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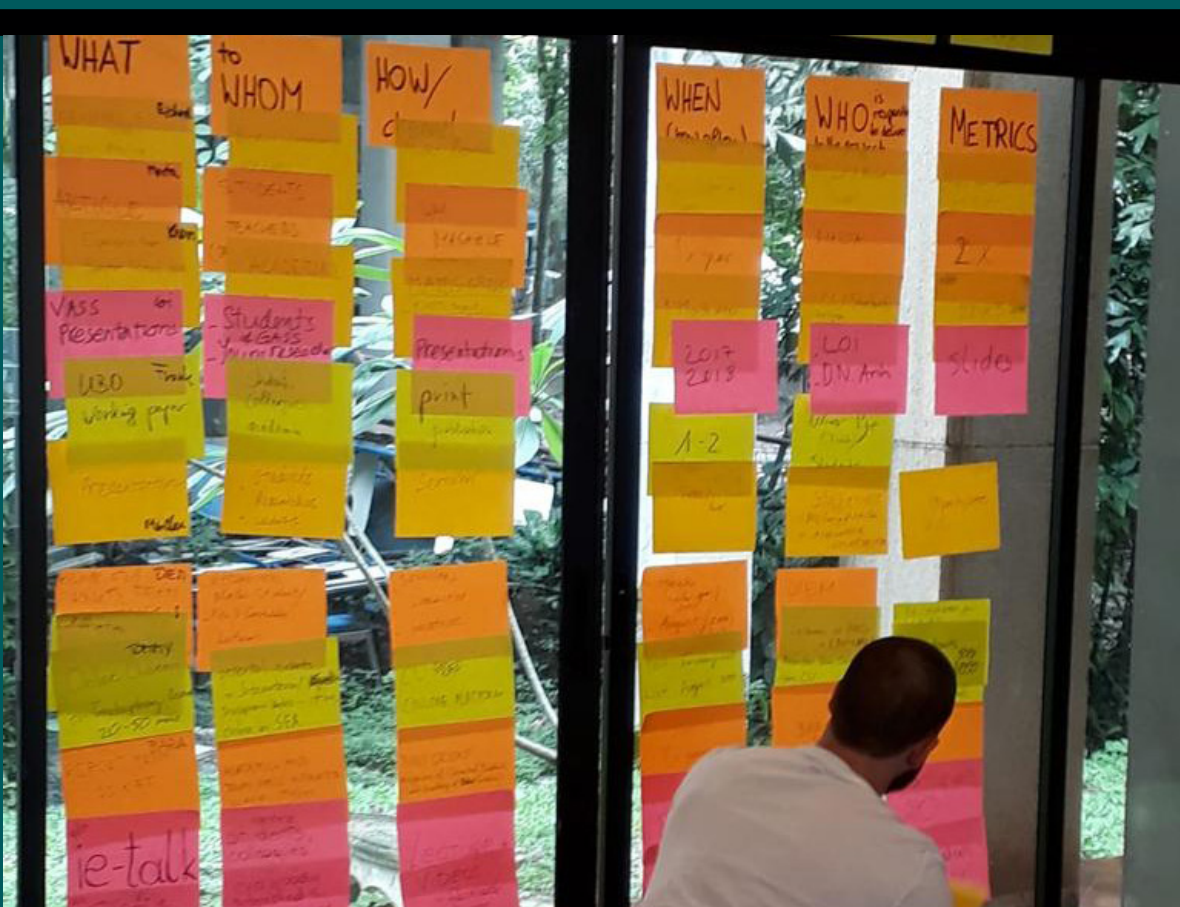
FOCUS **NEGOTIATING TRANSDISCIPLINARITY**



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FOCUS NEGOTIATING TRANSDISCIPLINARITY

Humanity and nature around the globe are facing increasingly complex and interdependent challenges, which require not only rapid action and structural change, but presumably a more inclusive research framework and a pluralistic concept of knowledge. This issue critically engages with transdisciplinarity, and more precisely with a transdisciplinary capacity building project in Southeast Asia and Europe funded by the Erasmus+ Capacity Building in Higher Education program. The aim of the project was to develop and consolidate transdisciplinary capacities for teaching and research focussing on three global challenges: migration, natural resources, social inequality. The present issue offers a selection of reflections, theoretical and conceptual groundings, and empirical embeddings of the experiences and outcomes of the project. The authors, all centrally involved in the project, illuminate different aspects of the joint endeavor, and raise questions regarding collaboration and transformative action in very diverse settings marked by multiple inequalities. The papers address not only epistemological problems, but also administrative and managerial challenges of such a project, as well as the clashes between research and capacity-building aspects in scientific activity. They also elaborate on disciplinary and cultural obstacles and hurdles of intellectual belonging and difference. The issue, thus, forges a bridge between theoretical reflexions on transdisciplinarity and concepts of knowledge on the one hand, and its institutional, structural, and disciplinary encounters, on the other.

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

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▸ Dannecker, P., & Heis, A. (2020). 'Transdisciplinarity': A framework of knowledge production in North-South partnerships? *Austrian Journal of South-East Asian Studies*, *13*(2), 165-174.

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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Transdisciplinarity 'Meets' Power Structures: Challenges and Experiences of a Capacity Building Project on Transdisciplinarity

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The aim of the paper is to discuss and to reflect on the experiences and challenges encountered during the North-South capacity building project on transdisciplinarity, KNOTS (*Fostering Multi-Lateral Knowledge Networks of Transdisciplinary Studies to Tackle Global Challenges*), which was financed by the EU through the Erasmus+ Capacity Building in Higher Education program. Despite the large body of literature on transdisciplinary approaches and projects, not many studies exist that discuss both the political and the power dimensions within transdisciplinary endeavors, especially not from a social science perspective. Based on the experiences, challenges, and progress over the course of the project, I will analyze how power relations influenced and structured KNOTS. I argue that the success of transdisciplinary North-South collaborations depends very much on awareness of power hierarchies, reflexivity, and positionality as well as different understandings of knowledge. Although differences will be highlighted regarding, for example, the aims of transdisciplinarity or the role of different understandings of science and knowledge, the paper does not aim to increase skepticism regarding transdisciplinarity. Instead, the intent of the reflections is to increase awareness of the influences of power structures and relations in transdisciplinarity projects, especially North-South collaboration projects.

Keywords: Collaboration; Knowledge; North-South; Power Structures; Transdisciplinarity

INTRODUCTION: TRANSDISCIPLINARITY AND POWER

For more than three decades, transdisciplinarity has been discussed in academia and in science policy debates as a promising approach to solve complex societal problems. Transdisciplinary approaches and frameworks have been presented as ways to effectively produce and use scientific research to contribute to societal problem solving and have been promoted as avenues for generating transformative and/or applicable knowledge (Polk, 2015) – knowledge, as stated by Rosendahl, Zanella, Rist, and Weigelt (2015), which is "able to question existing power structures and alter the status quo" (p. 19). For Darian-Smith and McCarty (2016, p. 1), a transdisciplinary framework or approach has the potential not only to produce transformative knowledge but can foster inclusive and relevant scholarship and knowledge especially by opening Western scholarship

to non-Western modes of thinking. It is the positive relationship between transdisciplinarity and societal problem solving that characterizes not only the literature on transdisciplinarity but also the policy debates around it, even though different conceptions and ideas are connected to the term. This positive relationship is explained through the problem focus of transdisciplinarity, namely that research should originate and be contextualized in 'real world problems' and be collaborative (e.g., Bernstein, 2015; Kockelmans, 1979; Nicolescu, 2002). Non-linear and reflexive knowledge production, the transcending of disciplinary boundaries, and the integration of non-academic actors and their knowledge are defined as the most important pillars for generating different types of transformative knowledge (e.g., Klein, 2004; Nowotny, Scott, & Gibbons, 2001).

Structural conditions that may influence or hamper transdisciplinary projects and, thus, knowledge production as well as political and power dimensions are rarely addressed in the scientific discourse. Regarding the implementation of transdisciplinary research projects, there are of course quite a number of studies and evaluations mentioning the problems and challenges that accompanied transdisciplinary projects or research processes. Collaborative problem framing, the participation of non-active actors, or applying integrative research methods are just a few of them that are widely discussed (e.g., Lang et al., 2012; Polk, 2015). However, an analysis of power dynamics or power structures that explains the experiences made or challenges faced in such projects is often missing (Messing, Adelman, & Durfee, 2012, p. 646).

Against this backdrop, challenges faced in the implementation of the *Fostering Multi-Lateral Knowledge Networks of Transdisciplinary Studies to Tackle Global Challenges* (KNOTS)[1] project, which focused on transdisciplinary capacity building in research and teaching within and between universities in the so-called Global South and Global North, will be analyzed and reflected, guided by feminist and postcolonial arguments and perspectives, especially those perspectives that focus on the entanglement of social relations of power in knowledge production. This includes feminist scholars like Haraway (1988) who argued that knowledge is always situated; or Rose (1997) who called for reflexivity of the researcher's positionality in the production of knowledge (Harding, 2005). Given the fact that the object of analysis is a North-South project, postcolonial perspectives are also relevant to understand and explain experiences, especially those explicitly relating to the relations between 'Western' and 'Southern' societies and how these relations have structured the agency, voice, and knowledge of the colonized and the post-colonized not only, but particularly regarding knowledge production and education systems (e.g., Bhambra, 2007; Chakrabarty, 2000). These perspectives, as will be shown, constitute fruitful areas of focus for transdisciplinarity, concerning the theoretical as well as the more practically oriented discussions and strategies (Rosendahl et al., 2015).

The article proceeds as follows: First, the KNOTS project, its aims, activities, and the methodology of the presented analysis will be briefly discussed. In the following analysis, it will be shown that power and power relations structured and influenced the development and implementation of the project and its activities. Power structures that are inscribed in the funding scheme and related to the positionality of the

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

initiators of the project, in addition to power relations between and within the participating actors and actors' groups and their different understanding of knowledge and the relation between science and society, do reflect global knowledge asymmetries.

THE KNOTS PROJECT AND METHODOLOGICAL REFLECTIONS

The KNOTS project, an Erasmus+ Capacity Building in Higher Education project financed by the European Union, aimed to introduce, build, and develop capacities in research and teaching on transdisciplinarity in the participating universities, institutes, and their interested scientific staff. The project was implemented between 2016 and 2019. All participating institutes from Southeast Asia (Thailand and Vietnam) as well as Europe (Germany, the Czech Republic, and Austria),[2] and, thus, the involved academic actors, had a social science background – some working at interdisciplinary institutes, especially in the fields of development or areas studies, while others being occupied in disciplinary environments. All participants had done research on and in Southeast Asia, thus, the project also aimed to intensify already existing working relations and build new ones. Development was identified as the comprehensive topic all academic actors involved were working on, although on different subtopics, from different perspectives, on different levels, and with different understandings of 'development'.

The main aim of the project was to work together on a new framework of knowledge production by discussing and further developing transdisciplinarity in the transnational space. The main activities to reach the formulated project goal included developing capacities for transdisciplinary research and teaching through and in the context of summer schools and field research, and the development of a teaching manual. The key argument thereby was that global problems are multidimensional and cannot be studied from one scientific discipline with its specific approaches and methodological strands exclusively (Hirsch Hadorn, Bradley, Pohl, Rist, & Wiesmann, 2006). Transdisciplinarity, as a framework for knowledge production, allows the inclusion of different actors in and outside academia with their respective knowledge, which is crucial since global challenges require not only new but also regionally contextualized knowledge (e.g., Bernstein, 2015; Brown, Harris, & Russel, 2010). Another aim was to build transdisciplinary knowledge networks to define and develop research and teaching methodologies on global and development related issues. The focus was on the broad and interrelated topics of social inequality, migration, and environmental resources – topics in which all partners have expertise, or that are part of their research agendas. The guiding principle was to engage in a multilateral learning process instead of a knowledge transfer from the North to the South.

The reflections and discussions presented in this paper are the result of my involvement in the KNOTS project. Observations, informal talks with participants and colleagues from the different universities during the different activities, like summer schools and field trips, consortium meetings, round trips, as well as train-the-trainer

2 I will refrain from specifying which universities, institutes, and colleagues in the different countries participated in the project for anonymity reasons.

sessions as part of the development of a teaching manual on transdisciplinarity constitute the empirical material on which the following analysis is based. This material also includes empirical research on the implementation of transdisciplinarity in teaching and research conducted by students during one summer school and field trip[3] (cf., Braunhuber, Goisauf, & Reinisch, 2019; Semmler, 2019). Thereby, it is important to mention that my experiences and observations are of course highly influenced by my position as an initiator and coordinator of the project. My colleagues and I from the Department of Development Studies at the University of Vienna coordinated the application process as well as the project implementation. We communicated with the EU, answered questions and decided when funds to the partner universities in Vietnam, Thailand, Germany, and the Czech Republic were transferred. Thus, power structures primarily, but not only, along postcolonial legacies accompanied the development and the implementation of the project.

In the following, I will contextualize and interpret the observations and experiences, which I have written down in a 'project diary'. It is important to further highlight that I had a special position in this project not only as a coordinator but also as a female professor from a European University. Additionally, as mentioned already, the participants had different disciplinary backgrounds and epistemological perspectives, which means that not all colleagues shared my constructivist sociologist belief that knowledge is socially constructed. Being part of the project meant being both frustrated and very satisfied with the cooperation and the activities that we implemented. It also meant realizing how difficult it is to understand each other, to find a common language, to be open and tolerant about other perspectives, and to formulate common goals. This paper is, thus, not only concerned with critical reflections of power dynamics on different levels but also with knowledge production and knowledge co-production as a social process.

WHOSE PROJECT AND WHOSE INTEREST?

It is important to describe the process of developing and writing the project proposal because challenges that accompanied us during the project's lifetime had to do with power structures, and differences in expectations, language, understandings, and logics, which were inscribed already at this stage and structured and influenced the project activities in different ways. The Vienna group read the call, got engaged, asked colleagues to join, and wrote the proposal. Based on our experiences in teaching, research, and critical reflection on 'development' as a vision, discourse, and practice, we perceived such a project as a possibility for us as well as for the participating colleagues from the partner universities to redefine and reexamine our roles in providing knowledge and innovation for and about 'development' and to change power relations in knowledge production. Against this background, we assumed and argued in the project proposal that transdisciplinarity could be the framework to produce new forms of integral knowledge. The main argument for the proposed North-South cooperation was the fact that most literature on and about

3 The author of the paper was in charge of the research seminar in which these studies were conceptualized.

transdisciplinarity and transdisciplinary projects is produced and takes place in the Global North and had not yet been applied in the Global South.[4]

In the process of writing the proposal, we formulated questions and aims and circulated several draft versions asking for comments and ideas; however, we only received a few responses. Since the timeframe between the call and the deadline for handing in the proposal was very short[5], there was definitely not enough time to discuss the aims, activities, and distribution of work packages with our partners. Due to the pressure to be ready in time, we were not pushing for more participation but assumed that the formulated aim to develop transdisciplinarity as a new framework of knowledge production would be a shared common venture.

Our focus on transdisciplinarity set the tone and led us to overlook other integrative concepts of knowledge production, which of course do exist in the Global South. One example of such a framework is *Thai Baan* research.[6] Thai Baan research is research that is undertaken by villagers in Northern Thailand and supported by academics from Chiang Mai University.[7] The research processes and aims of this counter-hegemonic methodology have been adopted and replicated in different parts in Southeast Asia. Thai Baan differs from transdisciplinarity research but also shares some similarities, which will not be discussed here in detail (for a detailed discussion, see Heis & Chayan, 2020, this issue; Myint, 2016). Important in the context of this paper is that this approach was not introduced or included while writing the project proposal, even though academic actors who have accompanied the Thai Baan research process in Northern Thailand were part of the KNOTS project. It was only later that this approach entered the project activities and was discussed. It can be argued that we, as initiators of the project, asked the wrong questions when communicating with the partners in the process of proposal writing and did not look for alternative knowledge but instead formulated the development of alternative knowledge as the aim of the project, thereby focusing exclusively on transdisciplinarity. By doing so, we made ourselves the prime agents of the project since we did not question the proposed transdisciplinary framework, nor did we look for alternative frameworks in our partner countries or beyond. We reproduced North-South power relations that then structured the expectations and the implementation of the project.

4 Even though the main challenge of transdisciplinarity is, according to McGregor (2017, p. 1), to address the complexity of the world and thereby respecting the individual and collective diversities, most of the philosophical, theoretical, and conceptual perspectives discussing and developing transdisciplinarity further neither include nor refer to diversities and inequalities between and within the Global North and the Global South, nor discuss explicitly how transdisciplinarity could enhance or overcome inequalities regarding knowledge production or the inclusion of non-Western knowledge or worldviews. Exceptions are papers by Schmidt and Pröpper (2017) or Schmidt and Neuburger (2017), for example, discussing how postcolonial power imbalances between the Global North and the Global South influence transdisciplinarity and transdisciplinary projects.

5 The call came out in November 2015 and the proposal had to be submitted in February the following year. Thus, altogether there were four months to finalize a proposal.

6 Other concepts of knowledge production are, for example, approaches connecting Paulo Freire's dialogue approach with transdisciplinarity (cf., Novy, 2012; Vilsmaier, Faschingeder, & Mercón, 2020), or connecting African Philosophy and transdisciplinarity (Du Plessis, Sehume, & Martin, 2013).

7 For more information, see the website of the Living River Siam Association (http://www.livingriversiam.org/en-tbr.htm), or "Thai Baan Research: An Overview" by Chayan (n.d.).

We also did not question the logic of the funding scheme. Felt, Igelsböck, Schikowitz, and Völker (2015) argue that "transdisciplinary research programs reflect proponents' specific cultural and institutional framing of the research and, more broadly, of science-society relationships" (p. 4). The EU capacity building program reflects the cultural and institutional understanding of the European Union of what capacity in higher education means and how it should take place, namely through a transfer of capacities from the Global North to the Global South. This mirrors how the role of European higher education organizations is understood and perceived, namely, as exemplars of 'modernity' whereas the 'others' are seen as still lagging behind. Thus, the KNOTS project's embeddedness in specific structures and procedures, such as the funding scheme, the time frame for handing in the proposal, and EU's strategies and priorities, contributed to power asymmetries, which became apparent already in the writing process of the KNOTS proposal (cf., Schmidt & Neuburger, 2017, p. 64).

Hegemonic structures between the Global North and the Global South, expressed through the funding scheme with us as initiators and coordinators of the project, ensured the privileged positioning of the Vienna group within institutional, organizational, and individual power relations. Although we theoretically recognized 'difference' and were aware of our hegemonic position through our reading and critical attitude towards development and knowledge production, it did not make a difference to our self-understanding and practice when writing the proposal or using this specific funding scheme. As Bhambra (2007) argues, a theoretical engagement with postcolonial theories and approaches does not, also not in our case, imply a critical engagement with funding schemes or an in-depth confrontation of our positionalities. Even though the aim was to further develop transdisciplinarity together with the partners in the Global South, thereby reducing hierarchies, and to introduce new opportunities and a more equal framework of knowledge production in order to change the status quo regarding, for example, knowledge hierarchies or the persistence of uneven power relations in North-South research partnerships (Basile & Baud, 2019, p. 17), we did not question transferring transdisciplinarity as an approach from the Global North to the Global South. Nor did we actively look for alternative possibilities for knowledge production (like Thai Baan) or adequately reflect on the power structures that we, as academics from the Global North, embody through our organizational and social positions.

The process described above explains why the aim formulated in the proposal did not correspond with the aims of all partners involved. Some of the partners, especially, but not only, from the Global South, were expecting that, in the project, the partners who are more familiar with transdisciplinarity would introduce and teach methodologies which could be applied for collaborative research. For them, transdisciplinarity is primarily a methodology of collaborative research with applicable outcomes. Whereas for us, as initiators, and as written in the proposal, transdisciplinarity is connected with the negotiation and creation of new forms of integral knowledge production and the development of methodologies making this possible. Already during the kick-off workshop in Vienna, these different perceptions became apparent. However, it took several activities, discussions, and conflicts before we could discuss and formulate our different expectations and understandings, and

before it became clear that we could not 'deliver' such a methodology, but that such a methodology can only be an outcome of the project. Thus, whereas we expected active participation, the willingness to participate and invest time under these conditions lessened, especially among those colleagues in leading positions. The latter expected to get familiar with a 'new' methodology – a methodology that could be an important asset to compete on the 'global research market'.

North-South projects, independent of whether they focus explicitly on research or capacity building, are embedded in the global hierarchy of higher education marked by global inequalities concerning the production and circulation of organized knowledge (Connell, Pearse, Collyer, Maia, & Morell, 2017, p. 429). Asia, for example, as Qi (2015) argues, is "marginalized on the global science map" (p. 30). For decades, scientific concepts, knowledge, as well as practices in teaching and education have been transferred from the North to the South – another postcolonial continuity – and scientific 'quality' has been judged according to so-called global standards (Marginson & Wende, 2007). Knowledge generated in the North still serves as the foundation of these standards and, thus, has a far superior status to knowledge produced in the South (Girvan, 2007). This is, as Langthaler, Witjes, and Slezak argue (2012, p. 237), also true for the use of knowledge in institutions as well as its epistemic recognition. North-South research partnerships can, thus, be seen as a possibility to assess and increase global competitiveness of national research institutes and capacities, especially in countries that have gone through economic transformations. David (2007) shows that economic growth, especially in countries of the Global South, leads to an increase in higher education organizations and in competition between institutions within and between countries. What this implies for Vietnam, for example, is elaborated by Doi (2020) in this issue. To compete in national, regional, and global higher education sectors still means an orientation to and dependency on the institutions, scientific concepts, methodologies, and techniques of the Global North (Connell et al., 2017, p. 42). Thus, for some colleagues, the KNOTS project was seen as an opportunity for their higher education organizations and institutes to raise their profile, which is a very rational strategy given the global hierarchy in the higher education sector.

In the context of the project, this can explain the different aims that accompanied the activities as well as some of the frustrations on the side of those partners who felt that the way the activities were conceptualized and implemented could not deliver the assumed outcome. One example here is the development of the teaching manual.[8] Whereas the Vienna group, as coordinators of the project, planned that the teaching manual would be developed together and would initiate a mutual learning process, others expected that the coordinators of the project would prepare the necessary material. Therefore, discussing or critically commenting on the prepared material, or providing context specific examples, hardly took place during the three workshops. It turned out very difficult to motivate some of the colleagues to participate, especially those in higher positions. Some younger colleagues who participated throughout the project, however, became very engaged. Especially during the last

8 The teaching manual can be accessed on the project's open access platform (see https://www.knots-eu.com/the-teaching-manual).

summer school, they used the material and changed it according to the assumed needs of their colleagues and students in very innovative ways, like using technological tools that most of the European partners have never implemented in teaching. It is difficult to predict whether their engagement will lead to the use of the manual in teaching and research. The hierarchical structures in some of the participating universities are expected to have an impact on whether or not and in how far the manual will be utilized in teaching and research (see Doi, 2020, this issue).

Another example for the different aims and frustrations mentioned above are the three clusters of joint research and teaching activities during the summer schools and field research. Each year, transdisciplinary approaches and methodologies were discussed, developed further, practiced, and implemented during summer schools and field research, each with a specific thematic and geographical focus. Students and staff from all universities participated in these activities, non-academic actors were especially involved in the field research. All summer schools and field researches had to be organized by the partners in the Global South and had to take place there[9] according to the funding guideline for the Erasmus+ Capacity Building Projects. Through this guideline, the partners in the Global South become merely 'case studies', which Baber (2003) describes as typical for North-South projects. To avoid this allocation of roles, the coordinators tried to communicate to the Global South partners that 'we' do not perceive ourselves as being in the role of organizers, conceptualizers, or agenda setters in the course of these activities but that we hope that they will take over the responsibility for the summer schools and field trips.

However, this changing of roles and responsibilities was only partly successful. It can be concluded that we, especially the Vienna group, tried to "de-scribe" the funding scheme in a particular way by attempting to redefine or partly reject the "script", as Felt et al. (2015, p. 4) describe drawing on Akrich's (1992) approach. However, some of the partners remained in their rigid roles as either recipients or pure providers. The partners who felt primarily responsible for the organization, as foreseen by the funding guideline, did a great job. The tasks of agenda setting or taking over responsibilities, for example, for the field trips, were shifted to colleagues from the Global North, who often actively took over despite not being familiar with the local setting or the non-academic actors. This pattern strongly resembled the mainstream organizational structure of North-South research projects, also transdisciplinary ones (Schmidt & Neuburger, 2017, p. 63). The 'reluctance' of the colleagues who organized the activities can be interpreted as a lack of ownership since we allocated these work packages to them according to the EU guidelines and/or an expression of their interest to learn a new approach that would allow them to position themselves in the global and national science arena, the latter especially in the case of the Vietnamese partners. To put it more generally, it can be seen as a reaction to the decade's long experiences of scientists and intellectuals in the Global South who, as the study by Connell et al. (2017) shows, have been treated as a workforce in the periphery by knowledge institutions and scientists from the Global North who predominantly hold epistemic and institutional authority, or 'function' as spokespersons for voices or approaches from the Global South (Basile & Baud, 2019, p. 17). Thus, attempting

9 In 2016 and 2018, the activities took place in Vietnam, and 2017 in Thailand.

to change these historical asymmetries and structures 'just' by re-interpreting the script was certainly 'naïve'.

However, it is also important to stress at this point that the categorization and differentiation between 'we' and the 'others' as employed in the last paragraphs is, of course, a difficult one, since none of the constructed groups is a homogeneous unit. This is necessary to indicate since also the expectations and the self-understandings within the groups varied. North-South power asymmetries definitely played out from the beginning. However, intersections with gender, age, and language as much as the self-understanding of the involved scientists, positionalities, and understandings of knowledge, also structured not only the activities in the frame of the KNOTS project but also collaborative capacity building and research activities in general (Bärnthaler, 2020, this issue).

The activities of the KNOTS project reveal that, for some, it was difficult to reflect upon power structures and privileges, be it because of having been trained in the Global North or because of gender, university position, or age or the intersection of these social positions. For others, especially those familiar with feminist or post-colonial theories, it was a challenge to turn their reflections into practice given the workload prescribed by the 'script' and the responsibility perceived towards the funder. It must be concluded that the aim of the KNOTS project to create a space for mutual learning and a critical reflection of knowledge production has only partly been achieved. What became obvious is that reflecting on existing power structures is essential, like in all transdisciplinary research (Schmidt & Neuburger, 2017, p. 55). However, the project demonstrated that this is extremely difficult in practice, which is in concrete situations and interactions. It would imply a conscious effort of the scientists involved, be it professors, students, or academic staff, to question not only power structures and privileges but also habitual modes of thought and practice emerging from specific historical and social contexts and in communication with others (Turino & Lea, 2004).

