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Positioning Poverty Within Transdisciplinarity

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The sheer magnitude and scale of poverty impacts the whole of humanity; it is planetary in nature. Xuereb astutely observes that a failure in one corner of the world is a failure everywhere; with poverty, no one wins. Because people are all connected, "your poverty is my poverty, if not also my doing" (2008, p.7). Poverty is an example of a *polycrisis*, a term Morin (1999a) uses to describe a situation where there is no one, single big problem - only a series of overlapping, interconnected problems. In a polycrisis, there are inter-retroactions between different problems, crises and threats. Poverty is a complex, social-natural polycrisis (vanBreda, 2008). Because this polycrisis is human made, it is within humankind's scope to deal with it. But, new ways of thinking and acting are needed (Menchú, 2007).

This paper argues that complex problems, especially those faced in a polycrisis, demand complex thinking in the form of transdisciplinarity. Peopleneed transdisciplinary knowledge to solve the problem of poverty.

Transdisciplinarity is a new knowledge about what is at once in between, across and beyond different and individual disciplines (Nicolescu, 2006a; Volckmann, 2007). This knowledge is created via a new methodology that complements the conventional, classic scientific methodology. As with any methodology, there has to be agreement about fundamental axioms, laws and principles related to: (a) ontology (what counts as reality), (b) logic (what counts as inference and rigorous argument), and (c) epistemology (what counts as knowledge). To that end, Nicolescu worked out three axioms (pillars) of transdisciplinarity. Respectively, these are: (a) multiple levels of *reality* and attendant levels of perceptions, (b) the *logic* of the included middle, and (c) *knowledge* as complexity and emergence (Nicolescu, 1985, 2005b; 2006a,b) (see Figure 1). Each of these three axioms is now discussed in some detail, followed by an examination of the *Civil Society Project Report* on poverty (Xuereb, 2008) through the lens of transdisciplinarity.

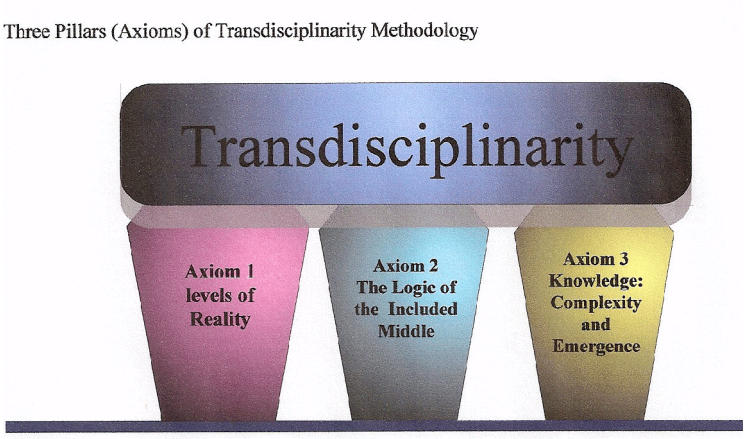


Figure 1

The Three Axioms of Transdisciplinary Methodology

Axiom 1- Multiple Levels of Reality

Basically, transdisciplinarity holds that there is not just one reality but many levels of reality. *Transdisciplinary reality* is a complex structure of multiple realities, far beyond the Newtonian dualistic judgement of reality - yes or no, dead or alive, right or wrong, good or bad. In the transdisciplinary world, things can be dead and alive at the same time; right and wrong, good and bad. In effect, there are several realities for each of subject and object, mediated by the Hidden Third and governed by the logic of the Included Middle (see Figure 2) (Max-Neef, 2005; Nicolescu, 1985, 2006b, 2008). Transdisciplinarity accommodates key realities: the environments, economics, politics, social and historical, individual and community, the planet and the cosmos. Each of these levels of reality is characterized by its incompleteness; yet, together, in unity, these realities generate new, infinite knowledge. He refers to these many realities as *connective tissue*, in great abundance but with no ultimate foundation (the very old principle of Universal Interdependence). Transdisciplinarity assumes "no level of reality constitutes a privileged place from which one is able to understand all other levels of reality; instead, a level of reality is what it is *because* all the other levels exist at the same time" (Nicolescu, 2006b, p.147).

