new cognitive structures and plans. Demonstrating the advantages of consciousness in adaptation, maintaining life and in prediction of possible events and actions helps to answer questions such as Why did consciousness evolve? What is it for? And so on. Nevertheless, functions of consciousness are not always positive or advantageous. Awareness of pain, death, disease, ones own weakness, suffering of others and of ignorance could cause depressions and more serious impairments of individual

consciousness. Sadly enough it could even give rise to its own selfdestruction.

Finally, I propose to consider consciousness as a quality and capacity of a living organism, primarily as a result of organism's adaptation to the world. As the paper concentrates on human consciousness, a conscious organism represents a being aware of its own body, its own self and experience. It is able to represent the "outer" and "inner" world, to anticipate the past, present and the future.

Consciousness is placed in the world as being *real* together with tables, pillar boxes, money, wars, suffering or love.

I consider *creature consciousness*<sup>2</sup> sufficiently general and plausible to be acceptable to most theorists who take consciousness seriously, who consider consciousness as a natural phenomenon worth of further empirical and theoretical study.

## **II. MONITORING CONSCIOUSNESS**

Consciousness as a quality of an (human) organism, has been recognized through a number of *manifestations*. However, the search for strategies to determine the presence of conscious states has become a matter of much controversy in consciousness studies. Lack of shared background assumptions on the basic ontological account of consciousness has resulted in confusions between A. everyday, B. scientific and C. philosophical approaches to consciousness.

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<sup>2</sup> The proposed characteristic of consciousness avoids the problems with extreme accounts. First it avoids a broad *panpsychist* approach on consciousness according to which consciousness is a feature of the world and universe. Attributing consciousness to human beings, pocket calculators, stones or hockey prevents us from studying the origin, development, mechanisms and functions of the phenomenon. Its explanatory value is rather limited. Similarly, narrow approaches on consciousness – defining it as e.g. "access" consciousness rules out the presence of consciousness in preverbal infants, patients with language and thought impairments and nonhuman animals. And this is also highly problematic.

In everyday life we attribute states of consciousness to ourselves and others in general by a) "inner observation" and b) "outer" behavioral manifestations. "Inner observation" or "inner perception", in philosophy and psychology known as *introspection*<sup>3</sup>, is the basic method of acquaintance with our thoughts, experiences, beliefs, images and so on. Our ability of "inner perception and observation" leads us think about and also to attribute mental states to others. From the similarity of behaviour (language aquisition, gestures, voice intonation, actions) we infer the existence of *something* similar to what we experience in our subjective mode of existence. Our own life experience enables us to feel states of empathy and understanding for others. The very same experience teaches us that introspection has its limits, that through this way of knowing we are not able to apprehend the nature, structure, principles and laws of many phenomena (Sun, diseases, economic crisis, physical particles etc.). Consciousness and conscious experience are no exceptions. As already stated, consciousness is a very complex phenomenon present in perception, emotions and actions of an organism. To know and to explain the nature of consciousness in its complexity presupposes the knowledge of processes and mechanisms at a number of levels (neuronal, psychological, socio-cultural) which *transcend* our ability of "inner insight".

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<sup>3</sup> The meaning of introspection in history of philosophy and psychology varies. Founder of experimental psychology W. Wundt defined introspection as "inner perception" of mental objects analogous to "outer" perception of physical objects. For W. James introspection represents "insight into our minds" through retrospection. According to F. Brentano descriptive account of subjective experience is possible through intuition and "inner observation" as observation of mental objects is rejected.

So, in an unproblematic sense, we may consider introspection as an *immediate* method of selfknowledge. Immediacy, however, does not imply "penetration into the very nature" of the phenomenon in question, or as some philosophers put it "into the thing in-itself" (ding an sich). Ability to *experience* states of consciousness and to become *aware* of their qualitative content is an important, but at the same time, only one of many ways of approaching consciousness.

Inferring strong metaphysical consequences, e.g., in antireductionist approaches to consciousness, is therefore unsupported and confusing (see sec. III).