This questioning and reflexivity could be selectively observed in the work of smaller groups that comprised members from different academic positions (students, scientific staff, and professors) and countries during the summer school or field trips, as Braunhuber et al. (2019) reveal in their empirical study. As Vilsmaier et al. (2015) show in their paper, working on a single case in a small group seems to allow for mutual learning and, thus, reflexivity to take place. In bigger workshops and conferences, gendered, ethnic, or national identities of the involved actors and, thus, various power asymmetries are reinforced by the actors themselves or by others in these social situations. To question or challenge statements or approaches put forward by, for example, European colleagues or colleagues in higher positions, to bring in different viewpoints, or to share experiences from one's own research endeavors, seldomly took place during bigger KNOTS meetings or activities. Different university cultures as well as language doubtlessly played an important role here. Especially some of the younger colleagues from universities in Southeast Asia did not feel comfortable communicating in English, as the evaluations reveal, especially not in front of their supervisors or professors from the Global North (see Doi, 2020; Seemann & Antweiler, 2020, this issue).

Transdisciplinary collaborative endeavors need to be designed to enable a process of mutual learning and knowledge generation, a postulation that is articulated in

many academic papers on transdisciplinarity (Ison, 2008; Mobjörk, 2010, Pohl, 2011; Schmidt et al., 2013). The questions of what is needed to enable such processes, what hinders such processes, or what role power structures play, as discussed above, are just beginning to enter the debates. There are, of course, different strategies discussed and put forward in the literature of how to conceptualize and implement successful collaborations between different actors in transdisciplinary endeavors. There are debates about the various degrees of stakeholder involvement and the 'best' number of involved stakeholders (e.g., Brandt et al., 2013; Lang et al., 2012; Pohl, Krütli, & Stauffacher, 2017; Polk, 2015) as well as discussions about what kind of participation is needed and how participation can best be implemented. Furthermore, reflections about participation, setups, or strategies are part of the discourse (e.g., Elzinga, 2008; Padmanabhan, 2018; Schmidt et al., 2013). Important themes are often put forward in papers by authors representing the school of thought that aims to develop methodologies for collaborative solutions, especially in sustainability or health studies. These discussions show what Wiesmann et al. already stated in 2008, which is that "participation is often one of the major stumbling blocks in transdisciplinary practice" (p. 437) because most of the debates and evaluations do not critically reflect on power structures and relations. This has important implications not only for participation but also for the transformative potential of transdisciplinary knowledge production (Rosendahl et al., 2015). Furthermore, the discussions focus almost exclusively on the collaboration between academic actors and non-academic actors, and not between academic actors alone (Djenontin & Meadow, 2018, p. 886). This section emphasized that the KNOTS project has shown that complex and diverse power relations between academic actors influence transdisciplinary endeavors. The same holds true for different understandings of knowledge, as will be shown in the following section.

SCIENCE, KNOWLEDGE, AND POLITICAL CONTEXTS

Different expectations were related to different understandings of transdisciplinarity, of science, of the role of science and scientists, and of the relation between science and the public. These factors structured and influenced the discussions and activities in the KNOTS project. The main challenge was to realize and recognize the different understandings and expectations regarding transdisciplinarity and their embeddedness in different understandings of knowledge and science, science and politics, as well as in power relations between disciplines and between the different actors representing different university cultures and relations. As mentioned, there were different understandings of transdisciplinarity that reflect the two versions or schools of thought that are also discussed in the literature (Augsburg & Henry, 2016). One school of thought perceives transdisciplinarity as a new framework of knowledge production. The methodology should develop during the research process and should be reflective as well as responsive to particular questions, settings, and actions (cf., Bergman et al., 2012; Klein, 2004, 2013; Pohl, 2011; Pohl & Hirsch Hardon, 2008; Wickson, Carew, & Russell, 2006). This understanding, focusing primarily on the development of transformative knowledge, mirrored the understanding and, thus, position of the coordinators and some colleagues from Thailand, for example. Whereas for other colleagues, especially but not exclusively those from Vietnam, a

new transdisciplinary methodology should be the main outcome of the project – a methodology that advances neutral, universal, and objective knowledge about a phenomenon. This understanding reflects the second version of transdisciplinarity which is concerned primarily with problem solving through a transdisciplinary methodology. Even though all partners had a social science background, the discussions about transdisciplinarity revealed that different paradigmatic views came together, which also influenced the understanding of transdisciplinarity and led to misunderstandings and irritations. For some colleagues, science had to be analytical and objective, while others criticized this dominating knowledge paradigm as 'Western' (cf., Studley, 1998) and advocated postcolonial or feminist approaches and perspectives. Thus, space and time was needed to discuss different epistemologies, which were perceived by some as competing.

Whereas North-South hierarchies in the global education sector were addressed above, the debates and conflicts around the 'modern' knowledge paradigm showed another dimension, namely, how successfully the still dominant understanding of science and knowledge as objective and universal was, as Chakrabarty (2000) argues, transferred from the so-called core towards the so-called peripheral countries. This "continued hegemony of positivism" (Chhachhi, Hutter, Damodaran, & Baud, 2019, p. 304) in science generally and the hierarchies between different worldviews also made conversations about knowledge difficult in the context of the project (see Bärnthaler, 2020, this issue). Additionally, not only, but primarily male colleagues from the partner universities showed a certain resistance to the discussion of the situatedness of knowledge (Haraway, 1988) or to the reflection of the taken-for-granted categories in scientific endeavors, like *ethnicity* or *women*, even when criticizing the dominant knowledge paradigm. Of course, not all participants subscribed to all assumptions of the dominant knowledge paradigm, nor was the North-South divide as clear cut as summarized, especially when feminist or postcolonial approaches were brought into the debates to address science and knowledge production as relations of power and domination. Here, gender and age structured the positions taken during discussions. The experiences of the KNOTS project revealed that positionalities are an important element that influences collaborative and mutual learning processes. However, the experiences also revealed that an openness and willingness to reflect one's positionality is embedded in a certain understanding of knowledge and of the role of science. Reflexivity needs more time than the activities, which suffered from permanent time constrains, allowed. Thus, even those who were theoretically aware of how important it is to make one's own positionality transparent were not always able to live up to their own claims and expectations.

The discourses among project participants during the implementation of the activities have further shown that different understandings of science and knowledge were the main challenge to overcome, not disciplinary knowledge as such. This is not to say that disciplinary knowledge production and disciplinary identities were unimportant, but that the experiences support Darian-Smith and McCarty's (2016, p. 7) argumentation that, in practice, disciplinary boundaries have been blurried for quite some time, despite the inclusion and sharing of, for example, themes, theories, and approaches to varying degrees. It was the general understanding of the role of science and knowledge for society as well as the different epistemological stances that

influenced the expectations and visions concerning 'new' approaches and methods for organizing knowledge. Thus, a thorough reflection on the role of science and knowledge[10] – as, for example, done by Augsburg and Henry (2016), or Carp (2001) – is a precondition for the development of transdisciplinary frameworks, even if context-bound or case-based (Vilsmaier et al., 2015).

During the capacity building project KNOTS, the discussions of the role of science and knowledge for society, especially regarding the topics of focus (i.e., migration, social inequality, and environment), revealed another challenge transdisciplinary endeavors may face. In some interactions (between professors, scientific staff, and students from the different universities), the discussions endorsed reflections on the participants' understanding of science and knowledge. This helped to explicate perspectives or categories that are often taken for granted, allowing an alternative framing of the respective topics. In other interactions, yet, there was a lack of willingness to reflect on so-called objectified categories, and it was therefore not possible to discuss whether ethnicity or class, for example, are really relevant categories to start with. Connected to this point is yet another, namely, how to handle the pre-framing of phenomena and problems that transdisciplinary research projects are planning to tackle. Although it is outside the scope of this paper to discuss this aspect in detail, the experiences and observations in the context of this project have shown that the context-based topics used as cases for 'practicing' transdisciplinarity were pre-framed. This often occurred unconsciously, either due to theoretical perspectives or the respective political contexts influencing science cultures. A scientific pre-framing, for example, could be observed in the case of social inequality when only economic structures were put forward at the expense of engagement with questions of gender or cultural difference; or when universalist templates of development and theoretical categories based on European experience were proposed without reflecting the historical and social structures that pervade them. Regarding this point, there was no observable North-South divide. Rather, disciplinary, gendered, or ideological positions were at stake. Political pre-framing occurred especially by those scientists coming from societies where the universities and, thus, knowledge production are controlled and influenced by political actors and their interests (and where knowledge is perceived, e.g., as merely a means to power or economic advantages). In the case of migration, for example, this implied that 'only' climate change was made responsible for rural-urban migration by some, whereas other aspects, like the modernization or the capitalization of the agriculture sector, were not even 'allowed' to be discussed due to the political strategies and aims of the respective government. Thus, while the topics we took up were inquiry-driven, as put forward in the transdisciplinary scholarship, they were also pre-framed. Johnston (2008) argues that transdisciplinarity can and should "create mindscapes that are unfettered by traditional patterns and procedures" (p. 223). How thinking and acting in traditional scientific patterns and procedures can be overcome is however not discussed by Johnston (2008). Here, the question arises of why, for example, feminist or

10 I argue that this reflection is necessary before discussing the three forms of knowledge that Pohl and Hirsch Hadorn (2008) have defined as relevant for transdisciplinarity, namely, system knowledge as knowledge of the current status, target knowledge as knowledge about a target status, and transformation knowledge as knowledge about how to make the transition from the current to the target status.

postcolonial theories have not been adopted for transdisciplinarity, as put forward by Leavy (2011), or Schmidt and Neuberger (2017). Transdisciplinary scholarship and practice could benefit from postcolonial and feminist traditions as both seek to integrate different disciplinary perspectives including their insights regarding reflexivity and positionality – reflexivity concerning not only transdisciplinary research processes and power structures but also personal and biographical dispositions, social relations, and epistemological perspectives, which are all preconditions for mutual learning. Thus, these theories could pave the way for integrating reflexivity as a practice – a practice needed in all phases of transdisciplinary endeavors.

The different understandings of science and knowledge as well as the pre-framing of the topics also influenced and structured debates and discussions about which non-academic actors should be integrated, whose knowledge they represent, how they should be integrated, and how their knowledge should be respected. As mentioned, the aim of the project was not to conduct complex, transdisciplinary research projects but to build capacities. A possible integration of non-academic actors and their knowledge during field research was very controversially discussed in the preparation and during the two summer schools in Vietnam. Klein (2013) argues that complex problems necessarily need the involvement of various non-academic actors from a range of organizations. However, whom and whose knowledge these actors represent is not considered; neither is the difference in interests of the scientific participants, namely, whether such knowledge should serve science, serve the existing social and power relationships, or challenge the status quo, discussed (cf., Augsburg & Henry, 2016, p. 101).

The conflicts that became apparent in the context of the project serve as an example of these different interests. The inclusion of critical NGOs or activists working on the focus topics was suggested by those aiming at challenging power structures and the status quo, whereas the inclusion of government agencies was demanded by those colleagues who did not want to criticize, for example, the government's migration or environmental policies but aimed to integrate the interests of these actors in future transdisciplinary research activities. Whether non-academic actors are perceived as knowledge producers also depends on the respective understanding of science and knowledge. Those who were postulating that science and knowledge are and should be objective and universal (see discussion above) argued that only science can produce knowledge, hold expertise, and represent the authority to explain. This implies that scientists are assumed to be objective observers, whereas non-academic actors can never be more than research subjects or informants, because their knowledge is situated, contextual, cultural, and inherently social. Defining scientific knowledge as outside of society or culture is not new and is one reason behind the interest in transdisciplinarity (see Dannecker & Heis, 2020, this issue). But even if the need and the relevance of integrating experience-based, local, or cultural forms of knowledge in a participatory way is accepted, a conceptional framework for this integration and participation is difficult to develop, as the scholarship on transdisciplinarity reveals. Exemplary for the analyzed shortcomings is the term *stakeholder*, which is used not only, but especially in transdisciplinary literature discussing methodologies, strategies, and techniques for knowledge integration (e.g., Bracken, Bulkeley, & Whitman, 2014; Polk, 2015). In the KNOTS project, too, the term was broadly used by the

scientific participants independently of their views on science and knowledge. This very instrumental and technological term, which is also used in development cooperation (e.g., Cooke & Kothari, 2001), reduces non-academic actors to representatives of interests and, as Augsburg and Henry (2016, p.110) state, moves away from the important question of what constitutes non-academic knowledge production.

CONCLUSION

The promise of transdisciplinarity and especially, as Messing et al. (2012, p. 645) argue, the promise of dis-entrenching forms of, for example, postcolonial inequality and resulting disparities in knowledge production and problem solving, is inspiring. This was also the motivation for initiating the KNOTS project. However, the different expectations, discussions, and conflicts during capacity building efforts and activities have shown that differing understandings of science and knowledge, and power structures between the involved actors due to gender, age, country of origin, or university position, as well as socio-political constellations influence transdisciplinary endeavors and, thus, have implications for the transformative potential of the knowledge produced. Especially more positivist understandings of knowledge and science do not support the re-configuration of academic actors or their approaches and perspectives in partnerships with colleagues or non-academic actors. Additionally, political structures influence university cultures and knowledge production and, thus, constrain directly or indirectly the collaboration of the involved academic actors (see Bärnthaler, 2020, this issue). The KNOTS project has shown that more time and space would have been needed already during the writing process of the proposal to understand and discuss what impact these differences have on future activities and capacity building – time, which most funding schemes and their output-oriented logic do not foresee.

Nonetheless, the project opened up a space for controversies, explorations, and discussions on knowledge and science. This was very constructive since it broadened the perspectives of the participants, and revealed political and power dimensions that are often not explicitly discussed in transdisciplinary research – although transdisciplinarity is regularly suggested as an avenue for generating transformative knowledge (Rosendahl et al., 2015, p. 19) and initiating problem solving. If attributes such as critical thinking, creativity, and innovation can only be developed in environments that challenge pre-conceived assumptions and push individuals to consider new perspectives, then the project was definitely successful, even if not all scientific colleagues actively participated, and despite the fact that the pooling of multiple knowledge and expertise did not bring the expected synergies to develop a common epistemological basis leading to alternative methodologies (cf., Chhachhi et al., 2019, p. 304). Only time will show how the transdisciplinary capacities discussed and developed during the project will be used in teaching and research. The experiences showed that, also in transdisciplinary endeavors, a primary methodological focus on problem solving leaves many issues and questions untouched. These include issues such as power asymmetries and questions of how to integrate different understandings of science and knowledge and different actors, what constitutes knowledge, and what participation means in practice.

Schmidt and Neuburger (2017) articulate the concern that transdisciplinarity can become just "another academic instrument . . . [of] marginalizing non-Western cultures" (p. 55). The KNOTS project also showed this tendency. However, and despite the North-South power structures, the partners in the Global South challenged the transfer and the priorities set, for example, by questioning our understanding of transdisciplinarity or our understanding and framing of the topics that focused on, namely, social inequalities, migration, and climate change. Not only topics were framed differently, but also the power manifested in administrative rules was challenged, for example, by not fulfilling them, or the resources and their distribution, as foreseen by the funder were questioned. Thus, implicitly, the developmental nature of the Capacity Building in Higher Education Program by the EU (European Union, 2016) was challenged. I, as the coordinator, sometimes frustrated with the administrative role, however recognized the "wealth of knowledge in the Global South" (Connell et al., 2017, p. 56) and integrative frameworks of knowledge production like Thai Baan. Thus, in this regard, the project was successful, at least from my perspective.

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Conflict, Controversy, Compromise, and Compression: The Pragmatics of Transdisciplinary (Development) Projects

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Drawing upon qualitative interviews, this article narrates some central controversies and conflicts that scholars in the field of 'development' face in their daily work. Based on how such conflicts and controversies have been reconstructed, I place them in a discourse on transdisciplinarity, drawing into question the claims to authority and novelty around the term 'transdisciplinarity' that Western institutions have attributed to themselves in recent years. I also address the question of collaboration: How can transdisciplinary projects deal with the fact of pluralism, on the one hand, and the necessity to work towards shared problem definitions, and strategies, on the other hand? In this context, I make a case against transdisciplinarity's oft-cited conceptions of harmony, comprehensiveness, totality, and unity; and a case for conflict, compromise, partiality, and joint contextual strategies. The "art of deliberation" thus replaces the notion of transcendence as a central competence of transdisciplinary scholars.

Keywords: Development Research; Disagreement; Pluralism; Situated Judgments; Transdisciplinarity

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INTRODUCTION

If there is one experience that transdisciplinary scholars share, it is the fact of heterogeneity. This was certainly true for the project *Fostering Multi-Lateral Knowledge Networks of Transdisciplinary Studies to Tackle Global Challenges* (KNOTS), upon which this special issue reflects. Evolving around issues of transdisciplinary research and teaching, KNOTS was *inter alia* characterized by a diversity of actors (both extra-scientific and scientific, the latter occupying different academic positions and career stages), disciplines, institutions, and regional contexts. A shared concern, nevertheless, evolved around the ambiguous notion of 'development'. The resulting problématique is, thus, not difficult to locate: Facing the fact of pluralism in transdisciplinary projects, how is collaboration possible in practice? How to jointly define a shared problem or goal and produce practically relevant knowledge and common strategies in the face of a diversity of (epistemic) cultures and life-worlds?

To answer these questions, I empirically reconstructed situations of disagreement to learn about the kind of deliberations made and decisions taken in such situations. I have been personally involved in KNOTS from the outset, in both

scientific (e.g., lectures, fieldtrips, and the development of a teaching manual) and administrative (e.g., program planning, finances, and documentation) capacities. My main role has been in the area of project management. The arguments in this article are certainly influenced by these experiences. The data that I draw upon explicitly, however, derive from individual, face-to-face, semi-structured guideline-based expert interviews (oral), which I conducted over two weeks in 2018 during a summer school in Chiang Mai (Thailand), and subsequently explored through qualitative content analysis (cf., Gläser & Laudel, 2010).

Seven (senior) academic members of KNOTS were interviewed (three from universities in Thailand and four from universities in Austria and Germany). Their disciplinary backgrounds ranged from sociology, ethnology, anthropology, and political science to global history. Before conducting the interviews, I asked the interviewees to imagine, describe, and prepare a familiar situation reflecting their everyday practice as researchers. This situation concerned a scientific disagreement with a colleague within the interviewee's field of expertise, whom the interviewee broadly considered as well-informed and professional as themselves. Such simulations are particularly useful when an interview's central questions prove difficult to answer directly or explicitly (Patton, 1990, 2002). To guarantee anonymity, I use abbreviations for each interviewee: Fe/Ma refers to sex, AuGe/Th refers to the region (Austria/Germany or Thailand), and the numbers refer to the sequence of interviews taken.[1]

This article proceeds as follows: Based on the interviews, I will (1) sketch out central controversies and conflicts that scholars working in the field of development face in their daily work. Subsequently, I will discuss (2) how the specific reconstructions of these conflicts and controversies can be placed in the discourse on transdisciplinarity. At this stage, the definition of transdisciplinarity is deliberately kept minimalist[2] and evolves around three practices, which can take different forms: collaboration among different scientific disciplines, the involvement of extra-scientific actors, and the production of socially relevant outcomes.[3] Finally, I will (3) turn to the question of collaboration: what preconditions enable collaborative work? How can transdisciplinary projects deal with the fact of pluralism on the one hand, and the necessity to work towards shared problem definitions and strategies on the other hand?

VIGNETTES OF CENTRAL CONFLICTS AND CONTROVERSIES IN DEVELOPMENT RESEARCH

During the interviews, five major topics of disagreement were reconstructed. The first concerns the fact that most development research evolves in the Global North,

1 I would like to emphasize that this article is *about* transdisciplinary development projects (its conflicts, controversies, and forms of collaboration). This, however, does not imply that my study is (or even should be) itself transdisciplinary. Thus, neither the interviewees nor extra-scientific actors were involved in the analysis.

2 This is also to accommodate the fact that, within KNOTS, we were "neither able to develop a shared definition nor a shared understanding of transdisciplinarity" (KNOTS, 2019) within the three-year project lifespan. Hence, while some problems discussed in this article will be unique to scholars engaged in transdisciplinary development projects, others will relate also to those engaged in multi- or inter-disciplinary studies. The analysis of these commonalities and differences, however, is beyond the present scope.

3 Scholars who, to my understanding, embrace these three practices in the context of transdisciplinarity are Kotter & Balsiger (1999), Scholz & Marks (2001), and Lawrence (2004).

and whether (or under which circumstances) it is possible for scholars to conduct research under these conditions. A European female researcher summarized the major discussion points aptly:

> What does it mean that we as Western researchers have the opportunity to go to [the Global South] and do our research? And what does it actually mean that it's hardly ever the other way around? . . . That's a fundamental question: As in how far are we allowed to do that? . . . Research has always to do with interpretation. And how much more difficult, or how much more impossible perhaps, is such an interpretation if one faces a different cultural context, if one faces a language problem? How can interpretation actually happen at all? How many steps are you actually removed from what was told? (FeAuGe1)

A researcher from a Thai university continued in a similar vein:

> Often people don't see the legacy of what's happened before in a certain place, . . . the importance of historical and locational specificities. . . . I just don't feel that one can compare one place with another. . . . And if you want to engage in a place, then knowing that place very well is very important. You can't generalize. (MaTh4)

The second topic addressed the usefulness and appropriateness of practical (e.g., political) interventions in the subject-matter of one's research. While some interviewees (all the Thai scholars, and one from Austria/Germany) identified themselves explicitly as academic activists, others expressed skepticism in this regard:

> We clearly have different positions [in the department]. For example, my colleague has a leftist and at the same time a strong activist position. . . . And I think that too activist positions are problematic, because they conflict with the scientific attitudes that try to be rather detached, not from social reality, but from the impact on social reality, from politics. (MaAuGe6)

The third thread of disagreements epitomized the widely discussed trend from structural theories towards more actor-oriented approaches[4] in development research (cf., Schuurman, 2007). To be more precise, the interviews did not suggest a significant decrease of structural theories (which does not mean that this is in fact not the case), but instead expressed the conflict between structure- and agency-oriented approaches:

> Many theorists believe that you depend upon what the structural conditions force upon you. But for me, agency has the power to change the phenomena around you. (FeTh3)

4 The debate over the primacy of structural or agency-oriented theories concerns the question whether human behavior can be better explained via socialization (i.e., social structures as recurrent patterned arrangements that influence, or in radical understandings, determine, human behavior) or autonomy (i.e., free agents acting according to free choice).

> Well, some approaches focus more on structural conditions . . . . You have regulation theorists. You have Marxist critical approaches . . . . And then you have approaches that are much more actor-centered. . . . And it is precisely this connection – to look at this structural level, but also, so to speak, informed by the actor level – that would be something that is complementary to think about. And this is done too little. (FeAuGe1)

A fourth point of discussion was to what extent different disciplines can work together and incorporate insights from others. The increasing dominance of neoclassical economic thinking in development research (Bernstein, 2007) was a predominant concern. Several interviewees (FeAuGe2, FeTh3, MaTh4) stressed that neoclassical economics has occupied such a hegemonic position in the field that it has become difficult to enter into processes of collaboration with its proponents.

Lastly, many interviewees mentioned communication difficulties with regard to certain basic definitions and concepts – such as the body, the self, structure, agency, power, culture, society, democracy, and even water and electricity – due to the broad variety of disciplinary influences in development research:

> For example, a sociologically-oriented . . . and an ethno-oriented researcher, two subjects that are very close to each other. Even those have problems if they talk about basic concepts such as society and culture, the basic concepts of their subjects. If I talk about culture, sociologists mean something significantly different than ethnologists. . . . I'll give you an example. I, as an ethnologist, focus, in terms of methods and theories, rather on small sections of human reality – cultural groups, networks, social fields – that can be explored with experiential research. While sociological approaches are rather oriented towards meso- or macro-scales. They thus make statements about, say, the society of Thailand or the society of Indonesia, what most ethnologists would avoid like the devil would avoid holy water. (MaAuGe6)

> It is often difficult to come to an understanding of the definition of what a body actually is. . . . There are, for example, post-structuralist and feminist approaches. And on the other side, there are phenomenological approaches. It already becomes obvious in the terminology. Does one speak of the social body and of the *Leib*, that is the subjective body? Or does one rather take a phenomenological approach, which proceeds very strongly from the subject? Here, body means the objective material body and *Leib* is, so to speak, the inside feel. So, you work with different body definitions and with the same word you often mean completely different levels. (FeAuGe1)

> My colleague has a Platonic understanding of democracy. . . . My starting point is the Enlightenment, with the social contract. Therefore, we have a very different basic paradigm and mean different things when referring to democracy. (FeTh3)

> For instance, I worked with people from electrical or civil engineering on a project concerning the construction of a dam. They count how many megawatts the dam produces, that is, they say, if the dam is operated appropriately, you will get that and that much electricity. So, for them water is a commodity and

> electricity is a commodity. That led to a dispute, because if local people in the area lose their jobs or have to change their occupation because of the dam's construction you cannot just think in price-value ratios, but rather need a non-price thinking. (FeTh3)

What further complicates these semantic complexities is the variety of different regional contexts in which certain concepts are uttered. This is closely related to the first topic of discussion – the fact that most development research evolves in the Global North. As Rigg (2002) highlights, terms likes "participation", "sustainability", "development", or "empowerment" are:

> often coined in the West, translated into local languages, and then transposed onto the local developmental landscape. Western researchers (probably not conversant in the local language) may then find such terms being translated back to them as if they have one and the same meaning in each language. (p. 46)

In other words, the same signifier might not point to the same signified, and the same term can have different context-specific meanings as well as related practices (cf., Stigendal & Novy, 2018).

It hardly needs mentioning that any list of conflicts is non-exhaustive. The controversies described should rather be understood as vignettes – short impressionistic scenes that provide a trenchant impression of the atmosphere in development research – an atmosphere that is pluralistic on several levels. To mention a few, the vignettes identified through the interviews suggest a pluralism on the level of disciplines, regional and cultural contexts, methods (e.g., micro- versus macro-approaches), explanations (e.g., structure versus agency), ethics (e.g., in how far can scholars conduct research in the Global South), semantics (e.g., what is development, society, or the body), theories (e.g., neoclassical economics versus heterodox approaches), and aims (e.g., instrumental research versus a more critical attitude towards interventionism). Although these issues of contestation reflect well the literature on the major characteristics of development research, its conflicts, controversies, and developments (cf., Bernstein, 2007; Harriss, 2002; Kothari, 2016, 2007; Molteberg & Bergstrøm, 2000; Olukoshi & Nyamnjoh, 2007; Rahnema, 1997; Schuurman, 2007; Sumner & Tribe, 2008), the interviews revealed striking differences in the framings of situations of disagreement. This aspect is widely neglected in the literature and will be discussed in the following section.

TRANSDISCIPLINARITY: A WESTERN VENTURE?