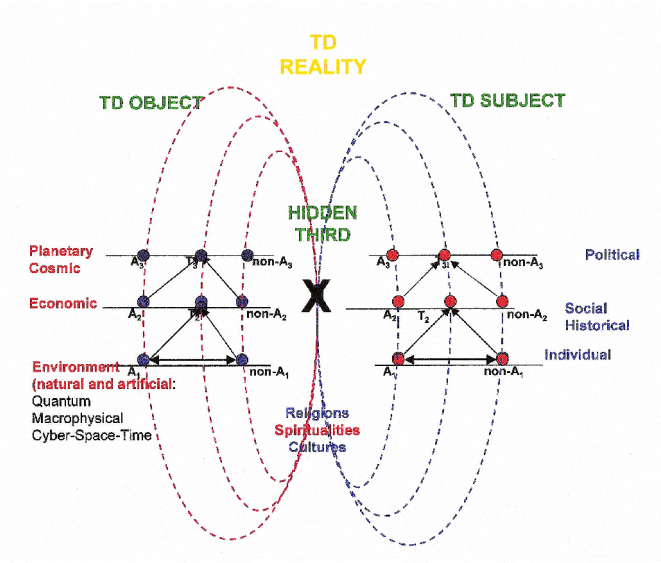


Figure 2: Levels of reality and the hidden third (Nicolescu (2008), used with permission)

The different levels of reality are accessible to human knowledge through the existence of different *levels of perception*. Max-Neef (2005) also argues that these levels of perception equate to degrees of awareness that can be awakened through practices that alter people's states of consciousness. Some people are more aware of different levels of reality than others. He explains that the "flux of *consciousness* that runs coherently across the different levels of perception, must correspond to the flux of *information* that runs coherently across the different levels of reality" (p.13, see also Nicolescu, 2002). Both fluxes sustain each other; they can be mapped onto each other because of a kind of permeability between the neighboring levels of reality. The flow of information cuts through the levels of reality and the flow of consciousness cuts through the levels of perception (Nicolescu, 2005a). The two flows can be related (consciousness and information) because they share the same zone of non-resistence (see next).

Nicolescu (2006b, 2008) further proposes that there is a bridging zone between the different realities that preserves their differences while allowing new knowledge to be generated at their interface. He calls this the *zone of non-resistance* (the X in Figure 2), a place where people's experiences, representations, descriptions, images and formulations loose their power, opening a space for unity and coherence. This unity is able to occur because, in this zone (he calls this the Hidden Third, in reference to the two visible Object and Subject in Classical realism), people are able to see the world through many different levels of perception, deeply informed by culture, religions and spiritualities (referred to by Nicolescu as *the sacred*). Referring to a *new* Principle of

Relativity, he explains that seeing the world through a 'multiple level of reality lens' creates new perspectives on the world; when people's perspectives of the world change, the world changes.

In summary, Nicolescu's (1985; 2006b) transdisciplinary model of Reality is a ternary structure comprising: (a) Subject (different levels of perception held by someone), (b) Object (different levels of reality of the object or issue), and (c) the Hidden Third (zone of non-resistence that allows unification of subject with object, or perception with reality, while preserving their differences). The Hidden Third is a mediating zone, characterized by no levels, no resistance, no perceptions. Whereas Classic reality supposes that an object is observed by a person (a subject), it also supposes that there is nothing in between mediating this observation. Transdisciplinarity offers the *concept of the third*, the interaction between the object and the subject. People do not 'put together' different levels of reality; rather, they connect them using dynamic and process-oriented levels of analysis. People do not cut one reality apart into separate slices (thereby losing information); rather, they connect different levels of many realities in order to keep all of the information together. Furthermore, this is referred to as *in vivo* reality (occurring in a living organism rather than a planned experiment), a reality that may seem chaotic but really is obeying the three pillars or axioms of transdisciplinarity (Nicolescu, 2005a; Volckmann, 2007).

