'Transdisciplinarity': A Framework of Knowledge Production in North-South Partnerships?

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INTRODUCTION

This issue of ASEAS brings together different articles reflecting and discussing scientifically, as well as more practically, challenges faced during the implementation of a capacity-building project on transdisciplinarity. The papers are the outcome of a common endeavor that was undertaken between 2016 and 2019 by universities from Southeast Asia and Europe in the context of the *Erasmus+ Capacity Building in Higher Education* program funded by the European Union. The project *Fostering Multi-lateral Knowledge Networks of Transdisciplinary Studies to Tackle Global Challenges* (KNOTS)[1] and its implementation process, as well as conflicts, discussions and transformations that occurred during the various capacity-building activities on transdisciplinarity, will be discussed in the papers from different perspectives and with different foci.

Taking transdisciplinarity as a departure for capacity-building activities and collaborations in the course of the KNOTS project was a response to trends and challenges in world development requiring new frameworks of knowledge production. All the participating institutes and universities in Vietnam, Thailand, Germany, the Czech Republic, and Austria saw the necessity to rethink what knowledge is and how research is done. All participating institutes and their members had either social science or humanities backgrounds and were working in interdisciplinary or disciplinary contexts. Some of the participants and the respective institutes were acquainted with the history and the concepts of transdisciplinarity, while others became familiar with transdisciplinarity only during the project. What all share, especially but not exclusively those coming from development studies, is the realization that the gravity and the scope of global transformations and inequalities due to climate change, migration or capitalist development and their interplay require a new "synthesis of knowledge" (Basile & Baud, 2019, p.11). This synthesis of knowledge not only includes various disciplines and non-academic actors and their knowledge, but especially knowledge, approaches, and contributions from scientists from the so-called Global South, as well as experiential knowledge from practitioners and/or marginalized social groups. It is this knowledge that

1 For detailed information on the KNOTS project, see: https://www.knots-eu.com

often remains unrecognized in knowledge production in development studies and beyond. This is due to the persistence of unequal power relations in knowledge production in general and South-North research partnerships in particular (Baaz, 2005; Melber, 2019).

The KNOTS project should be conceived as a common attempt to come to know whether transdisciplinarity can be an answer to the urgent need to widen and change not only the (uneven) production of knowledge but also its organization in order to understand and address local and global problems and challenges. Even though the project proposal was primarily developed by the coordinators of the project (Dannecker, 2020), we shared with our academic colleagues from Southeast Asia and Europe the aim to get engaged and work together on a new framework of knowledge production through scientific as well as methodological discussions regarding transdisciplinarity. Especially, the vision that transdisciplinarity "is about dialogue and engagement across ideologies, scientific, religious, economic, political and philosophical lines" (Shrivastava & Ivanaj, 2011, p. 85) and the point made by Nicolescu (2010; 2014) and summarized by McGregor that "no perspective, discipline or worldview constitutes a privileged place from which to understand the world or these intractable problems" (2017, p. 1) were seized as promising. These inspired the coordinators of the project and – as the implementation of the project has shown – doubtlessly also colleagues from the various participating universities (Doi, 2020).

THE KNOTS PROJECT

The KNOTS project was not a transdisciplinary research project, which is important to highlight. It aimed to discuss different transdisciplinary perspectives and approaches and to develop transdisciplinarity further to increase – depending on the local context – transdisciplinary capacities in research and teaching in all the participating universities and institutes. Therefore, a broad variety of activities such as summer schools and fieldtrips, workshops and conferences took place throughout the course of the project. Creating spaces to discuss the different transdisciplinary perspectives and approaches, as for instance during the three summerschools in Vietnam (2017 and 2019) and Thailand (2018), was as important as the subsequent fieldtrips to practice transdisciplinary collaborative work. This meant primarily to form teams comprising members from the different universities with different disciplinary backgrounds and different academic positions. The teams discussed and experienced together with non-academic actors, in different local settings and focusing on different topics, how collaborative problem framing could take place and how the problems identified could then be addressed. None of the papers in this issue focuses explicitly on fieldtrips, but the papers by Dannecker (2020), Heis and Chayan (2020), and Seemann and Antweiler (2020) refer to these activities, thereby discussing and analyzing group learning processes and challenges. Shifting values and reflecting social, cultural, or political power structures often influenced effective group learning in different ways, as has also been shown in papers of students from the University of Vienna, who participated in a summer school and fieldtrips, conducting research about the project and the related

