

OPENING Address

Being Transdisciplinary, as Keystone of Facing the Challenges of the 21st Century

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Transdisciplinarity¹ has already a quite long history . The word itself was coined in 1970 by Jean Piaget. I formulated the methodology of transdisciplinarity in the period 1985-1990 and its full formulation was given in my book *Manifesto of Transdisciplinarity*, in 1996.² Since then, a lot of applications were done all over the world in education, health, sustainable development and the dialogue between science and religion. PhD programs in transdisciplinarity exist now in several important universities.³

Today, one can assert that the international movement of transdisciplinarity arrives at its maturity and new avenues of research are opening in connection with the recent understanding of the connection between the natural information and the spiritual information through the Hidden Third.

This explains why we have chosen “Being Transdisciplinary” as title of our congress. “Being Transdisciplinary” is like a Zen koan: it has multiple meanings, depending on the level of understanding of the reader.

The first meaning of “Being Transdisciplinary” is the *Being of Transdisciplinarity*, i. e. the Being of the unity of Nature and knowledge. It is a philosophical meaning, independent of any religious interpretation. The Being of the unity of Nature and knowledge means what crosses the region of

¹Basarab Nicolescu, “Brief Chronology of Transdisciplinarity” http://ciret-transdisciplinarity.org/ARTICLES/Brief_Chronology_of_Transdisciplinarity.pdf accessed on October 16, 2018.

²Basarab Nicolescu, *La transdisciplinarité, manifeste*, Rocher, Monaco, 1996. English translation: *Manifesto of Transdisciplinarity*, State University of New York (SUNY) Press, New York, 2002 , translation in English by Karen-Claire Voss.

³<http://ciret-transdisciplinarity.org/doctorat.php> accessed on October 16, 2018.

resistance of all levels of Reality of the Objects and of all levels of Reality of the Subject through the region of non-resistance of the Hidden Third. Transdisciplinary methodology succeeds to unify the Real and the Reality, through a rigorous interconnection of ontology, logic and epistemology.

The second meaning of “Being Transdisciplinary” is the *Being of the transdisciplinary researcher*. The transdisciplinary researcher is not separated from what he or she knows: he or she is part of the knowledge. Neutrality and strict objectivity in knowledge is just a phantasm of the classical thinking, in contradiction with the interpretation of the theories and data of contemporary science. This involves necessarily a spiritual evolution of the researcher, enabling him or her to embody the unification of the Subject and of the Object through the action of the Hidden Third. Only in such a way the transdisciplinary researcher can enter in dialogue with the Being of the unity of Nature and knowledge.

The third meaning of “Being Transdisciplinary” is to face the challenges of the present world in all their complexity. We are facing a period of a new barbarism which can be summarized by three words: transhumanism, anthropocene and panterrorism. This new barbarism can lead, for the first time in history, to the total destruction of the human species. Transdisciplinarity has to be deeply and practically involved with planetary and societal problems of today.

It is only through the unification of the above three meanings of “Being Transdisciplinary” that methodology of transdisciplinarity will be the keystone of facing the challenges of the 21st century.

Let me explain you in few words the basic notions of transdisciplinarity. The methodology of transdisciplinarity⁴ is founded on three postulates:

1. The ontological postulate: *There are, in Nature and in our knowledge of Nature, different levels of Reality of the Object and different levels of Reality of the Subject.*
2. The logical postulate: *The passage from one level of Reality to another is insured by the logic of the included middle.*
3. The epistemological postulate: *The structure of the totality of levels of Reality is a complex structure: every level is what it is because all the levels exist at the same time.*

The first two postulates received, in the 20th century, experimental evidence from quantum physics, while the last one has its source not only in quantum physics but also in a variety of other exact and human sciences.

The key concept of transdisciplinarity is the concept of *levels of Reality*.

“Reality” first of all designate that which *resists* our experiences, representations, descriptions, images, or even mathematical formulations.

