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Pluriversity, Epistemic Selectivity and Social Ecological Transformation: The Example of Latin American Universities

ABSTRACT *Modern educational systems in Latin America have marginalised the diversity of epistemologies and ontologies that had shaped Abya Yala before colonisation. By separating culture and nature, modernity is disassembling and thus destroying the webs of life. Reducing the onto-epistemological plurality to the ‘one world’ and ‘one university’ of modernity is the root of contemporary social ecological crises. The paper investigates how different violent epistemic selectivities perform this onto-epistemological reduction in the modern university. Three examples of educational and research practices within Latin American universities demonstrate how such selectivities can be overcome in favour of a pluriversity. In concluding, the paper outlines conditions that are required for such attempts to successfully promote social ecological transformation.*

KEYWORDS *crisis, epistemology, epistemic selectivities, ontology, pluriverse, pluriversity, university, social ecological transformation*

I. Introduction

A daughter and her father from a community of African descent are riding their dugout canoe downstream the Yurumanguí river. Arturo Escobar (2016: 17) cites the people who inhabit the rainforest of the Colombian Pacific region with their own words: “Acá nacimos, acá crecimos, acá hemos conocido el mundo” (“We were born here, we grew up here, we got to know the world here”). They refer to the territory where they are deeply rooted, a mangrove world of relationships that creates the conditions for a

coexistence of lives in mutual dependence, enacting a relational ontology that involves a way of knowing and world-making still common among indigenous and peasant communities in Abya Yala – Latin America. These onto-epistemologies often correspond with a specific ethics of care that integrates ways of living among intersecting human and non-human communities, pointing towards the pluriverse (Escobar 2020). Such life systems have been destroyed and threatened by modern civilisation as a result of multiple processes of colonisation, beginning in 1492.

Prior to these processes, an organic, that is, a relational, vision of the world was predominant in Abya Yala, in which nature, humans and knowledge were part of an interrelated whole (Castro-Gómez 2007). The European conquest of the Americas and the rise of modern societies during the scientific revolution put this vision in a subaltern position through different types of violence and associated processes of colonisation affecting being, knowing and power (Maldonado-Torres 2007). Since then, a way of knowing had been established that has served to rationally control reality in order to dominate the world (Castro-Gómez 2007).

This way of knowing constructs the world by assuming independent, substantive entities. It is based on aggressively separating supposed realms of existence that are called society and nature, and a subsequent fragmentation as well as functionalisation of nature in terms of the resources needed for capital accumulation. This epistemic form of domination introduced by European colonisers has been operating through the invalidation of ‘other’ (not modern) ways of knowing and living, and their exclusion from educational systems, including universities.

For Edgardo Lander (2000), therefore, decolonisation involves questioning dominant narratives of modern capitalist societies, concepts such as development, progress and economic growth, since all of them are part of a dominant Euromodernity, which has made and is still making the world we usually enact, perceive and justify as reality – a world that has been universalised geopolitically and epistemologically as the only one and that has been practically extended by colonisation and globalisation to most people on the planet. But this ‘one world’ is actually a specific world that annihilates or marginalises other existing or possible worlds, and thus, knowers. As Claudia Brunner emphasises, it is based upon epistemic violence, which “is a component and product of modernity itself,

both undergirding and bringing forth its multiple asymmetries” (Brunner 2021: 204). In contrast, a world of multiple worlds, ontologies or realities that mutually recognise each other can be called a “pluriverse” (Escobar 2016, 2020). This concept is conducive to the idea, demand and practice of a pluriversity in terms of decolonising knowledge, which means the transformation of the university “with the aim of creating a less provincial and more open critical cosmopolitan pluriversalism – a task that involves the radical refounding of our ways of thinking and a transcendence of our disciplinary divisions” (Mbembe 2016: 37). In Latin America, ‘pluriversity’ has been developed conceptually and practically in different fields of higher education in relation to interculturality and social ecological transformation as an alternative approach to the homogeneity of the modern university. It stands for the epistemic equity of Abya Yala (prominently represented by indigenous wisdom) and modern science, and refers to a place of communitarian-academic learning through a dialogue of knowledge regarding the diverse paradigms of civilisations (Sarango 2014).

The repression of Latin America’s onto-epistemological diversity is related to the hegemonic modern scientific model that implies the separation between legitimate knowledge (episteme) and the knowledge of smells, flavours, colours, spiritual, bodily, and emotional experience (doxa), which is excluded from valid knowledge. According to René Descartes, this last type has to be overcome by reason (Castro-Gómez 2007). Decomposition and fragmentation became fundamental in the epistemology of modern science and how it was organised in academic disciplines. This specific type of knowledge and world-making has accordingly been institutionalised in universities, faculties, departments and study programmes to form experts in specific fields of knowledge (ibid. 2007: 84). In addition, Euromodern knowledge production has been tightly entangled with capitalist interests. Thus, Eduardo Ibarra (2012) and Bob Jessop (2017), among others, criticise the fact that universities commodify knowledge by operating as educational enterprises.