activities.[2] As these papers reveal, time plays an important role (the field trips were prepared in the context of the summer schools and lasted around one week in different locations) as well as reflexivity. To manage, as pointed out by Klein (2008), conflicting approaches – differences between academic and non-academic actors and within groups – creates not only questions of how much time groups have for communicating and compromising, but depends primarily on whether reflexivity can be accommodated. The articles by Dannecker (2020), Bärnthaler (2020), and Heis and Chayan (2020) explicitly argue that reflexivity – as for example discussed theoretically as well as methodologically in feminist or postcolonial approaches – should be focused on and integrated into all approaches, discourses, and discussions aiming to develop transdisciplinarity further. Especially, reflexivity about positionalities, privileges, and power asymmetries, as put forward in feminist and postcolonial approaches dealing with power differences and hierarchies related to knowledge production and truth claims, are, as argued, important to conceptualize and to develop transdisciplinarity further. This would also allow us to include theories and methodologies for collaborative and emancipative knowledge production from the Global South, such as *Thai Baan*, as explicitly discussed in the paper by Heis and Chayan (2020).

The non-academic actors from civil society and the public sector participating in the KNOTS project were proposed and selected by the academic partners in Thailand and Vietnam 'representing' those groups who are facing 'wicked problems' such as migration, climate change, or inequalities in their lifeworld. These topics have been identified by the participating academic actors as the most pressing ones globally as well as locally, unfolding in very complex phenomena especially in Thailand and Vietnam. The training sessions during the field trips took place in diverse localities, focusing on environmental changes, migration, resources and their distribution and thus 'new' inequalities, to name just a few. 170 students from the participating universities partook in the activities, the majority coming from Vietnam and Thailand, along with 95 colleagues from the different departments of the involved universities. Besides a fluctuating majority of student participants and some university staff who joined only one or two summer schools or field trips, there was a core of academics working together closely throughout the project lifetime.

Many of these colleagues also joined the workshops that took place at least once per year aiming to develop a teaching manual based on the approaches and methodologies that had been discussed, developed, and practiced during the summer schools and field trips. The outcome of this process, which also included train-the-trainer and train-the faculty workshops at the universities in Vietnam and Thailand, is the open-access *teaching manual* (KNOTS, n.d.),[3] providing a resource as well as a toolbox for university teachers, researchers, students, and interested audiences. The teaching manual reflects the 'learning-by-doing' approach: it consists of different sections, themes, and topics, which, in the broadest sense, reveal the participants' examination of and involvement with the literature on transdisciplinarity, as well as reflections

2 In the context of a research seminar, ten MA students from the Department of Development Studies at the University of Vienna did empirical studies on participation, dissemination, and power structures during the summer school and field trips in Thailand (2018). Two of the four final group papers have been published as working papers (see, Braunhuber, Goisauf, & Reinisch, 2019; Semmler, 2019).

3 The teaching manual is available online: https://www.knots-eu.com/the-teaching-manual

about theoretical issues (e.g., knowledge production and science-public relations), evaluations of transdisciplinary projects, and ideas about how to teach transdisciplinarity and methodologies. The sections of the teaching manual are the result of this learning process and reflect the different expectations, experiences, and priorities of the colleagues and students involved. Those differences emanated from different 'local' contexts (e.g., culturally and institutionally) and the resulting varieties in modes of teaching and learning as well as different understandings of knowledge and knowledge (co-)production. Thus, the teaching manual features different positions and perspectives in relation to research and teaching.

