

Discursos economicistas de la sostenibilidad

Meyer, Esther; Vilsmaier, Ulli

Published in:
Sustentabilidade em Debate

DOI:
[10.18472/SustDeb.v11n1.2020.26663](https://doi.org/10.18472/SustDeb.v11n1.2020.26663)

Publication date:
2020

Document Version
Verlags-PDF (auch: Version of Record)

[Link to publication](#)

Citation for pulished version (APA):
Meyer, E., & Vilsmaier, U. (2020). Discursos economicistas de la sostenibilidad: Los momentos determinantes y la pregunta por alternativas. *Sustentabilidade em Debate*, 11(1), 98-110.
<https://doi.org/10.18472/SustDeb.v11n1.2020.26663>

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal ?

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Economistic discourses of sustainability: determining moments and the question of alternatives

Discursos economicistas de la sostenibilidad: Los momentos determinantes y la pregunta por alternativas

Discursos economicistas de sustentabilidade: momentos determinantes e a busca por alternativas

Esther Meyer^a

Ulli Vilsmaier^b

^aLeuphana University Lüneburg, Faculty of Sustainability, Lüneburg, Germany
E-mail: Esther.Meyer@leuphana.de

^bLeuphana University Lüneburg, Institute of Philosophy and Sciences of Art and Center for Methods, Lüneburg, Germany
E-mail: Ulli.Vilsmaier@leuphana.de

doi:10.18472/SustDeb.v11n1.2020.26663

Received: 16/08/2019
Accepted: 26/03/2020

ARTICLE- VARIA

ABSTRACT

Despite the worldwide increase in discourses and politics around sustainability, the meanings of the concept vary significantly in different linguistic communities and cultures. This may undermine the multidimensionality and ethical dimension of the concept and jeopardize its political status. This article aims at highlighting discourse strands on sustainability from different linguistic communities in an intercultural orientation, and how they are theoretically shaped. It comprises a revision of existing and our own discourse analyses. The results show hegemonic discourses of economic conceptualizations, as well as alternatives, which vary between communities and languages. We would like this article to contribute to an exchange and a profound discussion between the linguistic discourses, as well as to a methodological reflection on discourse analysis from an intercultural perspective. We conclude that critical transdisciplinary research, either as a science of sustainability or as transformative research, breaks with hegemonic orders, and thus, complements understandings of (un)sustainable ways of life.

Keywords: Sustainability sciences. Transdisciplinary. Discourse analysis. Hegemonic discourses. Intercultural.

RESUMEN

A pesar del aumento mundial de discursos y políticas sobre sostenibilidad, los significados del concepto varían en diferentes comunidades lingüísticas. Esto puede debilitar la multidimensionalidad y la dimensión

ética del concepto y poner en peligro la política. El artículo tiene como objetivo destacar los hilos teóricos del discurso sobre la sostenibilidad y la sustentabilidad de diferentes comunidades lingüísticas en una orientación intercultural. Presenta una revisión meta-analítica de trabajos analíticos del discurso y un propio análisis. Los resultados muestran discursos hegemónicos de conceptualizaciones economicistas, así como alternativas. Aspiramos a contribuir a un intercambio y una discusión en profundidad entre los discursos lingüísticos y a la reflexión metódica de la investigación analítica-discursiva desde una perspectiva intercultural. Concluimos que la investigación transdisciplinaria fortalece, ya sea como ciencia de la sustentabilidad o como investigación transformadora, la fractura de los órdenes hegemónicos y, por lo tanto, complementa la comprensión de formas de vida (no) sustentables.

Palabras-Clave: Ciencia de la sustentabilidad. Transdisciplina. Análisis del Discurso. Discursos hegemónicos. Intercultural.

RESUMO

A disseminação mundial da sustentabilidade aumentou de forma significativa nos discursos e na política desde a resolução da ONU Objetivos de Desenvolvimento Sustentável de 2015. No entanto, o significado do conceito varia em diferentes comunidades e culturas lingüísticas. O presente artigo apresenta uma revisão analítica-discursiva dos conceitos de sustentabilidade em uma perspectiva intercultural. Os resultados mostram discursos hegemônicos de conceitualizações economicistas, bem como alternativas, que se constituem em diferentes comunidades lingüísticas. O artigo pretende fomentar uma troca e uma discussão profunda entre os grupos lingüísticos, bem como uma reflexão metodológica sobre a análise do discurso a partir de uma perspectiva intercultural.

Palavras-Chave: Ciências da Sustentabilidade. Transdisciplinar. Análise de discurso. Discursos hegemônicos. Intercultural.

1 INTRODUCTION

Since the resolution of the “Sustainable Development Goals” by the United Nations (UN) in 2015, the dissemination of the concept of sustainability has increased significantly in discourses and policies worldwide. It could seem that the concept has permeated science and the general public and that, with this, a further step has been taken towards the normative principle. And apparently, that is happening in different linguistic communities. At the same time, it is necessary to investigate the meaning of the concept more in depth: What does sustainable mean? And in which contexts does it acquire different meanings? How have the different discourses been constituted, in reaction to the universal, national, and economic principles of sustainable development, as declared by the UN, with respect to different sociocultural, economic, and political historical situations in the different world-regions?

We develop concepts and theories about sustainability and sustainability sciences from a review of discourse analyses. The assumption is that discursive dynamics affect the work related to sustainability in politics, economics, and even sustainability sciences. The question is whether this leads to the reproduction of certain arguments for, as well as cultures of, unsustainability. Inquiries into marginalizing dynamics—as, for example, in the discourse on growth—must also be a component of scientific work on sustainability, to recognize the constitutive causes of unsustainability.

