An Invigorating Dialogue on Consciousness

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Introduction

There was an energetic dialogue on consciousness on the World Futures Studies Federation list from November 2010 until January 2011. More than thirty members participated, and the amount (number) of messages was close to 250. Many useful references were shared. I volunteered to compile a dialogue article, which is still in progress. This essay drafts some basic traits and themes of this unique dialogue among futures researchers. The dialogue extended upon two axes: the positioning of consciousness in relation to brain, body, living beings and the world, and the evolution of the consciousness.

What is consciousness for?

The dialogue was initiated by Vahid Motlagh, who was reading the book The New Unconscious (2006). In the book prominent scientists present recent results of cognitive science. The empirical results show, that the unconscious (cognitive unconscious) takes care of many functions, which have earlier been considered conscious. These include complex information processing, goal pursuit, emotions, cognitive control and self-regulation. On the basis of the book Vahid commented that free will is an illusion, because it can easily be manipulated. And posed the question: what is consciousness for?

Before answering this question the discussants tackled the problems of free will, self and the relationships of conscious and the cognitive unconscious. The role of the unconscious has already been recognized through biological, psychological and social dimensions. An older but related term (involving the cognitive unconscious) is Michael Polanyi's (1958) 'tacit knowledge', sometimes described as bodily knowledge.

A classical disagreement between those valuing hard empiria and those defending the role of "armchair philosophy" as part of the scientific method, was shortly tackled. The argument against plain empiria was, that even empiria has its hidden framework of theoretical presuppositions, and data is selected in line with them. This did not though become a hindrance to further dialogue on the subject.

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The free will problem was identified as a subject of much dispute in history. An example was given of Luis de Molina (1588; Masini, 2009), who was a dedicated defendant of free will, and in addition a forerunner of modern futures research in his term 'conditional future contingents'. In our dialogue within the WFSF the free will problem remained open and no final solution was offered. But the question had an interesting turn, when David Chalmers' 'hard problem' was presented by Tom Lombardo as the focal – and still open contradiction concerning the relationships between the hard facts of cognitive science and human experience:

> "The really hard problem of consciousness is the problem of experience. When we think and perceive, there is a whir of information-processing, but there is also a subjective aspect. As Nagel (1974) has put it, there is *something it is like* to be a conscious organism. This subjective aspect is experience." (Chalmers, 1995, p.3)

Even free will theory does not exclude physical causation, but there is something more than simple physical causation measurable as activities of the brain. This was considered for futurists as a question of utmost importance to ponder.

The Vedic responsive to the Western concept of consciousness was presented by Barbara Bok: "My term for the Vedic sort of consciousness is unseparatedness." She also argued against any use or connection with the Western term of consciousness and Vedic notion of consciousness.

From here the dialogue moved to the problem of self or who is the 'I'? As a point of attack, Daniel M. Wegner's (2005) argument against a 'homunculus', a controller, a little person inside the head, was discussed. The idea of homunculus was turned down, and the question of different layers of our mental activity was considered much more nuanced and complex. An ambiguous view has been presented by Harald Walach (2010), in his Weak Quantum theory, who places the mind outside the brain: the brain may support the mind, but does not produce it. The problem of mind-brain dualism was not answered at this time, but it popped up again later on in questions related to the mind-matter problem.

If there is no homunculus in our brain, then what is self? Jennifer Gidley commented on Descartes's "I think, therefore I am" by offering another version: "I am, therefore I create". Pentti Malaska reasoned: "It is easy (isn't it?) to grasp that I am, but who is me who creates?"