It is interesting to note that, unlike my interviews with scholars in Austria and Germany, when speaking with scholars from Thailand, I found it hard to reconstruct a situation of disagreement between *scientific* colleagues. While the Western interviewees drew a picture that seemed capable of demarcating the term 'science' (the signifier) – and, thus, the category of 'scientific colleague' – rather unambiguously from extra-scientific practices (the signified), the interviews with Thai scholars expressed a more ambiguous interpretation of what constitutes 'scientific' (and, thus,

what constitutes a scientific colleague). Compare these interview excerpts from a German and a Thai scholar:

> I think we need to agree on what scientific principles are, and that they are different from principles of religion or other meaning-seeking systems. Science is not concerned with the search for meaning, but with intersubjective knowledge. I think we would need to accept that science does not necessarily have to make you happy, that is not its purpose. Science concerns intersubjective knowledge, which is a specific human activity that is not only Western, but universal. . . . I increasingly see an attitude in our universities such as: science is a system of knowledge on the same level as others. Any wisdom is allegedly just as relevant. . . . Those are dangerous tendencies. (MaAuGe6)

> I have a problem of understanding. What do you mean by scientific? Well, I give you an example and then you can treat it as scientific or not. (MaTh7)

The examples that followed from Thai scholars were primarily reconstructed controversies with policy-makers or other extra-scientific actors.[5] Hence, the interviews suggest that the constitution of the 'other' (the non-scientific) – which is the precondition for the constitution of a 'self' (the "scientific self", cf., Mouffe, 2005) – has a less clear-cut and rigorous meaning in Thailand compared to Austria/Germany. In other words, both the scientific self and the other are more permeable. Different socio-political as well as institutional contexts in Austria/Germany and Thailand provide an explanation for this marked semantic difference.[6] I will address these aspects in the remainder of this section.

Socio-politically, the interviewees from Thailand frequently highlighted the entanglement of their academic lives with the prevailing national politics.[7] All of them explicitly mentioned what none of their Western peers did[8] – that their academic careers cannot be understood without considering political developments in their country:

> I might say that I am not one who intended to be an academic, but, because of the political situation in Thailand, being an academic is quite the best for me, because . . . it gives me enough freedom, academic freedom. . . . I think being an academic is a kind of luxury because people tend to listen to you. So, being an academic means that you can talk. . . . And since my personal background is

5 Those controversies dealt particularly with economics-oriented approaches (which were considered to be in line with national development agendas that privilege technological-fix solutions) versus other, often local, concerns of development, well-being, and livelihood.

6 My mode of reasoning here is abductive, that is, inferring the best explanation. The rather small number of interviews conducted, however, only allows me to suggest a probable explanation. Further research would be needed in order to make claims that are more robust in this regard.

7 An anonymous reviewer suggested the importance of adding that this entanglement is prevalent in Southeast East Asia and not specific to Thailand only. I would like to add that, while this might be true, it is not backed by my empirical data, as I only conducted interviews with Thai scholars. I must therefore refrain from such a generalization – not out of skepticism, but from empirical rigor.

8 Hence, the comparison here refers to what has been said and what has *not* been said (which, by definition, cannot be quoted from interview excerpts).

> involved with social activities and political activism, I intend to give more voice to those who are not heard. (FeTh3)

> I see myself as an academic activist. A kind of hybrid. And this identity has been shaped by the social reality when I came back from my training in the United States. We had to work with local people. In that time, there was a peasant movement, also with NGOs involved. So, we served as advisers, sometimes trainers for them. (MaTh7)

Additionally, the local nature of global challenges (such as social inequality, climate change, and so forth) implies that central societal and environmental problems are "still much more burning here", as a scholar from Thailand (MaTh7) remarked. He continued:

> And here I should add that it is unlike the United States or Europe. . . . In developing countries like Thailand, it is very difficult to separate between theoretical and applied research. We cannot just study the culture, study social relations, and then just write our articles, papers, and go to conferences. But we also have to use anthropological understanding to help us to better understand the transformation that takes place among the underprivileged people here. (MaTh7)

Take, in contrast, the remarks of a European interlocutor:

> We will conduct a workshop soon, where we specifically invite a very small group of academics who come from different schools: from actor-network theory, . . . post-structuralism, phenomenology, feminist approaches. We will provide them with specific questions beforehand to discuss different conceptual understandings and how they overlap. This will be very exciting. (FeAuGe1)

This is by no means to suggest that Western scholars are indifferent about their impact on major societal challenges. Nor does this suggest that there are no burning issues in the Western hemisphere. The central point that I seek to make here is that diverging socio-political contexts affect academic lives, meanings, and practices – and thus the constitution of the 'scientific self' (I understand practices as embodied or incorporated; Reckwitz, 2002).

Institutional differences in academic organizations in Austria/Germany and Thailand respectively add to this argument. They similarly affect one's self-understanding as a scientist and related practices. The literature as well as the interviews point towards different academic practices, and different ways of doing scientific work, in the Global North and Global South. With regard to the Global North, several studies (Felt, Igelsböck, Schikowitz, & Völker, 2013; Schmidt & Pröpper; 2017; Spangenberg, 2011) observe that the existing reward systems in science are actually hostile to transdisciplinary research, since the pressure to 'publish or perish' encourages scholars to focus on their own disciplinary competences and thus to experience transdisciplinary research as an extra burden. Furthermore, as McCargo (2016, p. 111) recognizes, while "in Western societies, mutual respect among academics is derived largely from reputation based upon published work", which is constantly being

reassessed, "in most Southeast Asian societies, this is simply not the case". Status (e.g., having attended a well-known university abroad, or being known to a wider audience beyond academic circles) rather than output "remains the core measure of achievement in most Southeast Asian contexts" (p. 111). Hence, there are differences and variations between academic cultures – what Cribb (2016) termed "circles of esteem". On top of that, due to the financial concerns of often chronically-underpaid researchers in Southeast Asia, many of them "use their spare time to boost their earnings by teaching extra classes (often at other universities), engaging in consultancy, writing for newspapers, appearing on television and radio and running businesses" (McCargo, 2006, pp. 110-111)

Therefore, while being a 'recognized' researcher in the Global North is increasingly measured against the number of publications in high-ranking journals and the accompanying citations, the construction of what it means to be a 'good' scientist seems to follow other paths in Thailand. A lack of English language skills as well as access to journals prevents many Thai social scientists from publishing in international (high-ranking) journals, and thus teaching and other forms of dialogue with, and outreach to, extra-scientific actors take priority:

> Well, again, when you have to work on both teaching and research for these kinds of Key Performance Indicators, but then you also have to work on local issues with the local civil society, it is difficult to sort of catch up with the modern or contemporary cutting-edge theories as American or European researchers do. We sometimes don't even have access to journals. . . . The Social Science Association in Thailand was only established in 1968. . . . But still, until now, there is no real Thai journal, in Thai language. . . . Most of us are, unlike for example Malaysian, Singaporean, or Philippine scholars, not so much equipped with language skills in writing or speaking. Thai anthropologists are less trained in the use of English. So, you do not see so many publications by Thai anthropologists as compared to maybe Singaporeans, or the US, or Taiwanese, or Indian. (MaTh7)

The interviews with Thai scholars in the field of development, therefore, indicate that, due to specific institutional configurations, their use of the signifier 'scientific' corresponds to practices that seem more conducive to extending their space of interaction beyond their academic peer-community. Put differently, the Thai academic self (which is itself a questionable concept that surely lacks differentiation) in the field of development seems to be much less constituted by producing outcomes for scientific peers than by engaging in societal and political debates via interaction with extra-scientific actors. Different practices and related skills are therefore necessary. For example, when asked about his academic career, one interviewee (MaTh4) remarked that he "had a very steep learning curve working with an international NGO in terms of building campaign and communications skills". This once more highlights how the practices, skills, and capabilities constitutive of a scientific self in Thailand (in the field of development) tend to systemically break the mold of what is narrowly defined as scientific in the Global North. Put differently, the signifier 'scientific' signifies different meanings and practices in different socio-political and institutional contexts. This both complicates but also enriches transdisciplinary collaborations, since the current literature on transdisciplinarity does not, quite

intentionally,[9] propose a coherent theory or methodology, but foregrounds different skills that researchers should bring along.

This gives rise to the deeper puzzle of what constitutes 'knowledge' in different contexts. If we follow a pragmatist understanding of knowledge, that is, knowledge (the signifier) is what is useful (the signified), then we clearly see that usefulness varies among different contexts and is deeply entangled with institutional and socio-political differences. In this regard, McCargo (2006) differentiates between three research practices that are embedded in particular institutional arrangements: pragmatic, committed, and idealistic. Pragmatic practices seek to link research agendas "to projects of interest to states or power-holders" in order to "influence policy processes" and to reach a "wider audience" via public intellectualism, newspaper columns, radio comments, or easily accessible books in the local language that are a "kind of political commentary rather than genuine research" (McCargo, 2006, p. 112). Committed practices are more "dedicated to furthering the lot of the underprivileged", making use of academic positions to legitimate "roles as activists and public intellectuals, typically as critics of government policies" (p. 113). Finally, idealist practices are primarily performed to pursue a "personal intellectual agenda" (p. 112) of "pure" research within academic boundaries. McCargo argues that this last category of practice is most dominant in the Western hemisphere, where usefulness is primarily measured against the background of a scientific community. Furthermore, pragmatic practices are said to be most dominant in the Southeast-Asian context, albeit with a "significant minority" (p. 112) of the "committed" type. My own empirical findings confirm these admittedly ideal types, though the "committed" type clearly dominated within my set of interviewees from Thailand (compare the interview excerpts above). Hence, in these socio-political and institutional contexts, knowledge constitutes its usefulness primarily via entering into dialogue with a wider audience, be it local communities or national authorities.

To sum up, if we accept that practices that involve extra-scientific actors are a necessary condition for transdisciplinary endeavors (compare my minimalist definition outlined in the first section), the above discussion draws into question the claims to authority and novelty around the term transdisciplinarity that Western institutions have ascribed to themselves in recent years. Such authority is not least ingrained in European project formats like *Capacity Building in Higher Education Projects* (CBHE, the format through which KNOTS was operationalized). CBHE is characterized by a developmental nature (European Union, 2016) and inherent center-periphery relations, bringing together different (cultural, political, financial, and so forth) backgrounds, hierarchies, and epistemologies as well as diverging interests, incentives, and institutional reward systems (Schmidt & Pröpper, 2017). The notions of 'modernization' and 'convergence' – explicit aims of CBHE (cf. European Commission, 2018) – hint at potential power asymmetries, since such terminology epitomizes the idea that knowledge, skills, and tools would have to be transferred linearly from the Global North towards the Global South and consequently entails geographical temporalizations (those 'others' are 'lagging behind').

9 This is also highlighted in the final summary (KNOTS, 2019) on transdisciplinary research and teaching developed by the KNOTS project: "It is important to emphasize that in our understanding, there is no such thing as a transdisciplinary research methodology or method."

Such logic is, for example, also apparent in funding regulations in which budget for training and re-training purposes is only available for staff members from Partner Countries (Global South) participating in training programs in Program Countries (Global North), but not vice versa. Put polemically, in this logic the 'underdeveloped' institutions of the Global South have to learn from – and converge towards – the 'rational' institutions of the Global North. The idea that Program Countries could learn from the Partner Countries is hardly considered; at most, the former might benefit "indirectly" (European Commission, 2018). It is *inter alia* at this conjuncture where the Western claim to authority and novelty around the term transdisciplinarity takes hold, that is, transdisciplinarity is conceptualized as an innovative and novel Western idea that needs to be 'transferred' to the Global South. This, however, neglects that *practices*[10] central to transdisciplinary endeavors (the signified), in contrast to the Western-coined *term* transdisciplinarity (the signifier), are already present in these contexts – they are already performed.[11]

THE CONTEXTUAL AND PRAGMATIC NATURE OF TRANSDISCIPLINARY WORK: SITUATED JUDGMENTS, COMPROMISES, AND COMPRESSION

The highly pluralistic nature of development research, although provoking many controversies and conflicts, undoubtedly has its benefits. Chang (2012) argues that pluralism in science has the potential for two kinds of benefit: (1) benefits of toleration (hedging bets, dividing domains, satisfaction of different aims, and multiple satisfaction) and (2) benefits of interaction (*ad hoc* integration, co-optation, and competition). For Chang, it would be a wasted opportunity if the second benefits were left unreaped. The interviews substantiate this claim. The importance of interaction amongst different approaches was frequently stressed – all interviewees embraced critical interaction among different approaches and highlighted the necessity of fostering it in practice. Interaction, thus, represents their normative goal.[12] As in the previous section, however, differences between German/Austrian and Thai scholars came to the fore. While the former stressed interaction with academic peers, the latter mainly focused on interaction with policymakers and other extra-scientific

10 See, for example, Thai Baan Research (Chayan, n.d).

11 As a sidenote, I deem it important to stress that the understanding of transferability also runs the danger of pursuing a fallacious technocratic "understanding about scalability through straightforward diffusion of knowledge and best practice from one context to another" (Moulaert & Maccallum, 2019, p. 35), thereby neglecting that "transdisciplinary research methodologies designed for developed [*sic*] world contexts cannot merely be replicated and transferred to developing [*sic*] world contexts" (van Breda & Swilling, 2019, p. 823).

12 The interviews revealed three (institutionalized) possibilities for how such interaction could be enabled, enhanced, and intensified. First, work with students was highlighted as a central opportunity; this may include joint curricula and co-teaching of classes in which different approaches work together towards a common goal, namely productive and fruitful work with students. Second, the problem of current conference settings was discussed. Huge conferences, often with several parallel panels, predominantly preclude possibilities for critical interaction. Small workshops (as well as small reading groups within or among departments) were mentioned as significantly more productive. Lastly, joint project frameworks across disciplines and regions, also including extra-scientific actors, were considered highly beneficial for critical interaction. Crucially, the interviewees stressed that much more financial support must be given to researchers in the Global South to conduct and lead such joint projects in the Global North to counter academic hegemonies that tend to restrict critical interaction.

actors. The juxtaposition of two statements (the first by a Thai scholar, the second by a European one) when the interview turned to ideal forms of interaction exemplifies this difference:

> I mean, I mentioned that I have a background between civil society and academia. And so, I am interested in engaging in these sorts of debates not just commenting on them. (MaTh4)

> I know that there are a few magazines that allow for detailed discussion. For example, an author writes an article, then 20 people are invited to comment, and then you can reply on it again. In such processes, one can learn a lot. (MaAuGe6)

These statements underpin my argument in the previous section concerning the substantial variegations in different circles of esteem.

The normative goal of interaction raises a central question: What are the preconditions for interaction to be possible? Is there a common basis upon which the interactors need to agree? The interviews provided two insights: first, a common basis needs to exist, and second, such a basis is not merely epistemic. The examples given by interviewees when asked about aspects that possible interactors would need to agree upon included ethical working procedures (FeAuGe1), the rejection of inhuman or racist attitudes (FeAuGe2), the goal of emancipation (MaAuGe5), and the rejection of approaches that would justify physical, structural, or cultural violence (FeAuGe3), as well as common visions such as "for the good of society", "for the good of the department" (FeTh3), "for the well-being of the people", or "for a sustainable and inclusive use of resources" (MaTh4). Some interviewees (FeAuGe1, MaTh4, MaAuGe6) also mentioned that sometimes different ontological assumptions or worldviews make interaction almost impossible. In terms of epistemic criteria, almost all interviewees stressed that they could only collaborate with peers if their approaches are open to "empirical surprises", that is theoretical pre-considerations should never determine the outcome of research. Additionally, internal coherence (FeAuGe1), the traceability or transparency of methodical procedures (MaTh4), as well as the requirement of not distorting other positions that one seeks to attack or engage with (MaAuGe6), were stressed.

The abstract nature of these shared principles or desiderata are quite obvious: ethical working procedures, openness to empirical surprises, coherence, transparency, non-distortion, non-racist attitude, emancipation, and non-violence, as well as broad common visions, can be interpreted in very different, often even contradictory, ways. One scholar came straight to the point:

> A common basis would be, well, something like well-being or that people's well-being is important. That would be a shared view. But how to achieve this I think is quite diverse by the interpreters. . . . . I think most interventions would say that 'we are doing this for the good of the people', but that could range from very local civil society groups working with individual communities that say 'well, we're working with the community to protect the way that things are because that's mostly in their interests' all the way to 'we need economic growth in order to improve material well-being, and that's for the good of the country'. (MaTh4)

Thus, shared principles such as well-being allow for a variety of different (and even contradictory) approaches, since their content only becomes determined after situated judgments.[13] Put differently, local (in this case, the field of development research), abstract, and weak meta-standards leave plenty of room for controversy and pluralism – a pluralism among different belief-value systems rather than merely epistemic ones.

At the same time, pluralism is by definition (in terms of both toleration and interaction) based on the precondition that different situated judgments can be expressed and mutually acknowledged. This presupposes self-reflection on the contingency of one's own views, the ability to (at least to some extent) step outside one's own belief-value system. In this context, the centrality of socialization was frequently highlighted in the interviews, since one's own position needs to be understood against the background of "your training" (FeTh3) and often emerges "almost as a coincidence depending on whatever you have picked up in life at some point" (MaAuGe6). "You only understand how research questions form when you examine your academic socialization and the literature that exists there, theoretical but also empirical" (FeAuGe1). Thus, self-reflection is a vital precondition for forms of critical interaction that can, at the least, (1) sharpen each approach "as a response to challenge and criticism", and (2) make the limitations of each approach evident "by the articulation of questions that they are not designed to answer" (Longino, 2006, p. 127). Hence, without a self-reflective attitude as a precondition for mutual recognition, transdisciplinary research cannot be conducted productively. Consequently, we can agree with Breitenbach and Choi (2017), who argue that pluralism "excludes only but all exclusionary projects" (p. 397).

It is, therefore, not enough to agree on shared abstract principles, but concrete situated judgments must be acknowledged in order to make interaction and collaboration possible. All interviewees stressed this precondition, although in different terms. MaAuGe5 differentiated between knowledge for the sake of action or control (*Herrschaftswissen*) and emancipatory research. Interaction and collaboration is only possible within the limits of the latter, since the former excludes other approaches by definition and thus gives no space for emancipatory research. FeAuGe1 made similar

13 The term "situated judgment" implies that judgments always evolve in a particular context or community, that is, they are based on experiences from within a particular thought collective (Fleck, 1935/2012), which molds how reality is perceived. A plurality of such experienced realities thus brings about a multitude of situated judgments. The idea of situatedness is characteristic of all traditions in feminist epistemology, be it standpoint theory, feminist postmodernism, or feminist empiricism (Anderson, 2017). Standpoint theory claims that particular socially-situated perspectives (oppressed perspectives) are in an epistemically-privileged position (cf., Collins, 1986). Feminist postmodernism tends to reject claims of privilege, stressing a radical instability and contingency of social identities and their representations (cf., Butler, 1990). Empiricism "seeks standards . . . for differentiating the circumstances in which situatedness generates error and in which it constitutes a resource that can be harnessed to advance knowledge" (Anderson, 2017, n.p.; cf., Campbell, 1998). Hence, despite their differences all three traditions emphasize locality, partiality, and situatedness. As Haraway (1988), an exponent of standpoint theory, puts it, "I am arguing for politics and epistemologies of location, positioning, and situating, where partiality and not universality is the condition of being heard to make rational knowledge claims. These are claims on people's lives. I am arguing for the view from a body, always a complex, contradictory, structuring, and structured body, versus the view from above, from nowhere, from simplicity" (p. 589). Objectivity is thus not a view from nowhere, but "views from somewhere" (Haraway, 1988, p. 590).

remarks regarding an academic hegemonism of the Global North. FeAuGe2 noted the impossibility of interaction when the counterpart expresses a kind of "religious belief" in their approach. She further argued that for a fruitful interaction one needs to have particular "constellations of power . . . in which a confrontation can be carried out and taken up by both sides in a way that yields fruitful results". Similarly, MaAuGe6 highlighted that interaction can only work if the opponent engages with one's arguments and criticism rather than insisting upon their standpoint. FeTh3 discussed the problem of power hierarchies in which colleagues "look down" on you, "do not listen", and "only stick with their own idea":

> We might still be friends . . . but we will not debate about our perspectives anymore, because we know that we are different. . . . And in that case, we just say, well, we can be colleagues, but not a peer in a scientific way.

MaTh7 stressed a very similar dilemma that can complicate interaction. He described the problematic power asymmetries between engineering and the social sciences in many research projects: "Usually, the authority would give priority to scientific engineering and technological research". This pushes social science into a sub-role within projects, fulfilling tasks of "lip service" or merely "helping them". Lastly, MaTh4 mentioned problematic hierarchies of ontologies or worldviews in which marginalized voices do not get heard, while an economic-growth paradigm is privileged. Hence, albeit in different terms, all interviewees expressed the necessity of a level playing field for interaction to be possible. Transdisciplinary work cannot allow for exclusionary projects, nor can it allow for dogmatism.

This necessity for inclusiveness, however, does not imply that conflicts dissolve or that the outcome of a disagreement needs to be entirely harmonious. Acknowledging different situated judgments does not imply agreeing with, let alone sharing them:

> I can understand different arguments, for sure. But I don't have to share them. . . . I can comprehend how a certain position came to its understanding, to its view. I can comprehend that if I know, for example, how they have been, so to say, socialized academically. Then I can understand that. But I do not have to share it because of that. (FeAuGe1)

While transdisciplinary research needs to accommodate the goal of including multiple perspectives (both disciplinary and extra-scientific) in the process of knowledge production, thus creating a common framework via giving space to different situated judgments, decisions can and need to be made for a common endeavor to be relevant in practice. Transdisciplinarity, therefore, also needs to embrace the capacity of actors to act in a given context, situation, or environment. In other words, while different – and, potentially, even conflicting – perspectives need to be mutually recognized, a common strategy can only be operationalized by allowing for possibilities of deciding between those conflicting views. This is key to avoiding deadlock and an incapacity or inability of the actors working together in a transdisciplinary framework to act and move forward on a project to produce socially relevant outcomes (for example, by providing viable policy recommendations).

Any form of harmony in transdisciplinary research is, therefore, contextual and pragmatic. It focuses on the practical consequences in a specific context and balances multiple interests and situated judgments in a specific situation. In this context, FeAuGe1, FeAuGe2, and MaTh4 explicitly stressed that harmony, or the dissolution of divergent approaches into one whole, is neither possible nor desirable. "Science, like life, is mostly characterized by conflict." (FeAuGe2) While the pragmatic nature of contextual unity in transdisciplinary research acknowledges these conflicts, it also recognizes the necessity of decisions for the research to be relevant in practice. As Schmidt and Pröpper (2017) put it, "Being realistic about transdisciplinarity requires acknowledging that the (almost romanticized) image of a mutual and equal knowledge co-production is hardly attainable, and indeed blanks out existing hierarchies, spheres of interest, and power structures" (p. 377). Some interests or situated judgments will always need to be sacrificed for others.

Transdisciplinarity should not reject this instrumental necessity, but be all the more reflective on questions of representation (whose voices, knowledge, and expertise counts) and impact (who owns the research output, what impact does it make, and who will benefit). In so doing, it counteracts the tendency towards de-politicization that often comes with promises of unification. MaTh4, for example, noted that attempts at technocratization exemplify such a problematic form of unification, as they explicitly follow an ideal of a-politicized science, thus pursuing an illusion of universalized knowledge.

This is why pluralism is so essential for transdisciplinary research. It is founded on multiple situated judgments – be it of different scientific disciplines, ethnic minorities, women's groups, policymakers, or trade unions, to mention only some – that are ultimately being *compressed* into a common contextual strategy. I suggest that the idea of compression – that is, the establishment of a pragmatic unity in a specific situation or, in other words, the essential ability to make decisions between a plethora of different situated judgments that might be incompatible – is a central practice in transdisciplinary research, related to three interlinked statements expressed by Dupré (1995). First, scientific criteria to distinguish certain parts of reality are "chosen in part for anthropocentric reasons such as ease of human application" (p. 36). Second, "epistemological standards for science" are at least partly normative (p. 243), meaning that scientists' epistemic practices are in some respect influenced or constituted by non-epistemic values. Lastly, and in line with the two former arguments, aiming at universally unified sciences at a single scientific enterprise regardless of local context would require "a society with absolutely homogeneous, or at least hegemonic, political commitments and shared assumptions. . . . [Universally] unified science, we might conclude, would require Utopia or totalitarianism" (p. 261). Compression, thus, is always contextual, partial, pragmatic, and contingent, because "it is not the only possible rational outcome. A different constellation of arguments and situated judgments could have led to a different outcome" (Kinzel & Kusch, 2018, p. 66). Compressive decisions are, in this sense, based on their "pursuit worthiness" in a specific situation. Pursuit worthiness, as opposed to other (often stronger) forms of acceptance, does not concern a retrospective assessment of truth-conduciveness (similar to the traditional idea of theory confirmation), but is an appraisal of heuristic or pragmatic deliberations regarding a research direction's fruitfulness in a specific local situation (Nickles, 2009; Šešelja, 2017).

To sum up, all that inclusiveness in transdisciplinary research can require is that space is given to different situated judgments to be expressed, recognized, and taken seriously. Conflict and the rejection of positions within this space will, however, in most cases be unavoidable. Decisions need to be made. We should, therefore, be critical about ideas of transdisciplinarity that place a strong emphasis on "total systems" (Piaget, 1972), "comprehensiveness" (Molteberg & Bergstrøm, 2000), or "unification and harmony" (Choi & Pak, 2006), particularly if such unity/unification is framed in its most comprehensive sense, this is, "looking for unity in an overarching synthesis in the grand and sweeping manner of Marxism, systems theory, sociobiology, and so on" (Kellert, 2006, p. 219). Instead, more emphasis needs to be placed on partiality, conflict, compromise, and joint contextual strategies (cf., e.g., van Breda & Swilling, 2019).

CONCLUSION

In this article, I have sought to (1) provide vignettes of central scientific conflicts and controversies in development research to hint at potential difficulties that may arise in inter- or transdisciplinary endeavors around the notion of development. A plurality of different approaches in terms of disciplines, regional and cultural contexts, methods, explanations, ethics, semantics, theories, and aims were empirically identified. Based on how the interviewees reconstructed their respective controversies in their daily work, I (2) questioned the claim to authority and novelty that Western institutions have built around the term transdisciplinarity (the signifier) – which is nurtured and reinforced through European project frameworks – since institutionalized practices (the signified) in Thailand seem to be more conducive to the inclusion of extra-scientific actors than those in the Global North. Subsequently, I showed that (3) critical interaction within the arena of conflict and controversy represented in (1) is not only a normative goal in development research, but seems also vital to unfold the potentialities of transdisciplinary work.

The abstract nature of a necessary, common basis for interaction, which the interviews highlighted, suggests a focus on diverse, situated judgments that define the concrete content of these abstract meta-standards. Based on my empirical analysis, I argued that transdisciplinary work can only unfold its potentialities when different, situated judgments are acknowledged. This presupposes the ability of self-reflection among those involved. Mutual acknowledgment must, however, not be confused with sharing a particular view or position. If transdisciplinary endeavors aim to induce practical consequences, decisions between different situated judgments are necessary. I termed this process *compression*, which is always contextual, partial, contingent, and pragmatic. Transdisciplinarity's often-held ideals of harmony, comprehensiveness, totality, and unity should, therefore, be replaced by conflict, partiality, compromise, and joint contextual strategies. The idealistic fantasy of transcending one's situatedness thereby gives place to "the art of deliberation" (Novy et al., 2020) as the central competence of transdisciplinary scholars.