Based on a meta-analytic review of discursive-analytic work, this article provides insights into strands of sustainability discourses, especially an overview of the strands and assumptions that need to be pursued in more depth.

The article is structured as follows: Section 2 presents the method of the analysis. The following chapters continue with considerations of contextual dependency on discourses (3) and an approach

towards the concepts of sustainability, sustainable development and sustainability sciences, in order to formulate working definitions for these terms (4). Then, the different (historic) moments of sustainability and sustainable development are specified that have been constitutive for the different discourse strands (5). Using concepts and terms that clarify the different ways of understanding sustainability (6), some of their discourse limitations are outlined (7). Thus, Section 8 presents the implications that this has for sustainability sciences and discusses the potential of transdisciplinarity. Finally, conclusions are outlined (9).

2 METHODOLOGY

Critical discourse analysis pays special attention to the ways in which dominant theories emerge that, through their discourses, (re)produce power relations (CLARKE, 2012). This article departs from discursive-analytical work carried out in German and English and presents discussion threads that were the results of these analyses. Part of the results was also published in German.¹

Starting from the review of publications on the sustainability discourse,² we highlight limitations and strands that the authors draw as discursively dominant. Here, a previous own discourse study (MEYER, 2014) of German texts that were published in the period between 2003 and 2013, and containing the term “social sustainability” in their titles without referring to a specific object, constitutes our starting point. Our work experiences related to sustainability is also incorporated.

The emphasis is on the (re)formulation of hypotheses regarding the constitution of sustainability by social, and especially economic, discourses. We attempt to locate marginalized discourses on sustainability, sustainable development, and sustainability sciences. According to a differentiated definition of eco-linguistics, we are looking for ethical and multidimensional sustainability strands, also—and especially—beyond discourses on certain explicit terms (ALEXANDER and STIBBE, 2014). Starting from German and English discourses, we approach the Latin American discourse landscape from a European perspective.

This research is part of the project CCP—“Complexity or Control? Paradigms for Sustainable Development”³—which aims at the systematic analysis of perceptions of critical and transdisciplinary research in sustainability, and its conceptual and methodological configuration.

3 CONTEXTUAL DEPENDENCE OF THE DISCOURSE

Each thought and knowledge production is located and tied to conditions (HARAWAY, 1988) and therefore no one can exempt themselves from their own positionality (QIN 2016). Particularly in the case of investigating discourses and their historical and cultural dependences, this fact should guide the analyses themselves. Both the nationalized situation and the environmental, sociocultural, political, economic and sustainable are part of the analytical challenge. Therefore, we have approached the analyses of Latin American discourse from a European point of view.

In Spanish - unlike the German analogue to English, where the word *Nachhaltigkeit* exists - the discourses on sustainability have been constituted in different ways, as *sostenibilidad* and *sustentabilidad*. The same applies to *desarrollo sostenible* and *desarrollo sustentable* (*nachhaltige Entwicklung* [GER] or sustainable development [EN]).

Vanhulst has published in English (VANHULST and ZACCAI, 2016) and Spanish (VANHULST and HEVIA, 2016) a quantitative network and bibliometrics analysis and mapping (discourse analysis) on the modes of appropriation of the sustainable development discourse in Latin America in the last 40 years. The authors maintain that sustainable development has taught the effects of critical and radical counter-

hegemonic discourses regarding (post-)Eurocentrism and modernity, represented by scientists such as Escobar (1995), and by the two concepts - *sostenible* and *sustentable*:

If *sostenible* in the hegemonic model refers to the economic, *sustentable* must be considered as the guarantee of all forms of life and of all the ways in which that life is culturally expressed. (ALBÁN and ROSERO, 2016, p. 38; own translation).

In the Latin American discourse on sustainable development, “the Brundtland report ‘Our common future’ (CMMAD, 1987) and the Meadows report ‘The limits of growth’ (MEADOWS et al. 1972) were the most central references” (VANHULST and ZACCAI, 2016, p. 75). In turn, Vanhulst et al. express a specific appropriation of the political principle in Latin America, calling it “Latin American environmental thought” (ibid., p. 208; own translation). The universal principle of sustainable development is questioned by the struggle for cultural autonomy of marginalized indigenous groups as a modern techno-economic development principle originating in a reductionist rationality (VANHULST and ZACCAI 2016).

Concepts of sustainable development, found, among others, in the Brundtland Report, connect with sustainable development a “set of tools for the efficient management of the environment” (ibid., p. 73). According to Santiago (2009), this understanding results from hegemonic economic rationality, inconsistent with complex ecology. Therefore, it is economics that stands out as the central discipline in the results of the bibliometric analysis by VANHULST and HEVIA (2016).

4 SUSTAINABILITY, SUSTAINABLE DEVELOPMENT, AND SUSTAINABILITY SCIENCES: DEFINITIONS, HISTORY, AND DETERMINING MOMENTS

As a concept, sustainability focuses on current and future living conditions. Accordingly, sustainability sciences has been described as an “arena” that “is governed by normative ideas on sustainable development, which are used as a framework for scientific analysis” (MICHELSEN and ADOMBENT 2014, p. 42; own translation).

In the German language, as in Spanish, the concept of sustainable development has its origin in the translation of the term sustainable development, which was introduced in the Brundtland Report. The report presents the result of “the commission convened by the UN, called the ‘World Commission on Environment and Development,’ under the command of Norwegian President Gro Harlem Brundtland based in Norway” (KLIPPEL and OTTO 2008, p. 56; own translation). Essentially, the Brundtland Report expresses the normative requirement for economic, social and ecological development worldwide, which is justified by the possibility of equal opportunities – intergenerational - for future generations. In turn, this development should be structured in such a way as to allow access, in equal intragenerational terms, to natural resources by all human beings of the current generation (HAUFF, 1987; DINGLER, 2003). Inter- and intragenerational equity are defined depending on the political values of the day (GRUNWALD, 2011).