We have to distinguish, in order to avoid further ambiguities, the words “Real” and “Reality”. *Real* designates that which is, while *Reality* is connected

⁴Basarab Nicolescu, Manifesto of Transdisciplinarity, op. cit.

to resistance in our human experience. The “Real” is, by definition, veiled for ever while “Reality” is accessible to our knowledge. Real involves non-resistance while Reality involves resistance.

By “level of Reality”, I designate a set of systems which are invariant under certain general laws (in the case of natural systems) or general rules and norms (in the case of social systems): for example, quantum entities are subordinate to quantum laws, which depart radically from the laws of the macrophysical world. That is to say that two levels of Reality are different if, while passing from one to the other, there is a break in the applicable laws and a break in fundamental concepts (like, for example, causality). Therefore there is a *discontinuity* in the structure of levels of Reality.

Every level is characterized by its *incompleteness*: the laws governing this level are just a part of the totality of laws governing all levels. And even the totality of laws does not exhaust the entirety of Reality: we have also to consider the Subject and its interaction with the Object. *Knowledge is forever open.*

The zone between two different levels and beyond all levels is a zone of *non-resistance* to our experiences, representations, descriptions, images, and mathematical formulations. Quite simply, the transparency of this zone is due to the limitations of our bodies, of our sense organs and of our brain, limitations which apply regardless of what measuring tools are used to extend these sense organs.

The unity of levels of Reality of the Object and its complementary zone of non-resistance constitutes what I call the *transdisciplinary Object*. The levels of Reality of the Object are traversed by *natural information*.

The different levels of Reality of the Object are accessible to our knowledge thanks to the different levels of perception which are potentially present in our being. These levels of perception permit an increasingly general, unifying, encompassing vision of Reality, without ever entirely exhausting it. In a rigorous way, these levels of perception are, in fact, *levels of Reality of the Subject*.

As in the case of levels of Reality of the Object, the coherence of levels of Reality of the Subject presupposes a zone of non-resistance to perception.

The unity of levels of Reality of the Subject and its complementary zone of non-resistance constitutes what I call the *transdisciplinary Subject*. The levels of Reality of the Subject are traversed by *spiritual information*.⁵ Of course, spiritual information can't be measured by instruments like accelerators, voltmeters, microscopes or telescopes. But it can be experienced by the most complex instrument of measure: the human being in its interiority.

The zone of non-resistance plays the role of a *third* between the Subject and the Object, an Interaction term which allows the unification of the transdisciplinary Subject and the transdisciplinary Object while preserving their difference. I call this Interaction term the *Hidden Third*.

⁵Basarab Nicolescu, “The Hidden Third as the Unifier of Natural and Spiritual Information”, *Cybernetics and Human Knowing*, Vol. 22 (2015), no. 4, p. 91-99 http://basarab-nicolescu.fr/Docs_articles/CHK_1.pdf accessed on October 16, 2018.

The transdisciplinary Object and its levels, the transdisciplinary Subject and its levels and the Hidden Third define the transdisciplinary Reality.

The Hidden Third between Subject and Object is rational but it denies any rationalization. The Hidden Third is not the opposite of reason: to the extent that it ensures the harmony between Subject and Object, the Hidden Third is part of the new, complex transdisciplinary rationality. The radical discontinuity of the Hidden Third allows the interaction of the natural information and of spiritual information. In such a way, the Hidden Third restores the continuity of Reality.

The human person appears as an interface between the Hidden Third and the world. The erasing of the Hidden Third in knowledge signifies a one-dimensional human being, reduced to its cells, neurons, quarks, elementary particles and electronic chips.