Transdisciplinarity assumes that there *is* tension between people's ideas, images and representations of reality and what these claim to represent. This tension is referred to as *resistance*. Reality (capital R) is defined as that which resists people's images of human life. Someone may have an image of poverty but that image is challenged when they actually encounter poverty. Reality pushes back. Nicolescu (2006b) asserts that if reality is merely socially constructed, a consensus of a collectivity, there would be nothing to resist. However, when quantum physicists discovered 'fields of energy', people no longer had to accept that reality is tangible and concrete; they could now build new images of reality on both materialistic and non-materialistic assumptions, embracing the notion of multiple levels of reality. These comprise an ensemble of systems that are constant under certain laws or axioms. Even though these different systems may operate under different laws, they can still co-exist, side by side, all producing valid and accurate knowledge of the world in relation to their respective levels of reality. This means, for example, that people can now conceive of a new kind of intelligence. Mind, body and soul can be seen as interconnected systems rather than separate and disconnected (Cartesian binary laws, logic and analytic intelligence) (Nicolescu, 2005a; vanBreda, 2007). People can appreciate that values are created in the zone of non-resistance (where people communicate), that knowledge is oriented towards astonishment and sharing (rather than power and possession), and that people are striving for understanding rather than just more information (Nicolescu, 2005a, 2006b).

In conclusion, reality is something people encounter that resists their current understandings of, or experiences in, the world. They can encounter this resistance in the environment, the economy and the cosmos (external world) and they can encounter this resistance in their inner world (their lived history, social connections, and their individuality and philosophy) (see Figure 2). To mediate and reconcile this resistance, they need the richness of religions, spiritualities and cultures/expressions of art - the sacred (see Figure 3). Also, to be able to move from one reality to another, people need the *logic* of the included middle that says things are in flux and alive with constant change and interactions, where new knowledge is created as people move through the different levels of resistance. Inclusive logic is discussed next (the 2nd axiom).

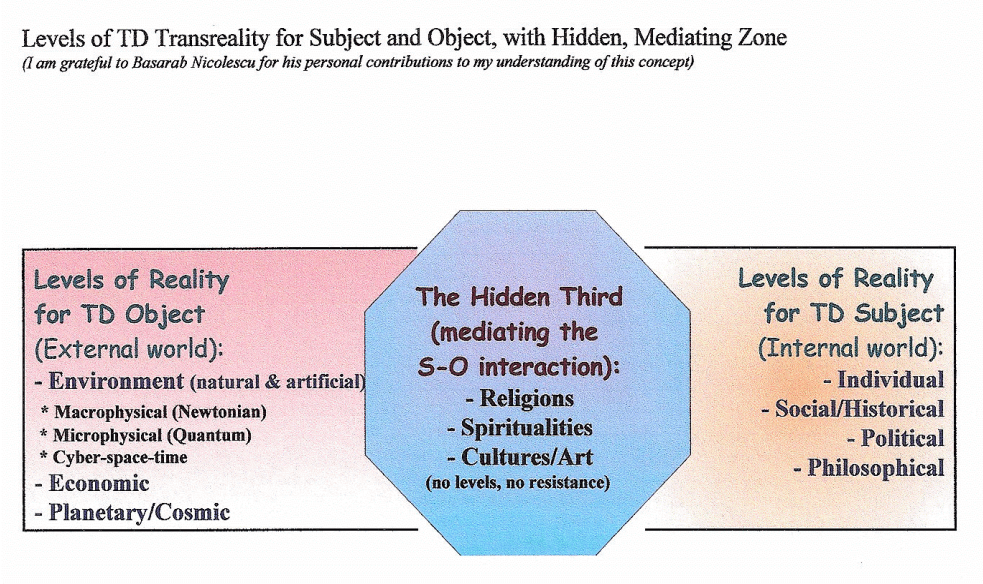


Figure 3

Axiom 2 - The Logic of the Included Middle

Quite simply, Nicolescu (2006b) refers to this logic as the 'included middle' because Newtonian logic assumes that the space between the middle of subject and object is empty, flat, static. This void that does not merit attention; hence, it is *excluded* from people's understandings of reality, rather than included. Perceiving this middle space as empty means many ideas fall between the cracks - the empty space between disparate disciplines, the private and public sectors, and civil society (see Figure 4). The axiom of the included middle is very powerful - this *inclusive logic* enables people to imagine that the space between things (especially between disciplines, different realities, and the academy and civil society) is alive, dynamic, in flux, moving and perpetually changing (see Figure 5, used with permission). It is in this *fertile middle space* that transdisciplinary manifests itself because transdisciplinary is nourished by disciplinary work and vice versa, and transdisciplinary knowledge involves a marriage between the disciplines and civil society (McGregor, 2004).