B. Introspection as a method from the *first person* point of view has been thoroughly contrasted with a method from the *third person* point of view – the strategy of approaching ourselves from the „outside“. As already stated, the unique character of subjective experience does not prevent us from thinking about the conscious states of others, from comparing them mutually or from predicting actions and behaviour of other people. The conscious experience of everyone in general goes hand in hand with its „outer“ manifestations. The presence of a *third person strategy* in attributing states of consciousness in folk psychology is often overlooked. It is mainly discussed as a fundamental method of empirical science. Observing (indirectly) behavioural manifestations of consciousness plays an important role in *scientific approaches*. Approaching consciousness from the third person perspective is based on the assumption that human beings, in spite of remarkable individual traits, share similar biological characteristics in terms of our structure, organization and functions.



Studying various states of consciousness then implies studying mutual structural and functional *similarities* between human beings (the lawlike character of which is an open question). Novel neurotechnologies ([5], [29]) allow us to investigate breakdowns of behaviour, to connect it to the breakdown of conscious states, and to connect both to a focal brain lesion or to an abnormal electrical activity. Neurological observations and neuropsychological experiments help to detect brain disorders and impairments of conscious experience. Experimental research of: "blindsight" [34], "split brain", "neglect", "prosopagnosia" [23], persistent vegetative state, coma, akinetic mutism or epileptic automatism [11], experimental measuring of visual awareness and conscious volitional activity [21] has brought a number of new insights into the relation between conscious and unconscious states, about the organism's conscious and unconscious information processing.

C. The heterogeneity of *philosophical* approaches on consciousness derives from the variety of ways philosophers view the role of philosophy and its relation to the scientific enterprise. Diversity of philosophical theories in contemporary consciousness studies is based mostly on the following arguments:

a) *metaphysical arguments*: (i) consciousness is a natural phenomenon explained by principles and strategies as any other kind of physical and biological phenomenon (Sun, light, life, genes). Philosophy, similarly to science, studies and explains the world, human beings and their consciousness. In this sense the metaphysics of philosophy and science match each other. The subject matter of both

disciplines is the world "as it appears to the subject", leaving the appearances and reality distinct ([6], [13]); (ii) consciousness is a nonreductive phenomenon undetermined by the principles and laws of empirical science. Representatives of this approach argue for the *a priori* nonreductive existence of consciousness and conscious experience. According to them it is impossible in principle to give an objective account of consciousness: because of the „irreducible character of conscious experience" or „private dimension of subjectivity" ([4], [31]). Nonreductive approaches on consciousness are mostly based on the idea of the perfect *reliability* of introspective reports.

b) *epistemic arguments*: (i) everyone knows from his own experience *what it is like* to feel pain and that to feel pain means to feel it as pain and not as neuronal brain processes. Everyone has a privileged access to his/her "inner states"; no approach from the "outside" penetrates into what it is like to be ourselves, for ourselves [27]; (ii) in spite of the natural character of consciousness we stay "cognitively closed" towards the understanding of how "millions of neurons generate unique subjective experience" [25];

(iii) arguments from *logic*: it is logically possible, that consciousness is not a natural phenomenon, just as it is possible that "Earth is a flat board floating through the middle of universe" [4]. This approach has been supported by a number of thought experiments and has been also thoroughly criticized [7]. Thought experiments, both in philosophy and in science could be stimulating in reconsidering our basic assumptions and theories about the

phenomenon in question. At the same time it is quite clear that logical and conceptual arguments *alone* cannot support or reject any empirical claim on a natural phenomenon. Everyday experience, recent empirical and theoretical findings in consciousness research undermine sceptical arguments based on pure a priori reasoning (a., ii). Even if epistemic accounts (b. i, ii) are saying something important about the limits of our understanding they do not disqualify scientific investigation on consciousness. In everyday experience and in science we already approach consciousness from the „inside“ and the „outside“. What kind of phenomenon are these strategies *about*? The next section develops a way of answering this question.

