

Special Presentation

Transdisciplinarity as a Criticism, and Response to the Simplified Paradigm of Modern Science

Interest in bringing transdisciplinarity as a discussion theme to this space in *Saúde e Sociedade (Health and Society)* arises from the growing importance it has taken on as a part of the broad criticism movement that nowadays engages in the hegemonic modern science paradigm. On the other hand, because of the possibilities it represents as an answer to the limits of this paradigm characterized by reality simplification, reduction, and fragmentation.

Being traditionally considered as a multi, and interdisciplinary field, Health - mainly in its collective, and public dimension - has much to avail with the new transdisciplinarity approach proposals (that however present themselves, in a more developed manner, in education, and formation areas). Although in a reduced number, some of these proposals already outstand, for they try to demonstrate this concept use importance in Health field.

In the present copy of *Saúde e Sociedade* two works presented here exemplify more specifically this last case: Naomar de Almeida Filho's and Patrick Paul's ones. The text (prepared by me with Américo Sommerman's, and Aparecida Magali de Souza Alvarez' collaboration), aims at describing, and interpreting the emerging, and constitution of a recent thought on transdisciplinarity, shared by a great number of thinkers, such as Patrick Paul and Gaston Pineau. This last one, in his professional, and intellectual pathway, which endeavors to outstand in his work the importance of transdisciplinarity, brings a good example about how this recent thought we have analyzed has been incorporated, and developed in the education field, dynamizing researches in this area and opening broad possibilities for its use in other fields (such as health education, and formation).

In "International Conferences on Transdisciplinarity: reflections about idea, and ideal emerging, and convergences in a new modern science direction" (a

text I had prepared with Sommerman and Alvarez), we analyzed the transdisciplinary thought emerging context as inscribed in the above referred broad modern science paradigm criticism movement. As a central objective, we aimed at describing the constitution of a certain way to understand transdisciplinarity (representing it by a specific basic scheme that we identified by researching final congress, and international talk documents on the theme, occurring particularly as of the 1980's). Defined on the basis of three pillars - complexity, different reality levels, and third included logic - considered fundamental to think in a transdisciplinarity methodology, such a scheme starts to be shared by different area investigators, demonstrating its heuristic characteristic, according to some studies. Based on the philosophy that supports, and leads the reflection process in these meetings, con-substantiated in the idea of integrating knowledge, and humanizing science, our conclusion is that these spaces allowed (with the constitution of this basic scheme of thought) not only emerging, and converging ideas on transdisciplinarity, but similarly, through them, the convergence of ideals.

Naomar de Almeida Filho presents, and deepens in his article "Transdisciplinarity and the Transdisciplinary Paradigm" the original approach he has to understand transdisciplinarity, equally inscribing it in the criticism movement to simplified modern science paradigm and articulating it with the complexity concept. Defining transdisciplinarity "complex object" as synthetic, nonlinear, multiple, plural, and emergent he starts to characterize it as a "systemic model-object", making part of a system of partial totalities, not susceptible to be caught by a conventional science organization in autonomous disciplines. So he establishes his transdisciplinary approach proposal, for he considers it necessary to have synthesis operations that produce holistic models of complex determination - interparadigmatic type synthesis - going beyond pluri, and interdisciplinary model limits. Though acknowledging it can be built at the level of each scientific field, he defends the idea of a "transdisciplinary synthesis, built in the transitive

practice of private scientific agents”, for he considers only this one can account for the complex object. Under this perspective, he puts in discussion the question of this agents’ formation. For this author, such agents present themselves as “transdisciplinary science operators, because they are able to *trespass* frontiers in the various *transformation* fields; additionally, they are prepared through successive stages of *training - socialization - enculturation* in the different scientific fields that build a certain kind of practice (like collective health practices)

This question about the transdisciplinary formation, posed by Almeida Filho, is equally present as a concern in all the other authors’ speeches, assembled here.

So, in his article “Transdisciplinarity and Anthropoformation: its importance in health researches”, Patrick Paul seeks to demonstrate the importance of anthropoformation in health researches that must postulate, through transdisciplinarity, a new epistemology of the subject. He discusses this relation in depth, taking the already mentioned three transdisciplinarity pillars as an analysis axis. However he does not circumscribe himself when proposing the “paradox” as a fourth pillar.

He approaches the implications brought by the biomedical paradigm, reductionist and fragmented by specialties and presents, as a counterpoint, transdisciplinarity as a new paradigm. He does not conceive it as a unifying super discipline that destroys the former paradigm, but as the private case of an opener, broader globalization, which articulates with new knowledge forms as pluri, and interdisciplinary ones.

That occurs because the new complexity that challenges science in the health field asks for interweaving the ties among genetics, biology, psychology, anthropology, sociology etc. Presupposing that transdisciplinarity gets closer to disciplinary frontiers, to

inaccurate zones, taking them - so to speak - as an “object”, Paul starts to justify, and base the necessity of a new subject epistemology construction; because he understands that it is he - the *subject* - who expresses himself “beyond” the disciplinary “*knowledges*” and always participates - in one way or another - in the observation by the *more or less strong* interaction with the object. It is discussing this new subject epistemology that this author sees, in the health field, possibilities of one going beyond disease, specifying interaction, and interdependency between the nosological unit and the reality present in the subject.

Also Gaston Pineau, who presents the reconstruction of his own trajectory in the field of education, and formation (in his article “Emerging of a paradigm anthropoformer of transdisciplinary - research - action - formation”), allows to demonstrate how the search of a new subject epistemology, recommended by the perspective of transdisciplinarity he adopts, leads him to confront the pedagogic - positivist paradigm, which structures the “normal research” in education, dissociating subject from object. Thus the term *anthropoformation* - as the formation of a human being - has been proposed to name the “new post - modern paradigm”, where it seeks to create links among research, action, and formation through a “systemic transdisciplinary epistemology”.

So, facing the amplitude with which the transdisciplinarity theme was treated here, this small presentation has the sole objective of inviting each reader to find, in the referred texts, a motivation to the conjoint piecework of rethinking our health practices on the basis of a new view.

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