Figure 4 Excluded middle - empty and still

Figure 5 Included middle - full and in motion

Whereas interdisciplinarity builds bridges between disciplines so ideas can cross back and forth (assuming that a bridge is needed to cross the deep chasm between siloed fields of study), transdisciplinarity has people stepping through the zones of non-resistance (the Hidden Third) onto the fertile, moving floor of the *included middle*, where they generate new transdisciplinary intelligence and knowledge together (McGregor, 2004). Using the metaphor of a lava lamp, McGregor (2006) proposes that future

realities are constantly in flux (see Figure 6). The viscous fluid of the lamp is always in movement, with new things bubbling up and falling back onto those moving about on the undulating floor (the included middle). Embodied knowledge is created from the energy generated from fusion. When the separate bits of knowledge and the people who carry them came together to dance in the fertile transdisciplinary middle, they move faster when they are exposed to each other than when they are alone, creating intellectual fusion.

Figure 6 Lava lamp as metaphor for TD axioms, especially the *included middle*

Classical Aristotelian logic (dualities) says there is no middle ground. In practice, this means that there are many instances when people from different disciplines or in civil society cannot talk to each other; hence, there can be no integration or generation of new knowledge (MacCleave, 2006). The Logic of the Included Middle holds that there *is* middle ground if people accept that different people have different perceptions of things. Finding new knowledge in the fertile middle ground is possible when everyone's ideas are heard. For each person, his or her point of view is his or her truth until it encounters something else, the ideas from another person or discipline. It is in this fertile space that transdisciplinary blooms. If people can move about (dance) in the middle ground, come in contact with each other and get motivated, an energizing force is generated - a synergy is created. A sense of community and belonging is nurtured - a sense that they are part of something bigger than each one of them. At the same time, there is a realization that everyone is a new and different person in each relationship formed in the fertile middle. The strength and potentialities that emerge from this intellectual dance are life giving and transformative. People free float in *intellectual outerspace* instead of staying pinned down in their traditional, safe, disciplinary space or particular way of knowing the world (McGregor, 2004, 2007).

This free floating status makes it very easy to navigate between different, concurrent levels of Reality (see Figure 2), creating new, transdisciplinary knowledge What appears to be a complete contradiction on one level of reality gets resolved if viewed from another level of reality (vanBreda, 2007). For example, while a near death experience totally contradicts the natural science level of reality, it is very understandable on the spiritual level of reality. Imagine the intellectual doors that could open if people assumed that independent realities concurrently exist, and that they manifest themselves *to us* through our interactions *with them* in the included middle. Imagine the depth of their understanding of the world if people embraced this mind set, even when the results are counter to what common sense would suggest. As a result, people would always *wonder*, and seek far-reaching solutions to the world's pressing problems. When people use the logic of the included middle (making a space for contradictions and discontinuities in realities) to move through the different levels of reality, they generate a permanent possibility for the evolution of knowledge. Theories at any given level of reality become transitory theories, which are open to change when confronted with contradictions from other, even new, levels of reality. Knowledge becomes an open, complex structure, rather than *a* completely unified theory (Max-Neef, 2005). The next section addresses complexity and knowledge.

Axiom 3 - Knowledge: Complexity and Emergence

In addition to living with and through multiple levels of reality, being able to step through a veil of non-resistance (away from one world view), and having the ability to interact and relate on the fertile middle ground, transdisciplinarity strives for a different kind of knowing

(epistemology) based on cross-fertilization, complexity and emergence. Although there are many definitions of complexity, Nicolescu (2006a) argues that only one is appropriate for transdisciplinarity, that offered by Edgar Morin (2005). Morin's notion of complexity takes people beyond the opposite of being simple to a *method of knowing* that respects the mystery of the universe. His definition of complexity is outside the epistemology of classical science because it rejects reductionism, determinism and disjunction (binary truth). His notion of complexity requires that people (a) comprehend the relations between the whole and its parts (holons and holography) - the principle of distinction that retains relations (instead of reductionism). As well, the whole can be less than the sum of its parts. When a system self-organizes, it opens the door for the suppression of properties that *might* have emerged. His notion of complexity also requires that people (b) conceive relations between order, disorder and organization (rather than determinism), appreciating that order means stability, regularities and cycles (as well as conventional laws) and that disorder means blockage, collisions and irregularities (as well as dispersion and disintegration).