The dialogue did not cover much about the nature of self. Huber Hermans theory of self was referred to. Hermans describes the double nature of self by commenting on William James' theory, which distinguishes between I and Me:

> "In James' view, the I is equated with the self-as-knower and has three features: continuity, distinctness (individuality) and volition (see also Damon & Hart, 1982)...
>
> In James' view, the Me is equated with the self-as-known and is composed of the empirical elements considered as belonging to oneself. Because James (1890) was aware that there is a gradual transition between Me and mine, he concluded that the empirical self is composed of all that the person can call his or her own". (Hermans, 2001, p.244)

James's Me concept – very up to date in the era of global communication, man-machine relationships and virtual worlds – was later discussed as extended consciousness, which will be commented in the following paragraph. Hermans also considers the self-constitution of different voices, in which our being is polyphonic and dialogical (Hermans, 2001).

Two solutions were presented to the problem of relationships of the mind to the material world. First, mind is not matter in traditional sense but an informational system, information being also a characteristic of the material world. The materialist point of view was presented by Vuokko Jarva: "For me it seems, that if I take as point of departure the Oscar Lange's division of the material world into matter, energy and information, it might be possible to include consciousness in the material world."

Second, mind is a non-material entity. Tom Lombardo, however, criticized both spiritualist and materialist solutions to this problem:

> "I think that the materialist and idealist solutions to the mind/matter problem both fail. The materialists place matter as primary and then say that consciousness is a manifestation of matter, for example, brain activity, or even can be reduced/explained away via matter. Conversely, the idealists (like Berkeley or I would hazard to guess the Vedics) reduce matter to mind/consciousness. What they each fail to realize is that the ultimate reality they postulate appears (in some important respects) to depend upon the reality they view as derivative... I think that - contrary to Descartes - consciousness and mind are not substances - in the same way that physical matter is a substance for him (though today we would describe matter in terms of quantum physics and open systems theory and information theory, etc. - matter has become more energetic, informational, wave-like). Neither do I think that consciousness is like a container (thus acquiring a spatial metaphorical type of existence). Consciousness seems to (in some sense) reach out into the world - make contact with it... That is, the universe is both a unity and duality (a one and a many) and this ontological tension comes as a necessary package (like the inevitable reciprocity of order and chaos in the world). Mind and matter are connected somehow (united) and differentiated as well... I think that we will continually go around in a circle here; brain/world causing experience and experience framing the manifestation/meaning of the physical world. That's why, the problem needs to be reformulated – the circle, indeed, is the answer or the form of the answer; it is not a foundational type of answer, where things build up out of some primary substratum. It is a complementarity."

Finally on this axis, the dialogue turned back to the original problem: what is consciousness for?

As a general function of our being and core of our existence phenomenological existentialist Martin Heidegger's (1985, p.308) considers it to be care. It was presented by Mikhail Bakhtin's theory of basic moments of the architecture of the world:

> "These basic moments are I-for-myself, the other-for-me, and I-for-the-other. All the values of actual life and culture are arranged around the basic architectonic points of the actual world of the performed act or deed: scientific values, aesthetic values, political values (including both ethical and social values), and, finally, reli-

> gious values. All spatial-temporal values and all sense-content values are drawn toward and concentrated around these central emotional-volitional moments: I, the other, and I-for-the-other." (Bakhtin, 1999, p.51)

This theme was not commented on further, but the ethical problem was discussed later on as the problem of the elephant in the room of futures research.

Vuokko Jarva argued, that the function of the self or mind is to create order out of chaos, which was derived from Viktor Papanek's comment on the function of design:

> "At the most basic level, design and architecture are activities that affirm life. By bringing order and meaning to chaos, the designer holds back the dark entropic forces of anarchic disarray that often make our lives seem pointless and our efforts random. Design is the pattern-making impulse of human beings. Design and architecture are tools mankind uses to change and adapt to its environment, extend human capacities, and thus comprehensively change itself." (Papanek, 1983, p.1-2)

Tom Lombardo argued against this view. He considered, that the world itself contains a great amount of order, which human's are able to perceive:

> "Order and chaos: I think it would be a mistake (an overstatement) to describe the physical world or the activity within the nervous system/brain as chaos-like, out of which we create order. There is an incredible amount of order (informational order) in the physical world and in the stimulus arrays that impinge on the sensory systems; the same is true for the flow of information/energy within the nervous system. Living forms create/manifest more order built upon lower levels of complexity and order, but life or intelligence doesn't create it willy-nilly out of a chaotic stew. The mind extracts and tunes into order within the world as much as it integrates and complicates it further."