### **III. ARE CONSCIOUS EXPERIENCES LIKE SUNSETS?**

Comparing consciousness to sunsets is closely connected with understanding the role of reductive explanation. Reductions<sup>4</sup> as explanations of macrophenomena in terms of microphenomena play an immensely important role in empirical science. The method of reduction enables us to transcend our everyday intuitions - to go beyond the way things appear to us. The appearance/reality distinction we make between the way things *appear* to us or *seem* to us and how they are in reality works well for most of surrounding physical and biological phenomena. We know, e.g., that our visual system somehow deceives us, it „tells us“ that a table is solid. But, contrary to appearances we know that objects are in reality mostly empty space. Contrary to appearances we know that sound (listening to Mozart) is a compression wave train in an atmosphere. Contrary to

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<sup>4</sup> On relation between reduction and reductionism and types of reductionism see [20]

appearances (feeling hot) we know that heat is mean molecular kinetic energy. Being solid does not look like empty space, hearing a tune does not sound like a compression wave train. In spite of the counterintuitive nature of most of the discoveries in science, they do not seem to confuse us. We can live happily *knowing that* the sun is not a small orange disc on the sky or that the earth is a static object in the universe. Through reduction we acknowledge that light is electromagnetic radiation, that heat is movements of molecules, that life is an effect of inanimate matter. There does not seem to be an "unbridgeable gap" between first and third person knowledge of phenomena.

However, when it comes to the reduction of consciousness things seem suddenly more complicated. Some philosophers ([4],[27],[32]) share a common intuition that while reducing consciousness *something* wrong is going on. As if reductive explanations of this particular phenomenon deprived us from *something* very specific and private. For over a half of a century some philosophers feel an embarrassment when consciousness has been reduced to physical states of the brain. Their difficulty with this particular *empirical* hypothesis resulted in a series of antireductive arguments: „knowledge argument“, „Twin earth argument“, argument „from introspection“ etc. [12].

These arguments often appeal to *what we can or cannot know* or *what we can or cannot conceive of*. It has been repeatedly claimed that the private dimension of subjectivity cannot correspond to any physiological correlates or that the distinctiveness of consciousness makes it appear to be a result of structures different

from physical properties.

As P. S. Churchland [7] rightly points out this kind of argumentation is more about philosophers' psychology than about the nature of the phenomenon in question. It is rooted in either philosophers' ignorance, sentiments or preconceived ideology.

I argue that the weakness of the antireductionist argumentation lies precisely in the fact - quite paradoxical indeed - that consciousness, the very phenomenon in question has not been recognized as *natural*. Antireductionists do not seem to accept this very basic fact because of the misunderstandings on the status and aim of scientific reduction and explanation.

Reductive explanation is claimed to be a method by which we get rid of the phenomenon in question ([32],[20]). Both reductionists and eliminativists are often criticized for not taking agency, qualia and consciousness seriously enough. However, *the contrary* is true. In investigating consciousness we study the nature of thoughts, feeling, fears, actions etc. Everyday experience is one of the most intimate sources of our acquaintance with *something* which we call conscious (mental) life. But, as stated in section II., *experiencing* our rich phenomenology does not unfold *fully* its nature. The phenomenon in its complexity is not transparent. The way we perceive our mental life from the „inside“ in everyday terms is just one part of the story - the story about our appearances. Discovering underlying processes, mechanisms and principles of ongoing conscious experience empirically is another part of the story - the story about the *nature* of appearances themselves.

For some philosophers, however, the naturalness of

consciousness, its real existence (or nature) is revealed *primarily* through the way we experience it. Intimacy with our conscious experience from the "inside" is taken to be a *garantee* for its independent ontological status.

J. Searle, for example, tries to convince his readers that he treats consciousness as a natural phenomenon, as a "biological phenomenon" just like meiosis, photosynthesis or digestion. I do agree with Searle that, in spite of the fact that consciousness has become respectable in philosophy, psychology, cognitive science, neuroscience - the whole subject is "still plagued with mistakes and errors". I only think that his own conception is a vivid demonstration of one *fundamental* mistake. The source of the mistake lies in his permanent *insistence* on the metaphysical claim according to which "the nature of conscious experience is irreducible", "the ontology of subjective mental life is first person ontology" [31].

Searle makes a distinction between two senses of reduction, one in which we eliminate the reduced phenomenon by showing that it is something else and the other in which we do not get rid of the phenomenon. Sunsets are considered to be an example of the first type of reduction: "the sun does not really set over Mount Tamalpais, rather the appearance of the setting sun is an illusion entirely explained by the rotation of the earth on its axis relative to the sun" [32, p. 29]. Solidity of an object would be an example of the second type of reduction: "solidity of an object is *entirely* explained by the behaviour of molecules, but *this* does not *show* that no object is really solid" ([32, p. 29], italics S. G.). For Searle the existence (ontology) of solidity is preserved while the ontology of sunsets is not.