Against the backdrop of the violent history of the modern university, and the increasing social ecological challenges that are tightly connected with it, universities have to regain their legitimacy by producing knowledge for non-modern ways of world-making; in fact, by making other worlds beyond the supposedly ‘one world’ of Euromodernity, opening science to

the epistemologies of the South (Santos 2014). Taking the example from the Yurumanguí river, this would mean to attribute the same importance to how father and daughter make and experience relational worlds as to other forms of knowing. These two on the river do not understand their so-called environment (a modern term) through distant reflection, but by being a living part of their territory without separating culture from nature (Escobar 2016:18). To this end, first, the hierarchical relations of different forms of knowing have to be put under scrutiny.

The typically modern distinction between rationality and its irrational 'other', the latter embodied most poignantly by indigenous peoples, informs a scale of worthiness that hierarchically orders bodies of knowledge. Modern science is positioned at the peak of this scale of worthiness, while popular scientific knowledge and school education are in the middle, followed by unscientific folk knowledge, which still is, to some extent, seen as superior to even the most elaborated forms of non-modern knowledge. At least it shares some basic modern assumptions, such as the belief in individuality, the state, or that 'mind' is exclusive to humans. Still inferior, then, is the knowledge of peoples not sharing these assumptions. Through this mechanism of distinguishing realms of rationality, epistemic violence operates. It reaches from soft to hard forms of institutional (including social and methodological), discursive, and technological procedures that favour certain onto-epistemologies at the expense of others, as well as processes of exploitation that target non-modern forms of knowing, as in the case of biopiracy or the appropriation and commodification of cultural forms and skills.

The current unfolding of multiple social ecological crises demonstrates that the knowledge embodied by modern technologies and ways of world-making is deficient. It has done more to destroy living conditions on which humans and non-human beings depend than to make the world a better place for all. In that sense, modern ways of life are at the same time causing and affected by an onto-epistemological crisis that is calling for a fundamental social ecological transformation of the relations of humans with non-humans. This does not only involve material practices, but also how we relate to the world cognitively, emotionally and discursively. Universities, as important institutions in the development of modern cultural and epistemic hegemony, therefore play a prominent role in the creation of new knowledge systems that serve this social ecological change.

2. The institutionalisation of epistemic violence through the modern university

Modern thinking cannot be understood without relating to non-modern thought. For instance, Arab philosophy crucially influenced Christian thinking (Exner 2021), indigenous critiques of European society had a decisive impact on the enlightenment, Chinese statecraft influenced modern European state-building (Graeber/Wengrow 2021), and early Political Economy also took cues from China (Arrighi 2009). That this legacy has been forgotten is an instance of epistemic violence, insofar as the epistemological contributions of non-modern origin to modern thinking are eradicated.

Besides the obvious violence of extinguishing certain onto-epistemological groups that practice a specific way of world-making, a process which happened on a massive scale during colonisation, amounting to an “epistemicide” (Santos 2014) in the narrow sense of the term, and the violence of historical neglect, there exists a third type of violence regarding ontology and epistemology. This violence operates through what we may call epistemic selectivities that, while rendering the world intelligible by constraining the basic ways of knowing the world, reproduce modern hegemony in this process. In the context of this article, we adapt the general notion of selectivity elaborated by Bob Jessop in terms of structural constraints that “always operate selectively; they are not absolute and unconditional but are always temporally, spatially, agency- and strategy-specific” (Jessop 2008: 41; see also Jessop 1996), and reinterpret it for understanding selectivities in epistemology. In this sense, selectivities compose not only systems “whose structure and *modus operandi* are more open to some types of political strategy than others” (Jessop 2008: 36; see also Jessop 1996), but also systems that are more open to some modes of making and knowing the world than others, modes which do not conform with the basic assumptions and methodologies of modernity.

To be sure, the very possibility of knowing and claiming the world requires a primordial ontological as well as epistemological selection, since knowing itself always, given the limited grasp of human minds and the chaotic multiplicity of reality, presupposes an exclusion of most of it. But such selectivity does not only operate through limiting the objects to be known, but also through the ways in which these objects can be known, and how they relate to each other. In this regard, anthropologist Philippe

Descola distinguishes four fundamental types of world-making or dispositions of being that deeply shape our ways of making the world, and of making sense of it. These dispositions are in principle available for everyone, being anthropological constants of how humans order the world in relation with non-humans (Descola 2013).

