

## TOWARD THE EMERGENCE OF A TRANSPARADIGMATOLOGY

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The change of paradigm that, in the analysis of Edgar Morin, is a product of the second scientific revolution in the XX century and, in the analysis of Thomas Kuhn, is characterized as revolutionary and catastrophic, provokes a reorganization of all the system of knowledge inside a new holistic-ecological-systemic-reticular-complex vision of the world and life.

This paradigmatical revolution, that we seem to be going through now, performs the 'third way' wished for and promised by Jungher Habermas and Karl Otto Apel between metaphysics and gnosiological relativism.

Particularly, this reorganization has to be thought of and acted in terms of a collaboration between disciplines instead of a competition or a conflict. 'Liberty, Equality and Fraternity' could, therefore, be a slogan for the democratic epistemological revolution of this time. The disciplinary imperialism that was implied in the vertical metaphor of the tree of knowledge imagined by Galileo Galilei leaves space for the process of ethical and gnosiological equalization of disciplines and different areas of knowledge that appears in the new horizontal metaphor of the net and, more so, I would suggest, of the fractal.

'In nature, we do not have any up and down and hierarchy does not exist. There are only nets inside nets', Fritjof Capra says. Leibniz, even before, before compared the science system to the ocean, which is continuous and without any separation. The plot of life is made of nets, whose knots are more and more smaller nets. Just as the synapses in the brain, the disciplines open reticular ways of thinking, that are interconnected and autonomous at the same time. A net system that is not hierarchical, in which any level is not more important or fundamental than others, but each one equally collaborates to the life of the whole system.

In the democratic process of thinking and knowledge that known as transdisciplinarity the demarcation line between science of nature and science of spirit falls, and the frontiers between different areas of knowledge become indented, fluid, flexible and elastic, permeable.

If, on one hand, there is a risk here of a loss in the disciplinary rigor (that is to be avoided), it also, on the other hand, introduces new abilities to manage the chaotic and

complex cultural transformation we are living through and opens new horizons of thinking which cannot be renounced.

The radical crisis of a cultural reorganization requires transdisciplinary thinkers, who are ‘undisciplined’, in the sense that they are able to cross and overtake disciplinary boundaries and bonds to reach the free area of no man’s land where any problem does not have an encoded and strictly structured solution.

We could consider transdisciplinarity as an emergent epiphenomenon of the reform of thinking that many intellectuals have invoked and predicted as the ‘new science’ for the third millennium; a science with consciousness as an answer to the challenge of complexity. This complexity that is ‘urgent, scathing, terrifying, obscene, fascinating, evanescent’ – Edgar Morin says – crept in and penetrated as a challenge to our life and to the sense of our existence appeals to a reform of intelligence and reason.

So, a transdisciplinary approach appears as the emergent product of the crisis of thought. Transdisciplinary attitude is the emergent epistemological quality of that radical of life crisis that Husserl already betrayed in 1959 as part of European humanity and that became planetary in the last 15 years. A fundamental, revolutionary, turbulent crisis we are living through, because it involves the fundamentals of our culture, produces a deep change in our vision of the world, keeps us in an evolutionary condition that is absolutely unpredictable and partially incomprehensible. In this crisis of agony we stay hovering between powers of life and death, and we take consciousness of the responsibility of thinking, intelligence and knowledge for saving humanity in the drift. Transdisciplinarity means just this assumption of responsibility of reason and takes form from the necessity of a principle of knowledge and action that is suitable for the perception of a complex and multidimensional reality.

Therefore, complex thinking is transdisciplinary. In fact, as Basarab Nicolescu writes, ‘complexity pulverized the pyramidal articulation of disciplines producing a real disciplinary *big bang*’. Edgar Morin says that it ‘tolls the bell for a closed, fragmentary and simplified theory of man. The age of an open, multidimensional and complex theory begins’.

This new science with consciousness requires the violation of disciplinary bonds for a deep communication and dialogue between disciplines, which have to democratically collaborate to give a clear and coherent new vision of the world using all the information in which we are immersed. This dialogue is particularly difficult, because

it needs an act of humility from all disciplinary institutions, each of them pretends to be an absolute imperialism on informative and formative rules. In this way, transdisciplinarity appears as a 'shaman spirit' who awakes the intellectual that sleeps in the specialist, saving him from the demon of disciplinary competence. A new equilibrium of reason and knowledge could so rise from the solid cooperation between disciplines, which are conscious of being different views of a same faculty of knowledge rather than opposed.

The transdisciplinary 'third eye' gives a global, polyocular and multifocal meta-view of reality. In facts, while disciplines are privileged 'windows' on the world, they are also – as Michael Foucault shows – 'practices of power', because they control the production and the distribution of knowledge.

However, transdisciplinary approach and attitude need a deep reflection and analysis to be provided with pragmatic and formative instruments, over the spontaneous linguistic and semantic contaminations and crossings and fertilizations that take place. We have to find possible ways of transdisciplinarity being a meta-discipline and meta-methodology and meta-paradigmatology without becoming a sort of 'transdisciplinary discipline' and avoiding theoretical and terminological vagueness. We, therefore, have to find together new intellectual and ethical rules and languages which make possible a correct use and transfer of concepts and strategies from one discipline to another and between one and all the others, in a continuous and vital dialogue between the different levels of reality and perspectives of knowledge. Transdisciplinarity emerges, in fact, as a complex property of the system of knowledge and it is the quality of the auto-reflexive description level of the same system. As the level of consciousness of that system, transdisciplinarity is a virtue of the system, which produces a new equilibrium from the chaotic and crisis conditions of the disciplinary system.

In analogy with biological systems – for Capra, the human brain is a vital system par excellence - transdisciplinarity could be considered as the emergent itself in the epistemological system, that is the level of consciousness. At this point of the paradigmatic and epistemological revolution, we still have to furnish with conceptual, linguistic and methodological instruments the very hard work of frontiers and control towers that transdisciplinarity would later do. Born as a deviance, in fact, Transdisciplinarity must now find a non-reductionist normalization, in order to not become a simple excess in the system of knowledge.

The first step is certainly to promote and create mixed teams of research and education everywhere, whose members are private and public institutions and citizens, specialists and not specialists, workers, intellectuals, social operators, who all have to study and discuss concrete cases and questions as problems for which they have to find a solution together, as free and equal brothers, freely and equally living in the common home of Earth.