But, just why solidity should be considered „more real“ than sunsets remains a mystery.

We know that both sunsets and solidity are natural phenomena opened to a reductive explanation. *Reductive* explanation signifies nothing less or more than an explanation searching "behind" the way these phenomena appear to us in everyday experience. So we could reformulate the question What are sunsets? into a more specific question, What are sunsets behind the way they appear to us? The (shortened) answer is: sunsets are the result of the earth's rotation. The aim of reductive explanation is fulfilled.

I claim that as there is no difference *in principle* between sunsets and solidity there is no difference *in principle* between sunsets and consciousness. Both are natural phenomena, both are reducible. At the same time the way they appear to us in our everyday experience is somehow counterintuitive to what we *learn* about their nature. Nevertheless the appearance part of the story *should not be* taken as an excuse or argument for their *irreducible* ontological status. A natural phenomenon cannot be *both* reducible and irreducible (if we do not want to violate fundamental laws of logic). Furthermore, a „mixture“ of reducibility and irreducibility has no explanatory power at all.

We could similarly reformulate the question, What is consciousness? into a question, What is consciousness behind the way it appears to us? Now, because of the immaturity of empirical research on consciousness we do not have the kind of answer than we have for the case of sunsets. But we do have a number of plausible and testable

hypotheses. The most promising include theories and models of P. S. Churchland [7] and P. Churchland [5], B. Baars [1], S. Greenfield [18], F. Crick [8], A. Damasio [11], G. Edelman - G. Tononi [15].

Philosophers' temptation to identify reductive explanantions with exhaustive explanations *of everything* that could be said about the phenomenon in question is one big misunderstanding. It results in philosophers' false expectations about the aim of reductive explanations. That is evident in Searle's approach of consciousness. On the one hand, consciousness is for him a „natural biological phenomenon caused by lower-level microprocesses in the brain and it is a feature of the brain at the higher macro levels". On the other hand, consciousness is an „irreducible mental property". Contrary to sunsets, according to Searle, causal reduction of consciousness does not imply ontological reduction. This leads him to the „conclusion" that consciousness *is not* entirely explained by lower-level microprocesses. And again, quite mysteriously, the word *entire* of reductive explanation is confused with an „overwhelming" explanation of the complex phenomenon.

Searle claims he's treating consciousness as natural as sunsets and *vice versa*. So causal reduction should not imply ontological reduction for the case of sunsets as well. Then, sunsets, like consciousness, do not cease to exist. It does not make sense to talk about their real existence as *something else* than they *appear*. But Searle says quite the opposite. For him sunsets just are an effect of the earth's rotation. So either 1. sunsets exist as *irreducible* appearances and their ontological reduction to



the rotation of earth relative to its axis is a myth or 2. sunsets do not exist *as irreducible* appearances and their ontological reduction to earth rotation is a plausible hypothesis. Searle wants to reconcile both 1. and 2. and that is absurd. The problem which he and many philosophers or psychologists are struggling with is related to our *everyday* perception of sunsets *as appearances*. Laymen do not seem to have serious problems in considering sunsets as *reducible* appearances. When asking about their true nature, they know they are (reductively) explained by the rotation of earth. When it comes to consciousness we are particularly interested in the nature of appearances themselves. Conscious appearance becomes a *separate phenomenon on its own*. And the way it appears or seems to us, is already one of the specific features of consciousness. Conscious experience thus becomes a natural phenomenon open to reductive explanation like sunsets. The appearance/reality distinction works similarly. We have to distinguish between the way appearances *appear to us* and between the nature *behind* appearances themselves. Furthermore, a reductive explanation of consciousness does not prevent us from speaking about consciousness. Because of our biological „make-up“ and acquaintance with our conscious life, consciousness would not be eliminated from science and everyday life. In this sense it is not like caloric fluid or elan vital.

So we can conclude that for sunsets and consciousness, reduction is similar. Sunsets exist as *reducible* third person and first person phenomena. From the third person we study their underlying processes, structure, mechanisms and „outer“ manifestations. Scientists have developed

independent strategies for searching behind the appearances. From the first person we perceive sunsets as settings of the sun. Sun appears to be setting even if in reality we know it is not.