Such ordering occurs along fundamental, irreducible beliefs about the meaning of physical, external existence on the one hand, and of interiority on the other hand, i.e., the consciousness of being a self in relation to an outside world. Thus, animism understands interiority as a continuous series of similar souls ('all beings are persons'), but conceives of the physical world as being distributed across radical discontinuities, that is, substantive dissimilarities ('each type of body is different') – a disposition and cosmology that has been investigated extensively by Eduardo Viveiros de Castro (1998) in terms of Amerindian perspectivism. Totemism, in contrast, does not only presuppose a continuity and thus a fundamental similarity of souls across the human-non-human divide as Animism does, but also claims physical similarity (which leads to entities of the world grouped in classes of human-non-human associations), while Analogism assumes discontinuity in both physicality and interiority ('the world consists of nested singularities'). Naturalism departs from these modes by positing a discontinuity of interiority ('each soul is different'), while assuming physical continuity, that is, 'there is only one nature' (Descola 2013).

Since the advent of modernity, hegemonic science proceeds within the naturalist disposition (departing from older, analogous thinking). As of yet, it remains unclear as to whether it is possible to extend current science beyond its foundational beliefs. However, a debate about how to interconnect indigenous concepts with anthropology in particular, and with modern science in general, has been opened up (Viveiros de Castro 2004). Such approaches seem to be most fruitful where they acknowledge both the validity of modern science as well as of other ways of world-making. Yet to this end, the basic assumptions of modernity have to be put into non-judgmental, differentiated, situational relations with other types of worlds, including acknowledging modernism's positionality, i.e., into relations of non-reductive articulation. To decolonise knowledge, on that level, would therefore mean to first acknowledge, and then practically appreciate, those foundational differences of various forms of world-making that have been reduced to the 'one world' of naturalism.

Different approaches towards such a transformation of social (and natural) science have become prominent in the recent past (Castro-Gómez 2007). Various attempts towards a New Materialism question the dichotomy between mind and matter, open up the possibility of recognising agency in things, and of bridging the gap between subject and object (Barad 2007). Debates within Actor-Network-Theory (Latour 2005) and related currents explore the possibility of a cosmopolitics (Stengers 2005; for Latin America: Cadena 2010) that reorganises political processes beyond conventional modernist tropes. Likewise, Latin American anthropology has started to explore articulating indigenous and modern concepts (Viveiros de Castro 2004). These discussions resonate with more widespread attempts at interdisciplinarity, which consists in integrating different disciplines with each other, and with the impulse to practise transdisciplinary, i.e., collaborative relations between scientists and non-scientists that try to combine practical approaches with scientific contributions in order to solve societal problems (Jahn et al. 2012).

Regarding interdisciplinarity, it has become clear that there is not one single modern science, but that quite different onto-epistemological practices coexist within this field (Wallner 1997, Wallner/Jandl 2006). Although these practices remain within naturalist confines, they display considerable latitude regarding fundamental ontological beliefs. For instance, there is a substantial difference in how the technosciences operate in comparison with the social sciences (Latour 2005). Within the social sciences, significant differences exist regarding the way the subject, object, and their relations are conceived.

Acknowledging fundamental differences between modern scientific disciplines and theoretical traditions within each of these disciplines, goes one step further when the relation between the sciences and different publics is put under scrutiny. While dominant approaches to transdisciplinarity conceive of it rather as a one-way communication of scientific findings or as including lay people for data gathering in terms of citizen science, more profound understandings of transdisciplinarity point towards the question of how to articulate different types of knowledge with each other (Stefan/Exner 2021).

Epistemic shifts are thus increasingly occurring within modern science, namely, towards, first, a deeply relational understanding of humans and non-humans, enlarging the realm of rationality and agency in order to

incorporate non-modern knowledge (moving away from reductionist views of agents that limit agency to human individuals and organisations); second, an enhanced recognition of the plurality of modern science and of substantial nuances within naturalism; third, an increased awareness of the need to transform the communication between the sciences and the various publics that create and harbour everyday, tacit forms of knowledge, or accumulate place-specific know-how regarding social struggles. These developments within modern science take place in parallel with a growing confidence of onto-epistemic movements in the Global South. This may facilitate the recognition of indigenous world-making in favour of a pluriversity that both restructures the university as well as public discourse and politics.

3. Pluriversity: articulating, diversifying and overcoming epistemic selectivities

The historical roots of the modern university date back to the period before naturalism became hegemonic. Thus, originally, the university was a European institution for teaching and developing theology, law and philosophy. Since the ascent of the modern naturalist paradigm and its characteristic structures, the university has taken on a specific functionality. It condenses different mechanisms of epistemic selectivity that have to be performed in an ongoing fashion if naturalism, the system of scientific disciplines, the separation between academia and the various publics, and the dichotomy between scientific reason and other forms of knowledge are to be upheld. Such selectivities operate on different levels and have different entities as their object. They are strategic insofar as they embody previous onto-epistemological struggles against non-modern forms of knowing, including colonial violence. But they are also shaped, and inter alia modified, by the epistemologies of the South that may appear within the university as object of study, source of inspiration, hidden undercurrent, marginalised specialty, or tacit societal background of scientific debates.