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Thai Baan Methodology and Transdisciplinarity as Collaborative Research Practices. Common Ground and Divergent Directions

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Thai Baan research was developed in the late 1990s as a counter-hegemonic, emancipatory means of knowledge production. Originally developed in the context of protests against a hydropower project, it aims at empowering socially and economically marginalized actors to create and represent their own knowledge and to regain authority in social struggles. This decolonial methodology, conceptualized by Thai academics in collaboration with non-academic actors, has remained largely unnoticed by Northern collaborative or transdisciplinary debates. Transdisciplinary research, although engaged in collaborative research designs, often remains silent on issues of power imbalances as constitutive of research processes. Criticizing the compartmentalization and limitation of academic knowledge production, transdisciplinarity realigns the scientific system of knowledge production to deal with 'real-world problems'. During the last three decades, transdisciplinarity has unfolded into a collaborative and integrative methodology implemented in a number of fields, such as sustainability, public health, and development planning. This article systematically introduces Thai Baan and transdisciplinarity as two approaches to collaborative research practice. It introduces the context of their emergence, sheds light on the respective notions of knowledge and science, and discusses their respective methodological designs. It is argued that both would benefit from a stronger epistemological foundation in decolonizing, liberating philosophies of science to enhance collaborative action, overcome North-South divisions, and foster global dialogues in emancipatory knowledge production.

Keywords: Collaboration; Critical Research Methodology; Sustainable Development; Thai Baan; Transdisciplinarity

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INTRODUCTION

The question of whether and how we can know the world is probably as old as humanity itself. Positions regarding this question are many and contested among thinkers and intellectuals from different schools, based not only in contrary epistemological foundations but also in divergent ontologies. *Thai Baan*, a counter-hegemonic methodology (Chayan, n.d.), and *transdisciplinarity*, a collaborative framework based on co-leadership of science and practice (Scholz &

Steiner, 2015, p. 654), seem in many respects similar. Their imaginaries and visions are quite alike, for example the ethical foundations, on which they stand, or the better handling of socio-ecological challenges, for which they call. During the KNOTS (*Fostering Multi-Lateral Knowledge Networks of Transdisciplinary Studies to Tackle Global Challenges*) project (Dannecker, 2020, this issue) the authors participated in several activities in which students, scientists, and professionals worked together to develop didactic methods to teach transdisciplinarity in higher education institutions. Thailand's Chiang Mai University, which hosted one of the annual regional foci within the project, has sound expertise on, and well-developed collaborative relations with non-academic actors, local groups, and activists in the region. Furthermore, Chayan Vaddhanaphuti, a member of the KNOTS consortium, has co-developed and enrooted Thai Baan in Southeast Asia. During the KNOTS summer school and field trips, colleagues from Chiang Mai and others raised the question of why this EU project is needed to develop a research practice, which is already well established there. The question of whether Thai Baan and transdisciplinarity are the same, or whether transdisciplinarity is yet another colonizing paradigm excluding local knowledges, fueled several discussions during the project lifetime. As a result, this article problematizes specific objectives of both approaches and tries to link them to other recent innovations in participatory and transformative research. Both work towards a convergence of science and practice, with Thai Baan taking ecological expertise of everyday life-experience as a starting point and transdisciplinarity starting from a conceptual perspective of 'wicked problems'[1]. The one is born out of direct experience of marginalization and subjugation, while the other from the experience of deficiency of 'pure science'. While their starting points might differ, their problem awareness points in the same direction.

Both, for example, feature the concept of 'local knowledge'. In Thai Baan methodology, local knowledge is embedded in the real political struggle of actors who oppose powerful, political and economic interests (Chainarong, n.d.; Chayan, n.d.). Transdisciplinarity combines academic expertise with non-academic - ergo local - knowledge to learn about different and conflicting stakes in the problems at hand. It stresses the mutual understanding derived through science and practice, but "science remains independent" (Scholz & Steiner, 2015, p. 655). In Thai Baan, science is not independent but always socially engaged (Chayan, 2003). Transdisciplinarity and Thai Baan thus both focus on collaborative processes, although they are conceptualized differently. While transdisciplinarity maintains the dualism between science (non-spatial) and practice (local), Thai Baan methodology produces local knowledge by supporting local actors to take the lead in the research process. These contrasts create different understandings of collaboration and participation. Nevertheless, both knowledge frameworks claim to be better-equipped to represent complex realities and different perspectives.

The first section of this paper gives a short description of the origins and specific contexts of Thai Baan and transdisciplinarity. The second part investigates the concept of knowledge as linked to collaboration. The third part looks at the concrete

1 The notion of 'wicked problems' was introduced by the urban planners and designers Horst Rittel and Melvin Webber (Rittel & Webber, 1984) to describe problems that, could be solved only through cooperation of affected social actors.

methodologies of Thai Baan and transdisciplinarity and in conclusion traces their divergent directions.

THAI BAAN AND TRANSDISCIPLINARITY: ORIGINS OF TWO CONTEMPORARY FRAMEWORKS OF COLLABORATIVE RESEARCH PRACTICE

The Decolonial Methodology of Villagers' Research

Thai Baan research originated in the concrete protests against the *Pak Mun* hydro-power dam construction and respective governance strategies. The Pak Mun Dam, completed in 1994, is one among many hydro-power dams built in Southeast Asia from the 1960s onward (Amornsakchai et al., 2000). It was projected to cover daily peaks in electricity demand and to support development in Northeast Thailand, where it is located (Chayan, n.d.). From the beginning of the planning activities in the late 1970s, Pak Mun opponents demanded to be part of planning and decision-making processes regarding the use of wetland ecosystems, access to land and water rights, and environmental protection. They demanded a broader discussion of the concept of development in which water management and hydro-power have been identified as central issues in tackling poverty by national and international development actors (Blake & Buapun, 2010; Missingham, 2002). Contrary to trickle-down calculations of development economists, the benefits of the dam construction were not delivered to Pak Mun residents, nor were the estimated revenues ever reached (Baird, Manorom, Phenow, & Gaja-Svasti, 2020). Opponents wanted the dam decommissioned, and claimed that massive societal, cultural, and natural losses were incurred. Livelihoods were damaged and income in fishery decreased, while considerable parts of the population were resettled. This has negatively affected communal, reciprocal relations, wetland forests, and access to communal land and resources (Amornsakchai et al., 2000).

Throughout the 1990s, the protests against the Pak Mun Dam became the rallying-point for other nationwide movements against ecologically and socially harmful development projects in Thailand, which became known collectively as the *Assembly of the Poor* (AOP).[2] Pushed forward by a coalition of activists, academics, civilian supporters, and affected residents, the broad alliance of social movements eventually made inroads. After six years of negotiation, the government agreed to open the dam gates between June 2001 and November 2002 to examine whether the effects would justify decommissioning the dam. The government and the electricity authority both assigned different university departments to assess the economic, social, and environmental impacts of the opening (Blake & Rattaphon, 2006; Chayan, n.d.).

Prior to this, studies on the social impact of the dam had already been conducted. *The World Commission on Dams* (WCD) report (Amornsakchai et al., 2000), for instance, used participatory research methods as one tool for collecting data, but the participative research was criticized for ignoring aspects of the Pak Mun eco-system, especially the social dimensions of fishing, or the status of the river as part of the

2 AOP is a loose, nationwide assembly of local and regional social movements, in which less secure, and small-scale farmers and fishers pursued a relatively successful mass agitation of public spaces, raising awareness for failed development intervention (Baker, 2000).

spiritual and communal identity of the people. Pak Mun opponents claimed that the report did not reflect the local knowledge appropriately. They objected that negative effects caused by hydropower production were not adequately represented in the WCD report, nor in any other evaluation carried out by the government or its agencies (Amornsakchai et al., 2000; Chayan, n.d.).

This frustration with flawed results of participatory research led Chayan Vaddhanaphuti and colleagues to encourage the dam opponents to conduct their own research when the gates reopened. *Ngan Wijai Thai Baan* (short *Thai Baan*) has been widely translated as "villagers' research" (Blake & Rattaphon, 2006; Chayan, n.d.; Myint, 2016), but could also be translated as "independent village research" or even "independent local research". Thai Baan was inspired by the ideas of Paulo Freire's "pedagogy of the oppressed" (Freire, Macedo, & Shor, 2018), and the experience that participation did not guarantee sufficient independence, liberation, or transformation. Thai Baan is therefore an unwavering effort to challenge the hegemonic paradigm of hydro-power development. The *villager-researchers* collected data that they found important from their perspective and used their own terminology according to their interests and experiences. A dedicated group of those directly affected by the dam, who were well-acquainted with the river, was assisted and supported by volunteering students, NGO professionals, and other university staff. The AOP and the *Southeast Asia Rivers Network*[3] (SEARIN) provided institutional support, organizational experience, scientific know-how, and helped with the systematization of findings.

It is necessary to mention that *villagers* as a category in the context of Thai Baan – much like the category of the *poor* in the AOP – needs to be understood in the context of social struggle and contested modernities in Thailand. It is a self-empowering re-appropriation of a term originally imposed by an urban elite for whom the 'village' and its residents are met with suspicion. The 'villagers' and the 'village' in Thai Baan are not primarily social or socio-spatial categories based on stereotypical traits and characteristics of village residents. Rather, they are political terms of resistance and reclaiming. In the context of popular Thai modernization discourse, *chao baan* (*villager*) has a judgmental connotation and derogative meaning, indicating a person's backwardness and their lack of classiness and sophistication (Rigg, 2019, p. 30). Villagers in the context of Thai Baan are those living with and off the river and riverine ecosystems on a small-scale, subsistence basis. Because of their livelihoods, they are often excluded from knowledge production. Thai Baan researchers are those who want to change their position and visibility in the dominant development narrative. In order to achieve this, they must commit to a 'David versus Goliath' battle, as Thai Baan is very time consuming, emotionally exhausting work that requires many hours of discussion, workshops, and travelling. Moreover, the prospects of success and the potential for change are rather small.

Integrating Thai Baan research in academic and NGO structures has helped to translate the methodology into other local struggles on wetland ecosystems and other socio-ecological challenges and allowed it to become a significant strategy for academic

3 SEARIN, today Living River Siam Association, is involved in research and analysis of dam projects on lives of indigenous people. It was established in 1999 and is closely linked to Thai Baan research. Its objective is supporting and promoting local knowledge and local rights to water resources, as well as the rights of rivers and riverine ecosystems (Living River Siam Association, n.d.).

activism, civil resistance, and emancipatory pedagogy on the Southeast Asian mainland (Blake & Buapun, 2010; Chayan & Amporn, 2011; Lamb et al., 2019). To articulate specific local claims of marginalized actors to challenge dominant knowledge frameworks in political negotiations is a merit worth mentioning. The language of the study reflects the local terminology of fish occurrence and its socio-economic uses, river topography, seasonal changes and migration patterns, processing and production diversity, mythology, beliefs and folklore and thus represents the understanding of wetlands ecosystems of local fishers, and other people who life off the rivers (Blake & Rattaphon, 2006; Chainarong, n.d.; Chayan, n.d.; Mekong Watch, 2004).

Promoting Sustainability Through Transdisciplinarity

Rather than taking sides in social struggles, transdisciplinarity originates in theoretical debates about how science could better respond to societal problems. The first generation of scholars promoting transdisciplinarity, such as Jean Piaget (1972), among others, called for crossing boundaries between scientific disciplines, developing shared and unified axioms, and a new system of science. In recent years, transdisciplinarity aimed at enhancing sustainable futures by strengthening scientific integration of non-academic knowledge (Klein, 2009). Shortly before Thai Baan research was launched in the Pak Mun villages, a consortium of Swiss scientific and research organizations hosted the *International Transdisciplinarity Conference* in Zurich in February 2000 (Klein et al., 2001; Lawrence, 2015). The participants questioned how science might improve at solving persistent, 'real-world problems' in a sustainable way. Subsequently, the *Transdisciplinary Lab* at the ETH Zürich, as well as the *Network for Transdisciplinary Research* of the *Swiss Academy of Science*, became two major hubs for developing transdisciplinarity as a new scientific program, along with guidelines and criteria for collaborative research practices (Lawrence, 2015; Padmanabhan, 2018). Transdisciplinarity is closely related to sustainable development theories and the concept of participation, which emerged as a new, alternative model in international development and address primarily disempowered actors (Chambers, 1994; Jacob, 1994). Thai Baan and transdisciplinarity are thus closely linked to transformative tendencies in development research and practice (Hadorn et al., 2008).

Contrary to earlier, universalist tendencies, present approaches to transdisciplinarity stress heterogeneity, complexity, and difference at the theoretical and ontological level (Klein, 2013; Pohl, 2011; see also Bärnthaler, 2020, this issue). Yet, while transdisciplinarity sets out to deal with socially relevant matters, the stimulus for transdisciplinary research remains mainly within academia (Pohl, 2010). Maasen, Lengwiler and Guggenheim (2006, p. 395) classify four, and Pohl (2010, 2011) three slightly overlapping types of transdisciplinary collaboration. Only two of these seven types take transdisciplinarity initiated from outside of academia into account. Thus, while transdisciplinarity stresses the need for collaboration, it reproduces the traditional labor divisions in knowledge production, with roles and responsibilities clearly distinguished. Thai Baan also addresses the complexities of social and political movements for which there are no clear-cut distinctions between responsibilities, tasks, or professional identities. Rather, it is the collective identity of participants that make social movements and their research strong and sustainable (Chesters & Welsh,

2005, p. 190). However, in contrast to transdisciplinarity, the collective identity of social movement activists and the complex nature of movements make it difficult to distinguish between such categories as 'academic', 'activist', 'villager', or 'NGO professional' (ibid.). Throughout the KNOTS project, we struggled with the conceptual distinction between non-academic and academic actors in transdisciplinarity (Dannecker, 2020, this issue).

KNOWLEDGE PRODUCTION AND THE CONCEPT OF KNOWLEDGE

Transdisciplinarity and Thai Baan operate within slightly different concepts of knowledge. Thai Baan produces local, situated knowledge (Chayan, n.d.; Haraway, 1988), while transdisciplinarity emphasizes applied knowledge (Klein, 2020). Thai Baan sees knowledge as constituted through social and material relations, and stresses epistemologies of locality and difference. In the case of transdisciplinarity, epistemology has shifted towards notions privileging relationality and complexity, too, but knowledge is primarily target-oriented.

Managing Complexity and Divisions of Labor

Early theorists of transdisciplinarity wanted to establish unified, shared axioms for a set of disciplines (Bernstein, 2015; Klein, 2020; Piaget, 1972). Their focus was exclusively the theoretical openings between academic disciplines. Basarab Nicolescu (2010), an important transdisciplinary theorist, based his analysis on recent findings in quantum physics. He argued for considering transdisciplinary knowledge as an *open unity* linking different levels of reality as well as different levels of perception. This *unity in complexity* constitutes a "third space", a space defined by contradiction, plurality, and simultaneity (Nicolescu, 2010). Grounding transdisciplinarity within social science, the sphere of society shifts its focus from merely theoretical thoughts towards social actors, practices, and their different experiences.

As the integration of technical, planning knowledge and social science and society increased, the fields of sustainability and transdisciplinary studies grew closer, both subsequently opening to more collaborative conceptualizations of knowledge. Gradually, the *unity in complexity* (Nicolescu, 2000) was operationalized into "stakeholders and community input" (Klein, 2009; Nowotny, 2006). The question guiding transdisciplinary endeavors became "where are the people in *our* knowledge?" (Klein et al., 2001, p. 5, own emphasis). In contrast, Thai Baan asks about the knowledge *of* the people, which is a substantially different positioning. Shaking the conventional, scientific principle of expertise in its own right, transdisciplinarity acknowledges the "unstructured" nature of problems characterized by complex cause-effect relationships (Hadorn et al., 2008, p. 25). Transdisciplinarity engages the critique of science and has benefited from including *Mode 2 knowledge* production and the concept of socially robust knowledge (Gibbons et al., 1994, p. 33).

Mode 2 and socially robust knowledge specify research that is application-oriented and practical (Hadorn et al., 2008, p. 25; Nowotny, 2006). Mode 1 is exemplified by disciplinary closure, epistemological monocultures and institutional hierarchies. Mode 2, in contrast, is organized around problems of everyday life, identified in a

multi-stakeholder process by multi- and interdisciplinary teams, characterized by flat hierarchies and multi-directional chains of command. Because it is socially accountable and reflexive, it produces socially robust knowledge (Gibbons et al., 1994; Nowotny, Scott, & Gibbons, 2003). This corresponds to other decolonizing and emancipatory research paradigms. However, the dismantling of hierarchies in transdisciplinary teams - be it between scientific actors or between science and practice - is a very demanding and lengthy challenge. It is particularly so in transnational teams, in which gendered, professional, and racialized hierarchies are complicated by the North-South divide, and postcolonial axes of domination and marginalization (Rosendahl, Zanella, Rist, & Weigelt, 2015; Schmidt & Neuburger, 2017; see also Dannecker, 2020, this issue). A successful reorganization of knowledge production under transdisciplinarity will crucially depend on whether the team is able to become a collaborative team.

The technical understanding of the research process in transdisciplinarity is outlined in Pohl and Hadorn's (2008) classification of generated knowledges: *system knowledge*, *target knowledge*, and *transformation knowledge* (pp. 114-118). System knowledge shows the origin of a problem, and interrelations between its elements. Target knowledge is essentially normative, as it identifies anticipated goals and outcomes of the research and reflects the values and attitudes of relevant actors on what should be changed and how. Transdisciplinarity, Pohl and Hadorn (2008) write, is committed to fostering the "common good" (p. 117). Just what the common good is, and how to identify it, is a very delicate question not explored in transdisciplinary writing. While the common good is seen as being at the core of democratic societies and the basis of sustainability, others will argue that notions of common good are fiercely contested (Della Porta, 2013; Offe, 2012). Finally, transformation knowledge specifies what needs to be changed in order to achieve the targeted goals. Transformation knowledge should be applied and practice-oriented, examining technical, cultural, social, or legal instruments to attain transformation. All three forms of knowledge are part of each transdisciplinary research process. Diverging interests and conflicts among different parties within different phases of transdisciplinary research, as well as lack of commitment or other resources, are too rarely considered in methodologies and models of transdisciplinarity (Nowotny, 2006; Pohl & Hirsch Hadorn, 2008).

But knowledge is not an innocent thing – it can be an instrument of emancipation as well as domination, as has been noted by many theorists from different disciplines (Collins, 2000; Cornwall, 2004; Foucault & Gordon, 1980; Santos, 2007; Spivak, 1985). The complicit relation between knowledge and power has been particularly well-analyzed by post-colonial and decolonial authors, who describe the alliance and legacy of colonial subjugation through knowledge production as epistemic violence (Smith, 2013; Spivak, 1985). In Thailand, Sulak Sivaraksa (1975) was one early critic of how knowledge on Thailand was embedded in wider geopolitical strategies of the Cold War, as well as in internal colonization and nation-building. A dominant understanding of national development in a hierarchical international order has, in Thailand as in other parts of the world, encouraged methodological nationalism, modernization, and technocratic normativity in academia and politics (Bärnthaler, 2020, this issue). Under this logic, participation becomes little more than an extractive practice in knowledge production (Chayan, 2003, n.d.).

Situating Knowledge as Counter-Hegemonic Methodology

Knowledge about life and livelihood in rural areas of Thailand is often biased and inadequate. On the one hand, a nostalgic imaginary of Bangkok-based elites pictures peasants as living romantic lives, pure and unspoiled by modern necessities. On the other hand, customs, languages, and subsistence practices of small-scale farmers and people living in villages are represented as ignorant, engaged in conspicuous consumption, and indebted (Rigg, 1994).

It is particularly indigenous people and their practices that are branded as resistant to modernization and whose practices are deemed irrational (Clarke, 2001; Erni, 2009). The nexus of knowledge production, development policy, and powerful economic interests is strongly reflected in the realms of agro-industrial production, forestry, and rural development (Lohmann, 1995). Diversity of economic practices, including cooperatives, solidarity economies, and labor exchanges, has been consistently ignored in research and policies on rural development (Heis, 2015; Sato, 2003). The rural is a highly dynamic space, defined by its multiple relations to other spaces and scales of governance, mobilities, and solidarity relations (Rigg, 2019).

Space, place, and local knowledge are important concepts in the contestation of dominant discourses. Environmental impact assessments (EIAs) are central instruments in formal decision-making processes on large-scale development projects, and have been compulsory since the early 1980s (Tongcumpou & Harvey, 1994). However, EIAs often privilege the 'national' as a scale of relevance with regard to effects, gains, and implications of dam construction, but ignore the local[4] as a scale at which the highest costs are borne (Lamb, 2014). *Researching back* (Chilisa, 2012) with Thai Baan methodology results from the awareness of the inferior position of the rural local in the construction of official 'national' knowledge, corresponding to the unequal distribution of benefits and losses caused by the dam. The concept of the local as a valuable site for theorizing diversity and pluralism (Gibson-Graham, 2004; McKinnon, Gibson, & Malam, 2008) speaks to other power-sensitive epistemologies and methodologies. The monopolizing effects of modern, positivist science have also been criticized by post-colonial theory (Said, 1979; Spivak, 2010), as well as more recent developments of decolonizing methodologies and indigenous research paradigms (Chilisa, 2012; Santos, 2008; Smith, 2013). From a feminist perspective, Haraway's (1988) situated knowledge, Massey's (1993) locality studies, or Harding's (1993) strong objectivity[5] have defined emplaced research as counter-hegemonic academic practice. Thai Baan becomes a counter-hegemonic practice by producing

4 Whether the local as locus of abstraction and theorisation, or merely an anecdotal specificity is a lengthy debate (Massey, 1991, 1993). In the case of national versus local scale, we witness a shift in importance between one local site, here Bangkok as representing the 'national', and the diminishing of importance of the other local site, namely the villages of Pak Mun. If theory is implicitly global and excludes the local as a relevant site of theorization, it reproduces the meaning and relevance of dominant centres (Santos, 2007).

5 Situated knowledge (Haraway, 1988) argues against the naïve objectivity of positivist science, which, by disclosing its positionality objectifies the privileged experiences of those who produce it. A strong objectivity is a transparent partiality (Harding, 1993), supporting knowledges from marginalised positions and their claims for an emancipatory knowledge. Massey (1993) argues for local knowledge as equally legitimate to allegedly a-spatial knowledge. All knowledge is local in the sense that it is situated in concrete, physical experiences of speakers.

knowledge that is embodied, emplaced, and formulated from the margins (Chayan, n.d.). Situated knowledges do not conceal their partiality but make it explicit and open for collaborations and alliances (Chilisa, 2012). Situated knowledges allow the subaltern to speak (Spivak, 2010).

As a local knowledge methodology based on fieldwork as commitment (Gibson-Graham, 2004), Thai Baan creates space for articulating and including mythology and elements of folklore, which define nature and society relations. For example, the concept of animism assigns agency to natural elements and phenomena. Thus, a river stops being an object of exploitation or research and becomes a matter of co-existence. The results of Thai Baan do engage with the language and logics of positivist natural sciences but go beyond their mere descriptive, empirical nature. Linking data to changes in every-day lives, embedding their relevance in social, cultural, and spiritual phenomena, and specifying future imaginaries substantially challenges the reductionist accounts of conventional, natural and economic science research.

With Santos (2007), we could say that Thai Baan opens a road to an *epistemology of seeing* by representing what is at the margins of an excessively narrowed-down frame of relevance. Thai Baan thus aims at reconstructing indigenous agency in representation and interpretation of social realities. Furthermore, Thai Baan seeks to restore almost-lost narrations, understandings, beliefs, and practices by validating the relevance they have in the everyday lives of Thai Baan researchers in order to restore self-esteem and respect for the different, the non-hegemonic, the supposedly non-relevant, and the often overlooked (Chilisa, 2012).

UNDERSTANDING OF COLLABORATION

Attempts to include experiential knowledge in development planning are not new. In development cooperation, the inclusion of practical knowledge of local actors through *participatory rural appraisal* (PRA) was expected to increase the success of development projects and research (Chambers, 1994). However, participatory methods were soon criticized for being extractive and increasing social inequality among the participants (Cornwall, 2004; Kothari, 2001). In practice, participatory research proved to be structurally inhibitive, and less powerful participants were co-opted by dominant actors (Cooke & Kothari, 2001). A modification of participation, the *participatory action research*, originates in social movements and combines the focus on marginalized groups with explicit political action. Action research, as an example from feminist struggles, is deeply embedded in the science/experience interface and oriented towards emancipation (Gatenby & Humphries, 2000). Participatory action research envisions academics as parts of society and as social actors constructing 'knowledge' and 'reality' (Whyte, 1991). On these grounds, Thai Baan (Chayan, n.d.) understands collaboration as action research, in which protest is accompanied and articulated through research. Transdisciplinarity integrating non-academic actors is often referred to as *participatory transdisciplinarity*, without engaging with the critical debates on the pitfalls of participation (Pohl, 2010). In this section we want to discuss how collaboration is understood in both research frameworks, how it relates to the above understandings of knowledge, what the implications for the ownership of the knowledge produced are, and how it effects the underlying objectives.

Ownership and Empowerment Through Action

The first step in carrying out research under the collaborative scheme in Thai Baan is the constitution of a focus group. The research activity in Thai Baan is an additional task for the (non-professional) researchers, not their primary occupation. It must be carried out in addition to daily tasks, which means that leisure and reproductive time must be sacrificed for research activities. The contribution of the non-academics here is the essential, constitutive part of the research, and requires commitment of the villagers, and recognition of professionals. The process includes first the collection of data on natural, social, and cultural phenomena as well as their meanings. The villagers collect and classify the data, academics support the documentation of the process. After the relevant conditions are described, discussions, opinion building, and exchange within the focus groups, and subsequently with others who are not part of the research, follow. Thai Baan are supported and accompanied by academic NGOs or other civil associations, research and dissemination activities are (Lamb et al., 2019).

As indicated above, Thai Baan integrates both conventional as well as unconventional aspects at different levels of research (Blake & Pitakthepsombut, 2006). Data that could challenge dominant theories on the benefits of hydro-power need to be first collected, recorded, and systematically classified in order to be accepted as scientifically sound. Collecting empirical evidence is therefore a necessary part in any empowering research practice. The unconventional nature of collaboration in Thai Baan lies in the fact that, in order for synthesis to become possible, the conventional scientific activity is under the leadership of the non-professional researchers. In the context of river and riverine ecosystem research, this is mainly the fishers and other villagers who are living off fishing and the rivers. Thai Baan has become established as a model for action research in these contexts mainly, but not exclusively. It is also used in collaborative research designs with indigenous groups to prove the innocuousness of slash and burn agriculture in the hills of Northern Thailand. Recollecting, recovering and documenting local concepts of topography, animal and plant life, processing methods, and exchange relations is the first step to restore intellectual ownership over experiences, spaces, and places. The complete reversal of roles within the research process and the rejection of the rationalized and technocratic language of science and policy fundamentally challenge the colonizing, national narrative of exploitation of nature for the sake of modernization and progress (Blake & Buapun, 2010; Chayan, n.d.). Stories, songs, and myths are not treated as material to be analyzed and critically interrogated, but as part of local cultural diversity and as means of dissemination and communication. The collaborative nature of the research shows also in the acceptance of these alterities to remain constitutive parts of the research.

As Thai Baan was adopted to new settings and areas, for example the Lower Songkran Basin (Blake & Rattaphon, 2006; Lamb et al., 2019), the basic steps in Thai Baan research were systematized and generalized to provide guidelines to other groups. Blake and Pitakthepsombut (2006) have published a 13-step summary of the most important points of Thai Baan research, including preparation, introduction, and the foundation of ownership. The first phase is identifying a research interest, drafting a timetable, and assigning tasks and responsibilities as well as organizing workshops and reporting. The second phase of research comprises in-depth research

on agreed topics, and organization of related activities – for example, awareness raising, innovative practices, etc. The third phase is mainly presentation and dissemination of findings and results as well as discussion of next steps for management and preservation activities (Blake & Rattaphon, 2006, p. 9). So far, this standardized process of Thai Baan is very similar to research guidelines on transdisciplinarity research that also usually consist of three phases.

