# Southern Ontologies. Reorienting Agendas in Social Ontology

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**Abstract**: This article addresses ontological negotiations in the Global South through three case studies of community-based research in Brazil and Ghana. We argue that ontological perspectives of Indigenous and other subjugated communities require an ontological pluralism that recognizes the plurality of both representational tools and ways of being in the world. Locating these two readings of ontological pluralism in the politics of the Global South, the article highlights a wider dynamic from ontological paternalism to ontological diversity to ontological decolonization. We conclude by arguing that this dynamic provides important lessons for reorienting agendas in social ontology through Southern Ontologies.

Keywords: Social Ontology, Social Metaphysics, Diversity, Decolonization, Paternalism, Biological Classification

## I. Introduction

The notion of the "Global South" emerged in the 1990s, largely as a successor to "Third World" after the collapse of the Soviet Union (Levander and Mignolo 2011). As an umbrella concept, the Global South links neo-colonial exploitation (Nkrumah 1965) and counter-hegemonic movements (Carou and Bringel 2010) across heterogeneous contexts. Rather than being defined in strictly geographic terms,

the Global South is therefore often delineated by a "political economy of the South" (Dwivedi 2001), reflecting global patterns of exploitation of both labor and natural resources. However, the Global South has not only economic but also epistemic contours. Campos (1991) introduces the South as a place of epistemological reorientation through the notion of *sulear* (from *sul* and *orientar*, meaning South and to orient in Portuguese) and the case of alternative map projections that invert the Northern gaze. Popularized by Freire (1992), *sulear* centers "the Global South in its epistemologies, in its ontologies, and in its historical subjects, all of which are an integral part of a geopolitical horizon in which the construction of political and educational praxes for liberation and decolonization takes place" (Barbosa 2022, 626. *Cf.* Baltar and Bezerra, 2014).

*Sulear* as an act of epistemic reorientation has been embraced by scholars of the Global South through various concepts such as Epistemic Decolonization, Southern Epistemologies, or Epistemologies of the South (e.g., Cruz, 2018; Escobar, 2016; Fúnez-Flores, 2022; Mungwini, 2017; Rivera Cusicanqui, 2010; Solano, 2019). On the one hand, such concepts recognize the Global South as a space of "epistemic oppression" (Dotson 2014), in the sense that Southern Epistemologies are often not only ignored but become the target for eradication and replacement in modernist visions of development. On the other hand, they also recognize the Global South as a space of philosophical reflection and political action. In this sense, emphasis on Southern Epistemologies not only highlights the diversity of first-order knowledge about the world (Peddi et al. 2022) but also the diversity of second-order epistemological reflexivity and practice (Koskinen and Ludwig 2021).

However, *sulear* is not only an act of epistemological but also ontological reorientation as Southern Ontologies have become increasingly associated with the aspirations of scholars and activists alike (Blaser, 2013; Chao, 2018; Escobar, 2017; Givigi 2020). To understand this unlikely career of the notion of ontology, it is helpful to reflect on the truncated forms of epistemic pluralism that have become mainstreamed in academia. Indeed, the booming literature about Indigenous and Local Knowledge (ILK) across a wide range of scientific disciplines often reflects sincere attempts to overcome epistemic paternalism and to integrate diverse forms of non-academic expertise (Ludwig et al. 2021; Vijayan et al. 2022). For example, a conservation biologist may recognize that a local community has a lot of useful knowledge about biodiversity. An agricultural scientist may recognize local expertise about pest management and soil conditions. A biomedical researcher may recognize the community's knowledge about the prevalence of a certain disease.

However, such integration exercises often amount to a rather superficial treatment of ILK as an additional data source and commonly raise concerns about "knowledge mining" or "knowledge extraction" (Alcoff 2022; Kimmerer 2012; Ludwig and Boogaard 2021). ILK is recognized only if it has something useful to contribute to the questions of academic researchers, and this often reflects a

"limited range of selection criteria, overdetermined by epistemically privileged selectors" (Murdock 2021, 211). ILK is therefore commonly recognized by academics to supplement rather than reorient dominant epistemologies. Such a narrow perspective may extract useful data points from ILK but inevitably excludes large swaths of knowledge systems that are couched into different concepts, frameworks, and understandings of how the world works. For example, the expertise of an Indigenous community about sustainable forest management may be entangled with the assumption about entities such as *thinking forests* that challenge the ontological comfort zone of academic researchers who may be inclined to dismiss it as a superstition.

Moving beyond such a superficial or even extractivist approach to ILK requires serious engagement with Indigenous and other subjugated ontologies. As the empirical cases of this article illustrate, competing ontologies shape practices that can deepen or mitigate distributive inequality in areas such as agricultural production. At the same time, our cases also highlight that ontological conflicts raise questions beyond the distribution of economic resources, such as the recognition of different moral orders and values as well as the political representation of marginalized actors in scientific practice and development interventions. Both questions of epistemic and material justice therefore turn out to be entangled with ontological justice.