Within transdisciplinarity, "pertinent knowledge must confront complexity. Complexus means that which is woven together" (Morin, 1999b, p.15). Assuming, epistemologically, there is a connective tissue between knowledge, its context and humans, Morin explains that complexity impels people to move from knowledge housed in separate disciplines within the academy to assembling and organizing knowledge dispersed in the natural, social, engineering, medical and human sciences. This assembly demonstrates the permanent connection between the unity and diversity of all that is human. What counts as knowledge has to expand beyond that which is generated by the scientific method to include the complex structure of understandings garnered through intricate webs of relations between people in the academy, the private and public sectors, and civil society (McGregor, 2004, 2006, 2007).

In a most intriguing notion related to creating this transdisciplinary knowledge, Morin (2005, p.13) urges people to "link concepts which normally repel each other logically, like unity and diversity. [People] are obligated to connect all these disjointed notions" so as to conceive a living organization or system. Morin suggests that, as this organization works to maintain itself, it degrades energy by its work, meaning it must draw energy from its environment. The organization depends on negative (maintain the status quo) and positive (deviate from path) feedback to self-generate. Increasing deviation allows for transformation; hence, Morin's notion of complexity implies that people must pair unlike ideas to generate intellectual deviations. This pairing of unlike ideas occurs in the *fertile middle ground* as people navigate different levels of reality, matching consciousness with information. The *logical core* of complexity is disparate pairs, dialogics. To keep these ideas apart leads to the breaking up of knowledge, preventing people from linking and contextualizing things; decontextualized knowledge leads to ill-solved problems of humanity, including poverty. "Transdisciplinarity is inseparable from complexity" (p.23).

In summary:

- there are different levels of Reality and corresponding levels of perception (and a third hidden zone of non-resistance and mediation);
- many levels of reality and attendant perceptions exist at the same time - indeed, every level of reality is what it is because all the levels exist at the same time;
- the passage from one level of Reality to another is insured by the logic of the included middle (where consciousness and information flow); and,
- the structure of knowledge generated from the totality of movement between levels of

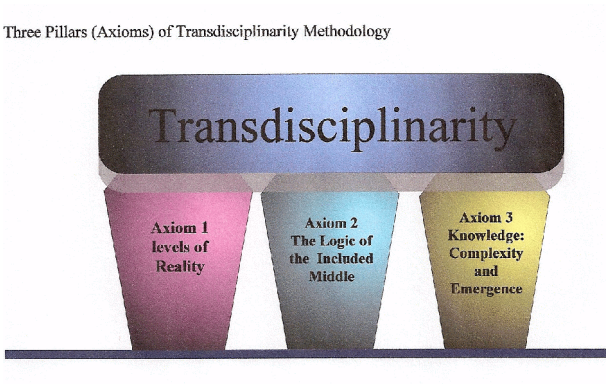
reality and perceptions is a complex, emergent, open knowledge structure (Nicolescu, 2005a).

Examining the Civil Society Poverty Project Report using Transdisciplinarity

How does all of this relate to poverty? Poverty is a transdisciplinary problem. What counts as a transdisciplinary problem? These problems are deep, far-reaching, compounding dilemmas, scenarios and conditions that shape the entire world. They fall within a pluralistically-viewed problem field that can only be truly solved or more deeply understood by drawing on knowledge created by integrating life-world perspectives from academic disciplines, public agencies, the private sector and civil society. These problems are, by their very nature, profoundly, confoundingly, difficult to solve and understand in their entirety. They include (Morin, 1999b; UNESCO, 1998, vanBreda, 2008):

- the human condition;
- human aggression;
- human freedom and justice;
- human empowerment, potential and self-determination;
- harmonious access to and distribution of resources;
- human development;
- human and bio sustainability;
- ideologies, paradigms and world views;
- power relationships; and,
- issues with global implications (such as poverty, food security, climate change, population growth, human migration, public health, globalizations, technological innovations).

If the conditions needed for the generation of transdisciplinary knowledge (levels of reality, logic of the included middle and complexity/emergence) are in place, a platform is created from which to dialogue about poverty-focused transdisciplinarity knowledge. Poverty is related to many of the other transdisciplinary problems: the human condition, unbalanced energy flows, unfulfilled human potential, hindered freedom and justice, unsustainability, disempowered individuals and communities, uneven distribution of resources, and abuse of personal and political power often through aggression and uneven development. Therefore, to create transdisciplinary knowledge to deal with poverty, people need a marriage of environmental sciences, economics, politics, labour laws, sociology and anthropology, health and many other disciplines (realties) in conjunction with the integration and cross-fertilization of insights from the academy with private and public sectors and civil society.