These selectivities thus do not form a monolithic structure of epistemic oppression. Rather, they outline corridors of discourse and scientific practices that reduce the likelihood of alternative forms of knowing and world-making to enter the university and become part of its canon.

On the level of the individual, so called agential selectivities refer to lack of skills, will and opportunity, or the financial means to attend and succeed within the university – features that are intricately related to gender. Tacitly working their way through the habitus of specific milieus, epistemic selectivities on the individual level tend to reproduce class, gender and ethnic inequalities regarding science and the university itself. Through institutional selectivities operating in social and methodological dimensions, the university filters individuals by way of specific skills required to participate in academic discourse. Beyond basic competences such as body positioning, which is already one of the main goals of school formation, or reading and arguing along certain rules, the university also requires the acceptance of the foundational beliefs of naturalism as they are embodied in the distinction between the natural and social sciences.

Within each discipline, as well as between disciplines, the scale of worthiness of knowledge that starts outside academia with the lower realms of indigenous and modern folk knowledge also produces scales of higher and lower scientific disciplines. Thus, ‘hard science’, as the natural sciences and those that emulate their quantitative procedures such as economics or psychology are often called, is conventionally understood as being closer to reality, being more rational, and thus scientific, than the ‘soft sciences’ that deal with what is usually called ‘cultural variations’ and ‘interpretations’. Seen against the backdrop of ‘hard science’, these ‘variations’ appear to be superficial as regards the assumed unity of nature.

The scale of worthiness operating within academia corresponds with selectivities inscribed in funding schemes that partly determine the goals of research, and which define specific requirements in order to get funded. These and other institutional selectivities related to basic social forms (such as capital accumulation to which universities are contributing or are part of, or the commodity, as in the case of private universities requiring fees for access) and methodologies, systematically favour technoscience and natural science research. Such science and research is expected to be useful in view of applications the rationality of which is often shaped by the purposes of capitalist investment and state control. They primarily support quantitative research that produces ‘hard facts’ and limit openness to the unexpected through unflexible methodologies. This is based on the mistaken belief that following abstract rules can safeguard ‘scien-

tific truth'. They also limit the role of non-scientists in research (projects) to be instrumentalised or exploited as a source of data (Stefan/Exner 2021: 171f., 183ff.).

The selectivities of the modern university are complemented by the corresponding practices of those institutions that distribute scientific recognition. They are doing this through specific formats that are utilised to present and discuss findings, and mechanisms that define and allocate achievements. For instance, written culture selects specific forms of knowing (that can be verbalised) and debate (that can be rationalised and standardised according to certain rules) from a much broader range that includes non-written sources and forms of knowledge. To this is added a specific form of writing organised as the scientific article, that limits the diverse possibilities of expressing and enriching the findings of research by streamlining them into a simple scheme of material, methods, and results. Scientific products are then evaluated through systems of peer review, by measuring citations, and by ranking journals, which adds further selectivities. Through this practice, findings are constantly mainstreamed to produce 'facts', while those scientific approaches that mainstreaming neglects and filters out often emerge as marginalised, heterodox epistemic communities within and beyond academia.

Taken together, the epistemic selectivities reproducing modern intellectual hegemony present formidable barriers for creating a pluriversity, and which operate on agential, institutional, technological, and discursive levels. However, such selectivities never fully succeed in filtering out alternative foundational beliefs, scholars from non-academic milieus, unusual research designs, heterodox methodologies, relational theoretisations, and the self-organisation of epistemic communities that define specific standards for evaluating scientific practices and their results.

4. Transformations towards pluriversal universities in Abya Yala

In this chapter, we will shed light on different attempts at opening up the university towards the perspective of a pluriversity. Each of the three cases that we will analyse in the following demonstrates how epistemic selectivities can be circumvented, altered, or overcome within the current

institutional landscape as dominated by modern science. First, we describe a transdisciplinary research project in an Amazonian indigenous community that illustrates the potential of transdisciplinary research within the Externado University of Colombia. Second, the example of the Transdisciplinary Master in Sustainable Life Systems, a degree programme of the same university, indicates that curricula of conventional universities can be changed towards a more holistic understanding of learning. Such change points towards flattening the scale of worthiness of knowledge operating within academic institutions. This relatively new programme has been selected because one of the authors has been involved in initiating and directing this course. The sources of information in this regard are the professional experience of being part of the Master's programme and information from students gained through research projects and internal evaluations. Third, Veracruzana University in Mexico will provide insights into pluriversal reforms addressing several areas of the institutional set up and thus the overall selectivity of a concrete university. Its philosophy and academic portfolio have served as an important reference for conceiving and developing the course at Externado university. Because of our focus on social ecological transformation, all cases share an understanding of sustainability that transcends the nature-society dichotomy through a biocentric shift.