However, the core of Thai Baan is to make *non-scientists* and *non-academics* the central agents of a research process. Methods of participation and action research and a wide range of qualitative research methods emphasize not only the collective, but also bodily, material, and natural characteristics of knowledge. While personal differences, rivalries, or conflicts are part of all collective actions, the main questions remain: what is the overall aim? In Thai Baan sucess is collective action, effectively challenging the hegemonic ideas on national development and small-scale rural livelihoods.

Transdisciplinary research too engages in areas in which societal decision making and economic interest resulted in harmful or 'wicked' problems (Pohl, Truffer, & Hirsch Hadorn, 2017). Thai Baan, however, combines the widespread concerns over such problems with political action. Collaboration in Thai Baan serves the legitimation of local concerns in national decision-making processes. The academic and NGO research partners use their relative power and position to support local struggles. The reallocation of responsibilities and reversal of conventional research procedures are primarily symbolic acts. Nevertheless, they affect practices and how people perform their roles. Communication, translation, and negotiation activities are particularly labor-intensive and emotionally demanding. Therefore, the main resources needed in Thai Baan research are time, friendship, and commitment (Amornsakchai et al., 2000; Blake & Rattaphon, 2006; Chayan, n.d.). Transdisciplinarity lacks this explicitly political objective and does not make a priority of emancipative liberating agendas. It aims explicitly at repairing development implementations gone wrong. It sees collaboration as assignment of tasks according to expertise and hence as efficient labor division, thus maintaining the dualism between science and practice.

The Blind Spots of Ideal-Type Collaboration

There are a variety of collaborative study designs inducing different forms of transdisciplinarity (Mobjörk, 2010; Pohl, 2011). Some are more theoretical in nature (Mobjörk, 2010, p. 867), while others explicitly address inclusion of non-academic actors in environmental, societal, and planning-related problem-solving. Pohl and Hadorn (2010), and others (Bergmann et al., 2012; Lang et al., 2012) provide for integration of non-academic actors in all three steps of the research process – problem definition, data collection, and dissemination. Firstly, non-academic actors should be included in the problem definition and the outline of respective research questions. Secondly, non-academic partners should be engaged in participatory data collection and included in data analysis. Thirdly, dissemination and fruition of research result should take place according to respective needs. Bergmann et al. (2012, p. 83) have drafted a broad and user-friendly framework for grouping interests, actors, and activities to guide collaboration throughout the research process. Bammer (2016, p. 41) offers a toolkit

to help scientists undertaking transdisciplinary research and suggests guiding questions ("for what and for whom", "how", and "context"), as well as a how to ask these questions. Many publications seem to offer some kind of application instructions for participative social science research (Gaziulusoy & Boyle, 2013; Polk, 2015). In their evaluation of transdisciplinary projects, Rosendahl et al. (2015) examine the practice of collaboration and relations on equal footing across power imbalances from a critical, feminist perspective. They argue for a refined distinction of the different steps, which, they say, will enable researchers to pay more attention to different perspectives and power imbalances throughout the project and hence increase the likelihood of strong objectivity in the research outcomes. Contextualization through communication and translation (Nowotny, 2006) and what Rose (1997) has termed reflexive positionality[6] are stressed as necessary preconditions to identify and formulate shared problems. However, Rosendahl et al. (2015) claim that this often remains at the level of lip service. In a relationship that is characterized by power imbalance, the establishment of *formal equality* seems to be not enough. Dealing with challenges in a way that is power-sensitive and attends to social or other inequalities should be considered more strongly in transdisciplinary endeavors. Researchers may need to reverse power relations first in order to establish equality at some later point in time.

The main difficulty that we have encountered with transdisciplinary methodologies throughout the KNOTS project (Dannecker, 2020, this issue) is the fact that it addresses conventional academic researchers as the main agents of transdisciplinarity. Scientists are not naturally endowed with the social skills required to navigate through such an undertaking. Rather, throughout our careers we are trained to develop leadership and authority and to defend our scientific findings and positions in rigorous assessment and review processes. In addition, transdisciplinary research projects of the last two decades have been subject to a strict and tight project-management logic, rationalizing and objectifying components of the research, and making teambuilding a 'work package' instead of a process of building epistemic friendships (Nguyen, Nastasi, Mejia, Stanger, & Madden, 2016). Specifically, the 'stakeholder' terminology is revealing. In many transdisciplinarity studies, 'stakeholders' are almost exclusively non-academic actors, while academics and scientists are outside that category. Such classification is dangerous as it reflects the supposedly neutral and detached self-understanding claimed by positivist science, which have been criticized by those advocating for more collaborative methodologies.

CONCLUSION

The opening of science to society by stepping down from the ivory tower has been part of an overall transformation in science. In the social sciences specifically, the trend has moved from *dialogue* to *collaboration* (Lieven & Maasen, 2007). Collaborative study designs and methodologies are said to be generally transformative, and therefore one would expect these designs pay special attention to how power imbalances

6 Reflexive positionality (Rose, 1997) tries to come to terms with the impossibility of knowing one's positionality always and in any situation. Regarding research and collaborative activities, we can position ourselves only to a certain degree on our own; rather, the positionalities of all actors in a collaborative undertaking are relational, not independent of each other and hence subject to constant negotiations.

are negotiated and how difference and inequality impact on collaborating actors (Lieven & Maasen, 2007; Mobjörk, 2010; Rosendahl et al., 2015). Experience shows that collaborations between very heterogeneous actors, which promise to open academia, are difficult to pursue due to persistent, powerful standards and norms of a 'purely' academic operationalization of knowledge (Felt, Igelsböck, Schikowitz, & Völker, 2016, p. 32; see also Dannecker, 2020 this issue). Collaborative practices in such settings face severe limitations to the breaking-up of old boundaries, and the deconstruction of dominant knowledge hierarchies. Within science, as well as beyond, conventional divisions are being reproduced throughout the process. In addition, structural conditions of higher education and respective policies in which transdisciplinarity is tightly embedded run contrary to its very aspirations.

Transdisciplinary or not, funding agencies often require hierarchical structures for reasons of efficacy, accountability, and responsibility and hence reinforce traditional labor divisions in research projects. There is a shared understanding that our present, complex societal systems require interaction and synthesis of the perspectives of diverse societal actors (Hadorn et al., 2010; Mobjörk, 2010; Novy et al., 2008), and a bridging of researchers' and practitioners' knowledge production (Angelstam et al., 2013). Transdisciplinarity and Thai Baan aspire to change and transform persistent problems in a way that is inclusive and collaborative and avoids top-down action. They draw on different traditions, such as practice-oriented stakeholder participation (Christinck & Kaufmann, 2018) or more scholarly-based, participatory action research methodology.

Transdisciplinarity provides procedures, frameworks, and models to advise junior scientists, on how to formulate their research questions to relate to societal problems "out there" (Pohl et al., 2017). For technical professionals and administrative authorities, it is important to learn how to listen and include the needs and wants of those affected by any given development intervention, not only the interests and ideas of the contracting parties. Participatory, collaborative models are difficult to carry out in practice. The general assumption that scientists and experts are trained, expected, and paid to find solutions and to have answers is very dominant. Critical theories and emancipatory pedagogies are still marginal in academic curricula and academia's participation in the power/knowledge nexus is seldom problematized in higher education programs. They do not provide sufficient "tools that could dismantle the master's house" (Lorde, 1984), nor do they teach methodology and theory as acts of friendship (Nguyen et al., 2016) or solidarity (Mohanty, 2013). A collaborative and integrative design, which is unable to give up control and ignores the possibility of coalitionary engagement and solidarity is likely to reproduce non-academic actors as science's *Other* (Said, 1979).

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Institutional Prospects and Challenges to Transdisciplinary Approach in the Knowledge Production System of Vietnam: Reflections on a North-South Partnership Project

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Drawing on neo-institutionalism in policy studies, this paper aims to demonstrate that transdisciplinarity is a new logic that could challenge the existing institutional logic of the knowledge production system in Vietnam. This institutional interplay is examined by analyzing the institutional response, interactions, and choices of stakeholders participating in an EU Erasmus+ Capacity Building Project. The analysis shows that the transdisciplinarity concept can be used as a potential framework for the development path of the dominant logic characterized by the shift from a traditional statist to a market-oriented model for knowledge production. Nevertheless, there are challenges like power relations in the interplay processes among actors who try to reproduce existing institutional logic and those who support transdisciplinary logic, as well as regarding relevant decision-makers to make institutional choices. The discussion shows that when applying transdisciplinarity, one should consider the motivation and barriers regarding state control, transdisciplinary readiness, hybrid models, funding, and experience.

Keywords: Transdisciplinarity; Institutional Interplay; Knowledge Production System; Vietnam

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INTRODUCTION

Defining knowledge is an ongoing debate: it predates Plato's introduction of his well-known conceptualisation "justified true belief" and has given rise to various theories. It is an undeniable fact that knowledge has a strong influence on driving contemporary economic and social progress (UNESCO, 2014). Simply stated, the term *knowledge* relates to "facts, information, and skills acquired by a person through experience or education" and "the theoretical or practical understanding of a subject" (Lexico Dictionaries, 2020). Knowledge is generated by *knowledge production systems*, which can be seen as the wide, complex structure made of universities, public agencies, private bodies, international organizations, and civil society, which enables the determination, production, distribution, and evolution of all disciplines (King, Bjarnason, Edwards, Gibbons, & Ryan, 2003). As a subset of the social system, knowledge production systems are said to play an essential role in promoting public values, and reducing social inequality and

environmental degradation, as well as being an essential pillar in closing the development gap between North and South on a global level (World Bank, 1999).

While the Global North currently still dominates knowledge production, the countries of the Global South are trying to reinvent their knowledge production systems to not only meet the challenges of development, but also to participate in global knowledge production and thus change global knowledge asymmetries (Webster, 2016). Hence, they are seeking and applying new frameworks to foster knowledge production for local purposes in the South and balancing the global knowledge divide are some of the leading concerns in the recent North-South partnership on knowledge co-production. Such a new form has emerged in the debates on discipline and modes of knowledge production: *transdisciplinarity*. Embedded in the key attributes of Mode-2 knowledge production[1] (Gibbons & Nowotny, 2001), "transdisciplinarity concerns that which is at once between the disciplines, across the different disciplines, and beyond all disciplines. Its goal is the understanding of the present world, of which one of the imperatives is the unity of knowledge" (Nicolescu, 1997). Further, this paradigm focuses on equal partnerships between researchers and practitioners through constructive interplay and using the respective strong points of each other to produce knowledge with place-based and reality-oriented solutions (Steiner & Posch, 2006; see also Bärnthaler, 2020, this issue). However, this framework is a product of scholars of the Global North, where Mode-2 knowledge production has been relatively institutionalized. Therefore, the question must be asked, as will be done in this paper, whether there are typical challenges faced by applying transdisciplinarity in the Global South, in this case Vietnam, where the institutional logic of Mode-2 is not dominant, and transdisciplinarity has not yet become a buzzword.

After the *Doi Moi*[2], the national knowledge production system in Vietnam was also changed within the transformation from the statist (Soviet) model towards the model of the socialist-oriented market economy. The shift has generated a dynamic institutional environment with distinctive institutional characteristics. The current institutions tend to maintain the prominent role of the state in knowledge production systems through policies, laws, regulations, funding, and governing the relevant organizations. They, however, simultaneously support individuals or organizations engaging in system transformations by selectively testing, accepting, or promoting institutional reforms toward international standards (Minh & Hjotrsø, 2015). This implies that institutional innovations at the macro-level are embraced and legitimized by the state, which is, however, still practicing

1 In the mid-20th century, a new form of knowledge production began emerging. To distinguish this form from the traditional one, Gibbons et al. (1994) denominate the new mode of knowledge production as "Mode-2", and named the classical way "Mode-1". They argued that the two modes have contrasting characteristics as follows:

- Mode-1: Problems proposed and resolved by a specific community; disciplinary; homogeneity; hierarchical organisation; permanent; peer quality control; less socially accountable.
- Model-2: Problems proposed and resolved in the context of application; transdisciplinarity; heterogeneity; heterarchical organisation; transitory; quality control by diverse actors; more socially accountable and reflexive.

2 Đổi Mới is the name given to reforms policy in Vietnam in 1986 shifting from a centrally planned economy to a socialist-oriented market economy.

institutional control, at least as long as institutional response and interaction do not conflict with state objectives. This dominant logic is strictly controlled in international cooperation activities, especially in North-South partnership projects regarding politically sensitive topics. Because of the complex transition process toward market orientation, institutional change at the organizational level is characterized by internal contradictions. The tension between the tradition of strong mono-disciplines and 'global' pressure for interdisciplinary research leads to hybrid modes of knowledge production lacking academic freedom and knowledge fusion. The trend of organizational autonomy (mainly financial autonomy) directly affects scientific research resources and motivation. Especially in the social sciences, the scientific quality and practical applicability of many studies cannot be guaranteed (Bui, 2016). The institutional values affected by state control and traditional mono-disciplines, which still dominate, are responsible for actors' often narrow views, short-sightedness, and superficial thinking in research and teaching (Tuy, 2019). In short, the existing institutional logic of knowledge production in Vietnam is approaching isomorphism in the context of the globalisation of Mode-2 but still carries the legacy of Mode-1.

As one of the most radical and progressive approaches in Mode-2 knowledge production, transdisciplinarity marks a shift towards social problem solving by integrating different types of scientific and non-scientific knowledge. Such ambitious collaboration reflects the need for relevant institutional logic to support in-depth participation and knowledge integration. Transdisciplinarity logic at the individual level relates to the involved actors' abilities, such as a shared understanding of different types of integrative research, collaborative skills, and a sociable attitude to form transdisciplinary teams. At the meso-level, organizations search for regulations and processes for transdisciplinary, collaborative learning, and studying processes. Capacity building, projects and programs, and funding schemes are priorities for institutional development to further and implement transdisciplinarity. Finally, governance at the system level needs to focus on socially robust knowledge development, and policies should develop collaborative governance processes.

Given the characteristics described, when transdisciplinarity is applied in Vietnam, its institutional logic can generate tensions with the existing system. Thus, this concern prompts the main objective of this article, which is to analyze the institutional logic interplay between transdisciplinarity as a framework of knowledge production requiring a new institutional logic and the dominant logic of Vietnam's knowledge production system. Furthermore, I will discuss the institutional prospects and challenges of this new framework in the context of knowledge co-production in North-South partnerships. I first describe the neo-institutionalist perspective in policy studies, which provides an analytical framework to investigate the relationship between these two systems. After that, I provide details of my case study and qualitative methodology. Next, I present the research results, showing the institutional response, interaction, and choice among relevant actors, organizations, and systems; then analyzing their power relations. Lastly, I will discuss institutional prospects as well as challenges of transdisciplinarity in the context of Vietnam and more generally in the Global South.

ANALYTICAL FRAMEWORK

In a knowledge production system, institutional interplays – as in the North-South partnership project – are common occurrences that can generate encounters between different forms of logic. These intersections can drive change in specific ways, including conflicts and clashes. Therefore, understanding institutional interactions is critical to know how to identify, manage, and exploit tensions to achieve institutional goals. The neo-institutionalism perspective in policy studies, which focuses on institutional isomorphism and institutional logic change, can help (DiMaggio & Powell, 1983; Friedland & Alford, 1991; Meyer & Rowan, 1977; van Vught, 1996).

When a new logic is embedded into an existing institutional logic, it gives rise to responses within multiple levels of institutional structure. Here, this research focuses on three levels of responses, including the individual, organizational, and system level. At an individual level, institutional change depends on cognition and beliefs (North, 1990). It occurs when the ideas or knowledge of one actor or organization influence the perceptions, preferences, and behaviors of another, primarily at an individual level (DiMaggio & Powell, 1983; Meyer & Rowan, 1977). This cognitive response is considered the first phase of the inter-institutional learning process. In a North-South partnership project focusing on knowledge production, the participants constantly update, give feedback, acquire, and adopt new information. This process then shapes or changes their perceptions, preferences, and behaviors. Institutional response at an organizational level refers to specific rules, norms, and decisions, as well as strategies that organizations adopt to react when faced with an intersecting logic (Oliver, 1991; Pache & Santos, 2010; Underdal, 2004). The system level refers to coherent bundles among relevant systems (political, financial, systems, research, legal, business systems, etc.). Institutional response at this level relates to law and policy that typically regulates macro situations and relationships in knowledge production (Linder & Peters, 1990; van Vught, 1996).

The existence of tensions between the new and existing institutional logic can activate interaction and change among individuals and organizations in the areas of structure, process, and governance. For example, consider two ways of fostering institutional interaction in a knowledge production system through a North-South partnership project. One way is for members of one organization to agree upon a relevant obligation for the project from the other organization's perspective through a partnership commitment regarding preferences for the desired changes. The other way refers explicitly to the bottom-up approach to devise a solution to challenges an organisation faces, such as capacity building, policy consultation, and co-creation (Oberthür & Gehring, 2006). In both cases, the values generated can be accepted or refused though the institutional choice process.

The interactions within the encounter between existing and new logics can generate and be divided into two main institutional choices: *change* or *resistance* (Zietsma & Lawrence, 2010, p. 190). This process reflects power relations among individuals and organizations through their level of impact on choosing the dominant logic. Concerning such relationships within power and institutions, Lawrence (2008) introduced a model of institutional politics to understand the interaction characterized by power relations among agents in the process of institutional transformation.

First, institutional control describes the impact of the dominant institutional logic on individual and organizational actors. Second, the institutional agency is the work that individual and collective actors perform to create, transform, and disrupt institutions. Finally, institutional resistance is the work of decision-making actors to impose limits on both institutional agency and institutional control. This model shows that more powerful actors have advantages such as ideology, authority, legitimacy, and resources to foster their logic in negotiations among actors. Moreover, power relations also reveal the capacity of actors to react and act to frame and serve their interests (Fligstein, 1997; DiMaggio & Powell, 1983; Scott et al., 2000).

Based on this process, I developed an analytical framework to address the concerns of institutional interplay in a knowledge production system. Accordingly, the framework requires proof of institutional responses at different levels, which leads to interaction among actors, and then can later be a fundamental driving force of institutional choice (Gehring & Oberthür, 2004; Seo & Creed, 2002). This framework may also be used to explain power relations within the institutional interplay process.

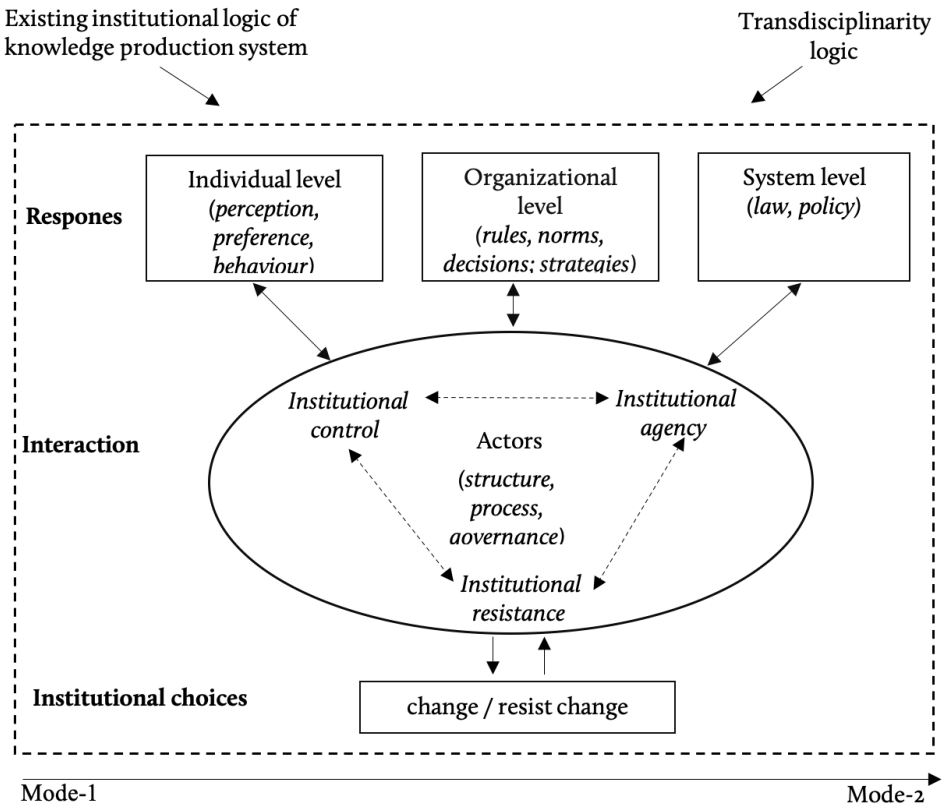

Figure 1. Analytical framework for studying institutional logic interplay between existing institutional logic and new logic (Own elaboration).

CASE AND METHODS

The study is based on the examination of the reflections of the KNOTS project (*Fostering Multi-Lateral Knowledge Networks of Transdisciplinary Studies to Tackle Global Challenges*) (see Dannecker, 2020, this issue). From the idea of training and applying transdisciplinarity, the KNOTS project represented an encounter between transdisciplinarity and existing institutional logic of knowledge production in Vietnam. Accordingly, the dominant institutional logic is affected by the pressures of transdisciplinarity as a new logic. More precisely, this interplay relates to institutional responses, interactions, and choices among actors from three partners in the project, including one university and two research institutes, as well as related agencies (e.g., Ministry of Education and Training, local government). Thus, applying the analytical framework of analysis to this case helps to identify institutional tensions and challenges among various stakeholders in the project, and reveals power relations within the process.

In the following, a qualitative method was chosen to collect empirical data to analyze the institutional interplays among stakeholders through KNOTS. The focus will be on the reflection of my Vietnamese colleagues participating in the project, and my observations as a project trainee in the first year. The data is based on participant observation and semi-structured interviews with 27 Vietnamese participants in different roles (Table 1), as well as on the literature produced in the frame of the project. Data analysis was guided by conceptual themes of the existing institutional logic of the knowledge production in Vietnam and transdisciplinarity logic. All transcripts were coded under three themes: institutional response, institutional interaction, and institutional choices. When all the texts had been coded, the actors identified under the first two themes were further grouped into institutional control, institutional agency, and institutional resistance.

Roles in the project	Leader [L]	Project staff [S]	Trainer [Tr]	Trainee in project [Te1]	Trainee after project [Te2]
(a) academic actors					
MOET [A]	01	-	-	-	-
Institute 1 [B]	01	01	01	02	00
Institute 2 [C]	01	01	01	02	01
University 1 [D]	01	01	02	05	03
(b) non-academic actors					
Public sector [E]	-	-	-	02	-
Private actor [F]	-	-	-	01	-

Table 1. List of interviews conducted with Vietnamese colleagues related to the project. The anonymized code for quotes is composed by their organizations and roles in the project.

INSTITUTIONAL RESPONSE CAUSED BY INSTITUTIONAL PRESSURE OF TRANSDISCIPLINARITY

The analysis of the interviews revealed that for all Vietnamese participants transdisciplinarity is more than a new research methodology. They all stated that through the different KNOTS activities, their awareness of academic and practical knowledge integration, equal participation between different actors, as well as the knowledge production issues Vietnam is facing, increased. Before participation, most of them were not experts in participatory studies and tended to focus on mono-disciplinary studies. Through the interdisciplinary and transdisciplinary experiences in the project, they changed in their problem-solving approach toward a multi-dimensional and practice-based approach. They stated further that transdisciplinary negotiations, which stress and internalize practical knowledge from many different stakeholders, are essential not only for the development of communities but can also amplify their insights by increasing "up to date" knowledge and skills. Nevertheless, the level of the perception of transdisciplinarity is different for each person because of their experiences through KNOTS. The more advanced participation in the project (staff, trainers, and trainees who joined more than one summer school and field trip), the more improved their degree of understanding and ability to share the meaning of transdisciplinarity across divergent perspectives.

One insight into the different perceptions of transdisciplinarity of participants regarding their point of view is that transdisciplinarity can play an important role in reducing knowledge inequality between North and South. The staff and trainers agreed that this framework could provide a new scheme of knowledge production, which can boost the balance of global knowledge. Instead of applying dominant theories of scholars from the Global North, they see in the framework an opportunity to contribute their knowledge, debate, and verify transdisciplinarity based on their practice and experiences as scholars from the Global South. However, most graduate trainees said that "I usually stayed quiet during group discussions because I am not fluent in the English language and feel reluctant to argue with professors and dignitary" (Te1D4). Furthermore, they agreed that they were passive in group discussions with professors and students from Europe and Thailand because of the limitations of their theoretical background, research methods, and foreign language ability (Dannecker, 2020; Seemann & Antweiler, 2020, this issue). They also believed that unless they could build their extensive capacity, it would be impossible to contribute their knowledge equitably to transdisciplinary discussions and research with the partners from the Global North. Hence, this shows that the level of perception change is shaped by an individual's current cognitive load capacity.

The noteworthy point is that, after the project, participants in Vietnam, especially young scholars, stated that they were still not ready to apply transdisciplinarity in research because they need at least a decade to gain more comprehensive transdisciplinary abilities such as relevant knowledge, skills, and attitudes. In other words, there is a lack of "transdisciplinary readiness" in the sense that they lack experience and that inter- and transdisciplinary knowledge has not generated in Vietnam so far. The most challenging point in transdisciplinary research is, from their point of view, to deal with complex relationships and networks involving academic actors as well as

non-academic stakeholders. To manage this collaboration, researchers need decades of experience and more professional skills. Furthermore, transdisciplinary researchers face resource problems, as funding in Vietnam comes along with complex rules, procedures, and short time frames. As one project staff said: "In Vietnam, applying this approach takes too much time and effort for administrative procedures, is concerned about sensitive political topics and involves foreign participation" (SC1). In other words, the current policies and management activities for scientific research in Vietnam are not supportive to an interdisciplinary approach. "At this moment, applying transdisciplinarity can bring a lot of risks to my new project because there is no precedent and relevant regulations" (TrD2). Consequently, young participants prefer alternatives based on their relative utility rather than doing transdisciplinary research at this time.

While the participants changed their perceptions of transdisciplinarity through the projects, the responses of three relevant representatives of the organizations participating in the project were indifferent. There was no clear reaction in terms of strategies, structures, or resources at the organizational level during the KNOTS project. Only one out of three organizations showed a specific interest in the transdisciplinary framework, by proposing, for example, the application of transdisciplinary framework through the design of a subject in a bachelor program because of the multidisciplinary nature of the social sciences. During the project, the response at the system level was also negligible. The governing bodies (at the head of the research and education system) of these three organizations simply played their roles as licensors. A ministerial-level leader, who was in charge of the project and used to be the leader of a participating organization at the beginning, appreciated the benefits of transdisciplinarity but did not direct any specific activities that would suggest spreading this framework in the knowledge production system after the project. He explained, "the idea of interdisciplinary is very good, but to do so, we need time and route" (LA1).

