

Transdisciplinary Methodology of the Dialogue Between People, Cultures, and Spiritualities

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Abstract

When two people try to communicate there is, inevitably, confrontation: representation against representation, subconscious against subconscious. As this confrontation is subconscious, it often degenerates into conflict. A new model of civilisation is necessary, whose keystone is the dialogue between human beings, nations, cultures and religions for the survival of humanity. In the formation of a new model of civilization, the methodology of transdisciplinarity is crucial.

Keywords

Dialogue; Levels of Reality; Hidden Third; Transdisciplinarity.

*In memory of Professor Tiberiu Brailean, a seeker for truth
with the soul of a poet and a bright transdisciplinary
researcher in the realm of the interconnections between
economy, politics, spirituality and Reality.*

1. Introduction

Can we really communicate via dialogue?

The word “dialogue” appeared with the foundation of modernity, but in its original meaning, it referred only to nature (Galiei, 1962).

Each person has his/her prejudices, his/her convictions, his/her subconscious representations. When two people try to communicate, a

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confrontation inevitably emerges: representation against representation, subconscious against subconscious. As this confrontation is subconscious, it often degenerates into conflict.

Language is the vehicle of these subconscious representations. We use the same words, but their meaning can be radically different. We are manipulated by our own representations. Dialogue is strictly impossible in the absence of a methodology of dialogue. We can only express ourselves in monologues. It is impossible to be in the shoes of another person.

The same holds true in the case of nations, cultures, religions and spiritualities: interest against interest, representation against representation, dogma against dogma, hidden spiritual assumptions against hidden spiritual assumptions. This situation is aggravated by the large number of languages (more than 6,000), each displaying its own systems of representations and values. A completely accurate translation from one language to another is impossible.

This aspect is also aggravated by the huge contemporary means of destruction and the ongoing destruction of the environment. The inevitable conflicts could lead, for the first time in the history of mankind, to the disappearance of the human species.

A new model of civilization is necessary, and the keystone is the dialogue between human beings, nations, cultures and religions for the survival of humanity.

We have therefore to face a number of important questions:

- What is the methodology of dialogue?
- Is it necessary to suspend, in dialogue, our prejudices so as to arrive at a "fusion of horizons"(Gadamer, 1960)?
- Are the abandonment of binary logic and the adoption of non-classical logic necessary?
- Can we engage in a dialogue without first identifying the levels of reality involved in it?
- How can we take complexity into account?
- Are transcultural and transreligious aspects crucially important for a methodology of dialogue between cultures and religions?
- Is the dialogue between cultures a social or a political gamble?
- Is the danger of the dissolution of cultures in the context of globalization real?

- Are there big cultures, small cultures and falling cultures?
- Are the peoples of the world prepared for a real dialogue of cultures?
- What is the role of the spiritual dimension within this dialogue?

We can answer all these questions by adopting the methodology of transdisciplinarity.

In 1985 (Nicolescu) I proposed that the word “transdisciplinarity”, introduced by Jean Piaget in 1972 (131-144), should include the meaning “beyond disciplines” and I have developed this idea over the years in my articles and books, as well as in different official international documents. Many other researchers all over the world have contributed to the development of transdisciplinarity. A key-date in this development is 1994, when the Charter of Transdisciplinarity was adopted by the participants in the First World Congress of Transdisciplinarity (Convento da Arrábida, Portugal).

The crucial point here is the status of the Subject.

“Beyond disciplines” precisely signifies the Subject, more precisely the Subject-Object interaction. The transcendence, inherent to transdisciplinarity, is the transcendence of the Subject.

The meaning “beyond disciplines” leads us to an immense space of new knowledge. The main outcome was the formulation of the methodology of transdisciplinarity. It also allows us to clearly distinguish between multidisciplinary, interdisciplinarity, and transdisciplinarity.

2. Multidisciplinarity, Interdisciplinarity, and Transdisciplinarity

Multidisciplinarity is concerned with the study of a research topic in not just one discipline, but in several at the same time. Any topic in question will ultimately be enriched by incorporating the perspectives of several disciplines. Multidisciplinarity brings a plus to the discipline in question, but this “plus” is always in the exclusive service of the home discipline. In other words, the multidisciplinary approach overflows disciplinary boundaries while its goal remains limited to the framework of disciplinary research.

Interdisciplinarity has a different goal than multidisciplinary. It concerns the transfer of methods from one discipline to another. Like multidisciplinary, interdisciplinarity overflows disciplines, but its goal still remains within the framework of disciplinary research. Interdisciplinarity

even has the capacity to generate new disciplines, such as quantum cosmology and the chaos theory.

Transdisciplinarity concerns that which is at once *between* disciplines, *across* different disciplines, and *beyond* all disciplines. Its goal is to understand the present world, one of whose imperatives is the unity of knowledge.