The first two cases refer to the Faculty of Social Sciences of Externado University, where inter- and transdisciplinarity is not only widely implemented in its curricula but also reflected in its structure. This institutional framework and a programme for indigenous students provide fertile ground for paradigmatic change when enacting pluriversal practices, as illustrated by the following example of epistemic openness.

4.1 Towards pluriversity in research: a transdisciplinary project in an Amazonian community (Colombia)

A significant theoretical contribution to the field of transdisciplinary research is Hugo Zemelman's (2021 [2004]) approach to epistemological thought. It facilitates overcoming the narrow epistemological framework of classical research designs that perpetuate epistemic selectivities disfavours heterodox ways of science and non-Modern forms of knowing. An important element of this approach is to ask several

possible research questions instead of predefining one question from the beginning in order to be able to perceive and explore various realities, so transcending a specific methodological selectivity that shapes dominant scientific paradigms. This means asking how many denominations can be assigned under different circumstances to a phenomenon, instead of circumscribing it to a single name. Hence, it becomes possible to replace fixed research categories with complex systems of relationships conducive to better acknowledging the pluriverse. This allows the historical, geographical and personal relationship of the subject to the investigated phenomenon to be enhanced. Reflecting the place and positionality where and through which knowledge is acquired enriches the research process, and facilitates the explicit consideration of onto-epistemologies when producing knowledge.

An example of how this approach is applied in practice is the transdisciplinary project “Irai Naño. Las dueñas de la candela”, which engaged with an Amazonian indigenous community. The project title served as metaphor for women and their knowledge of caring for the sustainability of life (Cortés/Pamplona/Suárez 2019). It was carried out by three students coming from different disciplines, who deliberately took into account their sociocultural origins and places of enunciation (positionalities) during the investigative process. One of the students belonged to the community that was studied, so she could take on different roles and views from inside and outside the community. With the help of the other students, her insights could be reflected upon and directed towards the objectives of the field work. In the sense of participatory action research (Fals-Borda 1987), students conducted their research together with two co-researchers who lived in the community.

Establishing and maintaining a solidarity relationship with community members that they studied allowed them to situate the research process as close as possible to the community’s world. This enabled the group to shape the research in a multidimensional way, integrating organic, affective and cognitive processes and results, opening up naturalist methodological selectivities. This type of participatory action research methodology does not require the differentiation of subject and object, and allows researchers to get involved in their field of research as an additional actor

in the territory. In this context, theory construction is not opposed to the exploration of the complexity of social realities, but rather stimulates the understanding of a complex world through the promotion of an open mind (Zemelman 2005).

The transdisciplinary methodology of this type of research closely corresponds with the ideas and aims of pluriversity. It involves a broader conception of knowledge than usual in social science, thus leading to an inclusive, multifaceted, situated reality that overcomes the barriers of scientific disciplines in particular, and of science in general (Nicolescu 1996). Pluriversal realities come into being through using methods that allow one to establish a dialogue between different actors and worlds, interlinking the elements that constitute the specific character of the diverse knowledges involved in various social practices. Such research projects illustrate how the university might cease to be the only or even central place to produce and acquire knowledge, and how steps towards realising a pluriversity can be taken. Embedding university and science into multiple and heterogeneous epistemological relations overcomes the colonial claim of being the only caretaker of true knowledge, in favour of the epistemic growth of the South.

4.2 Towards pluriversal programmes: the Transdisciplinary Master in Sustainable Life Systems at Externado University (Bogotá)

This pluriversal research approach articulating heterogeneous epistemic practices closely relates to a pedagogical understanding of transdisciplinarity in the sense of Catherine Walsh's Decolonial Pedagogy (2013). In this perspective, pedagogy is the essential connection between the decoloniality of being, knowledge and power. It formulates a path to new ways of being, thinking, feeling and living, going beyond the dichotomies and reductionist world-view instituted by the coloniality of power (Quijano 2000) and associated epistemic selectivities. Decolonial pedagogy does not only refer to pedagogical methods in a conventional sense of teaching and learning, but also to the emergence of new relations within a world of a colonial *pensée unique* that has been deeply inscribed into institutions, discourse, architecture, methodologies, technologies, and societal norms.

How Walsh's pedagogy becomes practically meaningful is illustrated by the example of the Transdisciplinary Master's in Sustainable Life Systems, a degree programme of the Faculty of Social Sciences of the Externado University of Colombia, which was founded and co-designed by the second author with a group of teachers¹. In this Master's programme, teachers, students and collaborators form a learning community based on recognising each participant as both student and educator. This helps to co-create a shared learning environment beyond formal functions and fixed, one-sided social roles that are conducive to relations of dominance. Although this type of learning community is not part of all sections of the programme due to organisational constraints (expressing institutional selectivities), corresponding pedagogical values (influencing discursive selectivities) facilitate the creation of transdisciplinary learning spaces that foster supportive, pluriversal relationships.