Let me now evoke some new avenues of transdisciplinary research:

1. One important task for future is the *transdisciplinary definition of consciousness*. The past decade has seen several sophisticated models of consciousness, but most of them are reductionist. The transdisciplinary Reality is incompatible with the reduction of the spiritual level to the level of the psyche, of the level of the psyche to the biological level, and of the biological level to the physical level. Spirituality is not just the activity of neurons. The reductionism in the problem of consciousness corresponds to the erasure of the Hidden Third.⁶ I am happy to see that several talks at this congress study the problem of the transdisciplinary definition of consciousness
2. Other important task is the *reshaping of the international institutions in order to face the huge planetary challenges of our century*.

Politicians and leaders of the different countries have to understand that there is an *ontological barbarism* consisting in the desire to reduce everything to a single level of Reality, a logic barbarism consisting in the refusal of any other logic than that of the excluded third, and an *epistemological barbarism* consisting in the refusal of complexity, of the interconnection between different levels of Reality.⁷

The problems of panterror and anthropocene cannot be solved by the old political approach, based on dominance, conquest and wars with atomic bombs and artificial intelligence robots as soldiers. Etymologically, the word “barbarian” means one who is a stranger, an alien, who

⁶Arthur Versluis and Basarab Nicolescu, “Conversation between Basarab Nicolescu and Arthur Versluis, Part One: “Spirituality and Transdisciplinarity” <http://www.hieros.world/a-conversation-between-basarab-nicolescu-and-arthur-versluis-part-one/> accessed on October 16, 2018.

⁷Basarab Nicolescu, “The Dark Side of Technological Singularity: New Barbarism”, *Cybernetics and Human Knowing*, Vol. 23 (2016), no. 4, p. 77-83 http://basarab-nicolescu.fr/Docs_articles/CHK_3.pdf accessed on October 16, 2018.

belongs to an uncivilized world. We have to understand that *the alien is not outside us but within us*. We are our own barbarians.

It is very interesting that we planned for our congress a Round Table session on “Being Transdisciplinary in Politics and World Affairs” and nobody registered for this session. It simply means that transdisciplinarity did not penetrate yet in the world of politicians. It is our task for the future to imagine ways for filling this gap.

3. Finally, I recommend to all transdisciplinary researchers to be very active in the *ethical problems connected with transhumanism*.

Artificial intelligence went through tremendous developments in the past years and these developments will be even stronger in the future years. There is, of course, a face of light of the artificial intelligence, especially in the domain of health and world communication, but there also very dark sides, linked to the transhumanist ideology. In spite of their common prefix “trans”, transhumanism has nothing to do with transdisciplinarity.

If the transhumanist project will be achieved, human beings will become increasingly more a machine and the machine will become increasingly more human. The international cultural and intellectual movement of transhumanism advocates the use of biotechnology to improve physical and mental characteristics of human beings. Aging and death are considered undesirable and should not be inevitable. Natural selection is considered to be outdated and it is replaced by technological selection. The major project is to remove any transcendent force and replace it with man-machine with superhuman intelligence, master of his/her life. Transhumans, which some philosophers and ideologists call them, for obvious oratorical precautions, “improved humans” or “ameliorated humans”, will constitute a new, bio-technological species. Future society will be divided between “transhumans” and “old humans”. The old humans will inevitably be servants of the transhumans. Transdisciplinarians cannot accept this deep change of human nature and they have to do elaborate studies in order to show all the destructive aspects of transhumanism.⁸

In conclusion, we are at the threshold of a true New Renaissance, which asks for a new, cosmodern consciousness. There are exemplary signs and arguments for its birth, from quantum physics till theatre, literature and art.⁹ But, paradoxically, the new Renaissance potentiality is overshadowed by the violence of the new barbarism, a new stage in the confrontation between *Homo religiosus* and *Homo economicus*.

⁸Basarab Nicolescu, “The Dark Side of Technological Singularity: New Barbarism”, op. cit.

⁹Basarab Nicolescu, *From Modernity to Cosmodernity - Science, Culture, and Spirituality*, State University of New York (SUNY) Press, New York, USA, 2014.



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