

## Transdisciplinarity Approach to Strong Sustainability\*

Studies on sustainability underline the necessity to consider the interaction of a bigger and bigger number of disciplines. Complexity is more and more increasing: there are 17 goals and 169 targets.

The concept of sustainability is not well defined: it is multidimensional and multireferential. It is inevitably fragmentary and reductionist.

Some approaches try to formalize sustainability in a mathematical way. One speaks even about a « science of sustainability ». But the methodology of science excludes the human being (the Subject), which is an important paradox: the human being must be in the center of a sustainable world.

The big question is the following: what could be really sustainable? Environment? Economy? Society? Education? Politics? Religion? Spirituality? Future? Nation? World order? The answer is: no one in itself. *All of them are inter-related*. Transdisciplinarity (TD) is therefore a necessary approach. TD shows that the only known sustainable system is the cosmic system, in all its dimensions, from the quantum particle till the most distant galaxy. Every level of Reality sustains every other level of Reality.

The methodology of Transdisciplinarity<sup>1</sup> is founded on three axioms: the ontological axiom (there are different levels of Reality of the Object and, correspondingly, different levels of Reality of the Subject), the logical axiom (the logic of the included middle) and the epistemological axiom (complexity). These three axioms constitute the rigorous definition of Transdisciplinarity.

Reality is that which resists our experiences, our representations, our descriptions, our images, and even our mathematical formulations. The Reality is accessible to our knowledge and it involves a trans-subjective dimension. It has to be distinguished from Real, which is veiled forever.

“Level of Reality” means a set of systems invariant under certain general laws (in the case of natural systems) or under certain general norms and rules (in the case of social systems). It is important to note that there is discontinuity between levels.

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\* Abstract of the Key-note talk at the International Congress “Paradigms, Models, Scenarios and Practices for more sustainability”, University of Clermont Auvergne (UCA) and Jean Monnet Excellence Center on Sustainability (ERASME), 4 - 5 - 6 December 2019, Polytech Clermont-Ferrand, France.

<sup>1</sup> Basarab Nicolescu, *Manifesto of Transdisciplinarity*, SUNY Press, 2002, translated from the French by Karen-Claire Voss.

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 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 two zones of non-resistance of transdisciplinary Object and Subject must be identical for the transdisciplinary Subject to communicate with the transdisciplinary Object.

Knowledge is neither exterior nor interior: it is simultaneously exterior *and* interior. The studies of the universe and of the human being sustain one another.

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. In the following I will call this Interaction term the *Hidden Third*.

The transdisciplinary Object and its levels, the transdisciplinary Subject and its levels and the Hidden Third define the transdisciplinary Reality. It is important to note that the Hidden Third restores the continuity of Reality.

The human being appears as an interface between the Hidden Third and the world. The eradication of the Hidden Third in knowledge leads to a one-dimensional human entity, reduced to their cells, neurons, quarks, elementary particles, and electronic chips. The role of the Hidden Third is to establish the link between the Reality and the Real. Catalyst of movement, it possesses an infinite number of faces. The Hidden Third is the guardian of our irreducible mystery and the only foundation of human dignity.

The TD definition of strong sustainability (TDSS) is the following: *sustainability which takes into account all levels of Reality and the Hidden Third.*

At face value, this kind of sustainability may seem an asymptotic aim and therefore utopian. But the Hidden Third has the virtue of unifying the levels of Reality.

Let me stress some key points of TDSS.

The roots of violence are inside the human being. Our thoughts, feelings and instincts are in perpetual conflicts. Only if we can harmonize our thoughts, our feelings and our instincts we can discover a new intelligence which erases the violence in ourselves. And only when we become non-violent in ourselves, by accessing to a new level of consciousness, we can act to erase the violence in the world.

TDSS revolves around the problem of violence: violence made to the human being by acting on his nature and made to the earth, everywhere today, by the modification of the cosmic conditions of existence of our planet. Violence is everywhere: poor countries against rich countries, religious and ethnical wars, terrorism, urban violence.

TDSS is incompatible with violence. Violence eradicates the Hidden Third.

We therefore need to imagine a Strong Sustainability of Peace (SSP). TDSS offers an overall methodology for SSP in the world.

The most extraordinary proof of the violence is the fact that there are currently a number of nuclear weapons (more than 25,000 nuclear warheads, divided among nine countries). A small fraction of them could eliminate life on earth. The man invented the *balance of terror*: an agreement between all those who have the nuclear weapon not to use it, because that will lead to the disappearance of the adversaries. In English the title of the agreement is "MAD" (Mutual Assured Destruction), which, by a funny coincidence means "crazy" in English. Who could prevent a dictator from triggering the nuclear apocalypse? SSP requires the destruction of all nuclear weapons.

Transdisciplinarity expresses the hope for a new era - *cosmodernity* – founded on TDSS by the fruitful contemporary interaction between science, culture, spirituality, religion, and society<sup>2</sup>.

A new spirituality, free of dogmas, compatible with all existing spiritualities, is already potentially present on our planet. This would give full meaning to the already existing notion

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<sup>2</sup> Basarab Nicolescu, *From Modernity to Cosmodernity –Science, Culture, and Spirituality*, SUNY Press, USA, 2014.

of sustainable spirituality. The old idea of cosmos, in which we are active participants, is resurrected.

Everything is interconnected. All levels of Reality are interwoven.

The ethical imperative of cosmodernity is *togetherness*.

*Only through transdisciplinary dialogue can we face the challenges of the contemporary world:* dialogue between human beings, dialogue between human beings and non-human forms of life (animals, plants), dialogue between human beings and the cosmos, dialogue between human being and the divine, dialogue between cultures, religions, spiritualities.

*In other words, the key-point is the access at a new level of consciousness, individual and collective. This obviously requires a new civilization, which does not suppose a revolution but a gradual transition from our own civilization.*

This new level of consciousness involves a global education for TDSS, which must be a noble aim of UNESCO and of all countries.

We are, in spite of everything, at the threshold of a New Renaissance, founded on the TDSS.

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