Decolonial learning was also inherent to the design process of the Master's programme, in which a diverse group of professors from different academic traditions and sociocultural origins (from indigenous to European) was involved. This pedagogy resulted in a common mission of this Master's programme, that attempts to respond to the civilisational crisis that Lander (2010) had diagnosed, raising the awareness of that crisis in order to contribute to a more sustainable, socially inclusive, pluralistic way of life. It is based on an epistemological understanding in which learning precisely occurs through the students' relationships with nature, community, others and themselves. By equally acknowledging 'brain', 'heart' and 'body', doxa is integrated in a profound process of transdisciplinarity (for further information see the website). This process is able to overcome the instrumental, decontextualised and disembodied reasoning of conventional science. This mode of reasoning is not only safeguarded by various institutional selectivities, but also by the selectivities enacted by the agents themselves, i.e., how they constrain themselves by lack of skills, willingness to learn, or imagination (agential selectivities). Students thus are invited to develop and flourish in all their dimensions instead of limiting themselves to activities that merely serve to gain formalised, certified academic skills. Within this pedagogical framework, students are actively accompanied in their professional development and encouraged to act as change agents promoting transformation in the sense of an ecological turn. This peda-

gological practice guides students towards a deeper understanding of social ecological transformation to the extent that it facilitates experiencing the crisis of modern civilisational within and around themselves. Likewise, each student is empowered as the necessary origin and component of any collective solution by being embedded into relations of pluriversal coexistence encompassing both humans and non-humans.

This points to a peculiarity of the Master's programme of Sustainable Life Systems in Bogotá, which emerged in a conversation regarding its decolonial design process: the transdisciplinary union between life and sustainability addressing the dynamic interrelation between living systems such as humans, animals, plants, and their configurations in terms of ecosystems, that is, the whole community of life. To regenerate these living systems is essential to open pathways for social ecological transformations towards more sustainable relations. In this way, a relational and heterogeneous ontology of life is brought to the foreground of sustainability discussions and initiatives. These then point towards an understanding of 'society' and 'nature' that conceives of life as an internally differentiated process within a web of relations.

This approach not only operates on a discursive level, but is structurally inscribed in the content and methodology of the programme's curriculum, which modifies hegemonic institutional epistemic selectivities. This enables learning communities to utilise novel or marginalised learning methods and to practise an ecological pedagogy (Stone/Barlow 2005). Such a pedagogy overcomes conventional limitations of academic learning through incorporating the lived, embodied, and multifaceted experience of learning. In this way, studying is becoming transformative, affecting world-views, mindsets, and a whole range of competences needed for making pluriversal worlds. To this end, a quarter of the classes are held outside the university campus. Natural learning environments enable direct relationships with non-human and human 'nature' in sensory, emotional and other bodily dimensions. They help to embody cognitive processes in specific learning configurations, thus reassembling classrooms to foster life-supporting connections of all beings. For example, the ecological pedagogy within the Master's programme includes visiting the páramos (as the Andean wet highlands are called), which is an ecosystem that has been barely altered by humans. During the excursion, flora, fauna,

and their ecological contexts are analysed in conventional scientific ways. In addition to these practices, the course also attempts to create an experience of unity with nature, in other words, a phenomenological perspective that acknowledges the relational character of the human being.

4.3 Towards a pluriversity: Veracruzana University (Mexico)

Efforts to decolonise the university for the sake of constructing a pluriversity often concentrate on particular sectors within the institutional framework of the historically post-colonial university. In this way, the transformative potential of novel epistemological and world-making practices is enclosed within established epistemic institutional selectivities and thus constrained. In contrast, the Universidad Veracruzana in Mexico² is an example where pluriversalisation involves several sectors of the university as an institution. Both organisational and epistemological changes have been set in motion to promote social ecological transformation through altering or weakening basic modern epistemic selectivities, also affecting the hegemony of naturalist dispositions.

This strategic orientation is also part of the university's mission statement. Related changes have been implemented since 2008 as part of a structural sustainability plan involving the entire academic institution as well as surrounding communities. Thus, sustainability is not conceived as 'green' business policy and therefore reduced to issues of technical administration within the university, but is practised as a way of life. This understanding materialises in various areas such as recycling, specific approaches in human development, information technology, infrastructure management, and mobility, as well as in the structure and the content of the studies offered (Universidad Veracruzana 2010).

The University of Veracruz regards itself as a social organism and practically interprets ecology as a principle for its own organisation. For example, the human resources department organises in-depth ecological dialogues to improve the quality of work, from which new human relationships emerge that produce a healthy work environment (Castro Montoya/López/Cortés 2016: 97ff.). The university is oriented towards systemic sustainability embedded in understanding the world as an internally differentiated whole, while creating spaces for transdisciplinary dialogue that help

to develop sustainability programmes at the university and its bioregion in relational, pluriversal ways. The Centro de EcoDiálogo³ (EcoDialogue Centre) illustrates how strongly the institution is interconnected with its bioregion. The centre was built using ecological methods and puts itself in the service of local communities through teaching and cooperation (Reyes/Núñez Madrazo/Vargas-Madrazo 2018).