Due to its normative orientation towards sustainability, sustainability science, also contributes to the development of an alternative mode of research, better known as Mode 2 (MICHELSEN and ADOMBENT, 2014). This concept of research emerged in the scientific literature in 1994 with the book by Gibbons et al. *The New Production of Knowledge* (1994). Mode 2 research is characterized by contextuality, heterogeneity, reflexivity, and transdisciplinarity and thus, a research approach that acknowledges the normative nature of any kind of knowledge production. The science of sustainability (SPANGENBERG, 2011) implies transdisciplinary research, which aims to unite critique on objectivity and scientific progress (KLEIN, 2014) with the aim of moving towards sustainability or - and that is left open - towards sustainable development.

5 DISCURSIVE STRANDS ON SUSTAINABILITY AND SUSTAINABLE DEVELOPMENT: ECONOMISTIC HEGEMONY

The findings of various discourse analyses have confirmed that both sustainability and sustainable development are influenced by other more general and dominant social discourses. In this way, the tension between neoclassical economics and other alternative economic theories cuts across these notions. With this, the object of scientific studies in sustainability, at least in German and English, is built on the tension between the concepts of strong sustainability and weak sustainability. Strong sustainability corresponds to the term of *sustentable*, and weak sustainability to the term of *sostenible* (ALBÁN and ROSERO 2016).

Unlike weak sustainability, in the concept of strong sustainability (ZIEGLER and OTT 2011; OTT and DÖRING 2004) nature is understood as the ecological basis of life and thus, not considered substitutable. Within these limits of strong sustainability, all human effort, in particular the mode of economic activity, has to be achieved. Likewise, the concepts of weak and strong sustainability are found in the sustainability guidelines of efficiency, consistency, sufficiency, and subsistency. Positioning sustainability or sustainable development in this tension has normative and political implications. These may have effects in terms of the social changes that are produced by responses to sustainability. The discursive analyses have indicated the existence of a hegemonic discourse of sustainable development.

The characteristics of this discourse are based on the capitalist theory of well-being, the neoclassical theory, including its methodical application in economics for the purpose of increasing economic growth (SZE, 2018). In turn, it is linked to weak sustainability, under the assumption that, in principle, the different pillars or dimensions of sustainability are integrated (DINGLER, 2003; TREMMEL, 2003; STEURER, 2002). Although the integration of ecological, economic and social objectives is called for, nevertheless, the relations that the social and ecological dimensions have to the economistic discourse are unacknowledged, in such a way that these are only admitted under the premise of fostering economic growth.

“The hegemonic discourse of sustainable development is found in the discursive tradition of [...] modernity” (DINGLER, 2003, p. 484; own translation). However, its development could have led to a crisis that would eventually threaten the conditions that make life possible for human beings of the current generation and those of the future (“hypothesis of the unsustainability of modernity”, *ibid.*, p. 493; own translation). This conditionality of sustainable development as a specific concept of modernity, together with the marks it leaves on economies, were the starting point for our analyses. The discursive origin in English of this idea can be traced back to an ecological modernization by Hajer (1995). In German, the critique by Eblinghaus and Stickler (1996) is a relevant discursive event: “Sustainability and power, towards a critique of sustainable development.”⁴ The critique is still found in current literature (ROSE and CACHELIN 2018).

The research project “Sustainable development between performance and symbolism” (for its German acronym, “NEDS”⁵) analyzes the Brundtland Report from the perspective of an economic construction of ecological reality. In its analysis of the report, the research project presents seven hypotheses with which the ideas of unsustainability and modernity are differentiated. These hypotheses argue that “economic logic links the expectations of the natural and technical sciences with legal and administrative regulations to contribute essentially to a discursive version of sustainability as a problem of administrative management” (HÖHLER and LUKS, 2004; own translation). The authors of the NEDS project conceive sustainable development along a shift in the conceptualization of nature and ecology. It is directed towards the idea of an economically and administratively controllable environment.

Our analysis on German-language publications on social sustainability investigates the hegemonic imposition of discourse, as well as its current dynamics in the face of discourses, the perception of problems, and alternative solutions (MEYER, 2014). As a result, 5 of the 11 texts which we have analyzed deal with the marginalized perception of problems related to sustainability. They

recommend the creation of economic forms that go beyond operationalizing the capitalist growth economy. These are alternatives that are grounded in theories of sufficiency, post-growth, subsistence, or regionalization and that include changing conceptualizations and forms of “work” within the framework of social ecology.

The results are confirmed by a recent study of Acosta and Brand (2018). These concepts debate, from the perspective of liberal moral philosophy, the substantive and normative content of social sustainability and establish the foundations for theories, norms of action, demands, and political options. It remains open how alternative perspectives to neoclassical economic theory are treated within scientific texts on the conceptual approach to social sustainability. This could be linked to the search for theories of social sustainability, that is, to the development of issues within sustainability research, and simultaneously contribute to plurality of theories that bring down the hegemonic discursive order.