As one can see, there is no opposition between disciplinarity (including multidisciplinarity and interdisciplinarity) and transdisciplinarity, but a fertile complementarity. In fact, there is no transdisciplinarity without disciplinarity.

3. Methodology of Transdisciplinarity

A remarkable achievement of transdisciplinarity in present times is, of course, the formulation of the methodology of transdisciplinarity, accepted and applied by an important number of researchers in many countries of the world.

The axiomatic character of the methodology of transdisciplinarity is an important aspect. This means that we have to limit the number of axioms to a *minimum*. Any axiom which can be derived from the already postulated ones has to be rejected.

After many years of research, I have come to the following three axioms of the methodology of transdisciplinarity (1996, first French edition/2002):

a. *The ontological axiom*: There are, in Nature and in our knowledge of Nature, different levels of Reality of the Object and, correspondingly, different levels of Reality of the Subject.

b. *The logical axiom*: The passage from one level of Reality to another is insured by the logic of the included middle.

c. *The epistemological axiom*: 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 above three axioms give a precise and rigorous *definition of transdisciplinarity*.

Let me now describe the essentials of these three transdisciplinary axioms.

4. The Ontological Axiom: Levels of Reality

The key concept of the transdisciplinary approach to Nature and knowledge is the concept of *levels of Reality*.

Here, the meaning we give to the word “Reality” is pragmatic and ontological at the same time.

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

In so far as Nature participates in the being of the world, one also has to assign an ontological dimension to the concept of Reality. Reality is not merely a social construction, the consensus of a collectivity, or some inter-subjective agreement. It also has a trans-subjective dimension: for example, experimental data can ruin the most beautiful scientific theory.

Of course, one has to distinguish between the words “Real” and “Reality”. *Real* designates that which *is*, while *Reality* is connected to resistance in our human experience. The “Real” is, by definition, veiled forever, while “Reality” is accessible to our knowledge.

By “level of Reality”, I designate a set of systems which are invariant under certain general laws (in the case of natural systems) and under certain general rules and norms (in the case of social systems). 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, rules or norms and a break in fundamental concepts (such as, for example, causality). Therefore there is a *discontinuity* in the structure of levels of Reality.

A new *Principle of Relativity* emerges from the coexistence between complex plurality and open unity in our approach: *no level of Reality constitutes a privileged place from which one is able to understand all the other levels of Reality*. A level of Reality is what it is because all the other levels exist at the same time. This Principle of Relativity is what originates a new perspective on religion, spirituality, politics, art, education, history and society. And when our perspective on the world changes, the world changes.

In other words, the transdisciplinary approach is not hierarchical. There is no fundamental level. But its absence does not mean an anarchical dynamics, but a coherent one, of all levels of Reality, already discovered or which will be discovered in the future.

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 entire Reality: we also have to consider the Subject and its interaction with the Object.

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 and of our sense organs — limitations which apply regardless of what measuring tools are used to extend these sense organs. Therefore, we have to conclude that the topological distance between levels is finite. However, this finite distance does not mean finite knowledge. Take, as an image, a segment of a straight line — it contains an infinite number of points. Likewise, a finite topological distance could contain an infinite number of levels of Reality. We have work to do until the end of times.

The unity of levels of Reality and its complementary zone of non-resistance constitutes what we call the transdisciplinary Object.

Inspired by the phenomenology of Edmund Husserl (1966), I assert that the different levels of Reality of the Object are accessible to our knowledge thanks to the different levels of Reality of the Subject which are potentially present in our being.

As in the case of levels of Reality of the Object, the coherence of the levels of Reality of the Subject presupposes a zone of non-resistance. The unity of the levels of Reality of the Subject and this complementary zone of non-resistance constitutes what we 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. A flow of consciousness that coherently cuts across different levels of Reality of the Subject must correspond to the flow of information coherently cutting across different levels of Reality of the Object. The two flows are interrelated because they share the same zone of non-resistance.

Knowledge is neither exterior nor interior: it is simultaneously exterior and interior. The studies of the universe and of the human being support 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 what follows I will call this Interaction term the Hidden Third.

Our ternary partition {Subject, Object, Hidden Third } is, of course, different from the binary partition {Subject vs. Object} of classical realism.

The transdisciplinary Object and its levels of Reality, the transdisciplinary Subject and its levels of Reality and the Hidden Third define the transdisciplinary approach to Reality. Based on this ternary structure of Reality, we can deduce several ternaries of *epistemological levels* which are extremely useful in the analysis of concrete situations:

Levels of organization – Levels of structuring – Levels of integration

Levels of confusion – Levels of language – Levels of interpretation

Physical levels – Biological levels – Psychical levels

Levels of ignorance – Levels of intelligence – Levels of contemplation

Levels of objectivity – Levels of subjectivity – Levels of complexity

Levels of knowledge – Levels of understanding – Levels of being

Levels of materiality – Levels of spirituality – Levels of non-duality

5. The Logical Axiom: The Included Middle

The incompleteness of the general laws governing a given level of Reality signifies that, at a given moment in time, one necessarily discovers contradictions in the theory describing the respective level: one has to assert A and non-A at the same time.