The discussants were not able to identify a proper re-presentation of what consciousness is. It has been studied via psychology in the framework of what it actually does. The main ways consciousness acts were proposed to be: 1) Perceiving the world - sensing one's body, 2) Attention (focusing) - which is part of perception - but also part of other functions, 3) Emoting/feeling, 4) Desire (motivation), 5) Willing/intention, 6) Remembering, learning, anticipation. The basic functions being imagining, guiding behavior, speaking and listening and some kind of process of social interaction.

Tom Lombardo (stated):

> "Each of us, as a conscious being, is a reaching outward to that which envelops us and transcends us, to finding the answers, to finding purpose, meaning, and connection. Con-sciousness is not a containment, complete unto itself - it is the very opposite of it. Consciousness is open to world."

The question remained open, and the dialogue developed further.

Further Forms of Consciousness

This section began with questions that arise because of both the greater mobility of people, and the new man-machine connections enabled by information technology. A placeless mind was proposed by Vahid Motlagh to describe today's world citizens:

> "... combined with the brain natural and artificial evolutionary events, a sustained rising demographic trend showing the multilingual and placeless people living among us suggests that in the long term future the average humans may accommodate simultaneously numerous mental models, identities and "cultural chunks" as well, maybe up to the magical cognitive number of Seven Plus Minus Two."

The new technology is blurring the borderline between man and machines, and in many cases they form continuums, where man and machine form an indistinguishable whole. The same concerns the aliases used in virtual worlds. Jerome Glenn commented:

> "... Thinking about the future though - how do you place the issues/topics of this discussion in the context of the future?
> Consciousness and technology will be a continuum. Back in the 1980s I wrote a book on it (Future Mind) and published a short article about "Conscious-Technology" in the Futurist (Glenn, 1989) – no guarantee this will be "good," so I posited that the better mystics (shared consciousness as key strategy) and technocrats (management by techniques) take together, the more likely the Conscious-Technology age will be."

William James' ME-theme, where the experience of empirical elements considered as belonging to oneself extends the self, was further discussed in connection with avatars. Also the problem of consciousness in robots and cyborgs was shortly touched. An interesting point of view was presented by Dana Klisanin, who commented on cyber-heroism:

> "Cyber-heroism recognizes global threats to social welfare and planetary survival as significant consequences of non-action. As ideal forms, or archetypes, the cyber-hero and cyber-heroine represent individuals motivated to act on behalf of other people, animals, and the ecosystem, using digital technology in the peaceful service of achieving humanity's highest ideals and aspirations, i.e., world peace, social justice, environmental protection and planetary stewardship. The archetype is a trans-modern synergy of three extant archetypes; two secular archetypes: the hero and the superhero; and one spiritual archetype: the saint or bodhisattva (i.e., Eastern equivalent)."

A few experiences of extraordinary human consciousness were presented. These include the abilities of severely handicapped, the paranormal events of seeing-into-future and romantic love. A few comments and sources are offered, but it is agreed, that no proper scientific explanation has been offered to these irreproducible events.

The problem of animal consciousness was touched on briefly. New research in the field shows results, which question the uniqueness of many traits considered only belonging to homo sapiens. Study of animal consciousness have shown, that many

traits, earlier considered to belong only to human beings, exist in animals, too. The question of animal consciousness is illustrated well in Douglas's (2008): Six 'uniquely' human traits now found in animals. He refers to culture, mind reading, tool use, morality, emotions and personality, which recent research has found among animals. A reference to possible all living beings (possessing) consciousness was made, but the subject was not developed further.