INSTITUTIONAL INTERSECTION BASED ON QUALITY OF INSTITUTIONAL RESPONSES

In Vietnam, there are five main types of stakeholders involved in the knowledge production system: the state; society; international agencies; the market; and research institutions, which includes educational organizations. The dominant logic through all levels is the state's perspective, which is policy driven and implemented through funding. This has resulted in inequality and deficiencies in knowledge production through "low quality and political priorities" (Minh & Hjotrsø, 2015) concerning research and projects. Among stakeholders, a process toward Mode-2 knowledge production is emerging, and the state is generating initiatives to slowly socialize knowledge production toward enhancing the autonomy of public sectors and the privatization of research and education fields. Therefore, the state accepted KNOTS as a part of the integration process to promote the quality of research and education, capacity building, and governance practices. Applying transdisciplinarity is quite challenging in such a structure. The project participants, accordingly, played an important role in the interaction among different types in all institutional logic.

They showed that a strong institutional response to transdisciplinarity had challenged the traditional perspectives of others, especially on participatory research through training, conferences, media, and their networks. However, these meager efforts involving a single project cannot change cognitive and institutional structures, which are strongly influenced by the dominant institutional logic that still dominates concerning state control and fragmentation of knowledge.

Based on the relevance of transdisciplinarity in the process of research and learning through the project, there are two main types of stakeholder interactions. One is open to change, and the other is conservative. The participants and faculties, which many KNOTS project members joined, were in favor of a policy of supporting transdisciplinarity in teaching and research, despite, as the empirical data shows, being doubtful about implementation capacity. However, the majority of their colleagues from other faculties were more conservative because they were afraid that this new framework was too strict and the requirements were too ambitious. In training sessions at the organizational level, there were controversial discussions over this approach. Some researchers feared that this approach is a "utopian" framework because it might become a new bureaucratic process rather than an effective framework in the context of Vietnam. It was also expressed by a lecturer who has extensive experience in participatory research: "Who will guarantee the quality of participation from non-academic actors in transdisciplinary research? While many kinds of participant research, funded by the government, are reflected that is insufficient in-depth participant and only as a formality" (TrC1). Expressing the same point of view, the trainees referred to the experiences that, during their previous research, they had observed during field visits in which state-actor stakeholders (considered as the key actors in their research problems) tended toward formalism in cooperation rather than sharing knowledge and practical experience.

The institutional interaction at the system level clarifies the contrast between these two kinds of logic. The existing, institutional logic provides meaning mainly to the knowledge production systems in the public sphere. It lacks "rules of game" for participation and collaboration from other systems, such as the private and international sphere, which is crucial for transdisciplinary logic. While the project participants who are at the "grassroots level" of the academic research system in Vietnam have responded positively to transdisciplinarity, other systems are ambivalent. Although "wicked problems" require a broader holistic approach, in Vietnam, they are in fact "controlled" by the state. The participants of KNOTS reflected thus that local government actors were skeptical about their roles in a transdisciplinary research because it often involved solving their own mistakes or shortcomings. Additionally, there is a lack of space for civil society and private sector actors. They still have not a good position to collaborate with the state in tackling wicked problems. A lecturer who has extensive experience in participatory research also expressed that: "A comprehensive participation of all parties in the spirit of this approach is difficult to implement in Vietnam because it is difficult to find a neutral voice with the state" (Te2D1). Thus, there is a governance challenge relating to the passive, institutional interaction of the system level regarding the complex top-down power structure between the political system in Vietnam, rather than collaborative governance.

INSTITUTIONAL CHOICE AS A RESULT OF ASYMMETRIES IN POWER AND INTEREST CONFLICT

The internal components of a knowledge production system can create the institutional responses at various levels according to the autonomy and ability of actors to accept or resist transdisciplinarity logic, as well as to frame and serve their interests. This process can be examined through power relations regarding institutional control, institutional agency, and institutional resistance.

Institutional changes toward Mode-2 knowledge production in Vietnam are explicitly promoted for both ideological and more pragmatic reasons by different actors. In the project, Vietnamese participants, as well as institutional agencies, took advantage of the project to influence others regarding transdisciplinarity. In other words, institutional agencies fostering transdisciplinarity are comprised of individuals and organizations such as leaders of faculties, departments, universities, institutions, ministries, and local governments, even professors, researchers, or staff, who have enough power and influence to decide to use transdisciplinarity as a framework for their organizations, projects, research, and teaching activities. During the project, the institutional interaction produced "individual and collective change" (Emirbayer & Mische, 1998, p. 1011) in perception for relevant actors regarding a transdisciplinary approach. However, these agencies and actors lack capacities, as well as autonomy, to change institutional logic and habits or to pursue prospects in this framework. Additionally, the goal of the project focused explicitly on building and developing capacities in research on and teaching of transdisciplinarity only for academic actors, instead of building up comprehensive capacity for both academic and non-academic actors who also influence the implementation and the success of "transdisciplinary readiness". When this capacity is not sufficient to produce quality responses through research products, the agencies applying this framework cannot expect support from others who follow the traditional logic, and instead face strong resistance.

Institutional control is found in the responses and interactions of existing institutions to transdisciplinarity as a new logic. This relationship is characterized by the state's dominance in laws, policies, and state funding in the field of knowledge production. Although participants changed considerably concerning transdisciplinary awareness, as the interviews revealed, their behavior is still influenced by the state research systems and traditional practices. Analysis of the reaction process and interaction of KNOTS participants shows that institutional control still strongly dominates the knowledge production system in Vietnam. This institutional control is embedded in the political and cultural environment characterized by the transition from a subsidized, centralized model to a market-oriented model. Such an environment does not yet allow a dynamic civil society and diversity of relevant actors when it comes to solving complex, practical problems. This fact does not favor a transdisciplinary approach because the centralisation of state power in a complex hybrid model limits the freedom of dialogue, as well as autonomy, in the process of participation of relevant individuals and organizations, which is an important dimension in transdisciplinary research.

Under the pressure of the encounter between institutional agencies who support transdisciplinary logic and institutional controls that want to defend the prevailing

institutional logic, leaders of universities, institutions, and the government must make their decision. The practices of these decision makers are based on two main institutional choices: reproduction of or change to existing institutional logic. However, because the KNOTS was only a trigger event for transdisciplinary logic, there is no decision yet regarding the institutional choice. The knowledge production system is still organized by the dominant institutional logic, even though two or more institutional logics may exist at the same time. In the institutional pressure environment generated by KNOTS, decision makers face contradictions caused by tensions between different groups or actors. They minimize conflict and clashes through transitional solutions such as experiments and pilots.

DISCUSSION ON PROSPECTS AND CHALLENGES OF APPLYING TRANSDISCIPLINARITY LOGIC IN VIETNAM

Through KNOTS, the transdisciplinary approach and its logics created a drive to change, but also put pressure on the dominant logic of the knowledge production system in Vietnam. Examining the institutional interplay between two kinds of logic is very important in assessing the potential and challenges of institutionalizing this approach by its rules and norms in the context of Vietnam.

The first issue is the existing asymmetrical power relations that favor the interests of the state in the knowledge production system of Vietnam. State control has kept the institutional autonomy of academia somewhat limited. Also, its existing hegemony in civil society can lead to politicization and failures of transdisciplinarity by a lack of research motivation, the domination of public bodies, and insufficient in-depth participation in different phases. In the face of this ideological problem, the transdisciplinary approach in Vietnam can be implemented slowly through certain topics that can be recognized by the state. Moreover, this approach should implement international collaboration, such as North-South partnership projects that can increase the tension on institutional control and promote more progressive institutional targets towards Mode-2 knowledge production.

The second issue is the capacity of actors and organizations to reach "transdisciplinary readiness". The reflection from KNOTS shows that the capacity gap among actors is one of the significant challenges to transdisciplinary knowledge production. The capacities needed a general knowledge of research issues, research methods, collaborative ability, and the issue of language competence. Also, efforts must be made to improve regular and cumulative knowledge acquisition of stakeholders, not only in the academic sector but also in the practical area. Accumulating human resource capacity for scientific research requires a high application of innovation and internationalization in higher education related to the desired training programs and methods.

Third, the lack of institutional background to the diffusion of Mode-2 knowledge production is often brought up as a crucial barrier to institutionalize transdisciplinarity logic. A transdisciplinary approach is not easily implemented within an institutional environment characterized by the shift from traditional statist to a market-oriented model for knowledge production. There will be institutional decoupling when applying transdisciplinarity in such a system. On the one hand, the decoupling

effect can motivate and help to standardize slowly the process of applying a transdisciplinary approach. On the other hand, if the decoupling is not well controlled, it will lead to the appearance that this framework is being used as a fashionable concept to acquire financial and publishing benefits rather than focusing on its real values. The consequences of this ethical breach will lead to another challenge for the development of the knowledge production system: hybrid models that are not radical enough.

The last issue is related to financial resources and experience in transdisciplinary projects. The story of KNOTS shows that institutional agencies cannot interact intensively when there is currently no quality cross-industry project in Vietnam. This might be convincing evidence that, when a lack of funding, specifically for transdisciplinary projects, occurs, the system cannot be penetrated. In the immediate future, therefore, there should be investments in pilot projects applying transdisciplinarity to motivate researchers, and then the replication of successful models. Furthermore, the sources of funding should be diversified and minimize one-sided funding that can lead to unbalanced problem ownership.

CONCLUSION

Based on a neo-institutionalism perspective for understanding the interplay between different institutional logics, this paper demonstrated that transdisciplinarity as a new logic through the KNOTS project could challenge the dominant logic of the knowledge production system in Vietnam, and, at a certain level, it is also a promising framework for research, teaching, and further North-South partnership projects in the Vietnamese context. As the results present, while the existing institutional logic in knowledge production is characterized by a shift from the traditional statist to a market-oriented model, transdisciplinarity is, to a certain extent, consistent with the development path of the dominant logic toward decentralization and Mode-2 knowledge aiming to promote social progress. However, there is still a gap regarding capacity, resources, and the issues of power relations hindering the adoption of this new logic of transdisciplinarity. From the findings, this paper discusses some problems that need to be kept in mind when promoting transdisciplinarity logic in knowledge co-production in Vietnam.

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Linking European and Southeast Asian Transdisciplinary Knowledge Production: Lessons Learned by Doing Evaluation

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This article aims to explore knowledge co-production through a critical (and self-critical) reflection of experiences with doing evaluation within the *Fostering Multi-Lateral Knowledge Networks of Transdisciplinary Studies to Tackle Global Challenges* (KNOTS) project. KNOTS started as a collaborative project to explore the possibilities and increase the expertise of seven institutions from Europe and Southeast Asia in teaching a transdisciplinary approach at their higher education institutions. Planned as a capacity-building tool for higher education, its main objectives were to create a teaching manual and to establish sustainable networks and knowledge hubs in this field of knowledge production. This was to be achieved mainly by means of summer schools and fieldtrips in Southeast Asia, which would enable learning through practical application of the knowledge developed. The realization of this ambitious conceptual formulation turned out to be pretty complex and this holds for the very process of evaluation itself as well. We discuss and illustrate the specific problems of a strict evaluation in such a complex transdisciplinary project. The notorious complexity of interdisciplinary and the more transdisciplinary projects was further increased by the intercultural, respective, transcultural dimension involved. Topics discussed include structurally immanent difficulties, unintended effects of financial and political constraints, complications caused by hierarchies and language, and effects of cultural differences, especially different university science cultures. In the form of lessons learned during the evaluation process, we give some hints for the development and implementation of the transdisciplinary approach as a new tool for reaching socially relevant knowledge, especially in cross-cultural settings.

Keywords: Capacity Building; Cultures of Science; Evaluation; Knowledge Co-Production; Transdisciplinarity

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KNOTS AS A HYBRID PROJECT

The core idea of transdisciplinary research (TDR) is to conduct real-world research and teaching for people and, explicitly, together with these people. In this paper, we consider TDR as a fundamental approach to do research and not as a method in itself. Even as a project incorporating only social sciences and humanities, we regard KNOTS – in its practical implementation attempts – as transdisciplinary, since TDR as an approach does not automatically require a broad interdisciplinarity in the sense of integrating technical and natural

sciences ("big interdisciplinarity"; Bath & Wedl, 2013, applying this concept to critical gender studies). The project itself was funded by the European Parliament's ERASMUS+ program for capacity building in higher education institutes (HEI) – a program line that is not specifically oriented to a region, country, or topic (see Dannecker, 2020, this issue). The focus on TDR and on the five universities in Thailand and Vietnam was part of the individual project design of the University of Vienna, which applied for funding. KNOTS aimed at transdisciplinary approaches in general, and specifically at co-operation between institutions of the higher education sector and non-academic actors. The practical goal (our 'product') was to jointly develop a teaching manual for transdisciplinary research by organizing summer schools that included, among other things, application tests of transdisciplinary working methods. It was hybrid in the sense that it focused on capacity-building and teaching, but implemented this within the framework of a people-oriented, research-based approach. This article aims to explore knowledge co-production through a critical (and self-critical) reflection of experiences while doing evaluation within KNOTS. We will do that by referring to some essential aspects of transdisciplinary and transcultural research in the relevant literature. In a descriptive part, we will present crucial challenges and obstacles in the course of the project, and then make them accessible in a structured, tabular overview. Finally, we will summarize our most important experiences.

Coordinated by the University of Vienna, this project brought together partners from five countries (Austria, Germany, Czech Republic, Thailand, and Vietnam) to strengthen the academic capacity to meet "new challenges in a rapidly changing world" (EACEA, 2015). In terms of content, the focus was on three main topics, all of which relate to current problems: (a) social inequality, (b) climate change, and (c) migration. Thus, three global issues were to be approached by using the example of Southeast Asia in an explicitly problem-oriented manner. An important point that is relevant for the following assessment of evaluating activities is the fact that KNOTS was decidedly not a research project, but an attempt to learn collaboratively and to establish an exchange between very different stakeholders on how to create a teaching manual for transdisciplinary research that should be used in the training of trainers (Train the Trainer), and then in the training of students. Activities within the KNOTS project included joint teaching activities, several summer schools and short fieldtrips, as well an international conference.

IN-BUILT TENSIONS: EVALUATION WITHIN A TRANSDISCIPLINARY AND TRANSCULTURAL STRUCTURE

As a project in the ERASMUS+ Capacity Building scheme, KNOTS was implemented by a consortium of nine universities. The hierarchical structure of ERASMUS + projects bears some risks with regard to reproducing global North-South hierarchies, as the consortium needs a specific ratio of Program Countries (EU) and Partner Countries (non-EU)[1]. In addition, the scheme is set up in a way that directs project

1 Cf. Presentation at Grant Holders' Meeting, Brussels, 25-26 January 2017: Erasmus+ Capacity Building projects in the field of Higher Education Call 2016, Financial management of the Grant, p. 31.

management tasks to program countries, which then makes the implementation of project activities primarily the partner countries' tasks. Apart from deep-rooted North-South inequities, there were power differences based on gender, seniority, or the epistemic background within and between participating higher education institutions, which intersected with the latent bias in the ERASMUS+ scheme. At the same time, the discussion and shared elaboration of the idea of transdisciplinarity (as a capacity for implementation at partner universities) included the demand for a partnership and cooperative approach (see Bärnthaler, 2020, this issue). For this reason, the authors and the QM team expected that the combination of an intended partnership with hierarchical relations within a hybrid project construction would bring along very specific complications.

However, a glance at the literature makes it clear that many of the experiences we made are "common dilemmas in participation and cross-cultural partnership" (Angeles & Gurstein, 2000, p. 31), even in capacity-building projects.[2] Dependencies on external funding, North-South power asymmetries, pre-defined hierarchy patterns, communication problems, and time pressure, both in the academic routine and vis-à-vis the sponsor (Binder, Absenger-Helmi, & Schilling, 2015; Schmidt & Neuburger, 2017), seem to be more the rule rather than the exception. For example, Angeles & Gurstein (2000) problematize the overall concept of "partnership" and speak of "the dilemmas of partnership and participation" (p. 40). Thus, they ask:

> Can there be equal partnerships between unequals? Are partnerships almost always a form of limited and negotiated relationship, and therefore rarely equal? Our language and use of this seemingly egalitarian word tends to mask inequalities in resources, capabilities, and accountability of governments, funding agencies and NGOs between and within the North and South, as it obscures who takes the initiative in setting agendas. (Angeles & Gurstein, 2000, p. 40).

From our experience, this is true also if we add Higher Education Institutes (HEI) to the sentence. In our case, these kinds of dilemmas occurred, although especially the European project members were particularly aware of these problems and tried to avoid them as far as possible. Hierarchical structures seem to be so 'normalized' as well as multi-faceted that they are hard to erode. An outstanding headline in a related article reads: "Digging Deeper: Old Roles Reproduced" (Schmidt & Neuburger, 2017, p. 63). The same authors point out that:

> The concept of ITR [inter- and transdisciplinary research] itself, developed in the North . . . applied to "problems" in the South, demonstrates such hegemonies that likewise characterise the dichotomy between the praised diversity of voices in futures studies and the western control and domination in the scientific discourses when designing, publishing, and citing such futures (Sardar, 1993).[3]

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2 In the context of this article, we will limit ourselves to a few selected articles on this topic, which argue from a broad database and thus provide a fairly comprehensive picture of the state of research.

3 In recent publications, the definition of transdisciplinarity is contested (there are conceptual deviations and semantic slippings). Depending on the field of application and discipline, similar concepts are termed and abbreviated differently (see e.g. Hirsch Hadorn et al., 2008; Padmanabhan, 2018).

This proved to be particularly relevant within the KNOTS project, as the Thai partners have a longstanding expertise with their own participatory research format, which was developed in Thailand: *Thai Baan* ("villagers' research"), aiming at a transformative research focused on local needs and local competences and using qualitative methods allowing participation (Chainarong, n.d.; Chayan, n.d.; Heis & Chayan, 2020, this issue). Despite many years of experience, Thai Baan tended to be subsumed in KNOTS as a form of transdisciplinary research approach.

In contrast to these similar findings on social and structural aspects of transdisciplinary projects, we had to realize that the existing, not very extensive and partly inconsistent literature on quality management in transdisciplinary research could only be used to a limited extent. This was due to the status of the project between capacity building on the one hand, and teaching, learning, and exercising of transdisciplinary approaches on the other. Thus, an external expert recommended the very detailed and practice-oriented criteria catalog of the Institute for Social-Ecological Research (ISOE) during the quality management workshop later in the project (Bergmann et al., 2005). Indeed, this could have been a good orientation if KNOTS had been an explicitly research-oriented TDR project. However, most of the required criteria turned out not to be really appropriate, applicable, or answerable, as the project was not primarily a research project, and practice of transdisciplinarity and relevant research methods were only briefly examined during the fieldtrips.

EU-Quality Management (QM) guidelines and requirements also proved to be of little help for the reflective and formative part of evaluation, as most of them were very formalized and focused on descriptions of the activities carried out and on the specific and measurable performance indicators – mainly in boxes of predefined tables with a limited number of characters. Apparently, what Angeles & Gurstein (2000, p. 31) wrote in their report on three participatory, transcultural research projects still applies to the transdisciplinary approach, namely the experience of:

> How little things change when new orientations (e.g. capacity development, participatory development) and operating principles (e.g. gender-sensitivity, participatory approaches) are introduced within bureaucracies-as-institutions that are historically and socially constructed frameworks for devising behavioral rules of conduct based on technical knowledge, rational planning, routine, standardization, regularity, and predictability (Goetz, 1997; Staudt, 1997).

This quote confirms the experiences of the Vietnamese project partners described by Doi (2020, this issue). Several authors consistently follow an "output-outcome-impact" concept for evaluation – a concept coming from project management (Binder et al., 2015, p. 547; Schuck-Zöller, Jakob, & Cortekar, 2018, p. 31). Other authors point out that "quality standards in transdisciplinary research are . . . not as clear-cut as it might be in case in other academic fields" (Lang et al., 2011, p. 38). One reason might be that, following Pettibone et al. (2018, p. 224):

> More than other forms of research, TDR itself needs to be understood as a normative instrument, that means as part of an explicitly transformative political

> agenda. Normativity therefore extends beyond epistemological issues of good scientific practice into the moral and political arena.

Especially for our hybrid format (capacity building in higher education in and through the use of TDR), the differentiation between product-related outputs and process-related outputs (Binder et al., 2015, p. 547) seemed to be helpful:

> Process-related outputs are intangible and largely experiential, including (1) methodological, (2) organizational, and (3) social experiences. Methodological experience captures how actors from different backgrounds become familiar with each other's way of working, including problem definition, language, methods, and working culture . . . . Organizational experience relates to the practical experience gained by planning, managing, structuring, and executing the project . . . and involves analyzing during or after the project whether or not the project plan matched the actual process. Social experience is defined as the interaction with other actors, entities, or institutions. Positive interactions build trust (as an impact of the social experience) while negative ones reduce it.

Taking into account the central aims of (1) developing a teaching manual for TDR, (2) introducing TDR at the partner HEIs, and (3) forming TDR-oriented sustainable knowledge networks, the project objective of KNOTS was more education- than research-focused. "Choosing appropriate criteria may thus depend on the project's objectives and its normative orientations (e.g., policy-, education- , or science-focused)" (Pettibone et al., 2018, p. 224). For this reason, it seemed to be most crucial for the QM team to focus on the evaluation of the above-mentioned intangible outputs. We also found confirmation for this approach in Angeles & Gurstein (2000, p. 51), who wrote that:

> [It] is the need in these projects to design and manage clearer capacity-building indicators developed by project participants that "focus more on process and behavioral change" (Morgan 1997, p. iv) than on the conventional "inputs-outputs-outcomes-impact" schema used in results-based management (RBM). Such indicators have greater diagnostic value in providing project participants better information and motivation in their work.

Also Schuck-Zöller et al. (2018, p. 34) point out that, in order to do justice to the complexity in transdisciplinary processes, qualitative procedures are often required. It is precisely this qualitative approach that leads many of the mentioned authors to the conclusion that transdisciplinary approaches and participatory methods are viewed quite critically from a conventional perspective. These authors point out that "transdisciplinary research and similar collaborative approaches are not uncontested outside transdisciplinary research communities" (Lang et al., 2012, p. 27) and claim that "experience-based guidelines that build upon demonstrated success (and failures) and satisfy all parties involved in transdisciplinary research are needed" (Lang et al., 2012, p. 27). With the following description of our experiences, we aim to contribute to that need, explicitly focusing on challenges, obstacles, failures, and gains of the KNOTS project.

AN EVALUATION OF EVALUATION WITHIN A TRANSDISCIPLINARY PROJECT

Experiences in Doing Evaluation During KNOTS

Measures for quality management (QM) provided for in the project description included quantitative and scheduling tasks as well as qualitative reviews of the project progress and its main end products. The more quantitative data (participants, dates, deadlines, financing, etc.) were reviewed by the project management of the Department of Development Studies, University of Vienna (from now on UNVIE), while the qualitative evaluation mainly of the summer schools and fieldtrips – which is the focus of this article – was carried out by the Department of Southeast Asian Studies, Institute of Oriental and Asian Studies, University of Bonn (from now on UBO), and the authors of the present paper. Additionally, two external peer reviews, a detailed mid-term, and a final report were added as internal QM measures.

While preparing for the task of quality management, we had been dealing with the necessity of an evaluation through the lens of an explicitly transdisciplinary, planned project. But KNOTS was also an intercultural (or transcultural) project, since universities of different nations, and students with different language backgrounds were involved. In accordance with our literature review, this led to the insight that conventional methods of disciplinary evaluation would not be appropriate. They cannot simply be transferred and applied directly to a transcultural TDR project, due to the multiple forms of co-operation, scientific, cultural, and political backgrounds, methods, and theories involved. This applies all the more to the very special mix of transdisciplinary research and the focus on capacity-building of KNOTS. For that reason, we decided for a more or less discursive and formative evaluation. Rather than purely summarizing an inventory of project results and outputs, this initiated learning processes via questionnaires and regular feedback loops during project meetings.

For the following part, we mainly use our experiences resulting from (a) our function as responsible for quality management, and (b) our role as participant observers of three summer schools and accompanying fieldtrips. After participation, we reflected on these observations during project meetings with our KNOTS partners. Furthermore, we used formal questionnaire sheets (closed questions) and evaluation via qualitative questionnaires (open questions). In addition, we draw on informal conversations with students and participating staff, and discussions among staff during the organizational meetings.

Kick-Off Meeting in Vienna – Intercultural Experiences

The official start of the project was in October 2016, but a kick-off meeting and the joint project work could only begin in March 2017, as contracts with the EU were only available at that time. The fact is worth mentioning, as the project was not extended by these missing five months. This led to considerable time pressure already at the beginning of the project phase, and also affected the establishment of the quality assurance activities within the project. As the review of literature showed, time pressure is considered by several authors as a major cause for asymmetries and communication problems in such transdisciplinary and transcultural projects (Binder

et al., 2015; Schmidt & Neuburger, 2017), affecting team- and trust-building activities and the agreement on a common understanding of key concepts and vocabulary and common language (Angeles & Gurstein, 2000; Lang et al., 2011; see also Bärnthaler, 2020, this issue).

In order to meet the project schedule, preparations for the first summer school and fieldtrip had to start immediately, while, at the same time, the necessary organizational structures for the overall project had to be created. Another time-related decision was to organize a summer school and a fieldtrip in one block, one right after the other, and to combine them into two weeks instead of calculating two weeks for each at different times. None of the university staff could imagine to leaving work for four consecutive weeks due to their academic duties. For ecological reasons, air travel could also be reduced this way. For evaluation, however, this decision had an unintended effect, since both events had to be evaluated immediately, one after the other, without the possibility of transferring the experiences from one onto the other. Furthermore, none of the consortium members was an expert in QM. More time for content preparation and arrangements on the meaning, extent, and form of QM would have led to a better common understanding of evaluation measures and subsequent adjustments. For that reason, for instance, it proved necessary to organize a QM workshop at mid-time of the project – with reasonable results, but definitely too late for major changes in attitude and implementation.

Another revealing experience during the kick-off meeting was the moderators' explicitly non-hierarchical working method. The intention was not only to rectify the hierarchical structures implied by the ERASMUS+ scheme, to avoid any neo-colonial structures and top down governance within the project, but also to ensure an open, brain-storming and inclusive atmosphere to all participants. The actual effect, however, was that existing power relations and cultural differences concerning hierarchy and working style between Asian and European partners remained inadvertently unadressed. While the *ERASMUS + Capacity Building in Higher Education* framework that envisages European colleagues 'teaching' partner countries from the Global South was openly addressed and circumvented, other unchangeable, structural hierarchies (e.g., financial and workflow control by UNIVIE, as well as seniority hierarchies, age, gender, and epistemic background) remained tacitly in place.

Similar situations arose several times during the project, for example, with regards to terms of reference, conceptions, and project tasks such as dissemination or the role of quality management. This use of less hierarchical working methods was well-intended, but in effect problematical. For example, although it was obvious that UNVIE had the lead, was therefore organizing the project in general and had the lead of the kick-off event, several simple cooperation tasks (like brainstorming on possible non-academic stakeholders) were carried out in laborious, time-consuming participatory small group work instead of giving participants binding tasks for the meeting in advance. In the end, this led to time pressure and a lack of reflective space for reaching a common understanding of important issues, for instance, to discuss what and how evaluation should be conducted. Furthermore, this attempt at a hard, anti-hierarchical approach led to some irritations not only amongst the Asian colleagues.

