

# THE NEW PARADIGM OF COMMUNICATION WITHIN THE TRANSDISCIPLINARY RESEARCH

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## ABSTRACT<sup>1</sup>

This paper aims to postulate a new paradigm of communication within transdisciplinary research, treated as a desirable model of practicing science in the XXI century (Brandt et al. 2013, Balsiger 2004, Wickson et al. 2006, Aenis 2010). The author emphasizes the need for a re-naturalization of transdisciplinary communication within the internally diversified teams, by returning to the natural, unforced patterns of human behavior within a group. Although it may seem to be a manifestation of sentiment for the Renaissance vision of science, combining threads from various, seemingly unconnected, areas of study (e.g. physics, metaphysics, and philosophy in one research approach) - today's necessity to restore transdisciplinary communication is a challenging task, including a need to return to the natural practices of cross-domain communication, using the potential of in-depth expertise in all the scientific areas. A mature transdisciplinary dialogue base on a translation of perspectives (Schuetz 1984, Perinbanayagam 2005) resulting from the natural predilection of a human actor to put himself/herself in the position of the other (interaction partner) to understand his/her point of view, for the set of intersubjectively shared senses and meanings is the starting point for every kind of partnership.

**Keywords:** communication, transdisciplinary research, dialogue, common understanding, shared meanings.

## 1. INTRODUCTION

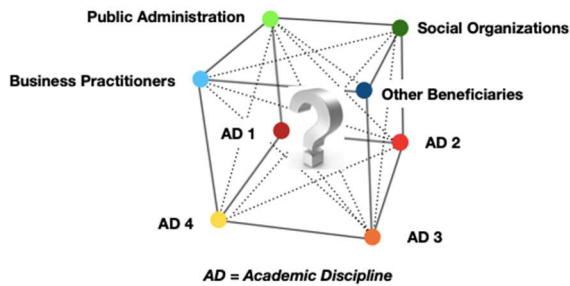
The purpose of this paper is to propose a new paradigm within transdisciplinary research, treated as a postulated model of practicing science in the XXI century (Brandt et al. 2013, Balsiger 2004, Wickson et al. 2006, Aenis 2010). In the era of digital disruption, “transdisciplinarity is not a vehicle that we deploy to stay alive or accomplish our projects. It is a way of being alive” (Japee 2020: 1). Due to the unlimited possibilities of cooperation, as well as - resulting from the progressive globalization - the rapprochement of research centers and teams, monodisciplinary research, focused on a narrow view of the analyzed issue from only one perspective, seem to be reductionist today. Therefore, it seems so important to include stakeholders from various backgrounds in the research process, which underlies research in the transdisciplinary paradigm.

“Transdisciplinary research reflects a truly inclusive cooperation of various scientific disciplines, as well as social environments that contribute to a deepened understanding of a given phenomenon” (Pokojska 2022b, see elaboration below).

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### A model of transdisciplinarity



Source: Own elaboration (Pokojska 2022a)

However, in the world of more and more marked inter-area cooperation and inter-center research projects, “the future of transdisciplinary processes and research is endangered by the risk of it becoming a buzzword with incoherent notions” (Scholz, Steiner 2015: 2) since the scientific community often “adhere to interdisciplinarity or transdisciplinarity without debating what these terms mean” (Lawrence 2015: 6). Therefore, in order not to be groundless, I propose such an understanding of transdisciplinarity: „a procedure of joint, collaborative and interactive elucidation of phenomena, solving of problems, creation of products, or introducing new questions which (...) engages all relevant practical professions or scientific disciplines with their specific skills and methods, as well as all relevant and interested participants from various fields of society, (...) with the aim to reach deeper and more comprehensive solutions to problems in specific problem areas” (Toš 2021: 69).

It is also worth mentioning that this understanding of the category of transdisciplinarity includes “the tendency to think laterally, imaginatively, and creatively not only about solutions to problems but to the combination of factors that need to be considered” (Bernstein 2015: 10).

For transdisciplinary research to function in the world of science and realize its potential with full power - transdisciplinary communication, defined as an orderly and mutually understandable dialogue between

representatives of various scientific communities and beneficiaries from outside the world of science, becomes essential. A mature transdisciplinary communication, however, is not only a way to establish and strengthen scientific cooperation between various areas of knowledge as well as non-academic beneficiaries (Malitza 1979), but also a tool of the legitimacy of the role of XXI-century universities - as a socially responsible center that link and shape the overall discourse on key social issues (Misra, Lotrecchiano 2018, Pokojska 2022b).

An effective co-creation of transdisciplinary communication requires, however, common optics and senses shared by the partners, as a prerequisite for a fully grounded understanding across various disciplines. Albeit, the need to negotiate the designation of joint categories and communicate results of the research - as a crucial part of scientific communication - should be presented not as a new, additional obligation for academics - but rather as a return to the natural, unforced patterns of human behavior within a group. Therefore, this paper aims to emphasize the need for a re-naturalization of transdisciplinary communication within the internally diversified teams, not building it from the scratch. Moreover, making scientists aware that participation in transdisciplinary projects can catalyze the restoration of natural communication as an immanent human skill, will be the first step towards disseminating a truly mature transdisciplinary dialogue in contemporary science (as well as with the recipients from the non-academic environment). The beginning of this reflection may be a three-step model of establishing an enhanced transdisciplinary communication, proposed below:

### A three-step model of establishing an enhanced transdisciplinary communication



Source: Own elaboration

## 2. PRE-ACADEMIC NATURAL COMMUNICATION AS A HUMAN ABILITY

Interdisciplinary communication in academia, as part of transdisciplinary projects, is based on the primal skill of the human species, namely the articulated speech and the ability to communicate within a group as a part of the process of externalization (Berger, Luckmann 1983). It distinguishes people from other animal species and enables them to co-create signs, symbols, and thus the whole cultural system as a context of human existence (Harrub et al. 2003).