A remarkable reference of pluriversality is the Universidad Veracruzana Intercultural (UVI)⁴ that developed inside the Veracruz University and was officially and permanently included in the institutional organigram in 2007. It expanded geographically from the main cities of the region to rural areas with a significant presence of indigenous communities, and broke with the classical urban model of the modern university. In this context, interculturality refers to the empowerment of ethnic communities in culturally diverse territories by ongoing multi-actor collaborations involving academics, governmental and non-governmental organisations, as well as social movements. This implies strengthening multilingualism and establishing a dialogue of modern science with indigenous and farmers' knowledge to address local needs in harmony with the cosmovision of a good life. The orthodox division between teaching, research and university extension is transcended by combining all three types of activities in terms of 'academic bodies' that emphasise communitarian integration (Dietz 2008: 359ff.), which modifies the conventional institutional selectivities of the modern university.

The example of the University of Veracruz helps to illustrate how important it is to change institutional selectivities in order to develop pluriversal programmes for teachers, researchers, students and communities. In order to overcome the modern university and its epistemic selectivities which impede social ecological change, it is essential to create opportunities for novel, wholesome experiences. This should be realised through a broad variety of processes of decolonisation and transformation that affect academics and communities, both as experts and as human beings. They help going beyond social roles as defined by academic institutions. They transcend conventional one-dimensional academic practices, moving towards a broader perspective that articulates personal being and knowledge, and their interrelations, with different ways and forms of life going

beyond the modern notion of the human. If general institutional conditions are created that weaken colonial epistemic selectivities in order to support these processes within study programmes for ecological change, as in the case at the Universidad Veracruzana, new world-making relations can be generated. These are able to consolidate and thus institutionalise a transformation of selectivities through building a union of teachers, students and communities that disseminates practices of pluriversal development on a regional scale.

5. Discussion and conclusions

Each of these three examples of initiatives to decolonise the university and to construct a pluriversity illustrates that it is possible to begin with social ecological and epistemic change here and now. The transformative moment of the pluriversal ecological turn consists in recognising the present as an opportunity to develop alternative worlds from which social ecological transformations draw their impulse. In this view, change processes must be promoted across different epistemic selectivities, including the hegemony of naturalist dispositions that is enacted through and within the modern university, in the process routinising diverse modes of experience and learning. Pluriversalisation is a complex process in which several elements must come and act together. Opportunities, despite the presence of existing agential, institutional (including methodological and social), technological and discursive selectivities, must be utilised and expanded in the goal of changing the system of hegemonic modern epistemic selectivities itself, making space for the pluriverse.

As we have shown, a pluriversal transformation can indeed occur in relation with quite different general institutional and other selectivities. One example that illustrates this is the study programme of a private university in Bogotá that was developed as part of an interdisciplinary faculty (Transdisciplinary Master's degree in Sustainable Life Systems). In contrast, the Veracruzana University is a public university that has committed itself to a process of restructuring several areas of its organisation with a focus on sustainability, and acknowledging ontological diversity. Regarding success

factors that enable pluriversal practices in private as well as public universities, it is of crucial importance to build a group of people who share a similar mindset and who engage in transformation, both in academic and personal (community) life. As our involvement in pluriversal academic work has shown, regarding the empirical observations outlined above, there has to be a supportive institutional background that at least appreciates basic ideas such as transdisciplinarity and the commitment to redesign social ecological relations. In comparison to the Externado University, the Veracruz University has the benefit of multiple locations in bio-culturally diverse regions, which provide links with local communities conducive to overcoming modern epistemic selectivities that assume that knowledge is true regardless of place and positionality. A transformative pedagogy is essential to promote onto-epistemological change beyond modern methodological selectivities, a pedagogy that involves not only the interaction with different peoples but also with diverse learning environments. This should lead to permanent multi-actor collaborations in teaching, research and community integration for an ecologically sustainable and pluriversal future.

Regarding obstacles to such futures that the cases illustrate, institutional (including economic) selectivities have to be highlighted. For example, in spite of its institutional recognition and large regional support, the Intercultural University Veracruz had to face resistance and lack of understanding within the university that originate from orthodox notions of the university, degrees and curricula; as Dietz (2008: 368) states: “Involving a diversity of actors and knowledge [...] in the same study degree programme [...] challenges the universalist, monologic and ‘mono-epistemic’ character of the classical Western university” [translation by the authors]. In the case of the Transdisciplinary Master of Sustainable Life Systems, epistemic selectivities play out through administrative regulations (i.e., through specific institutional selectivities). These are based on unidirectional processes and a hierarchical understanding of knowledge that is solely (re)produced by teachers, and then flows to students, while excluding communities and circular learning models that go beyond the knowledge embodied by university teachers. The involvement of non-academic teachers is also impeded by the economic dimension of institutional epistemic selectivities. This dimension is relevant, e.g., for students

who have to pay high fees to access postgraduate courses in Colombian private universities.