Besides these activities – which were essential pillars for the development of the teaching manual – roundtrips, workshops, and conferences also took place. These activities provided spaces for preparing the different activities, negotiating the agendas for the collaborations, and trying to reach consensus as to what capacities are locally needed for pursuing transdisciplinarity in research and teaching and who has which capacities that can be shared and/or developed further. Additional to these activities, which focused explicitly on transdisciplinarity, workshops and meetings regarding the implementation of the administrative provisions and guidelines such as quality assurance, evaluation, and dissemination that the EU as the funder foresees and requires (and that are discussed especially in the paper by Seemann and Antweiler, 2020) took place, including primarily the consortium members from the eight participating universities[4] and the administrative staff in charge.

During the final conference in Thailand in 2019, firsthand experiences were presented, especially by younger scholars who have 'translated' transdisciplinarity into their research projects providing insights into the broad variety of challenges they faced locally. The challenges that they encountered also structured the collaborations in the context of the KNOTS project. These were power structures between the different actors due to gender, socio-economic position, age or 'race', and the interplay between these social categories. In the context of the KNOTS project, power hierarchies between the Global North and the Global South, between different university cultures as well as hierarchies within universities and institutes accompanied the implementation of the activities, structuring the discussions, and hindering mutual learning processes, especially in the beginning. In all articles in this issue, these challenges are analyzed from different scientific perspectives and positionalities. Since all papers refer to transdisciplinarity but are embedded in the authors' understandings and interpretations of the concept and the approach or framework of knowledge production, a short introduction about the development and the scientific discussions about transdisciplinarity will be given in the following section.

SOME REMARKS ON TRANSDISCIPLINARITY

Doubtless there is a "plurality of transdisciplinary models" (Nicolescu, 2008, p. 13) as well as philosophical, theoretical, and conceptual perspectives (Bernstein, 2015; Darbellay 2015; Du Plessis, Sehume, & Martin 2013; Klein, 2014; McGregor, 2017;

4 One university from Germany, one from the Czech Republic and one from Austria, two universities from Thailand and three from Vietnam.

Mittelstraß, 2000; Nicolescu, 2006). In earlier definitions of transdisciplinarity, the focus was primarily on the synthesis of disciplines (Piaget, 1972), aiming for a betterment of humanity (Mahan, 1970), and problem solving. The notion was to develop "an overarching framework from which selected problems and similar problems should be approached" (Kockelmans, 1979, p. 128), to overcome disciplinary specialization, and to bring continuity to inquiry and knowledge (Mahan, 1970, pp. 194-195). Since then, mainly two perspectives or approaches can be identified.

The first approach interprets transdisciplinarity as a new principle for science and research and an overarching theoretical framework (Nicolescu, 2002). This framework, as Augsburg (2014) argues, focuses on the creation of new forms of integral knowledge production by those inside and outside academic disciplines. This approach or perspective is often connected to Nicolescu (2002; 2006; 2008), who criticized modern science for assuming that reality is completely independent from the person observing, which has created the misconception that scientific methods produce neutral and objective knowledge. For him, as discussed in detail by McGregor (2015, p. 4), transdisciplinarity involves values, it is about identifying new knowledge between, across, and beyond disciplines, since no perspective, discipline, or world view has a privileged place from which to understand everything (Nicolescu, 2014). From this perspective, transdisciplinarity is a 'new' methodology (not method) for knowledge production.

The second approach understands transdisciplinarity as a problem- and solution-oriented research approach by integrating scientists as well as non-academic actors to produce socially robust knowledge (Klein, 2004; Nowotny, Scott, & Gibbons, 2001). The focus is on combining existing disciplinary knowledge with stakeholder knowledge. The aim is "a synthetic reconfiguration and recontextualization of available knowledge" (Klein, 2001, p. 49), especially in the context where knowledge should be applied. Thus, transdisciplinarity is seen primarily as another type of research within the spectrum of existing research, one that strives to do better science to deal with the complexity of society (and not strive to understand the world as in the first approach) (McGregor, 2015, pp., 11-12). The second approach has been translated into funding schemes and research policies in Europe in the last two decades, especially, but not exclusively, in the area of sustainability (Jahn, Bergmann & Keil, 2012; Spangenberg, 2011). To summarize, the different understandings or approaches reflect disparate perceptions of knowledge and science as well as distinct university cultures and research practices (Felt, Igelsböck, Schikowitz, & Völker, 2015). All this could be observed in the context of the KNOTS project and is discussed differently in the articles of this issue.