If one were to compare the KNOTS project with a typical transdisciplinary project, these restrictions in time hampered the ideal-typical Phase A (framing the topic

and building a collaborative team), as described in many models (Lang et al., 2012, p. 28). This initial time pressure was transferred to the following phases; other typical QM strengthening formats, such as reflexive meetings and discussion forums to prevent conflicts and build up common understanding also became affected.

First Round Trip – Cultures of Science Interacting

The first round trip aimed to visit all the partner universities in Thailand and Vietnam, identify non-academic stakeholders, and organize a stakeholder conference in Bangkok. This brought to light new constraints in the preparation and implementation of QM measures. The team of UBO had prepared questionnaires for evaluation of these events on a discursive basis with a focus on open questions. The idea was to learn from strengths and structural weaknesses, as well as from mistakes and failures made, and from unintended effects of some measures. It turned out that the survey worked relatively well among the present partners at the same academic level – even though academic colleagues from Vietnam, in particular, showed that they were less familiar with a cooperative working environment. Beyond that, feedback from stakeholders at the conference was hard to assess due to language problems and problems of understanding. In retrospect, one could have expected that similar problems will occur with students at the first summer school in Hanoi. Unfortunately, due to a lack of experience at Vietnamese universities, the QM-team stuck with the chosen approach and instruments.

During our trips and meetings in Thailand and Vietnam not only cultural differences in terms of participation and hierarchy became apparent. Different science cultures sometimes made it hard to find common views on conceptual issues (such as transdisciplinarity) and concrete processes (e.g., knowledge transfer and its evaluation). While the Thai colleagues, for instance, came from a department that was leading in qualitative social science research, working at the margins between academia and activism (Heis & Chayan, 2020, this issue), the approach of our Vietnamese partners proved to be strongly quantitative and statistically oriented (see Doi, 2020, this issue). Accordingly – and strengthened by the requirements of the EU – ideas about QM measures varied from pure counting methods (participants, stakeholders, events, page), on the one hand, and the description of processes and the creation of feedback loops on the other.

Different ways of communication made it even more complicated: Far from the assumption that there is a clear definition of transdisciplinarity, at least the authors and several European partners believed that a common understanding had been reached at the kick-off event. However, during the trip the discussions on transdisciplinarity blazed up again and the topic was discussed controversially again. Some of us had missed the simple fact that open arguments, which are commonplace in West-European countries are simply not customary in Southeast Asian universities. To raise objection directly is possible in informal settings, but less common in formal meetings or open discussion rounds. In effect, a "yes or "ok" does not necessarily mean agreement or consensus. Angeles & Gurstein (2000, pp. 52-53) report similar experiences with participatory approaches branded as "new" or "foreign imports" from a Vietnamese project. Due to this fact, problems already thought to

be overcome reappeared in practical implementation and had to be worked on again theoretically (Bärnthaler, 2020, this issue). This also applied to answers in evaluation questionnaires. For example, a positive answer regarding the degree of progress of the common understanding of transdisciplinarity did not mean that later – during practical implementation – theoretical rejections did not reappear, with the effect that some participants felt 'thrown back' to the beginning of the project. However, our joint progress consisted in the fact that, by the end of a project, the participants became increasingly aware of these hurdles and learned to overcome them more productively – something that cannot be overestimated, even though it can hardly be measured by conventional QM means.

Even at this early state, we became aware of the enormous bureaucratic workload caused by EU-requirements, which were quite opaque to the Asian partners with their different bureaucratic background. Often, these restrictions dominated the project management meetings as they were perceived as 'hard' tasks compared to the 'soft' ones, such as QM. This influenced not least the ability and willingness to return questionnaires on time and thoroughly filled out. Corresponding measures required frequent reminders and inquiries during the entire project and, thus, reinforcing management-related hierarchies of the North/South nexus, which the consortium struggled to minimize in academic interaction. This corresponds to experiences Schmidt & Neuburger (2017, pp. 61-63) made with the key position of German project members and their irritation and helplessness about this "intermediary position between the funder and his hardly negotiable demands and on the other hand the hard(ly) approachable . . . partners. . . .The historically loaded power-relations within the team thereby seemed to silence open debates on situations of conflict" (2017, p. 63).

Summer School in Hanoi – Socio-Political Contexts Matter

The first summer school and fieldtrips near Hanoi brought together university teachers from Asia and Europe as well as students from the Thai and Vietnamese partner universities. The first parts of the teaching manual for TDR had to be presented and tested during the summer school, while fieldtrips would enable practical testing. In addition to the difficulties mentioned above, some students were overloaded with participatory approaches and language problems, both due to quite different scientific and institutional contexts. There were significant differences in English skills, depending on the program in which they were enrolled. The Vietnam Academy of Social Sciences in Hanoi (VASS) and its Southern Institute in Ho Cho Minh City (SISS)[4] run programs in Vietnamese only, while the Chulalongkorn University and Chiang Mai University have international study programs in English language, which attract also students from Vietnam. As important as the language difficulties, were the different educational backgrounds of participating students and teachers.

For these reasons, many of the ideas, concepts and methodological approaches could only be discussed in a very rudimentary way, under the time pressure the project faced.

4 At this point there was a major restructuring at the operative level of the Open University (OU) in HCMC, which is why students from OUHCMC did not participate in the Summer School and field trip in Hanoi.

The same applies to answers in the evaluation forms. In addition to the difficulties of open criticism, some answers showed that the questions were not really understood. More time – instead of distributing of the questionnaires at the very end of the summer school – and an explicit explanation of the questions would have prevented this. In addition, the agreed continuity of attendance for all participants in the overall event was unfortunately not guaranteed. Due to other commitments, some teachers and students could not participate in the fieldtrip following the summer school and were replaced by other people who had no idea about the summer school. In such cases, a reasonable evaluation was not possible, as both events could not be assessed in their interaction.

At the same time, student feedback, particularly of those students from Vietnam, who were not so often exposed to international cooperation, showed a big interest in the unfamiliar, 'foreign' ways of teaching and researching and in the underlying theoretical constructs. The authors observed that by working in a diverse, international team with open discussions and theoretical arguments, the participants of the event in general benefited from a new perspective on academic cultures and practices elsewhere. The more democratic, respective, liberal forces in the Vietnamese science community seemed to be enabled to discuss topics usually not openly discussed or to try methods off the official scientific agenda.

From our perspective, such impacts as the acquirement of some kind of 'global citizenship' are of great (also political) interest and could be valued more within the evaluation criteria of the ERASMUS+ funding scheme, even if these learning experiences are difficult to document and are not explicitly mentioned in the project application. Taking this into account, further questions for an evaluation of the project success arise: (1) How to evaluate positive project results that were originally not intended? (2) How to evaluate results that can only be communicated subliminally or that should not be explicitly mentioned at all? In the end, the official evaluation feedback lacks information on these important results.

The final evaluation and discussion of the QM had made it clear that further adjustments and changes in the structure and composition of the elements of teaching and practice of research methodologies at the next event seem necessary. One of the consequences was to examine the possibility of including students from European partner institutes during the next summer school in Thailand; a second was to assign UBO as co-organizer for that event. In order to further increase the participative teaching approach and the mutual learning effect between participating staff and students form different regions, concrete tasks for co-design, documentation, and evaluation (also part of a research seminar in their home university at UNVIE) were already assigned to all students before the summer school.

Summer School in Chiang Mai – Challenges of a Hybrid Project

These adjustments proved fruitful, as observations of the intensity and degree of participation in the discussion groups and during exercises made clear. In informal discussions and separate evaluation rounds at their home universities, students later mentioned the benefit of direct contact and exchange between colleagues from different universities, particularly the exchange between Asian and European

colleagues. However, two new issues came up in Chiang Mai: Hierarchies between Asian and European students and differences in sensitivity on gender topics, such as the amount of active participation of female versus male students, sometimes mixed with the question of unequal participation of Asian, respectively, European students. Especially students from the European partner universities showed a high degree of sensitivity and willingness to discuss both topics openly.

Since we had decided to collect the QM questionnaires from the students at the end of the summer school, and to consult the KNOTS staff via email later on, it became possible to gather reactions on these surprisingly-openly addressed hierarchy and gender topics in their forms. Remarkably – subliminally also present in the consortium – this was the first time that the topics of hierarchy (related to structural power and alleged expertise) and gender were openly mentioned and questioned among the project partners. Although there was considerable feedback at that point and several discussions followed in later joint meetings, the topics were more or less limited to the students' interactions, rather than the situation among the project members. Even though it might have influenced the subliminal awareness of the whole group, there was no room for an explicit discussion of such an unreflected reproduction of power asymmetries, as requested in the following feedback from a lecturer:

> All of these hierarchies and separations appear to be rather "natural": No one of us can escape problematic identities forged in dominative social relations. Therefore, I believe they are unavoidable – there is nothing that could be done about it except to deal with them explicitly, for example, to address and discuss them (but that's already a cultural bias), because they are and remain problematic as such. (respondent anonymized)

Closely related to the issue of hierarchy were further difficulties in evaluating the results. The answers of Asian and European students differed in scope, detail, and understanding, and were often difficult to relate to each other. That was especially true for open questions. Here, the reasons already discussed (language, conversational culture, and discontinuity of presence) certainly played a significant role.

However, the student questionnaires also revealed unexpected side-effects pertaining to understandings of international cooperation, or aid: The experiences of both, Asian and European students in Southeast Asia and with TDR had a positive influence on their own academic attitudes and expertise at home. This also applies to the participating departments where transdisciplinary ideas were increasingly discussed and implemented within teaching. Such reverse capacity building in the European institutions contradicted the underlying ERASMUS+ logic that European project partners guide Asian institutions in capacity building. In our case, this did not correspond to reality, as some of the Asian academic partners (e.g., at Chulalongkorn or Chiang Mai university) had a deeper expertise in transdisciplinary work at the level of research. "Whose capacities are we building" is a question that Angeles & Gurstein (2000, p. 57) define as a starting point of capacity building projects. For us, too, this question became increasingly important during the course of the project and was also given greater consideration in later evaluation runs.

The essentially hybrid character of the project always remained an obstacle during evaluation processes. Because of the overlapping roles and personal union of scientists, project managers, quality managers, and teachers, again and again the point had to be stressed that this is not a research project. The main point was to create and develop a teaching manual in traineeship and practice rather than to apply the transdisciplinary approach to real research situations, which the project design could not accomplish either in terms of time or structure. Nevertheless, it was precisely this lack of practical implementation that was repeatedly criticized in the feedbacks of students (and also of staff sometimes), which distorted the overall view of the project's success.

As a consequence of the greater involvement of students from different partner universities through special assignments – sometimes overlapping with quality management tasks (e.g., interviews, documentation, etc.) – the diversity of results led to an abundance of information that was difficult to summarize and often not compatible[5]. This information overflow, and the difficulty to evaluate answers to open/qualitative questions of the forms used, was intensively discussed during the 2nd round trip, and a project and quality management meeting in Europe. As a consequence, UBO brought in the Center for Evaluation and Methods (ZEM) – a central facility for quality assurance at the University of Bonn to co-design and statistically and graphically evaluate the questionnaires. This made them more self-explanatory for participants and reviewers. Another consequence, after the good experiences with a dissemination workshop for all consortium members, was to organize a quality management workshop with external experts during the following meeting in Europe. Although this was actually scheduled too late in the course of the project, the workshop confirmed the discursive evaluation methods that had been chosen for a transdisciplinary project, especially with regard to its additional transcultural character.

LEARNING CO-PRODUCTION VIA TRIAL-AND-ERROR

Summer School in Ho Chi Minh City and Final Conference in Bangkok

After the third summer school, the new questionnaires, which could be evaluated statistically and graphically, made it easier to communicate the evaluation results, although it must be noted self-critically that no suitable format was found for many observations in quality management, for example, for the completely different atmosphere during the summer school and fieldtrips in Ho Chi Minh City (HCMC) compared to Hanoi. It could not be discussed – mainly for political reasons – whether the greater theoretical openness and freedom in the practical implementation during the fieldtrip were effects of (1) the increased trust and shared experience during the project, (2) the different attitude to the exchange of ideas in the southern part of Vietnam, or (3) the fact that this time the event was organized by a private university with strong ties to the government instead of a research institution directly under the government of Vietnam.

5 For a structured analysis of knowledge production and transfer during the summer school in Chiang Mai see Braunhuber, Goisauf, and Reinisch (2019).

Before our last meeting in Bangkok, the final feedback and evaluation process of the draft of the teaching manual began. This revealed another unresolved problem: the unspecified role of the evaluators and their institutions. For some consortium members, the QM task was limited to the preparation of feedback materials and the collection and processing of the corresponding responses, while, for others, critical reflection on the materials resulting from the course of the project was also part of the QM. This, in turn, was seen by the former as a transgression of competence, even though critique was meant as constructive feedback. Through intensive discussions and an increased involvement in the Train the Trainer sessions at the final conference in Bangkok, this conflict was finally resolved for everyone.

Overall, the consortium members painted a much more positive picture of the success of the project in the evaluation questionnaires of the final conference than in previous evaluations. This may be related to greater confidence in the project, but also to the improved questionnaires. However, it also fits in very well with the positive assessments we received from the external evaluators. Some of the structural deficiencies were still criticized, but the overall evaluation was very positive, not least because of the many unintended positive spin-off effects and the perspective of sustainable cooperation between the partner universities, which builds on the mutual trust that had grown.

Summary of Main Conditions and Contexts

On the one hand, we consider the project to be successful, as it has achieved most of its formal objectives (teaching manual, implementation of TDR at the participating HEIs, establishment of knowledge hubs on TDR and of sustainable cooperation). At the same time, it has not been less successful on the 'soft skills' side, precisely because we learned so much from our mistakes, limitations, obstacles, and differences. The following list is therefore not intended to focus on the difficulties or to question the success of the project. Rather, we would like to recommend it as a list of circumstances that future transdisciplinary and transcultural projects – possibly with EU funding again – should pay attention to in order to avoid some of the detours and failures we have experienced. From a self-reflective perspective, we conclude that we could have achieved even better results within and through quality management if we had been aware of the complexity and the stumbling blocks of this particular transdisciplinary and transcultural project from the very beginning.

CODA: EVALUATING EVALUATION IN CO-PRODUCTIVE PROJECTS

It would go beyond the scope of this paper to discuss all the above-mentioned circumstances in detail once again. See table 1 for a summative overview of main obstacles. We would like to take a closer look at just a few of the facts that seem particularly important to us. First, there is the late start of the project due to contractual problems: If we imagine these five missing months would have been at our disposal, how much preparation (not only of the quality management process), confidence-, and expertise-building could have been done during this time? Our experience shows that the time 'saved' comes as a Pyrrhic victory and a complication for the actual

Constraints through the EU-format	Logic of an EU-ERASMUS+ project, especially the pretended knowledge/ capacity gap, which did not meet the real situation
	Factual power hierarchies between the partner universities via control of finances and schedules
	Bureaucratic overload due to EU-requirements, often not fitting the project design
	Delayed start of the project with no compensation, causing stress and shortage of time and insufficient preparation of, e.g., quality management
	Financial arrangements and restrictions, like lack of funding for essential parts of a transdisciplinary project (financed participation of non-academic stakeholders)
	Gap of financing between Asian universities and European partners (equipment vs. travelling)
Internal constraints Content Structural	Different scientific backgrounds: development studies vs. area studies, here Southeast Asian Studies vs. Vietnamese Language Studies
	Different science cultures: more natural science-oriented vs. more social science-oriented and vs. humanities-oriented
	Hybrid nature of the project (between educational capacity building and research)
	All members came from social sciences or humanities, which is unrealistic for a real TDR-project and limited the benefits for the non-academic stakeholders
	Combination of summer school and fieldtrip due to time and ecological impact
	Deficiencies in continuity of the participants
	Unexplained role of quality management
	Real and underlying hierarchies within the project that influence evaluation: lead university vs. other partner universities, European vs. Southeast Asian universities, Thai vs. Vietnamese universities, big vs. small departments, state lead institutions vs. private institutions; Europe vs. Asia (post-/neo-colonial gap) on staff and student level; Students vs. university teachers; (gender ratio; age (even more important in Southeast Asia)
	Unexpected and surprising changes and necessary adjustments
	Dominance of hard topics (financing, scheduling, planning the next event) vs. soft topics (evaluation, reflection) during the rare meetings
	Time restriction of all participating members as part of a university body
Cultural	Differences concerning participation and hierarchy
	Different ways of communication (lo. Hierarchy)
	Miscommunication on basic terms and tasks (due to cultural differences)
	Language: English, Thai, Vietnamese, (Karen, Lao,....) Between staff, students, stakeholders/people concerned
Political (within countries)	Freedom of research (Vietnam), hierarchies within the political landscape (Vietnam), restricted expression of opinion (Vietnam and Thailand)
	Positive results and progress that can only be subliminally communicated
Other limitations	Difficulties in interpreting open questions (due to cultural, hierarchical and language reasons)
	Sufficient documentation of observations made
Unintended positive effects	Capacity building also in European universities (staff and students)
	Better understanding of political, social, educational and scientific situation at the participating universities and in the countries
	TDR activities at European universities
	Support of democratic, respective liberal groups, bringing unorthodox ideas and methods into the discussion, strengthening forces in civil society

Figure 1. Main Conditions and Contexts of the KNOTS Project (Authors' Compilation)

project work. Sufficient time for preparation and common agreements before the project starts seem absolutely necessary to us. This would allow for brainstorming, sighting, and open discussion of possible problems and restrictions as well as a discussion of the project design itself, instead of a mere presentation of the framework conditions and schedule of the project, as we had to do due to time pressure. This lead time could also have included important workshops to build up common expertise (e.g., in dissemination or quality management).

A jointly discussed and thus shared attitude on the role of (not only) quality management in general and the position of responsible persons would have fostered the attitude that evaluation (like dissemination) is not only something we had to do for the EU-officers – as it sometimes seemed – but something that is essential for our own learning process through the project and for achieving the objectives of our project in general. This would have meant, for example, giving (or, self-critically, demanding) much more space and relevance to the exchange of evaluation results during the project meetings. In reality, hard facts such as finances and planning of further activities often came to the fore, while feedback results communicated via email or cloud folders often received apparently little attention. The same applies to the role of the quality managers. In our opinion, reducing their activities to the mere collection, documentation, and dissemination of feedback from participants limits the possibilities of quality management as a collegial questioner and regulator. Like project management, quality management should also be explicitly assigned a reflective role in such projects.

Presumably, more lead time would have included also a more comprehensive investigation of the transcultural aspects. With the Southeast Asia Department in Bonn and the Department for Vietnamese Language in Prague, experienced experts to identify cultural constraints in advance were on board, which would have enabled at least European partners a better understanding of many situations.

Beyond the transcultural aspects, the partners and stakeholders involved had quite different backgrounds, experiences, and expectations. In terms of area-knowledge, less experienced partners have been involved in the case of (a) docents and students from Europe not experienced in Southeast Asia, and (b) students from Vietnam and Thailand having neither experience in the respective other Southeast Asian country nor with European science culture. This is also true for most of the stakeholders at the political and administrative levels as well as for those involved at the local level during our fieldtrips, including peasants and local workers. The language barrier contributed to a less intense involvement of these partners than projected. Beside a financing problem, there was also the lack of time on our side as well as on the side of the mostly busy local interlocutors. Hierarchical relations and shyness also played a role. The overall rare feedback they gave was difficult to interpret, since most of them – contrary to the transdisciplinary approach – had no insight into the project and mainly expected concrete help in difficult situations – something that the project, which was neither real research nor involved natural-science colleagues, could not achieve.

On the other hand, by implementing this project and especially quality management measures, we experienced several unexpected outcomes and positive spin-off effects hard to document and to evaluate. One was the quite dynamic interaction of

students via social media, also expressing commendation and criticism of the KNOTS-project. For example, after a hefty critical remark during the Chiang Mai summer school posted by a European university staff member to a limited social media group, stating that some fieldtrips might develop into a mere tourism activity, several participants were frustrated and provoked comments on why this critique had not been made offline to the whole group, which would have allowed an open debate.

Another revealing positive spin-off effect was the comparative view of similar topics and learning processes in higher education, but in different countries and different university institutions and scientific cultures. This also included seeing different student audiences during the fieldtrips. All this gave us opportunities to learn about processes of knowledge creation beyond the specific project objectives in particular. Much of this was based on participant observation and, for us, one of the major gaps in the quality management process was that we did not find an adequate evaluation format for such observations. It would be worthwhile to work out solutions before further projects.

We would like to conclude with one of the most positive academic effects for us: the sheer experience of transdisciplinary research and transcultural teams working together in real-time/real-space contexts. Especially from the evaluators' point of view, we succeeded in going beyond purely programmatic statements that can be found in most US- or European literature on TDR. Seen in this light, the multiple limits of transdisciplinary research, especially in transcultural contexts, can themselves serve as an empirical window to transcultural reality.

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Ethics and the Role of Humanities in Transdisciplinary Research? A Short Reflection on the KNOTS Project

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In this paper, we reflect upon our role as researchers embedded in humanities in the KNOTS project. In the course of the project, we noticed various misapprehensions among both staff and students stemming, among others, from different cultural, political, and educational backgrounds. While a diversity of inputs and perspectives is considered an advantage for transdisciplinary projects, cooperation among actors with various backgrounds can also be challenging. Based on our observations and previous experience living and working in Vietnam, we created a session focusing on ethics for the last summer school in Ho Chi Minh City. We decided to bring participants' attention to research ethics and issues of cross-cultural communication, and suggested reflection and discussion as a coping strategy. In the course of a three years long mutual learning process, we realized that striving to create a common understanding of research ethics and cross-cultural awareness is an indispensable element of teaching and doing transdisciplinary research in a multicultural environment.

Keywords: Cross-Cultural Awareness; Ethics; Humanities; Reflection; Transdisciplinarity

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INTRODUCTION: TRANSDISCIPLINARITY AND POWER

Transdisciplinarity as a new framework of knowledge production and a way of solving 'real world problems' has gained popularity over the last decades. Notwithstanding contestations regarding its exact meaning, the term is widely used nowadays. A transdisciplinary approach is increasingly applied in development studies. While, given their focus on 'real-world impact', natural sciences and social sciences are well represented in transdisciplinary research (from here on, TDR), the role of humanities might be less obvious. The aim of this paper is to reflect on how we as members of the Charles University (CUNI) KNOTS project team, who are embedded in humanities, searched for our place in the KNOTS project (Dannecker, 2020, this issue). Our role in the project included project management and quality management, but we also took part in other tasks, such as teaching at summer schools and field trips, and contributing to the Teaching Manual. In the course of the project, we realized the necessity to reflect and negotiate even the basic principles of scientific work, including our ethical assumptions.

SEARCHING FOR OUR PLACE IN A TDR PROJECT

Both authors come from an old, reputable, and rather conservative Central European university. Having degrees in Ethnology and Vietnamese Studies, we spent most of the time learning Vietnamese language, history, literature, and culture, and basic principles of anthropology in the course of our studies. It is important to say that Czech Oriental Studies were, for historical reasons, influenced by a Soviet orientalist tradition – one where language, culture, and history are considered inseparable to acquire a deep understanding and insight of a place and society. Therefore, area studies, including Vietnamese Studies at our faculty, fall into humanities rather than social sciences.[1] In an effort to reach a comprehensive knowledge of an 'Oriental' culture, students at our faculty often find themselves lost and not sufficiently prepared in the areas requiring more theoretical and methodological thinking. We both experienced this as well. It was not until our participation in the KNOTS project, that the oftentimes blurred borderline between humanities and social sciences became apparent to us. We realized that, while our training was embedded in humanities, our research practice often took place in the field of social sciences. In fact, we experience this transgression of academic boundaries as stimulating and beneficial.

From the very first moment of reading the proposal, the KNOTS project was an exciting challenge for both us. We had rather hazy ideas about *EU Erasmus+ Capacity Building in Higher Education* projects, networking projects, and the transdisciplinary approach itself. During the first sessions, kick-off and other meetings with the partners from Europe and Southeast Asia, our role, except the administrative one mentioned above, was not very clear to us (Seemann & Antweiler, 2020, this issue). Preparing for the first summer school in Vietnam, we were still not sure how to contribute to the teaching sessions, since our experience with regards to the project's three major topics of *migration*, *environment,* and *social inequality* was rather limited. However, we gradually realized that our academic background and experience of living, studying, and conducting research in Vietnam had its place in the project.

Since a transdisciplinary approach is based on cooperation among actors with various backgrounds (academic, cultural, social, political, etc.), a diversity of inputs and perspectives is considered an advantage for transdisciplinary projects. However, the plurality within the team can also bring many unexpected situations, challenges, misunderstandings, and sometimes even conflicts (Dannecker, 2020, this issue; Dannecker & Heis, 2020, this issue). In the course of the project, we noticed various misapprehensions among both students and staff during various activities. While this is common in teamwork, in the case of international cooperation and work in various types of environments, however, it can be even more salient.

Some of these misunderstandings were quite innocent, such as our inability to agree on what temperature to set the A/C in conference rooms and classrooms. This could be ascribed to multiple causes. One of them might be culture-specific notions of thermal comfort. Another issue was the different understandings of what is a

1 We understand humanities as focusing on the study of cultural factors of mankind and how people process and document human experience. Social sciences focus more on various aspects of human society and the relationships of humans within communities. Social sciences emphasize and require empirical research, a theoretical framework, and a robust standardized methodology.

formal or an informal occasion and the suitable attire for it. From the European point of view, the summer school was a rather casual event. As back in Europe, European students usually do not wear suits in school, they chose rather casual and light outfits given the tropical climate, which was inappropriate for the airconditioned indoors. On the other hand, in the Asian academic environments, students usually wear formal dress, which is comparatively warmer. Yet another issue at play is that the use of A/C became widespread among middle-class urbanites in Southeast Asia and could therefore be perceived as a marker of class status (Hansen, Nielsen & Wilhite, 2016; Hitchings & Shu Jun Lee, 2008). In addition, setting the A/C on a low temperature might suggest that the guests are respected and treated well. Other misunderstandings were more substantial, such as challenges resulting from different political systems of the partner countries. For example, we were not able to agree on who were the non-academic actors during the first summer school. While some of us imagined non-academic actors primarily as politically independent NGOs, others had state-related agencies in mind due to specific political contexts. Some situations might have even been slightly shocking, for example, in the case of translating the neutral Vietnamese phrase "*hai dòng máu*" into English as "biracial" when speaking about children born from transnational marriages in Taiwan – something that was perceived as very problematic by some.

There were also debates that arose from the different education cultures. While in some educational environments, group discussions and teamwork are trained and encouraged, in others, more conservative methods of frontal lectures prevail. This created a disproportional environment where some were always vocal and some were always quiet. Thus, there were also different ideas about how to organize a summer school – on one hand, the idea of a content heavy series of lectures, on the other hand, the preference for a workshop format based on student participation. We had to negotiate what the final form would be. The plurality of approaches and attitudes derived from various strands including, among others, culture, language, and diverse academic and political environments/cultures.