The naturalness of sunsets is explained by the fact that we discovered the *reality* of the phenomenon behind the way it appears to us. We have discovered that the sun is not setting over Mount Tamalpais, but instead, that the earth's rotation „creates“ this illusion for us.

Consciousness is, similarly, a *reducible* third person and first person phenomenon. From the first person we approach our states of consciousness as feelings, sorrows, decisions etc. The naturalness of conscious phenomena is supported by an intensive empirical research of their physical, biological and social foundations. It has been grounded in the third person study of underlying processes, structures, mechanisms and „outer“ manifestations.

Though still vague, I think this characteristic of consciousness could be taken as a legitimate starting point in consciousness studies.

Finally, we can answer the question of this section by a simple Yes.

## **SUMMARY**

In the paper I have argued that consciousness meets the criteria of a fruitful *explanatory target*. We have already more than a picture of what needs to be explained. Specific dimensions of consciousness are reflected in: awokeness, short-term memory, independency of sensory inputs (dreams), arousal, attention, alternative interpretations of ambiguous data, control potential, articulated speech,

perception (tactile, auditory, visual etc.), experiencing (feeling what it is like to be an organism), emotions (fear, moods, happiness), self-knowledge, motives of actions etc.

In spite of their heterogeneity, a coherence of conscious phenomena can be seen in such features as: *unity* (integrative character of a conscious manifold); *subjectivity* (what it is like for the organism, what it is like to undergo states of fear, hate, love); *perspectivity* (a point of view), *privacy* (uniqueness), *intentionality* (aboutness). Some conscious states exhibit *causality* (decision making, volition) and *goal-directness* (control, planning).

It seems also plausible to distinguish several types of consciousness: memory consciousness, visual consciousness, selfconsciousness, volition consciousness, motion consciousness etc.

The first condition for the existence of conscious thoughts, feelings and actions is demonstrated in everyday experience (assumption I.). Even if ignorant about the nature of our „inner“ states, we feel and know how much they matter in everyday life.

Thus, it is reasonable to consider conscious experience as a natural phenomenon (assumption II.) studied by a number of methods in experimental psychology, neurobiology, neuropsychology, cognitive science etc.

Novel technologies and techniques, especially in the neurosciences, have made great progress in discovering correlations between mind (consciousness), brain and behaviour. Behind the seemingly transparent and simple nature of conscious phenomena, a complex electro-chemical

and neural activity has been discovered. Reductive explanations help to answer What? How? When? Why? questions and thus play a crucial role in understanding consciousness.

Applying an evolutionary perspective to the study of consciousness (assumption III.) brings a historical dimension into the study of consciousness. The history of our predecessors becomes an integral part of explaining the origin, development and functions of conscious life. The evolution of consciousness can be generally understood as the response of an organism to the selection pressure. Consciousness occurs and varies in parallel with the development of the structure of the body and the brain. The idea of consciousness as an *evolutionary continuum* both in phylogeny and ontogeny has become a great challenge for philosophers and scientists.

I have emphasized that interdisciplinary research on consciousness requires at least a common working characteristic of the phenomenon in question. Therefore it is necessary to avoid confusing natural/supranatural, reductive/nonreductive approaches present in contemporary study of the nature of conscious states.

In studying consciousness there are no ontological gaps between first person and third person „data“ and no theoretically interesting gaps between first person and third person methods.

Finally, it should be admitted that to study and to explain the phenomenon of consciousness is extremely difficult. One has to face terminological problems with the concept of consciousness, the problematic status of the language of

"inner experience" and methodological problems with grasping heterogeneous states of consciousness. But once we realize that our conscious experience is as natural as any other phenomenon in empirical science *nothing* prevents us from taking it as a *explanandum* worthy of further enquiry.

- Title of the paper has been inspired by M. V. Antony's article *Outline of a General Methodology for Consciousness Research*, Anthropology and Philosophy 3(2), 1999, 43-56. The main target of the paper has been to proceed from „our conception of consciousness" (mental representational structure in people's head) to „consciousness itself". With this methodology in hand it is not necessary, according to the author, that there is such a thing as consciousness at all.

In the present paper I do not doubt the very *existence* of consciousness. The core problem is the *nature* of a manifold of conscious states. Therefore, I claim, contrary to Anthony, that in order to build a *plausible methodology* we have to be clear on a common characteristic of the phenomenon in question.

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