Peter Berger and Thomas Luckman describe the stages of human development, they pay attention to the key competence that a child acquires in the process of primary socialization (i.e. in the first years of shaping his/her social identity), which is - the ability to communicate with others, using a codified system of signs, called a language (Berger, Luckman 1983). Also, Jean Piaget, expresses the view, that the cognitive development of a child includes - among other things - the development of a crucial social competence, i.e. social speech "the purpose of which is to inform someone about something, joint exchange of verbal messages, i.e. discussion" (Karwowska-Struczyk, 1982: 48). Intra-group communication is therefore not only a natural human competence, but most of all - a skill that precedes the acquisition of other (including scientific) skills and competences, hence, it should be treated as an absolute basis of any further cooperation, including the scientifically advanced one.

## 3. SCIENTIFIC COMMUNICATION WITHIN THE DISCIPLINE

Along with the development of science and the deepening of the considered issues, with the beginning of the modern era, a vision of specialist science, divided into individual plots and thematic areas, emerged (Sokołow 1969). On the one hand, it was a requirement for rapid scientific progress and the inevitable effect of striving to obtain an in-depth picture of the researched matters - on the other, though, it led to the separation of individual areas of knowledge and their delineation, which resulted in the loss of the idea of a transdisciplinary approach to the studied phenomena.

Today's debate on the need to restore transdisciplinary communication may seem to be a manifestation of sentiment for the Renaissance vision of science, practiced in a humanistic, erudite paradigm, combining threads from various, seemingly unconnected, disciplines of science (e.g. physics, metaphysics and philosophy in one research approach). So as not to be naive, it was possible in the fifteenth and sixteenth centuries, not only because the science of that time - due to its relatively low level of development (in comparison to contemporary learning) - touched on questions of a more general nature and issues less specialized and detailed than today, but also due to the scientists themselves, who did not have a truly in-depth and specialized expert knowledge at their disposal, that would help them go deep into one, specific research area.

Therefore, today's necessity to restore transdisciplinary communication is a more complicated task, as it includes the need to return to the natural practices of cross-domain communication, using the potential of in-depth expertise in all the scientific areas included.

Every single discipline elaborates its own, intra-disciplinary language embracing key categories and terms treated within the academic research, constituting a system of meanings that is to some extent hermetical and inaccessible to others. Consequently, these expanded meanings and specialized understandings deepen

interdisciplinary barriers and lead to the division of science into more respected areas and those of relatively less prestigious. As Simon Sussen writes, „Just as there is a hierarchical relation among universities, there is 'a hierarchical relation among subject areas' (Holmwood 2010), with some of them being more prestigious and affluent than others, in terms of both their symbolic capital and their economic capital” (Sussen 2021). The divisions and relations of power embedded in interdisciplinary cooperation undoubtedly do not facilitate cooperation and transdisciplinary communication, although the awareness of their existence may already be the first step to overcoming the existing barriers.

#### **4. RE-NATURALIZATION OF THE TRANSDISCIPLINARY COMMUNICATION**

Therefore, a new approach towards the issue of communication within the transdisciplinary research should be considered as a restoration of the natural human process of searching for the agreement and understanding with different actors from various environments (not only the scientific ones). The truly and effective trans-domain dialogue requires, however, an ability and willingness to share one’s perspective with the partners of interaction, shifting a focus to building a global image of the scientific questions, from a bird’s eye-view.

The postulated course of establishing (or rather re-naturalization) of transdisciplinary dialogue bases on a translation (in other words - interpretation) of perspectives, perceived by one of the greatest phenomenologists, Alfred Schuetz, as a prerequisite for agreeing on meanings and building an effective communication (Schuetz 1984, Perinbanayagam 2005). Three rules of the translatability of perspectives have been formulated. These are: (1) the assumption, that there are other beings all around, who are similar to us, also in the rational way of thinking, (2) the awareness, that the same objects may be perceived and experienced by different actors differently, due to miscellaneous

positions and individual biographical determination, (3) the way of solving these difficulties is adopting the principle of translatability of perspectives (Schuetz 1984).

According to the phenomenological conception of the social worlds, all these assumptions lead to an effective construction of an intersubjective world of shared meanings and co-creation of intersubjective knowledge (deriving from the subjective points of view), which is a foundation for establishing relationships going beyond divisions and disciplines. This is also the way in which a deep transdisciplinary communication should be built, on the foundation of the natural predilection of a human actor to put himself/herself in the position of the other (interaction partner) in order to understand his/her point of view, for the set of intersubjectively shared senses and meanings is the starting point for every kind of partnership.

#### **5. CONCLUSION**

The argumentation presented in the paper was to show transdisciplinary communication as an indispensable element of the scientific process in the XXI century (Wang, Aenis, Siew 2019). The challenge, however, is that the process of building mature, effective communication requires overcoming a certain academic paradox „on one hand most academic subjects are encouraged to engage in inter- and transdisciplinary research” (Sussen 2020: 217). On the other though, they „(...) are obliged to reassert their disciplinary identities (...), thereby reinforcing traditional conceptual, methodological, empirical, and institutional boundaries” (Sussen 2020: 217). Furthermore, establishing a re-naturalized interdisciplinary dialogue, based on the primary human ability and immanent need to share the world of meanings, must also include a socio-cultural context and values that underlie activities carried out by members of a community. No research projects can be carried out in a vacuum, and decisions made by researchers not only result from the existing axionormative order but also contribute to and co-create the social order.

Therefore, in the process of re-naturalization of transdisciplinary communication, the social responsibility of the academy (as well as the amenability of individual participants of interactions) cannot escape our attention (Pokojska 2022b).

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