If people accept that reality is a coherent whole comprising several layers, then they can agree that they must be constantly aware of all layers as they look at any particular level of reality while addressing a transdisciplinary problem. This realization prevents people from ever again looking at just one aspect of the problem, including that of poverty. People would have to entertain the role of the invisible particle layer, the material layer, the biological (ecological), social and psychological layers, and the economic, political and technological layers of poverty.

People are challenged not to lose sight of the whole as they deal with complex social issue of poverty. From this perspective, it is easy to see why transversing disciplines and including government, industry and civil society sectors is so necessary to problem-solve in today's world. A robust *intellectual outerspace* would consist of a collection of differing transsectoral perspectives that nevertheless have found a way to live and work together to create integrative, embodied knowledge (Aerts, 2001; McGregor, 2004; UNESCO, 1998).

Positioning poverty within transdisciplinarity is a powerful way of rethinking the current polycrisis. It helps people understand the relationality of this radically new complex structure of multi-layered reality faced by humanity. As the narratives shared in the 2008 Civil Society Project Report on poverty illustrate (Xuereb, 2008), people can never capture *one* reality of poverty because there are different levels of poverty-reality and, correspondingly, different levels of perceptions about poverty (Nicolescu, 2006b; vanBreda, 2008). In his Introduction to the Project Report, Xuereb's (2008) description of poverty mirrors the transdisciplinarity understanding of a complicated problem, different from a complex problem. The former is characterized as hard to solve because it is intricate, tangled, knotty and detailed. Complex problems have the additional feature of emergence. Xuereb's characterization of poverty most assuredly reflects a knotted mess. He describes poverty in terms of global and personal security, human rights, universal rights, moral responsibilities, order with justice, and global as well as intergenerational justice. The Report contains poignant vignettes of the lived lives of those experiencing poverty in Malta (the faces of the poor). It also contains details about various political initiatives and discussions of a principled approach to poverty. Definitely... a *complicated* issue. However, a complex transdisciplinary problem is not just complicated, it also exhibits *emergence*.

It is one thing to untangle the strings of a complicated problem, but quite another to re-weave them with new strings into a new whole. Emergence refers to novel qualities, properties, patterns and structures that appear from relatively simple interactions, qualities that did not exist when presented in isolation. These new qualities are layered in arrangements of increased complexity (Morin, 2005; Nicolescu, 2008). Emergence means people can assume that poverty is *continually changing*. It is a rich weave of societal structures and functions. This new weave of poverty (and people's understanding of poverty) keeps changing because new and coherent structures, patterns and properties *emerge* as a result of the interactions between people trying to address poverty while working within a web of changing relationships (on the included middle ground). Original perceptions about addressing poverty are left behind or transformed as a new weave and fabric takes shape. The energy created, the information generated and the partnerships formed also constantly change as understandings about poverty change - everything is in flux and *in-formation*. The intent of transdisciplinarity knowledge creation is to get to know the world better by weaving together many ways of knowing and being in the world, as they relate to poverty.

Back to the *Civil Society Project Report*. The report contains separate contributions that, taken together, paint a picture of how *complicated* poverty is in Malta, and the European context. The *complicated* portrait of poverty emerged (rather than a complex portrait) because there was no intention to create transdisciplinary knowledge that respects levels of realities, the logic of the included middle and complex intelligence. The 21 people who contributed worked alone in their respective disciplines, societal sectors and government agencies, and submitted separate papers dealing with compelling political, economic and social dimensions of poverty: illegal immigration and border migration, international trade, domestic social policy, European Union policies,

citizenship, culture, morality, international justice and human rights. These disparate papers were collated into a collection, and divided into three parts by the Editor (Xuereb, 2008).

Although no integration of perspectives, insights, or new knowledge was attempted or intended with this exercise, the Editor creates a compelling prologue at pages 3-6 that suggests transdisciplinarity knowledge creation could flow from related efforts in the future. Xuereb (2008) calls for the creation of synergies between groups working on poverty, for a fight against exclusion (different from poverty), for integration and unity in diversity, and for the principle of Solidarity. He calls for full, frank and intensive intercultural dialogue, and the evolution of 'complexity order'. He argues that society needs to be the guardian for future generations, who do not have a voice yet live with the consequence of today's actions. He calls for reflexivity, social agency, dignity, and the ability to exercise life chances and reach potential. He urges has to devise an agenda for the common good. He saw the transdisciplinary potential of this initiative.