The final thread of this theme was about universal or integral consciousness. Some research results were presented on research concerning planetary consciousness. Jennifer Gidley gave as reference her article, where she had studied how planetary consciousness was discussed in the narratives created by Rudolf Steiner, Ken Wilber and Jean Gebser.

> "Steiner (1984c) identified on the one hand the totalizing tendency of ideological intellectualism (p.40), and on the other hand "the fragmentation of the human family caused by the ideology of nationalism" (p.44). From these perspectives–as something of a proto-postmodernist–he spoke of the need to strive for "an understanding of multiplicity, of harmoniously working diversity" (p.37). He seemed to be foreshadowing postmodern perspectives on planetary culture and consciousness and the importance of noospheric (Noosphere is a concept of Teilhard de Chardin. VJ) diversity. Although Wilber stresses the importance of global and planetary awareness–particularly as part of his concept of vision-logic–it is rather difficult to reconcile this with his lack of substantial engagement with non-Eastern spiritual traditions and 20th century continental philosophy, other than Foucault and Habermas. Gebser's (1949/1985) phenomenological cultural surveys were broadly cosmopolitan. He also, like Steiner, foreshadowed the postmodern turn by poetically reconceptualizing the concept of nations as "dynamic efflorescences of a larger cultural context' " (Gidley, 2007, p.118).

Three functions of religious consciousness were diagnosed by Thierry Gaudin. He had found them in Hinduism, Viking beliefs, ancient German beliefs, Mexican beliefs and Zarathustrianism: protection, creative destruction and consciousness.

> "My personal feeling is that cognitive approach will help to restore the three functions as being projections of the three basic modes of recognition: the recognition of facts (objectivity), the recognition of affects (empathy) and the recognition of consciousness, which, at last, may lead to wisdom..."

The problem of consciousness was considered to stay unsolved because of the open character of consciousness: it was considered as always changing and developing. Finally it was proposed, that we should strive to enlarge our consciousness, and draw no strict borders between human and other forms of consciousness.

Consciousness as Interaction and the Evolution of Consciousness

Already in the section about human consciousness, there were short comments on consciousness being in mutual interaction with others and the world.

In the case of who is the 'me' who creates? Ted Fuller commented: "It requires the presence (or past presence) of others to 'create', ergo: 'I create therefore I am (some)

part of society (whether as taker or giver or both)'.

George Herbert Mead's pragmatic viewpoint was offered: "the individual mind can exist only in relation to other minds with shared meanings" (Mead, 1982, p.5).

This theme began with the problem of (the) relationship between individual consciousness and collective consciousness. Discussants agreed, that there is no isolated individual consciousness but, that our consciousness is formed in dialogue with other consciousnesses, reaching out to the world at large.

Already in discussion on (the) mind-matter problem, Tom Lombardo presented the interactive concept of mutual interaction or circularity. On this axis of interaction-evolution he returned to it, but did not define the causal concept of reciprocity, which is an interesting addition to traditional causal concepts. However he explains this original invention by J. J. Gibson in his other writings, and calls it ecology of the mind:

> "Gibson re-conceptualizes mind and matter; individuality and the world; stability and change; abstractions and particulars; the subjective and the objective; and a number of other major features of reality and knowledge as reciprocities, rather than dualisms... Viewing the self or the individual through the eyes of reciprocity implies bringing the two perspectives – individualism and relatedness – together into a necessary whole... We are beings who exist in relationship to the world and we experience ourselves as beings in relationship to the world... For Gibson, time embodies a fundamental reciprocity of stability and change. Two apparently oppositional or contradictory qualities are two sides of the same coin... (Lombardo, 2011)

The preconditions of reciprocity are 'affordances'. Here Lombardo describes them from the point of view of animals:

> "Gibson introduces the concept of "affordances" which refer to properties of the environment that have a use or function for an animal (including humans)... Affordances are properties of the environment that provide what is necessary for animals to exercise or express their distinctive way of life... The environment is defined relative to life – it is the set of necessary conditions for life. Are these basic properties intrinsic to the environment as such? Well, to a degree yes, but also to a degree no. The environment must possess certain physical properties (chemical, mechanical, and otherwise) in order to provide the necessary affordances for life... These affordances of the environment are physical properties but they are defined, realized, and revealed through interactions with living things... This is a big point because it is often argued that there is a "real" physical world and then there is a world perceived – which is subjective and simply in the eyes of the beholder. But this line cannot be drawn since both the "objects of perception" and the "objects of the physical world" have the same status – they are all relational in their constitution – just at different levels of organization... Also, recall that Gibson describes the environment in terms of affordances, and affordances are revealed by interacting with the environment... People possess numerous affordances that they can offer to each other, but the only way to tell what those affordances are is to interact with the other person and see what happens, what they do and what they offer to us in our interactions." (Lombardo, 2011)

Dana Klisanin commented the affordances in terms of nature & nurture, specifically in case of futures consciousness:

> "If we came into being without nature & nurture perhaps the potential for visioning a valueless future would exist, but as we all exist because nature supported our embodiment (air and water are present) and someone somewhere nurtured our existence, i.e., at minimum providing for our basic needs, we cannot not value our planet and our relationships. Our problem is that we imagine that we can! This ability to imagine ourselves as independent entities, without umbilical cord to the natural world and other people, may have once served our evolution and may serve us as we continue our exploration of outer space, however I know I am not alone in thinking that it is the mindset that must change if we are to reverse the damage done to our ecosystem and the human psyche (collective consciousness). I am hopeful because I believe the greatest human achievement is not only that we can imagine a world where humans support one another and protect the natural world, but that we, millions of us, are acting to manifest that reality. This ability to imagine ourselves as interdependent and to act accordingly is the foundation for "planetary consciousness" (a term that has been referred to in earlier posts by various members)."

The other causal concept presented was dialogicity, based on the theory of Russian literary philosopher Mikhail Bakhtin (2002). Vuokko Jarva wrote:

> "The basic deviation of his theory from dogmatic Marxism is, that in his view consciousness is not only a mirror reflecting the material world. Because of shared symbols and meanings as well as constant dialogue with other consciousnesses, it follows partly the internal rules of the dialogue, which are specific and different than the rules of the reflected infrastructure.
> Which implies the idea of our consciousness being formed in constant dialogue with others and thus being a collective characteristic. The collectivity is created basically through the mechanisms of inclusion and exclusion, accepting some modes of behavior and punishing others. In extreme form giving a person high status in the group/culture, or evicting her/him from the group or even punishing by death."

Dialogicity apparently is a subclass of reciprocity, Bakhtin describes it as language mediated communication and causality. The human experience, as well as its literary expressions, are formed in dialogues with other human beings.

The relationship of consciousness with different languages was discussed and different terms in various languages presented. Many of these words have the prefix co- or con-, which refers to the sharedness of consciousness. Some languages distinguish between the "neutral" consciousness and the ethically loaded "conscience", but others do not. The elephant in the room of futures research was presented as symbol of the problem of ethics in futures consciousness.

The considerations on cosmological questions was seen relevant, because as futures researchers our focus of study is *Time*. The arrow of time has some controversies, not yet solved in cosmology. The dying galaxies/universes dissipate energy,

which allows the birth of other galaxies/universes. On the level of living beings and humans there is an arrow of time from future via present into past. It flows as opposite to the tendency of entropy, because there is energy available. The question remained is its development unilineal or multilineal. Some disagreement remained.

We are continually in relation to time but we also fill a place in the world, being a whole and a part. The evolution of consciousness is formed as dialectic of involvement in the world and development in active reaching towards futures in the present, where both future and past are entangled. The elephant in the room of futures research remains: the question of values embedded in our work.