In another analysis, Santiago (2009) contrasts two discourses on sustainability that are in dispute. The first of them is built on a culture of commodification:

Sustainability, under the vision of corporations, has economic rationality as its central point (Leff 1998). That is, it is the old and well-known developmental strategy transformed into a liberal development discourse (Crush 1998; Escobar 1995; Esteva 1999; Rist 1999; Sachs 1999) by the Brundtland Commission (WCED 1987), now *only in green*. (SANTIAGO, 2009, p. 359; own translation)

The second discourse of an alternative nature, focuses on the social conditions of production by human beings, based on the social and local implications that are the consequence of the extraction of resources worldwide. The perspectives and discursive strands that emerge from this alternative - which mostly come from Latin America, Africa, and Asia - can be described with the following concepts, demands, and values: culture; historical perspective; diversity; pluralism; local knowledge, movements, participation, and control; strategies for a non-capitalist future; autonomy; sufficiency; resistance to privatization; design; complexity; and horizontal networks built on trust, reciprocity, and cooperation as ethical coordinates (ibid.).

Additional analyses of the discourse have focused on the political interpretations of sustainability or sustainable development, particularly on the political discourses that lead to neoliberal policies. A critical analysis published in 2014 investigated the discursive strands of sustainable development in the British government’s public policy documents between 1990 and 2000, and concluded that:

In this way, the political discourses of neo-liberalism, Thatcherism and New Labour are reflected in the discourse of sustainable development, and sustainable development is presented from within the paradigm of neo-liberalism and neoclassical economics. (KAMBITES, 2014, p. 344 ff.)

It is important and interesting to point out how neoliberalism develops based on an ideal of administration and regulation that is part of what is contemplated in the Brundtland Report:

It should be noted that the strong orientation of the report towards observation, measurement and, consequently, towards administrative strategies and solutions, in fact do not fit in with the program of a ‘neoliberal’ policy, which are usually attributed to the Brundtland Report and its subsequent interpretations of sustainability. In contrast, the Commission’s administrative approach is rather oriented towards the debates of the 1970s, which were strongly influenced by a significant reliance on socially coordinated regulation and planning. (HÖHLER and LUKS, 2004, p. 52; own translation)

It turns out that for a further investigation into the tensions between neoliberalism and regulation, in relation to the discourses of sustainability and sustainable development, it would be of added value to approach the material, the institutional configurations and their practices from within the framework of an analysis of dispositives (BÜHRMANN and SCHNEIDER 2008). This is in order to associate conceptual definitions and theoretical perspectives with political and political-environmental implications.

6 JUSTICE IMPLICATIONS: DEVELOPMENT = GROWTH

Modern Eurocentric and dominant sustainable strategies cause effects of exclusion and displacement in the way of understanding nature from a theoretical perspective of equity and are equally influenced by them. The Brundtland Report, as a defining moment in the development of the sustainable development discourse, as well as its subsequent interpretations, could also have contributed to this.

Through the hegemonic strategy that seeks to obtain economic growth for all states, both inter- and intragenerational forms of equity should be configured. In principle, the indicator of these is the state welfare, expressed in quantitative terms. The goal of sustainable development would be for all countries to achieve sustainable growth values that are as high as possible (HÖHLER and LUKS 2004). In turn, the determination of sustainable development as the main idea is tied to the theories of development that seek the expansion of Western values (ibid.). Through environmental regulation, control and administration, these values should be developed intergenerationally in a sustainable way and transmitted to other regions of the world where they can be deployed (VANHULST and HEVIA, 2016; ALBÁN and ROSERO, 2016).

Some discourse analyses draw a prioritization of generational equity in sustainable development and a marginalization of its intragenerational dimension (DINGLER, 2003). This doesn't imply an expansion, as established politically and normatively, but a "discursive displacement towards economic-environmental approaches" (ibid.; own translation). The hegemonic economic discourse is accompanied by a prioritization of intergenerational equity, which replaces the discourses on "social justice within Germany" (TREMMELE, 2003, p. 30; own translation) and a critical discourse on growth. In economics, intragenerational equity is treated as a balance in the market where resource allocation is perfect. The hegemonic discourse then leads to an exclusion "of other perceptions about problems and their solutions" (ibid.) and an ethically unacceptable marginalization of human rights (MEYER, 2020, forthcoming).

It seems that in the political sphere the adoption of sustainable development has been transformed into an appropriation of this concept through the free play of powers, in which science acts as a wild card at the cost of ethical and theoretical considerations (SCHULTZ et al., 2008; STIEFERLE, 2007). Also, causal sensitivity is marginalized:

Global crisis is not a technical problem, nor even an economic problem. It is, fundamentally, a cultural and political problem, where we need new epistemological and ethical tools. (AYESTARAN 2011, p. 213)

Additionally, the sustainability sciences explicitly formulate a pluralistic claim. If the strategies for sustainable development of economic discourses prevail, these claims would not be done justice. In this sense, it would be impossible under a "dominant culture of unsustainability [...] to capture models of dependency" (KAGAN, 2012, p. 11; own translation). This leads to the circular self-strengthening of unsustainable situations (Figure 1).

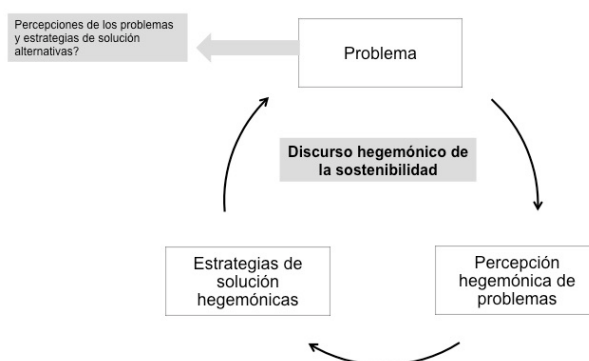


Figure 1 | Hegemonic cycle

Source: Own representation

7 IN SEARCH OF ALTERNATIVES - MARGINALIZED DISCOURSES

According to what has been presented, different poles can be distinguished around the discourses on sustainability and sustainable development, the hegemonic power that shapes them, and the concepts that emerge from the articles reviewed. In a first reading, it is striking that the Mexican analysis of Santiago (2009) tends to name alternative discourses in the most differentiated way. In contrast, German studies focus on inquiries into the hegemonic discourse of unsustainability, as a specifically modern pole (HÖHLER and LUKS 2004; DINGLER, 2003) to point out the need for alternative theories that imply a change in economy. Also, they seek to unveil and name these theories (MEYER, 2014).