ETHICS AND CULTURAL AWARENESS

During the first two summer schools and field trips – the first in Vietnam and the second in Thailand – we also noticed different understandings of ethics and research ethics among both staff and students. Occasionally, certain situations and unwitting behavior were perceived as ethically problematic. Ethical questions surfaced concerning relationships towards research participants, as well as within our team. When is it okay to take pictures of other people or film them? Should our research participants in the field be rewarded for taking part? And if so, how/in what way? How do we handle our field notes? Is it appropriate to share them with others? And to what purposes? Is it fine to pursue our own agendas during the joint work of field trip groups? What kinds of questions are too intrusive? How to work in specific political conditions? Such questions were posed from time to time in the course of summer schools and field trips, but it took us some time to take them up for a wider and more systematic discussion. We all seemed to have taken for granted to some degree our own ethical approaches, based on our disciplines and academic cultures, and it became clear that

we had different ideas about what is and what is not appropriate. Moreover, it turned out that many of the students were not sufficiently aware of the fact that the way people communicate is culturally specific. This did not seem to be linked to factors such as gender, age, or ethnicity, but rather inexperience in cross-cultural communication.

Based on our observations and experience from the first two summer schools and field trips, we suggested creating a session on ethics for the last summer school in Ho Chi Minh City. The session consisted of a part devoted to the specifics of conducting research in Vietnam and creating basic cross-cultural awareness, while another focused more on research ethics required for the upcoming field trip in the Mekong Delta. With regards to the specifics of conducting research in Vietnam, we realized that, with our academic background, we could offer the team our experience of living and working in Vietnam and our knowledge of the country's culture and language. In contrast to our partners and students from Vietnam, who were as insiders immersed in their culture, we had the advantage of being in the position of cultural brokers (Jezewski, 1990) or the "knowledgeable outsiders" (Berry, Poortinga, & Pandey, 1997) and were, therefore, able to bring forward some important points/insights. For example, we brought everyone's attention to a common challenge encountered in communication by foreigners in Vietnam, which is the perceived hesitation of Vietnamese to answer questions negatively. Saying "no" or "not possible", and admitting not to know something, might be perceived as impolite and as a threat to the person's social face (Tran, 2018). Another example is that, while the gesture of a straight look in the eyes of another person is considered a proof of straightforwardness in many Western countries, it is perceived as rude in Vietnam. Also, the public display of intergender affection is regarded indecent. The awareness or possible unawareness of such specifics naturally brings about important consequences for conducting fieldwork in Vietnam. The Vietnamese participants were surprised that we brought such issues up, but much appreciated the opportunity to reflect on some of the ingrained and unconscious traits of Vietnamese communication and behavior from a new perspective. We did not strive to answer all the ethical questions we encountered, but tried to bring participants' awareness to them, so that they could try to negotiate them in their respective field trip groups.

With regard to research ethics, we realized during the project that some of us conceived of them in a rather narrow sense of academic integrity and publication ethics. Therefore, we opted to give examples of existing ethical guidelines and discuss the basic principle of *do no harm* and its implications in field work. We also focused on the power structures linked to gender, ethnicity, political environment, or social status affecting research, and we suggested reflexivity of positionally as an essential coping strategy. We tried to emphasize that research is a dynamic process during which unexpected situations may and, indeed, do occur. It is therefore indispensable to continuously reflect and adjust the research process and make compromises (Palmer, Fam, Smith, & Kilham, 2014). Also, we underlined that many ethical challenges do not have easy and clear solutions.

The students' feedback on these sessions was positive and we felt that creating a shared understanding of ethics, and research ethics specifically, helped field trip groups in their work. Based on the above-mentioned experiences, we prepared a session concerning ethics for the Teaching Manual for Transdisciplinary Research (KNOTS, n.d.), which is one of the outputs of the KNOTS project.

CONCLUSION

In conclusion, perhaps trying to figure out the role of humanities in TDR in general was a misguided effort. Every TDR project is unique and, by definition, adapted to specific goals and the 'real-world problems' it aims to tackle, including the decision of which actors and disciplines to involve. Therefore, there is no universal role of humanities in TDR projects. With regards to the KNOTS project, we gradually figured out that our role in the project would be that of the "knowledgeable outsiders" who have a professional and academic insight into Southeast Asian cultures but are not involved in development studies. In the course of a three-year long mutual learning process, we realized that striving to create a common understanding of research ethics and cross-cultural awareness is an indispensable element of teaching and doing TDR in multicultural environments, since it facilitates team work and reduces various tensions. TDR teams need to develop strategies to deal with unexpected situations and create a safe space to discuss ethical issues. Our project was not a full-fledged TDR project, but a project teaching about TDR within the scope of summer schools. Within the limited amount of time, we decided to (only) bring participants' attention to research ethics and issues of cross-cultural communication, and suggested reflection and discussion as coping strategies. This room for reflection and mutual exchange eventually benefited both European and Southeast Asian project members and consolidated our place in the project.

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Vaccine Hesitancy and the Cultural Politics of Trust in the Dengvaxia Controversy: A Critical Discourse-Ethnographic Study of Online News Content, Producers, and Audiences

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Vaccine hesitancy refers to the delay in acceptance or refusal of vaccination despite vaccine availability. At its very core lies the problem of trust. Yet, there is very little research on the role of trust in vaccine hesitancy, particularly concerning its ideological dimension. This research aims to describe and explore how the online news discourse on the Dengvaxia vaccine controversy legitimizes a particular trust culture in Philippine society. For this purpose, the research adopts the theory of social trust propounded by the Polish sociologist Piotr Sztompka and links it to the study of news media using critical discourse analysis. This research is an interdisciplinary project that adopts various concepts and lenses from sociology, linguistics, media studies, and public health.

Keywords: Critical Discourse Analysis; Dengvaxia Controversy; Philippines; Trust; Vaccine Hesitancy

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INTRODUCTION

The Dengvaxia controversy is a public health controversy in the Philippines concerning the use of the Dengvaxia vaccine for dengue that was produced by the French pharmaceutical company, Sanofi Pasteur. After reports circulated alleging that several children had died because of the vaccine, the Philippines Department of Health (DOH) suspended the school-based vaccination program in late November, 2017. Following this, the company stated that its vaccine posed a greater risk to people who had not yet contracted Dengue (Grady & Thomas, 2017).

In the succeeding years, the Public Attorney's Office (PAO), led by its chief attorney Persida Acosta, continued to rally against what they saw as a corrupt medical establishment with close ties to the government, who, by use of their positions, prevented justice from being served to parents who had lost their children to the vaccine. There is still no available evidence suggesting a causal link between the vaccine and children's deaths but PAO continues to conduct autopsies of children's bodies to discredit expert claims delinking children's deaths from

the vaccines.[1] Nonetheless, it has been shown that the controversy resulted in growing "vaccine hesitancy" at the community level, most especially among Filipino parents (Larson, Hartigan-Go, & de Figueiredo, 2019; Valido, Laksanawati, & Utarini, 2018).

Vaccine hesitancy refers to the "delay in acceptance or refusal of vaccination despite availability of vaccination services" (MacDonald, 2015, p. 4163). Vaccine-hesitant individuals are those people who reside somewhere in the middle of a continuum between complete vaccine rejection and complete vaccine acceptance (Larson, Jarrett, Eckersberger, Smith, & Paterson, 2014). In short, vaccine-hesitant individuals are vaccine doubters. A key issue in vaccine hesitancy then is *trust* – in vaccine efficacy and safety, the vaccination system that delivers it, and the motivations of policymakers who make vaccine-related decisions (MacDonald, 2015).

A relatively neglected area in the vaccine hesitancy literature is its ideological dimension.[2] Since most studies examining the role of media in vaccine hesitancy have taken-off from a transmission view of communication, the focus has been on the behavioral effects of exposure to health-related messages through everyday media use or strategic media use for health promotion and education (Viswanath, 2008). Questions about the ideological aspects of communication that emphasize the social construction of realities in and through the media are put aside in favor of concerns about information transmission and social control. To argue for the centrality of trust in vaccine hesitancy, while also emphasizing the ideological aspects of health communication, my research aims to describe and explore how a particular trust culture in Philippine society is legitimized through the news discourse on the Dengvaxia controversy. In support of this, the research will be guided by the following objectives:

- document and describe the linguistic and visual semiotic resources used in representing social actors and their actions in online news reports;[3]
- interpret how online journalists and vaccine-hesitant parents view these representations relative to their contexts; and,
- explain the broader implications of the news discourse on Dengvaxia to the normative rules for trust granting and trust reciprocating in the Philippine setting.

FRAMEWORK AND METHODOLOGY

The theoretical framework adopted in this research is anchored on the Theory of Social Trust propounded by Sztompka (1998, 1999, 2003) with a particular emphasis on "trust culture", which he defined both as a resource and a system of normative rules for trust granting/reciprocating in a given society. Trust granting refers to the

1 This is although a group of medical experts have called on PAO in 2018 to stop conducting autopsies since only competent forensic pathologists are capable of determining the cause of death of a person.

2 By ideological, I mean those modes of communication (i.e., rationalization, universalization, narrativization) through language or other semiotic resources that are used to perpetuate unequal social arrangements.

3 Semiotic resources are the various textual selections and combinations in written language and visual images (e.g., words, clauses, pose, gaze, angle, composition, background, foreground, etc.).

bestowal of trust to another person/entity by a trustor, whereas trust reciprocating pertains to efforts to become trustworthy by a trustee. The present research applies the concept of trust culture to the description, interpretation, and explanation of trust granting and trust reciprocating patterns between and among producers and receivers of news discourse on Dengvaxia to understand vaccine hesitancy from a critical lens.

Trust is a cultural category mediated through processes of conscious strategic communication (Candlin & Crichton, 2013). However, the media is rarely theorized within the trust studies literature as trust research has mostly focused on the structuring of trust culture or "system trust" at the macrosocial level (Giddens, 1990; Luhmann, 1979; Misztal, 1996) and the micro-level construction of trust relationships between trustors and trustees across various domains such as business, management, democratic governance, healthcare, and law, among others (Barber, 1983; Lewis & Weigert, 1985; Mollering, 2006; Seligman, 1997; Sztompka, 1999). Meanwhile, although trust figured more prominently within media studies, particularly in research on public and economic spheres (Bakir & Barlow, 2007), not much has been said about it beyond the confines of organizational and institutional settings.

The crux of the matter is that trust needs to be problematized *per se* as a phenomenon occurring in concrete social contexts. Vital here is the establishment of a meso-level (middle range) linkage between the macro and microstructures of a trust culture. In response, the conceptual framework that I devised for the research employs critical discourse analysis to encompass the micro, meso, and macro levels of a trust culture.[4] In line with this, the following levels of the conceptual framework (see, Figure 1) will be operationalized with a critical discourse-ethnographic methodology:

1. Texts – online news reports that I semiotically describe in terms of their representations of social actors and their actions.
2. Discursive practice – the production and reception practices of online journalists and news audiences, which I interpret in terms of how both engage with the representations in (1).
3. Social practice – where I trace and relate to society the consequences of the Dengvaxia controversy.

By critical discourse-ethnographic methodology (cf. Wodak & Savski, 2018), I mean a critical discourse analysis approach that is complemented by a mini-ethnographic case study of news producers and audiences to provide greater contextual depth and richer knowledge about the texts to be analyzed (Fusch, Fusch, & Ness, 2017). I view ethnography here as an "orientation to the field" that acquaints one with the local context of the subjects, rather than as a rigid method requiring one to do fieldwork in extended periods, often using participant-observation and in-depth interviews.

4 Adopted primarily from Richardson's (2006) critical discourse analysis approach to newspapers but modified using the ideas of Candlin and Chrichton (2013), Machin and Mayr (2012), and Thompson (1990).

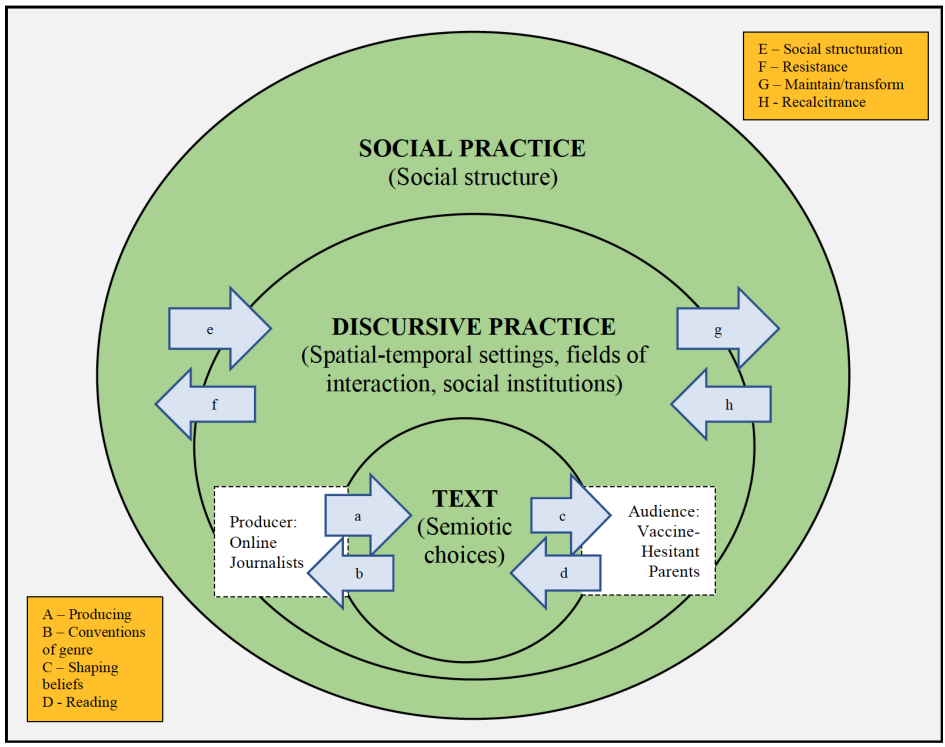

Figure 1. The conceptual framework of the study.

Methods

This research employs three methods for data collection: (1) content analysis, (2) semi-structured interviews, and (3) focus group discussions. Among the three levels of the conceptual framework, only the textual and discursive practice levels require empirical data. The level of social practice does not require empirical data because, compared to the other two, it seeks to validate whether the overall structural context of a culture is defined by trust or distrust. Such validation refers back to the findings from the textual and discursive practice levels.

Firstly, content analysis will be used to answer the question: what are the linguistic and visual semiotic resources used in representing social actors and their actions in online news reports? This question redounds to the analysis of the textual level of the conceptual framework. Content analysis is "a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use" (Krippendorff, 2018, p. 23). That being said, the deployment of content analysis in this research relies upon the use of a coding scheme or "data language" that sets the analytical categories to be recorded/coded from online news reports.[5]

The categories of the data language that I devised for the study were basically

5 This data language will be applied to the 58 online news reports from three local newspaper websites in the Philippines that I already collected as of writing.

drawn from the Systemic Functional Linguistics (SFL) transitivity system, which is concerned with the examination of who does what to whom and to what effect (O'Donnell, 2011). The starting categories were labelled as actor, process, and goal. These categories slightly vary depending on the processes they represent and whether they are part of a visual image or written language. Nonetheless, they both allow us to understand how social actors and their actions were represented multimodally.

Secondly, semi-structured interviews will be used to gain information about online journalists' trust-granting and trust-reciprocating behaviors as social actors who are embedded within the institutional context of Philippine journalism, and how this is reflected in their coverage of public affairs and health topics.[6] A semi-structured interview is a qualitative method wherein the researcher asks participants a series of pre-determined but open-ended questions (Ayres, 2008). The interview guides to be designed for this research shall focus on three, broad, conceptual headings: journalistic roles, journalistic ethics, and journalists' trust (Hanitzsch, Hanusch, Ramaprasad, & De Beer, 2019). While trust is the focus of this research, it is assumed that this concept has significant overlap with how journalists perceive their roles and ethical viewpoints in practice. The interpretation of news production practices will be based on online semi-structured interviews of 30 online journalists working for local newspaper websites in the Philippines.

Third and lastly, focus group discussions will be used to collect information regarding how vaccine-hesitant parents (as news audiences) shape and were shaped in some way by the news discourse on Dengvaxia controversy. Focus group discussion (FGD) is a research method that is "useful when seeking to understand participants' meanings and ways of understanding" in socially-situated contexts (Lunt & Livingstone, 1996, p. 79). To be more precise, focus groups will be utilized to probe for vaccine-hesitant parents' trust granting/reciprocating behaviors relative to pre-existing sets of cultural rules and resources at their disposal. One group composed of 12 participants each will be recruited from six *barangays* (communities) in Quezon City, Philippines, for a total of 72 participants all in all. Vaccine-hesitant parents are defined as those parents who have modified the routine immunization schedule prescribed by the DOH. "Modified" means delaying some/all of the vaccines for their child/children by 30 days or more from the scheduled date. Similarly, modified would also mean refusing some but not all of the prescribed immunizations. Complete vaccine rejectors are automatically excluded because the study focuses on vaccine hesitancy.

CONCLUSION

The current paper highlights the significance of a critical discourse-ethnographic methodology in studying the legitimization of a trust culture through the Dengvaxia news discourse. Through the framework introduced here, the research responds to the need to operationalize Sztompka's (1999) theory of social trust in media studies by combining the use of critical discourse analysis with a micro-ethnographic

6 I am still waiting for approval on my human ethics application for interviewing online journalists. On the other hand, I shall file a separate application for the focus groups.

case study. As an ongoing study, however, the research is still expected to evolve theoretically and methodologically, most especially now that the world is facing the COVID-19 pandemic.

Given that some governments, including the Philippines and Indonesia, were lagging behind their regional counterparts with regards to pandemic response, a COVID vaccine may be the last ray of hope for their citizens. In such situations, the proper starting point may not be vaccine hesitancy at all but vaccine ambivalence – a situation of mixed hopes and doubts or of wanting a vaccine while also suspecting it. Also, methodologically, it is not unlikely that I might reconsider my plan of conducting face-to-face focus groups if the situation in the Philippines worsens or remains unchanged from the time of writing.

Notwithstanding these concerns, the research has the potential to contribute to the growing literature on vaccine hesitancy, stimulate critical inquires in health communication, and extend and validate the interpretive research agenda within trust studies (Mollering, 2006). However, the success of the study depends on the following theoretical and methodological issues, among others, being addressed later on in the research.

First of these is the justification for selecting online news as the medium to be analyzed. What is the theoretical and methodological significance of choosing this medium? This question is important given that not all societies have the same media preference at any given point in time. Historical, social, and political economic factors may be at play in determining the present contours of the local media landscape.

The second issue is about the identification of themes apart from trust that are also relevant to the news discourse on vaccine hesitancy. Although important to society, trust is not the only basis of social order (Luhmann, 1979). The discourse of trust may be co-present with other analytical categories such as expertise, responsibility, credibility, and risk, among others, in certain domains of practice (Candlin & Crichton, 2013). Therefore, the research framework must be applied in such a way that the discovery of other analytical categories apart from trust are not precluded.

The final issue is the description of the macro-structural features of a Filipino trust/distrust culture. The existence of a trust culture is a theoretical assumption that can neither be proven or disproven but only described as it manifests textually and behaviorally in particular contexts. The macro-structural features of a Filipino trust culture broadly refer to its manifestations in a democratic system, which relates to the extent to which people trust/distrust the social and political institutions governing their lives.

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Book Review: Samuels, A. (2019). After the Tsunami: Disaster Narratives and the Remaking of Everyday Life in Aceh.

Hawai'i: University of Hawai'i Press. ISBN: 0824878264. 214 pages.

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▸ Paredes Grijalva, D. (2020). Book Review: Samuels, A. (2019). After the Tsunami: Disaster Narratives and the Remaking of Everyday Life in Aceh. A*ustrian Journal of South-East Asian Studies, 13*(2), 275-278.

After the Tsunami represents an in-depth study of survivors of the 2004 tsunami in the badly-hit Indonesian province of Aceh. Annemarie Samuels interrogates disaster narratives and the efforts of survivors to remake everyday life in the midst of destruction, loss, humanitarian aid, and political change after decades of an armed conflict that was finally settled in August 2005. The book focuses on how people speak, or remain silent, about the tsunami and its aftermath, and adds important insights to the anthropological study of disasters by exploring how subjectivities are constructed through disaster narratives. Samuels presents her rich ethnographic material and interview excerpts, which were gathered in a period of more than ten years, in a clear and accessible language. This clarity is also reflected in the structure of the book. Its five chapters are organized in a rather linear time fashion, starting with before the tsunami, and finishing with Acehnese speculations about a future.

The Introduction makes mention of social science framings of disasters, and sets Annemarie Samuels' work as a continuation of subjectivities studies within psychological anthropology. The author argues that, although scholars call for processual and historically informed analysis of disasters, pointing at asymmetries of power and the social construction of vulnerabilities, for tsunami survivors the framing of the disaster is first and foremost that of an event. She asserts that "post-disaster recovery is not only a social and cultural process, but also a fundamentally subjective one" (p. 7). The author proposes narratives as a methodological device to examine how subjectivities and everyday life are made through them. Narratives, she writes, are also an epistemological device. For example, storytelling itself is an essential component of remaking.

The first chapter looks at the immediate aftermath of the tsunami and centers survivors' agency vis-à-vis Indonesian government representatives and foreign humanitarian aid. Especially with regard to the reconstruction phase, the author skillfully presents how the figure of the local broker and the *proposal*, that is local efforts to approach authorities in a bureaucratically acceptable form, mediate negotiations among citizens and authorities. Taking the issues of housing, citizen complaints of corruption, and time lags or inaction of government institutions, the author teases out the threads of patronage relations from the

village to the national level. These relations were also shaped by decades of conflict whereby Aceh was thought of and often effectively treated as 'outside of Indonesia'.

By framing humanitarian aid as a gift and actively expressing their thanks, Acehnese narratives of gratitude can be understood in terms of reciprocity linking Acehnese people to the international (humanitarian) community. While certainly the impact on relations between 'the world' and Aceh did not translate into lasting international cooperation, this repositioning mattered much for domestic post-disaster and post-conflict politics. This line of thought builds on critiques of humanitarianism that claim beneficiaries are muted when they cannot speak at the global level for themselves. The author argues instead that, although this may be true, in a post-disaster moment local needs may be more pressing than having a global voice: "Although indeed not directly giving people a voice on the global stage, locally, humanitarian aid made disaster survivors speak out loud" (p. 55). By analyzing both narratives of protest and narratives of gratitude, the chapter highlights how people's agency should not be reduced to resistance towards an overarching force, but rather develops in relation with humanitarian and government actors.

Chapter 2 focuses on embodied narratives of disaster, often retelling the event itself and with abundant metaphors. These narratives often highlight extraordinary human capacities – a girl running like never before; of ruptures with social norms – a naked woman whose clothes had been washed away; or of immense loss – a daughter visiting mass graves, uncertain of where her parents were buried. They are embodied, the author states, in two ways – that is, they are told *through* bodies (phenomenological dimension), and they are *about* bodies (symbolic representation of disruption). By analyzing these narratives, Samuels shows how the remaking of the everyday is infused with the experience of the tsunami.

In her third chapter, Samuels delineates the ways in which Islam shapes grieving, trauma, and remaking. Among a list of religious practices, which include contemplative prayer (*doa*), Islamic ritual worship (*shalat*), and chanting (*zikir*), the author focuses on non-ritualized prayer, namely the individual ways in which people prayed in the moments of and immediately after the disaster, as well as ways of dealing with grief. As embodied practices, they can reposition a person in the social world, for instance following personal ethical projects, but can also have effects on the social world of both the living and the dead. By elaborating on this kind of non-ritualized prayer, which is the most relevant religious practice for tsunami survivors according to Samuels, the author makes an important contribution to the literature on Islamic responses to disasters.

Another important contribution is Samuels' nuanced analysis of emotion and religion along gender lines that deconstructs taken-for-granted dichotomies. For instance, prescribed roles for men in dealing with grief involve *akal*, reason, while for women it is only 'natural' to express emotions uncontrollably. While at first glance this may be the case, the author carefully distinguishes that in the informal settings of the private sphere, many of her interlocutors did not adhere to strict gender roles. The author's rich ethnographic material reveals that men may cry, remember, and suffer while women may make proficient reference to Islamic values engaging in serious ethical projects of self-disciplining.

In the fourth chapter, the making of urban space and memory is examined.

Looking at official discourse, the author traces how politics and affect are entangled in commemorating the past and looking towards the future. Post-disaster settings have proven to be fertile ground for political narratives of overcoming and optimism. In Aceh, the author recognizes how this *narrative triumphalism* intentionally left little room for commemoration of violent histories, starkly overshadowing the legacies of the separatist conflict. This became evident in speeches and brochures, but more importantly in monuments: authentic monuments (*monumen asli*), such as boats pushed inland by the tsunami, and artificial ones, such as the Tsunami Museum.

The final chapter is adequately dedicated to the question of temporality. Framed within Islamic notions of time and destiny, the tsunami has been understood by the author's interlocutors as fate, test, or gift. In Aceh, a temporal optimism accompanied the re-construction phase, something disaster scholars have pointed out before. However, the author expands this well-known fact by carefully distinguishing the timing and the kind of narratives that circulate. While in the early post-disaster phase hardship was explained in religious terms and followed by the improvement momentum of "building back better", later, when international aid had left, and incomplete buildings revealed some of the failures, people turned to explanations of corrupt politics.

The conclusion ties up the book by emphasizing that post-disaster recovery is a long subjective process reflecting the work of individuals immersed in society. This path needs to be searched and carved out by survivors, in their own diverse ways. And this is precisely why the study of individuals' narratives offer such a significant vantage point. The author has revealed a series of paradoxes and ambiguities that infuse post-disaster life: that people in Aceh have an immense capacity to remake life in the face of immense loss; that both remembering, as in prayers and monuments, as well as forgetting, as in traumatic experiences, are necessary for the process of grieving; and that the tsunami can be framed both as misfortune (*musibah*) and as divine wisdom (*hikmah*).

Disaster and crises scholarship has established that crises are moments where much of a society can be reconfigured, and Samuels demonstrates that Aceh is no exception in this regard, having signed a peace agreement and gained special autonomy. While the author builds on much of this literature by studying reconfigurations at political and societal levels, *After the Tsunami* enriches this approach by focusing on the agency of survivors, their narratives, and how they rearrange their everyday lives. The book convincingly shows that narratives are an essential part of the remaking of life in post-disaster contexts.

Overall, the book contributes to the anthropological literature on disasters in Southeast Asia and beyond, and particularly on the intersection of religion and disasters. It provides a unique account of the importance of religious and particularly Islamic practices in post-disaster contexts. Moreover, with a sharp anthropological skill, Eurocentric assumptions such as that aid beneficiaries are helpless and passive are scrutinized from different perspectives, contextualized, and reinterpreted. The author shows how narratives of aid as gift reposition Aceh discursively within North-South asymmetries of power. In a similar vein, Samuels' careful analysis of the remaking of life in Aceh nuances gender analysis by looking at it through the lenses of space and scale. *After the Tsunami* is an excellent read, diving deep into intimate

moments of people's lived experience. Samuels' findings expand our understanding of framings and makings of disaster in taking us into perhaps some of the deepest layers of social life that anthropology can investigate by examining narratives and subjectivities within the recovery process after a catastrophic event.

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