If so desired, complex insights about poverty could accrue in the course of future interactive, communicative and recursive research processes and dialogues among the contributors to this report. It is during this process that value positions and conflicts of interest would be mediated, negotiated and transformed (the Hidden Third). Participants would appreciate that, despite a lack of full information, urgent solutions about poverty will require methods for identifying optimum action strategies. This optimization process would be informed by the value and standards clarification process as people interacted and communicated with each other in the fertile middle space (Küffer, 2001; Nicolescu (2006b).

Although Xuereb's (2008) message in the *Civil Society Project Report* resonates with the spirit of transdisciplinarity; the project was not designed to be transdisciplinary. As suggested by vanBreda (2007, 2008), people's ability to generate transdisciplinary knowledge and information to address the problem of poverty is improved when their work is not compromised by radical breaks (discontinuities) between different levels of reality (i.e., disciplines, the private sector, public agencies and civil society). People operating from these realities do not see the world the same way; their thinking has been shaped differently. Only when they can shed their resistance to truth informed by other realities, can they join these realities to generate complex knowledge to address the polycrisis of poverty.

Figure 7 illustrates the breakthrough that is needed in order for transdisciplinary knowledge to be created, via different levels of realties relating to each other. The growing complexity of the most significant issues of our time requires an increasing active contribution of teams of experts having different and complementary cultural backgrounds. Indeed, people need transdisciplinary concepts that can be employed by transsectoral teams as they integrate their efforts to address complex world problems. Appreciating that the many variables needed to understand the world are difficult to constrain with any global formulation, transdisciplinarity does strive for multidimensionality - a merging of insights from disciplines with contributions from various backgrounds, schools of thoughts, cultures and generations (UNESCO, 1998).