Thus, the question arises as to how and where these alternatives can be sought within a sustainable frame of reference. On the one hand, special attention must be paid to the development of other dominances, as is done through neoliberal policies. On the other hand, however, also alternative sustainability concepts, cannot leave modern thought patterns⁶ or, due to political-normative reasons, do not want to. Thought in terms of “inside-outside of modernity” remains equally imprisoned by the modern logic of thought.

Höhler and Luks highlight the difficulty of searching for solutions and sustainable alternatives, which are both critical (or where possible ethically sustainable) and verifiable:

If these modern concepts are definitely doomed in relation to the goals of sustainability, it cannot be indicated in a contingent world. (HÖHLER and LUKS 2004, p. 63; own translation)

In the analysis of discourses on change⁷ of, and alternatives (ibid.) to the hegemonic discourse, insights can also be generated through the analysis of practices, situations (CLARKE, 2012), and cases (VILSMAIER et al. 2015).

In what follows, we will outline the potential of transdisciplinary sustainability research, to contribute to a critical and differentiated discourse that generates alternative strategies. This form of research explicitly embraces differences, considering heterogeneous perspectives and cultural self-determinations (VILSMAIER et al., 2017; ENGBERS 2020), and is oriented towards cooperation and mutual learning, thereby trying to counter marginalization and satisfy the ethical demands of sustainability.⁸

8 IMPLICATIONS FOR SUSTAINABILITY SCIENCES AND RESEARCH

To a certain extent, Mode 2 research laid the theoretical ground for transdisciplinary research within its “own theoretical structure, investigative methods and practices” (HUNECKE, 2006, p. 42; own translation) and new criteria for evaluating scientific qualities (HUNECKE, 2006; GIBBONS, et al. 1994).

Discussion on Mode 2 has provided an important contribution in drawing attention to transdisciplinary research. (VILSMAIER and LANG 2014, p. 94; own translation)

Transdisciplinary sustainability research addresses so-called sustainability challenges as problems of today’s world and demands to interact with this world. The research mode intends to generate knowledge oriented to transformation towards sustainability. In transdisciplinary research, scientists investigate societal problems - and their solutions - in a joint process with individuals or groups (political, economic, civil society) not involved in academic fields (ibid.). In critical transdisciplinarity, all participants are considered as researchers and jointly contribute - with different knowledges and in different roles - to the research process (VILSMAIER et al. 2017).

This type of process seeks to generate different forms of knowledge (PROCLIM, 1997; VILSMAIER and LANG 2014):

- I. System knowledge: knowledge (and experiences) of researchers about socially relevant problems and phenomena in the research process. In this way, the generation of knowledge is conceived as a process of seeking understanding, recognition, identification, analysis, and questioning.
- II. Target knowledge: normativity, understood in the form of assessments (sometimes unconscious), paradigms and political convictions, targeted at making them explicit. This implies working with differences, conducting transparent public discussions, and not leaving the orientation to an academic elite based on their own values (ZIEGLER and OTT 2011).
- III. Transformative knowledge: this type of knowledge must guarantee that the different targets proposed (for example, requests and recommendations) are achieved. In relation to publications, this means getting involved beyond the orthodox academic media.

Especially in the case of target knowledge, it is possible to observe that in transdisciplinary sustainability research, the dominant discourses can prevent a complex understanding of problems. When the dominant social paradigms generate evidence and determine opinions, orientations and understanding of the problems, as well as everything that is worth saying, they contradict the elements of transdisciplinarity, based on differentiations and complementarities.

At the same time, this form of research creates a space to make visible and actively address the problematic of dominant discourses on sustainability and sustainable development that challenge the young field of sustainability sciences as a science of sustainability (SPANGENBERG, 2011). In this regard, transdisciplinary research is a promising approach, since it explicitly and critically faces these challenges. Because of its pluralistic, heterogeneous and reflective structure, the principles of this type of research hold the potential to make the sustainability discourse visible, expressible, and actionable.

Consequently, transdisciplinary research also produces situations that are beyond current hegemonic structures. For this, its adoption is not only necessary for research practices, but also for the elaboration of theoretical, epistemological, and methodological foundations. Such foundations would position transdisciplinary research in sustainability as a complementary mode of research to disciplinary and interdisciplinary forms.

Additionally, it would be placed as a research practice in-between science-driven research and other forms of knowledge production, and between the institution of science and other societal institutions. This occurs because transdisciplinary research does not only aim at epistemic objectives, but it carries within itself an interventionist claim directed at societal transformation for the implementation of a sustainable ethic.

By positioning critical transdisciplinary sustainability research in the space between different societal institutions and highlighting its search for political and meditative ways of producing understandings and practices, a place can be created where epistemic and transformative goals can be intertwined (VILSMAIER et al. 2017). In this way, research results can take into account certain scientific quality criteria and at the same time gain social and cultural robustness (GIBBONS, 1999; NOWOTNY, 2000; VILSMAIER et al., 2015). This can be achieved on two levels: (i) the plurality of knowledges and understandings find recognition and significance; and (ii) the different objectives of sustainability are addressed as a field of tension that can be approached from a perspective of sustainability ethics.