THE CONTRIBUTIONS

The first three papers by Petra Dannecker (2020), Richard Bärnthaler (2020), and Alexandra Heis and Chayan Vaddhanaphuti (2020) engage with and aim to contribute to transdisciplinarity on the basis of observations, experiences, or qualitative interviews. All three articles focus on questions of knowledge – whose and which knowledge made in the context of the implementation of the KNOTS project counts – and the role of science in general, pluralism in particular, although from different perspectives.

Dannecker (2020) introduces the KNOTS project, focusing on power structures and relations that became apparent already when writing the project proposal. It is shown how the two understandings of transdisciplinarity framed the development of the project proposal and the expectations of the actors involved, and influenced the development of a common understanding of transdisciplinarity between the academic actors. The paper analyzes how the different understandings of knowledge and science, science and politics, and between disciplines and different actors representing different university cultures and relations are embedded in power asymmetries between the Global North and the Global South, but also reflect power relations due to age, gender, or university positions. Based on her observations and experiences it is concluded that transdisciplinary scholarship and practice could benefit from postcolonial and feminist traditions since both focus on reflexivity and positionality.

Bärnthaler (2020) focusses in his paper on pluralism and transdisciplinary collaboration, the latter postulating mutual learning and knowledge generation. His concern is to analyze how the controversies and conflicts, which scholars working in the field of development studies experience, are getting reconstructed by the scientific actors and how these constructions shape collaborations. On the basis of interviews conducted with (senior) academic members of KNOTS from Thailand and Europe, it is convincingly argued that even in 'disciplines' such as development studies pluralities exist. Those pluralities do not only regard methods, ethics, semantics, approaches, or aims but, as shown, also the self-understanding of the academic actors influenced by, for example, the perception of scientific standards developed in the Global North or the local contexts. The ways that scientists from Thailand construct and interpret their roles as scientists, and the relations between science and society are, according to Bärnthaler, conducive to integrate non-academic actors in transdisciplinary endeavors and important to unfold the potentialities of transdisciplinary work.

Heis and Chayan (2020) discuss two collaborative research designs and their different political, academic, and geographic genealogies, each focusing on slightly different aspects of social transformation. Developed in the Global North, transdisciplinarity is one among many different frameworks of pluralistic and context-sensitive research frameworks. Thai Baan, developed in Thailand, is a decolonial, counter-hegemonic methodology addressing explicitly regional power imbalances and socio-ecological injustice. Both – Thai Baan and transdisciplinarity – are explored regarding their respective concepts of knowledge, their understanding of collaboration, as well as their transformative outlook. It is argued that, while overlapping in many ways, transdisciplinarity speaks primarily to scientists as the main subjects of transdisciplinary research, and hence conceptually reinforces the academia-practice divide. In contrast, Thai Baan presupposes a shared basis of political activism and problem definition from which to start. Born out of political action, it creates a situated and partial but marginalized knowledge. However, both can learn from each other, Thai Baan in terms of a theoretical advancement, and transdisciplinarity by establishing a power-sensitive foundation.

The papers by Nguyen Minh Doi (2020), Frank Seemann and Christoph Antweiler (2020), as well as the personal account under the category research workshop by Barbora Nováková and Marta Lopatková (2020) focus on the KNOTS project itself and its dynamics. Whereas Doi is examining why a new framework of knowledge

production is difficult to discuss and to adopt in the academic sector in Vietnam, Seemann and Antweiler share and analyze their experiences with the administrative tasks and requirements specified by the EU. Nováková and Lopatková are discussing ethical issues that they observed and encountered during the implementation of the KNOTS activities.