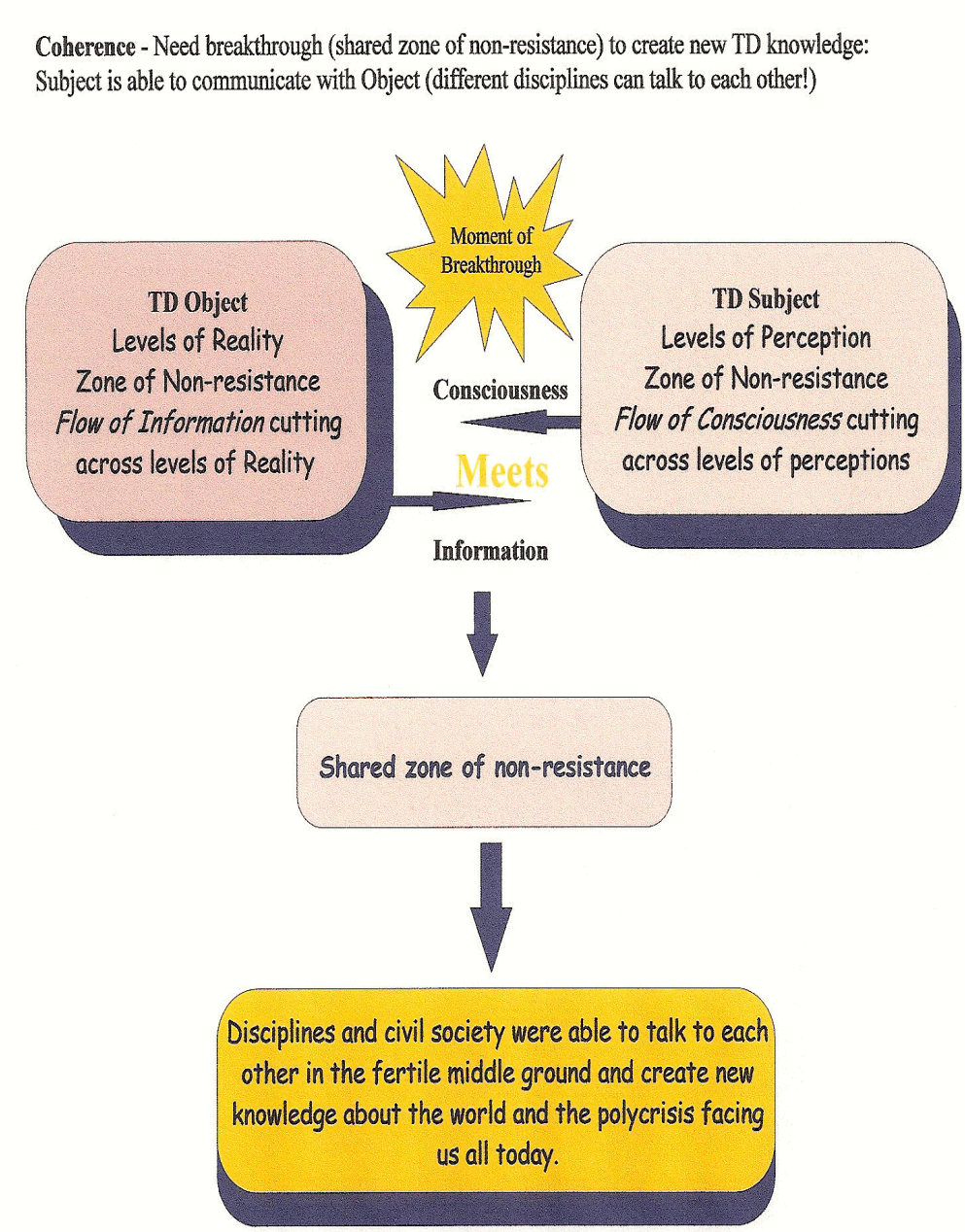


Figure 7 Transdisciplinary Intellectual Breakthrough

Emergent Thoughts

Poverty is such a complex problem, touching everyone in different yet similar ways, that vanBreda (2008) suggests people employ the concept of *poverties*. There are so many ways of being poor, so many overpowering circumstances, that no single description or analysis can apply to them all. Drawing on Max-Neef's (1991) Human Scale Development approach (fundamental human needs), vanBreda proposes that affluent people experience their own kind of poverty, that the earth and biosphere are impoverished, and that, yes, much of the world's people live in life-compromising and life-ending states of impoverishment. Because the problem of poverty touches

everyone and nature, everyone's help and contributions are needed to solve and understand it. It will take a cross-section from the international community to address poverty because no one country or person has a monopoly on approaches or intellectual thoughts and insights. People need to generate and collect transdisciplinary knowledge if they hope to sufficiently and morally address this encompassing human condition.

This special kind of knowledge can only be created and transferred across, between and beyond the academy, governments, industry and civil society. It necessitates new notions of reality, inclusive logic and new understandings of what counts as knowledge (specifically emergent complexity). Transdisciplinary knowledge embraces many ideologies and paradigms, enabling a transformation of logic, ways of knowing and being in the world. Through the emergence of unity amidst diversity, transdisciplinary knowledge is created and can be brought to bear on the pressing issue of global poverty. The theory of transdisciplinarity is fully developed. Worldwide energy is amassing around the notion of transdisciplinarity. The time for action has arrived, and people are obliged to extend their transdisciplinary dialogue and energies in their individual lives, and in the education, political, social, economic and spiritual realms (Nicolescu, 2006b).

"Developments proper to our planetary era confront us more frequently, [inevitably] with the challenge of complexity" (Morin, 1999b, p. 15). Poverty is no exception. Global poverty manifests itself on many levels - economically, culturally and socially. It is exacerbated by a myriad of factors: globalizations, technologies, politics and international relations, and education. To transform global poverty, people need transdisciplinary knowledge, with its three axioms about what counts as reality, logic, and ways of knowing. Because complex entities such as humans and societies are multidimensional, multidimensional approaches are needed to deal with people's lived experiences. People need to stop cutting thoughts up into separate disciplines and sectors (Morin). They can no longer detach themselves from the life-world, no longer rely on reductionist, fragmented thinking; they need a new, interpretative, integral engagement with the life-world, and that can happen with transdisciplinary thinking and knowing (vanBreda, 2007). Minds shaped by transdisciplinary thinking gain the ability to contextualize knowledge and integrate it into its natural entities. Through rich processes and exchanges, these minds interact and produce a complex knowledge containing its own reflexivity. *The knowledge is alive* because the problems the knowledge addresses are alive, emerging from the life world - such is the case for poverty.

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