However, our habits of mind, scientific or not, are still governed by classical logic, which does not tolerate contradictions. Classical logic is founded on three axioms:

1. *The axiom of identity*: A is A.

2. *The axiom of non-contradiction*: A is not non-A.

3. *The axiom of the excluded middle*: There exists no third term T (“T” from “third”) which is at the same time A and non-A.

History will credit Stéphane Lupasco (1900-1988) for having shown that the logic of the included middle is a true logic, mathematically formalized, multivalent (with three values: A, non-A, and T) and non-contradictory (Lupasco: 1951).

In fact, the logic of the included middle is the very heart of quantum mechanics: it allows us to understand the basic principle of the superposition of “yes” and “no” quantum states.

Our understanding of the axiom of the included middle — there exists a third term T which is at the same time A and non-A — is completely clarified once the notion of “levels of Reality”, which is not present in the works of Lupasco, is introduced.

In order to obtain a clear image of the meaning of the included middle, let us represent the three terms of the new logic — A, non-A, and T — and the dynamics associated with them by a triangle in which one of the vertices is situated at one level of Reality and the two other vertices at another level of Reality. The included middle is in fact an *included third*. If one remains at a single level of Reality, any manifestation appears as a struggle between two contradictory elements. The third dynamic, that of the T-state, is exercised at another level of Reality, where what appears to be disunited is in fact united, and what appears contradictory is perceived as non-contradictory.

It is the projection of the T-state onto the same single level of Reality which produces the appearance of mutually exclusive, antagonistic pairs (A and non-A). A single level of Reality can only create antagonistic oppositions.

The action of the logic of the included middle on the different levels of Reality induces an open structure of the unity of levels of Reality. This structure has considerable consequences for the theory of knowledge because it implies the impossibility of a self-enclosed complete theory. *Knowledge is forever open.*

6. The Epistemological Axiom: The Universal Interdependence

There are several theories of complexity.

In the context of our discussion, what is important to be understood is that the existing theories of complexity include neither the notion of levels of Reality nor the notion of zones of non-resistance (Cilliers and Nicolescu, 2012: 711-718). It is therefore useful to distinguish between the *horizontal complexity*, which refers to a single level of reality and *vertical complexity*, which refers to several levels of Reality.

From a transdisciplinary point of view, complexity is a modern form of

the very ancient principle of universal interdependence. **Trans-Reality and the Hidden Third**

In the transdisciplinary approach, the Subject and the Object are immersed in the Hidden Third.

The transdisciplinary Subject and its levels, the transdisciplinary Object and its levels, and the Hidden Third define the transdisciplinary Reality or *trans-Reality* (see Figure 1).

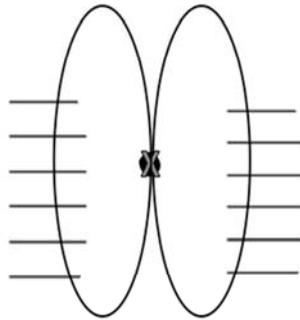


Fig. 1. *Trans-Reality*.

The Hidden Third, in its relationship with the levels of Reality, is fundamental for the understanding of *unus mundus* described by cosmodernity. Reality is simultaneously a single and a multiple One. If one remains confined to the Hidden Third, then the unity is undifferentiated, symmetric, situated in *non-time*. If one remains confined to the levels of Reality, there are only differences, asymmetries, located in time. To simultaneously consider the levels of reality and the Hidden Third introduces a break in the symmetry of *unus mundus*. In fact, *the levels of Reality are generated precisely by this breaking of symmetry introduced by time*.

In the transdisciplinary approach, the Hidden Third appears as the source of knowledge but, in its turn, it needs the Subject in order to know the world: the Subject, the Object and the Hidden Third are inter-related.

Cultures and religions are not concerned, as academic disciplines are, with fragments of levels of Reality only: they simultaneously involve one or several levels of Reality of the Object, one or several levels of Reality

of the Subject *and* the non-resistance zone of the Hidden Third. Technoscience is entirely situated in the zone of the Object, while cultures and religions cross all three terms: the Object, the Subject and the Hidden Third. This asymmetry demonstrates the difficulty of their dialogue: this dialogue can only occur when there is a *conversion* of technoscience towards values, i.e. when the techno-scientific culture becomes a true culture (Nicolescu, 2004: 139-152). It is precisely this conversion that transdisciplinarity is able to perform. This dialogue is methodologically possible, because the Hidden Third crosses all levels of Reality.