In line with the work of Bhabha (2004), critical transdisciplinary sustainability research can be understood as a field in which “existing structures, power relations and dependencies can be suspended - at least

for a situational episode - when discrepancies are articulated and thereby made tangible" (VILSMAIER et al., 2017, p. 174). Transdisciplinary research spaces seek to overcome established societal structures, while cooperative research spaces are created between members of different societal domains (ibid.).

These seek to overcome power relations in knowledge production by giving rise to contributions of different knowledge cultures. Thus, sustainable transformations could be achieved and the unidirectionality in the transfer of knowledge and decision-making structures could be replaced by structures oriented towards mutual knowledge production and learning (VILSMAIER et al., 2015). However, thereby disparities are not equated. Instead, differences in the qualities and the scope of knowledge, roles in societal structures, and positions based on interests and ideologies open spaces for the foundation of critical transdisciplinary research in sustainability.

9 CONCLUSIONS AND FUTURE PERSPECTIVES

With our discourse-analytical work we outlined the interconnectivity between the concepts of both sustainability and sustainable development in the dominant discourses, as well as what this implies for sustainability sciences and research. A panorama on selected linguistic communities has been opened. It serves as a start that calls for responses due to the principal limitations given the authors own situatedness. We recognize that as authors we are positioned in a specific, cultural, historical, and linguistic situation, and therefore limited; our mother tongue is German, and we speak English and Spanish, but not Portuguese. Likewise, other limitations of our contribution are based on the methodology. Thus, the discourse-analytical schools are not differentiated in the meta-analysis, and the selection of the investigated search terms include, and at the same time exclude, specific discourse strands.

This conceptual and reconfigurative work resumes approaches for alternatives, together with a general call for the strengthening of theoretic plurality in economics and sustainability sciences. Likewise, the ontological, epistemological and ethical foundations of sustainability should be reconsidered for the further development of alternative theories on transformations in forms of human coexistence. These alternatives take into account both the substantive and normative claims of sustainability (which could be, for example, the fulfillment of human rights and the conservation of nature as a foundation for life) as well as the procedural and differentiable understandings on regulations. Corresponding philosophical approaches can already be found and will be further elaborated (MEYER, 2020, forthcoming).

A critical transdisciplinary sustainability research contributes to the generation of target knowledge, by addressing ethical and cultural aspects. In this way, and as a complement to system and transformative knowledge, the understandings produced by this knowledge represent transformative moments, which are based on ethical argumentation and mutual learning. With this, a critical transdisciplinary research strengthens the fracture of hegemonic orders and thus complements understandings on (un)sustainable ways of life - either as a science of sustainability (SPANGENBERG 2011) or as transformative research (WBGU, 2011).

The intellectual challenge is to research collaboratively and interculturally, and learn from each other about the discursive and counter-hegemonic dynamics of sustainability. Doing this between different spaces and cultures, and between different sociocultural, economic and political historical situations on different continents (ibid.), supports autonomous projects based on cultural difference (VILSMAIER et al., 2017). How do we problematize, for example, global modernity?

The understanding of the discursive formations in academic systems in different world regions and their historical contingencies facilitates the visualization of the differences and the gears between discourses. Contrary to a single historical critical deconstruction of its own European position, we consider understandings of other discursive dynamics and other narratives as the conditions for the possibility of change, motion, and reconfiguration.

Science of the emergent paradigm also claims to be a translator. That is to say, it encourages the emigration of concepts and theories developed locally to other cognitive spheres and their utilization outside their original context. It is knowledge about the conditions of possibility [...] of human action projected into the world from local time-spaces (DE SOUSA SANTOS, 1992, p. 38).

The development of normative goals, as effectively attempted in the case of the Sustainable Development Goals in 2015, must address and represent the different cultural, political, economic, and historical situations, and in particular the concepts of nature, of human beings, communities, appropriation practices, and forms of belonging.

ACKNOWLEDGMENTS

This research has been founded by the “Volkswagenstiftung” in the framework of the German program “Science for Sustainable Development.” For the support we thank the *Td Methods Group* of Leuphana University’s Methodology Center and in particular Juan Carlos Ruíz, Bianca Vienni, Maria De Eguia Huerta and Silvia Rojas Castro for their support in translating the Spanish version of this article.

NOTES

- 1 | Ökonomistische Diskurse der Nachhaltigkeit: Bestimmende Momente und die Frage nach Alternativen. En: Pfister, T.: Nachhaltigkeitswissenschaften und die Suche nach neuen Wissensregimen. Metropolis.
- 2 | The following were used as search terms: (Sustainability* AND discourse). Discourse methodologies, as well as different orientations on the discursive analysis of publications are not discussed here.
- 3 | *CCP – Complexity or Control? Paradigms for Sustainable Development*.
- 4 | *“Nachhaltigkeit und Macht. Zur Kritik von Sustainable Development.”*
- 5 | *NEDS – “Nachhaltige Entwicklungs zwischen Durchsatz und Symbolik.”*
- 6 | For example, among the objectives of left-wing sustainability are structural changes within modern societies—and their categories of thought—which are assigned “to the ability to link alternatives to current dominance of capital markets” (SCHACHTSCHNEIDER 2007, p. 137; own translation; HÖHLER and LUKS 2004).
- 7 | “Thus, the belief in perpetual growth, linear growth [...], which meet under the labels of ‘process’ and ‘change,’ belongs to various perspectives,” (KAGAN 2012, p. 38; own translation) such as “the phenomenon of economic growth [...] understood as a synonym of progress and change” (STEURER 2002, p. 114; own translation).
- 8 | In the present work we are not concerned with the normative and prescriptive definition of sustainability ethics. Underlying this is the premise of the recognition of its existence.