In our present, the past and the future are always entangled and no punctual present does exist. Consciousness always reaches beyond time restrictions (of the present) and flows into the future. The conditionings generated by our fears and the conditionings generated by erroneous or unbalanced interpretations of situations obstruct the development (of consciousness or future consciousness). There was some argumentation about the uncertainty of our knowing. Present futures research is based on the idea of contingency of our knowledge about future.

To illustrate our double dependency on time and place, Johan Asplund's (1983) classification of future's researchers into four categories was presented through two factors: defense of the existing order – attack of the existing order and U-type (normal Science) – R-type (scientific revolt).

The acceptance of the arrow of time led to the problem of evolution of consciousness. It was agreed, that consciousness is evolving. Pentti Malaska referred to Julian Jaynes (1990) theory of the bicameral mind, which is well illustrated by Erik Weijers' comment:

> "According to Jaynes, the 'invention' of subjective consciousness took shape in the course of centuries, thereby replacing the former mentality. This old mental make-up was what Jaynes calls the bicameral mind: a mind that was occupied by so-called gods, who directly spoke to man. Jaynes insists that these 'gods' were in no sense 'a way of speaking', but instead powerful experiences with hallucinatory quality."

Finally Tom Lombardo summarized the evolution of consciousness, focusing on futures consciousness:

> "I think our understanding of consciousness of time – of future consciousness in particular – in fact, of how we come at and live the experience of time – is in evolution – is still in its infancy. From what I have learned – as I describe in The Evolution of Future Consciousness – there has been an evolutionary process going on regarding our experience and understanding of time (of past/present/future). Cosmology – for one thing – is helping us to gain a deeper sense of the nature of time – and then with psychology, the study of evolution, and history thrown in – we can see how our sense of time fits into this broader context. Perhaps/probably – futures studies is also still in infancy/evolution. For one thing, Richard Slaughter's question of whether we can or even should come at the future without values is a good one. Perhaps we can't. There are many reasons why I think that human consciousness/the human mind cannot experience reality with-

out implicit or explicit evaluation of what is happening and what should be happening...
Yes - perhaps we can evolve to higher dimensions, but I would think that we will always be embedded within time/change/the future. Our evolutionary history is a history of enveloping more primitive states within more complex or encompassing states..."

Concluding Remarks

Barbara Bok asked at one phase of the dialogue: which kind of consciousness creates this dialogue? I have been pondering it all the time while editing it. There are some characteristics, which are easily visible. The dialogue is mainly based on Western scientific worldview, with some excursions into the Eastern philosophies. And the feminist and women's research views remain only fragmentary, and have not aroused any further dialogue.

The argumentation on the whole remains fragmentary, mainly because an e-mail list does not support long arguments. But also because the dialogue covers a vast cross-scientific field. This characteristic shows at the same time the strengths of futures researchers: it draws from a wide variety of traditional sciences. And, what is especially remarkable, the discussants seem to follow the newest exploits of their specification field. The negative dimension in this kind of dialogue is, that it necessarily remains somehow superficial. In this review I have had to dig into the ample reference-material given, to explain some comments, which remained quite discreet.

More hidden in the dialogue is the disagreement on the subject matter. The discussants have tried to be positive, the disagreements are mainly expressed only by presenting a different view, and not arguing against other comments. Though there was disagreement in various matters, this was expressed in a constructive and respectful way, and importantly the dialogue offered a mirror for participants to reflect their own views.

In the normal mode of scientific discussion, the discussants identified themselves mainly by references to other scientists. A few references were given even on fiction, mainly to pick up interesting ideas. The limits of scientific discourse were also tested in the dialogue. Some people referred to their experiences, usually excluded from scientific discussion: emotions, paranormal experiences, jokes etc. On the whole the dialogues remained open, and did not give any definite answers to questions tackled. This I do consider a very valuable characteristic of futures research. It by necessity remains open towards new and different perspectives, which gives it its specific character.

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