Technoscience has a quite paradoxical situation. In itself, it is blind to values. However, when it enters into dialogue with cultures and religions, it becomes the best mediator of the reconciliation of different cultures and different religions.

Homo religiosus has existed from the beginnings of the human species, from the moment when human beings tried to understand the meaning of our life. The *sacred* is our natural realm. We have tried to capture the unseen from our observation of the visible world. Our language is that of the imaginary, trying to penetrate higher levels of Reality - parables, symbols, myths, legends, and evelation.

Homo economicus is a creation of modernity. We believe only in what is seen, observed, measured. The *profane* is our natural realm. Our language is that of just one level of Reality, accessible through the analytical mind – hard and soft sciences, technology, theories and ideologies, mathematics, informatics.

The only way to avoid the dead end of homo religiosus *vs.* homo economicus debate is to adopt a *transdisciplinary hermeneutics* (Nicolescu, 2007: 35-60). Transdisciplinary hermeneutics is a natural outcome of transdisciplinary methodology.

The transdisciplinary hermeneutics is able to identify the common germ of *homo religiosus* and *homo economicus*, which can be called *homo sui transcendentalis*.

Transdisciplinary hermeneutics avoids the trap of trying to formulate a super-science or a super-religion. The unity of knowledge can only be an open, complex and plural unity.

The human person appears as an interface between the Hidden Third

and the world. The erasure of the Hidden Third in knowledge signifies a one-dimensional human being, reduced to its cells, neurons, quarks and elementary particles.

A unified theory of levels of Reality is crucial for building sustainable development and sustainable futures. Various considerations formulated in these matters so far are based on reductionist and binary thinking: everything is reduced to society, economy and the environment. The individual level of Reality, the spiritual level of Reality and the cosmic level of Reality are completely ignored. Sustainable futures, so necessary for our survival, can only be based on a unified theory of levels of Reality.

7. Transdisciplinary Ethics and the Anthropocene

The consequences for ethics of such a vision of Reality are crucial in the context of *Anthropocene*, of the existence of the danger, for the first time in history, of the annihilation of the entire human species (Hamilton, 2010). As Clive Hamilton writes in his book *Requiem for a Species*, it is difficult to accept the idea that human beings can change the composition of the atmosphere of the earth to the point of destroying their own civilization and also the human species. One can predict the elevation of the sea level by several meters during this century and the total dissolution of the Arctic ice in one or two decades. One can even predict that the ice of the entire planet will disappear in several centuries, leading to an elevation of the sea level of around 70 meters. From my point of view, in agreement with Clive Hamilton, it is not technology that will save our species, but a radical change of our vision of Reality. Reality is *One*. For a sustainable future, we have to consider simultaneously all levels of Reality and also the Hidden Third.

We are part of the ordered movement of Reality. Our freedom consists in entering into the movement or perturbing it. We can respond to the movement or impose our will of power and domination. Our responsibility is to build sustainable futures in agreement with the overall movement of Reality.

We are witnessing a new era - *cosmodernity* - founded on a new vision of the contemporary interaction between science, culture, spirituality, religion and society. *Cosmodernity* essentially means that every entity in the

universe is defined by its relation to the other entities. Human beings, in their turn, are related as persons to the Great Other, the Hidden Third. The old idea of cosmos, in which we are active participants, is resurrected (Nicolescu, 2014).

Reality is plastic. Reality is not something outside or inside us: it is simultaneously outside and inside. We are part of this Reality that changes due to our thoughts, feelings and actions. This means that we are fully responsible for what Reality is. The world moves, lives and offers itself to our knowledge thanks to some ordered structures of something that is, though, continually changing. Reality is therefore rational, but its rationality is multiple, structured on levels.

The levels of Reality correspond to the *levels of understanding*, in a fusion of knowledge and being. All levels of Reality are interwoven. The world is at the same time knowable and unknowable.

The Hidden Third between Subject and Object denies any rationalization. Therefore, Reality is also *trans-rational*. The Hidden Third conditions not only the flow of information between Subject and Object, but also the one between the different levels of reality of the Subject and between the different levels of reality of the Object. The discontinuity between the different levels is compensated by the continuity of information held by the Hidden Third. Source of Reality, the Hidden Third feeds itself from this Reality, in a cosmic breath which includes us and the universe.

The irreducible mystery of the world coexists with the wonders discovered by reason. The unknown enters every pore of the known, but without the known, the unknown would be a hollow word. Every human being on this Earth recognizes his/her face in any other human being, independent of his/her particular religious or philosophical beliefs, and all humanity recognizes itself in the infinite Otherness.

A new spirituality, free of dogmas, is already potentially present on our planet. There are exemplary signs and arguments for its birth, from quantum physics to theatre, literature and art (Nicolescu, 2014). We are at the threshold of a true New Renaissance, which asks for a new, cosmodern consciousness.

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