Doi (2020) analyses the difficulties to establish and foster transdisciplinary collaboration practice in Vietnam at the institutional level. In a politically tightly controlled setting of academia and research in Vietnam, the author sees transdisciplinarity as a possible means of advancing the dominant, statist, market-oriented model of knowledge production, which seems inflexible. However, the institutionalized mode of knowledge production comes with high personal stakes for some actors, decision-makers in research agendas, or those reproducing or supporting the existing mode of knowledge production. Possible losses of control, as well as losses of status, stir the resistance to change. The paper examines the difficulties of transdisciplinary work at the institutional level in an environment where government and academic institutions are strongly linked and interdependent. Drawing on his experiences from the KNOTS project, Doi describes and analyses these challenges from a neo-institutionalist perspective, pointing out that institutional choices are not taken 'objectively', for the benefit of research outcomes as such, but respond to very particular, multi-level power relations and conflicts of interests.

Seemann and Antweiler (2020) investigate processes within the KNOTS consortium and its wide-ranging activities, including three summer-schools and field trips, as well as the kick-off event, the round-trip, and the closing conference. The authors focus on the learnings in project management as well as the implementation of a complex project in a diverse team. The authors were not only working as researchers and university lecturers in the project, but were also responsible for the quality management. The article therefore also reflects the difficulties of academics to carry out managerial and administrative tasks, which were quantitatively overwhelming for all and at times outweighed academic activities. The hybrid nature of the project made the assignment rather challenging, particularly for those who were involved in the different aspects of the project – teaching and management – in personal union. In addition, the authors explore how the promise of collaboration gnaws on established hierarchies and learned seniority principles, which they locate mainly, but not exclusively in the North-South divide. The article provides an apt overview of lessons learned – in terms of experience, seniority, disciplinary background, gender, and nationality – and offers a positive outlook: with good will, friendly atmosphere, and a focus on mutual learning, many structural constraints, if not all, can be overcome.

From the perspective of humanities scholars of Vietnamese Studies, Nováková and Lopatková (2020) ask how to deal with ethical questions central to collaborative research designs, which are ingrained in power inequalities, difference, and disconnection. The very aim of collaboration is to reach out for mutuality beyond difference and to find common grounds for working together. As Vietnamese studies scholars, the authors found themselves in a peculiar situation in different ways. Although acquainted with social science methods, which are at the core of transdisciplinary participative research, these were never part of their training. Rather, their curricula comprise the study of literature, language, and cultural styles. Proficient

in Vietnamese language, customs, and cultural systems, the authors were particularly susceptible to ethical questions and questions of appropriate and suitable forms of interaction during the KNOTS project. Despite all other differences and biases in place, inter-cultural pitfalls are worthy consideration too, and should not be neglected. This very personal account of how to navigate different aspects of one's own identity reflects the journey of the authors along the lines of cultural brokerage and the outsider/insider positionality in a transdisciplinary and transnational team.

To summarize, this issue seeks to engage with transdisciplinarity and transdisciplinary capacity building as experienced by different authors coming from different universities, having different disciplinary backgrounds and different research foci and experiences. What they all have in common is that they worked and 'struggled' together for three years in an EU Erasmus+ Capacity Building Project. The space the project provided, as the papers reveal, made visible a broad variety of processes, power relations and structures that accompanied the implementation of the project. All papers reflect and analyze these challenges, processes, and experiences from different perspectives. However, all intend to contribute to transdisciplinarity or, to put it differently, to contribute to a dialogue on knowledge production. Transdisciplinarity can lead to democratization in processes of knowledge production and is a framework that can support questioning the hierarchy of scientific knowledge and between scientific and lay knowledge. Transdisciplinarity as a collaborative framework has the potential to open-up and ease entrenched academic forms of knowledge production – after all, life is dynamic, and so research must be, too. However, the individual and collective diversities, the different values, agendas, power relations and positions, interests and perspectives are a profound challenge, as shown in the papers – a challenge not only for transdisciplinary endeavors but also for carrying out such complex North-South projects. The KNOTS project as well as the papers presented in this issue demonstrate that transdisciplinarity can be an approach or an implemented practice to engage in a necessary dialogue about knowledge production, power asymmetries in knowledge production, and the relation between science and society. The KNOTS project also displayed how difficult it is to communicate and to respect different viewpoints, epistemologies, and methodologies before and during collaborations and to question privileges. The present issue aims to share our discussions, thoughts, and observations with an interested audience. By sharing our lessons learned, and our conceptual tools, we want to engage in wider debates on transformative science and practice.

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