REFERENCES

- ACOSTA, A.; BRAND, U. **Radikale Alternativen**. Warum man den Kapitalismus nur mit vereinten Kräften überwinden kann. Munich: oekom, 2018.
- ALBÁN, A.; ROSERO, J. **Coloniality of the natural world: imposition of technology and epistemic usurpation?** Interculturality, development and re-existence. *Nómadas*, 45, 2016.
- ALEXANDER, R.; STIBBE, A. From the analysis of ecological discourse to the ecological analysis of discourse. *Language Sciences*, 41, pp. 104–110, 2014. DOI: 10.1016/j.langsci.2013.08.011.
- AYESTARAN, I. Science, Responsibility and Global Sustainability: Steps Towards a New Ethical Paradigm? In: PARODI, O.; AYESTARAN, I.; BANSE, G. (Org.). **Sustainable Development - Relationships to Culture, Knowledge and Ethics**. Karlsruhe: KIT Scientific Publishing, 2011.
- BHABHA, Homi. **The Location of Culture**. London: Routledge, 2004.
- BÜHRMANN, A.; SCHNEIDER, W. **Vom Diskurs zum Dispositiv: Eine Einführung in die Dispositivanalyse**. Bielefeld: transcript, 2008.

- CLARKE, Adele. **Situationsanalyse: Grounded Theory nach dem Postmodern Turn**. Heidelberg: Springer, 2012.
- DE SOUSA SANTOS, Boaventura. **A Discourse on the Sciences**. Review, XV (1), pp. 9–47, 1992.
- DINGLER, Joachim. **Postmoderne und Nachhaltigkeit**: Eine diskurstheoretische Analyse der sozialen Konstruktionen von nachhaltiger Entwicklung. Munich: oekom, 2003.
- EBLINGHAUS, H.; STICKLER, A. **Nachhaltigkeit und Macht: Zur Kritik von Sustainable Development**. Frankfurt: IKO – Verlag für Interkulturelle Kommunikation, 1996.
- ENGBERS, Moritz. **Kultur und Differenz: Transdisziplinäre Nachhaltigkeitsforschung gestalten**. Wahrnehmungsgeographische Studien 29. Oldenburg: BIS-Verlag der Carl von Ossietzky Universität Oldenburg, 2020.
- ESCOBAR, Arturo. **Encountering Development: The Making and Unmaking of the Third World**. Princeton: Princeton University Press, 1995.
- GIBBONS, M.; LIMOGES, C.; NOWOTNY, H.; SCHWARTZMANN, S.; SCOTT, H.; TROY, M. **The New Production of Knowledge: the Dynamics of Science and Research in Contemporary Societies**. London: Sage, 1994.
- GIBBONS, Michael. **Science's new social contract with society**. Nature, 402, pp. C81–C84, 1999.
- GRUNWALD, Armin. **Conflict-resolution in the Context of Sustainable Development: Naturalistic Versus Culturalistic Approaches**. Karlsruhe: KIT Scientific Publishing, 2011.
- HAJER, Maarten. **The Politics of Environmental Discourse: Ecological Modernization and the Policy Process**. Oxford: Oxford University Press, 1995.
- HARAWAY Donna. **Situated Knowledges**. Feminist Studies, 14 (3), pp. 575–599, 1988.
- HAUFF, Volker. **Unsere gemeinsame Zukunft: Der Brundtland-Bericht der Weltkommission für Umwelt und Entwicklung**. Grevén: Eggenkamp, 1987.
- HÖHLER, S.; LUKS, F. Die ökonomische Konstruktion ökologischer Wirklichkeit. Working NEDS Papers, **NEDS** (5), 2004.
- HUNECKE, Marcel. **Eine forschungsmethodologische Heuristik zur Sozialen Ökologie**. München: oekom, 2006.
- KAGAN, Sacha. **Auf dem Weg zu einem globalen (Umwelt-) Bewusstseinswandel: Über transformative Kunst und eine geistige Kultur der Nachhaltigkeit**. Berlin: Heinrich Böll Stiftung, 2012.
- KAMBITES, Carol. 'Sustainable Development': the 'Unsustainable' Development of a Concept in Political Discourse, **Sustainable Development**, 22 (5), pp. 336–348, 2014. DOI: 10.1002/sd.1552.
- KLEIN, Julie Thompson. **Discourses of transdisciplinarity**: Looking Back to the Future. Futures, 63, pp. 68–74, 2014. DOI: 10.1016/j.futures.2014.08.008.
- KLIPPEL, D.; OTTO, M. Nachhaltigkeit und Begriffsgeschichte. In: KAHL, W. (Org.). **Nachhaltigkeit als Verbundbegriff**. Tübingen: Mohr Siebeck, 2008. pp. 39–59.
- MEADOWS, D.; MEADOWS, D.; RANDERS, J.; BEHERNS, W. **The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind**. New York: Universe, 1972.
- MEYER, Esther. **Der wissenschaftliche Diskurs zu Sozialer Nachhaltigkeit**. There are Alternatives: Zum Wandel von Wirtschaftsweise & Lebensstil, tesis de máster en ciencias de la sustentabilidad, Leuphana Universität Lüneburg, 2014.
- MEYER, Esther. Venidero. The problematic of transdisciplinary sustainability sciences. In: HÖRL, E.; LEISTERT, O. (Org.). **Thinking the Problematic: Genealogies, Tracings, and Currents of a Persistent Force**. Bielefeld: transcript, 2020 (venidero).
- MICHELSSEN, G.; ADOMBENT, M. Nachhaltige Entwicklung: Hintergründe und Zusammenhänge. In: HEINRICHS, H.; MICHELSSEN, G. (Org.). **Nachhaltigkeitswissenschaften**. Berlin/Heidelberg: Springer Spektrum, 2014. pp. 3–60.
- NOWOTNY, Helga. **Sozial robustes Wissen und nachhaltige Entwicklung**. GAIA, 9 (2), pp. 93–100, 2000. DOI: 10.14512/gaia.9.1.1.