Social ecological transformations require the articulation of different realities, i.e., onto-epistemologies, and the putting of modern naturalism in place. This does not mean dispensing with naturalist science, but rather to redefine the meaning of the university. Given the irreducible diversity of ways of knowing and world-making, against the backdrop of the destruction that the hegemony of modern naturalism has brought to indigenous peoples, and its inability to formulate viable answers for increasing social ecological challenges without substantial reform and recontextualisation, the university has to profoundly transform itself towards pluriversal knowledge.

In this perspective, the modern university could be remodeled to being a place for dialogue and a public moderator of inclusive discourse. A pluriversity would conceive of itself primarily as a node of networks of knowing and world-making that confront each other in productive interchange. This requires a redefinition of what it means to be scientific, of the role of science in the world, and of who is a scholar and in which sense. Our empirical examples show different possibilities of such reconfigurations of university practices by enacting diverse knowledges in favour of decolonisation and social ecological transformations. If more Latin American universities would amplify and multiply these efforts, they could deconstruct their inherent coloniality and act as communicators of diverse worlds that respect planetary boundaries – to use a notion developed by modern science. Such processes of interweaving different onto-epistemological realities should respect common ethical principles of the pluriverse and understand the peculiarity of distinct forms of knowledge. From a pluriversal academic perspective, this means that different onto-epistemes mutually recognise their purpose and legitimacy. Examples would be some of the rules and boundaries of academic disciplines that may be pertinent from their specific point of view on the one hand, or the way ancestral cosmovisions strive for life in balance with nature on the other. Appropriateness of different forms of world-making and thus, knowing, is then appreciated according to the particular context of collaboration between or articulation of different worlds, so that they can work together for shared goals without being diluted, exploited, hierarchised, or misused.

This great project of onto-epistemological transformation might involve long term struggles. Progress in such transformations in many different fields of life is likely to be necessary for successful pluriversal practices. However, the university is of particular importance in such changes as it is the central institution for reproducing and selectively safeguarding a very specific conception of the world and of what constitutes viable knowledge. This conception has proven to be ambivalent at best, and is deeply entangled with social ecological crises that the traditional university appears to be increasingly ill-defined to combat. This might provide grounds for reinterpreting, and thus reconstructing, the university itself.

By taking steps towards pluriversity, novel ways of knowing are being developed, stretching the confines of modern naturalism, and hybridising or balancing it with non-naturalist forms of knowing and world-making that are included in curricula. The pluriversity would hence reflect the variety of a pluralistic world, allowing the many worlds to convene and communicate, contributing to reassembling a world that always consists of many worlds, but would then recognise them with self-consciousness and awareness. Thanks to its civilisational diversity and its innovative pluriversal approaches in science, Abya Yala can take a leading role in weaving the pluriverse together for the transformation of hegemonic ontologies and epistemologies.

- 1 See the Website of the Maestría Transdisciplinaria en Sistemas de Vida Sostenible: www.uexternado.edu.co/programa/ciencias-sociales-y-humanas/maestria-transdisciplinaria-sistemas-vida-sostenible/, 3.8.2023.
- 2 See the Website of the Universidad Veracruzana: www.uv.mx/, 3.8.2023.
- 3 See the Website of the Centro de EcoAlfabetización y Diálogo de Saberes Búsqueda: www.uv.mx/ecodialogo/, 3.8.2023.
- 4 See the Website of the Universidad Veracruzana Intercultural: www.uv.mx/uvi/, 3.8.2023.

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ABSTRACT *Die modernen Bildungssysteme Lateinamerikas haben die Vielfalt von Epistemologien und Ontologien an den Rand gedrängt, die Abya Yala vor der Kolonisierung prägten. Indem sie Kultur und Natur voneinander trennt, demontiert und zerstört die Moderne das Netz des Lebens. Die Reduzierung onto-epistemologischer Pluralität auf die "eine Welt" und "eine Universität" der Moderne steht deshalb an der Wurzel gegenwärtiger sozial-ökologischer Krisen. Der Beitrag untersucht, wie verschiedene, gewaltvolle epistemische Selektivitäten diese onto-epistemologische Reduktion in der modernen Universität vollziehen. Drei Beispiele von Bildungs- und Forschungspraktiken an lateinamerikanischen Universitäten zeigen, wie solche Selektivitäten in Hinblick auf eine Pluriversität überwunden werden können. Abschließend werden Bedingungen skizziert, damit Versuche dieser Art die sozial-ökologische Transformation erfolgreich vorantreiben können.*

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