OTT, K.; DÖRING, R. **Theorie und Praxis starker Nachhaltigkeit**. Marburg: metrópolis, 2004.

PROCLIM. Vision der Forschenden. **Forschung zu Nachhaltigkeit und Globalem Wandel** – Wissenschaftspolitische Visionen der Schweizer Forschenden, 1997.

QIN, Dongxiao. Positionality. In: **The Wiley Blackwell Encyclopedia of Gender and Sexuality Studies**. Oxford: Blackwell Publishing, 2016. DOI: 10.1002/9781118663219.wbegss619.

ROSE, J.; CACHELIN, A. Critical sustainability: incorporating critical theories into contested sustainabilities. **Journal of Environmental Studies and Sciences**, 8 (4), pp. 518–525. 2018.

SANTIAGO, M.E. Sustentabilidad a dos tiempos. **Polis**, 8 (24), 2009.

SCHACHTSCHNEIDER, Ulrich. Soziale Nachhaltigkeit als konkrete Utopie? **UTOPIE kreativ**, 196, pp. 132–146, 2007.

SCHULTZ, J.; BRAND, F.; KOPFMÜLLER, J.; OTT, K. Building a ‘theory of sustainable development’: two salient conceptions within the German discourse. **International Journal of Environment and Sustainable Development**, 7 (4), pp. 465–482, 2008. DOI: 10.1504/IJESD.2008.022390.

SPANGENBERG, Hans-Joachim. **Sustainability science**: a review, an analysis and some empirical lessons. *Environmental Conservation*, 38 (3), pp. 275–287, 2011. DOI: 10.1017/S0376892911000270.

STEURER, Reinhard. **Der Wachstumsdiskurs in Wissenschaft und Politik**. Berlin: Verlag für Wissenschaft und Forschung, 2002.

STIEFERLE, Rolf. Nachhaltigkeit aus umwelthistorischer Perspektive. In: BURGER, P.; KAUFMANN-HAYOZ, R. (Org.). **Nachhaltigkeitsforschung – Perspektiven der Sozial- und Geisteswissenschaften**. Bern: Schweizerische Akademie der Geistes- und Sozialwissenschaften. 2007. pp. 79–98.

SZE, J.; RADEMACHER, A.; BEAMISH, T.; GRANDIA, L.; LONDON, J.; WARREN, L.; MIDDLETON, B.R.; ZISER, M. Introduction. In: SZE, J. **Sustainability: Approaches to Environmental Justice and Social Power**. New York University Press: New York, 2018. pp. 1–28.

TREMME, Jörg. **Nachhaltigkeit als politische und analytische Kategorie: Der deutsche Diskurs um nachhaltige Entwicklung im Spiegel der Interessen der Akteure**. München: oekom, 2003.

VANHULST, J.; HEVIA, A. Los Senderos Bifurcados del Desarrollo Sostenible: Un Análisis del Discurso Académico en América Latina. In: FLORIANI, D.; HELVIA, A. (Org.). América Latina. **Sociedade e Meio Ambiente: Teorias, Retóricas e Conflitos em Desenvolvimento**. Ed. UFPR, 2016.

VANHULST, J.; ZACCAI, E. Sustainability in Latin America: An analysis of the academic discursive field. **Environmental Development**, 20, pp. 68–82, 2016. DOI: 10.1016/j.envdev.2016.10.005.

VILSMAIER, U.; LANG, D. Transdisziplinäre Forschung. In: HEINRICHS, H.; MICHELSEN, G. (Org.). **Nachhaltigkeitswissenschaften**. Berlin/Heidelberg: Springer Spektrum, 2014. pp. 87–114.

VILSMAIER, U.; ENGBERS, M.; LUTHARDT, P.; MAAS-DEIPENBROCK, R.-M.; WUNDERLICH, S.; SCHOLZ, RW. Case-based Mutual Learning Sessions: Knowledge integration and transfer in transdisciplinary processes. **Sustainability Science**, 10, pp. 563–580, 2015. DOI: 10.1007/s11625-015-0335-3.

VILSMAIER, U.; BRANDNER, V.; ENGBERS, M. Research in-between: The Constitutive Role of Cultural Differences in Transdisciplinarity. **Transdisciplinary Journal of Engineering & Science**, 8, p. 169-179, 2017. DOI: 10.22545/2017/00093.

WBGU. Welt im Wandel. **Gesellschaftsvertrag für eine Große Transformation**. Zusammenfassung für Entscheidungsträger, Berlin, 2011.

WCED. **Our Common Future**. Report of the World Commission on Environment and Development. United Nations, 1987.

ZIEGLER, R.; OTT, K. The quality of sustainability science: A philosophical perspective. In: ENDERS, J.; REMIG, M. (Org.). **Theories of Sustainable Development**. London/New York: Routledge, Taylor & Francis Group (Routledge Studies in Sustainable Development), 2011. pp. 43–64.