While there is a lot of excitement about ontology, there is an equal amount of confusion (Turska and Ludwig 2023). Debates about "ontology" have become a bumbling mess across the humanities, social sciences, and philosophy. In cultural anthropology, the epicenter of the recent "ontological turn" (Holbraad and Pedersen 2017), the notion often polarizes and generates similar amounts of excitement and annoyance. While some anthropologists present ontology as the cornerstone of critically reflexive research (Bertelsen and Bendixsen 2017), others suspect that it mostly amounts to masking the decline of poststructuralist theory through a cloud of new buzzwords (Carrithers et al. 2010; Graeber 2015; Vigh and Sausdal 2014). The aim of this article is not to develop a unified account of ontology that navigates between the many different concerns that have become associated with the label. Instead, we want to outline an account of Southern Ontologies that responds to our concerns as an interdisciplinary group of researchers working with communities in the Global South in addressing social-environmental challenges.

By approaching ontological questions through the practices of marginalized communities that we work with, we address ontologies not merely as abstract philosophical puzzles but rather as constitutive of local livelihoods and community concerns. By putting this practice-based approach into dialogue with contemporary philosophy, we aim to create insights in both directions: for practitioners, a less amorphous understanding of the relations between ontology and justice. For philosophers, a challenging perspective on the entanglement of ontology with global practices and politics.

Our discussion of Southern Ontologies proceeds in five steps. Section II introduces a representational pluralism according to which ontologies are intertwined with heterogeneous representational needs that emerge from equally heterogeneous practices. Section III shows how this representational reading of ontology matters in negotiations of bioontologies in three communities in Brazil and Ghana. Section IV broadens the scope towards a relational pluralism according to which ontologies are not only tools for representing the world but also ways of being in the world and relating to the world. Section V addresses the relevance of relational pluralism through the case of the Caipora, a broadly circulating Amerindian concept, in the Brazilian context. Section VI brings these representational and relational arguments together in highlighting the relations between ontological conflicts and wider debates about global justice. Challenging the silencing of Southern Ontologies in academic philosophy requires a reorientation of both scope and methods in social ontology.

**II Representational Pluralism**

The global plurality of ontologies is sometimes presented as a plurality of worldviews. Heterogeneous knowledge systems are entangled with heterogeneous worldviews in the sense of different and sometimes conflicting assumptions about "how the world works" and how it is fundamentally structured. For example, Indigenous communities may be recognized by academic researchers as experts about local ecosystems. At the same time, Indigenous expertise is entangled with spiritual assumptions that are not easily integrated into scientific ontologies. While the global plurality of worldviews is a helpful starting point, it is not sufficient to capture the normative ambitions of Southern Ontologies that reach beyond the rather trivial claim that different people have different ideas about how the world works. Instead, the notion of Southern Ontologies transcends a merely descriptive acknowledgment of ontological plurality towards an ontological pluralism that makes a normative case for the epistemic (e.g., understanding of social-environmental systems) and political (e.g., self-determination of Indigenous communities) importance of ontological diversity.

Southern Ontologies challenge two metaphysical assumptions that have often been mobilized to deny the legitimacy of ontologies outside of Western science. First, the ideal of a "view from nowhere" (Nagel 1989) that is imagined to provide an "absolute conception" of "the world as it is independent from our experience" (Williams 1985, 139) and therefore converges on exactly one fundamental ontology independently from cultural contingency. Second, the sometimes implicit assumption that this "view from nowhere" is approximated by modern science and therefore legitimizes marginalization or even eradication of other knowledge systems. Given a framing of Western science as a historically and socially decontextualized "view from nowhere", Southern Ontologies appear at best as useful fictions that may work for Indigenous and other traditional communities but fundamentally misrepresent how

the world *really* works. In this sense, substantial parts of Western philosophy appeal to an objective "scientific image" that describes the actual structure of reality and which is opposed to a subjective "manifest image" (Sellars 1963) that has its pragmatic functions but misrepresents the world behind its surface appearance.

Few philosophers of science believe that science approximates a "view from nowhere" and many have challenged this metaphysical imaginary through pluralist, perspectivist, and pragmatist approaches that emphasize diverse representational tools and traditions of scientific knowledge production (Dupré 1993; Ludwig and Ruphy 2021; Massimi 2022). For example, the biological sciences do not converge onto one "absolute conception" of "the world as it is independent from our experience" but rather provide a complex mosaic of different representational tools that are shaped by different explanatory priorities, predictive interests, non-epistemic concerns, embodied experiences, and practical needs of researchers. The species debate has become a prominent example of this dynamic as the boundaries of species vary with the epistemic concerns of different biological subcommunities (e.g., ecologists, microbiologists, paleontologists) and are also shaped by non-epistemic concerns such as the interaction between species status and conservation practices (Conix 2018).

If academic researchers cannot agree on one fundamental way of representing the structure of the biological world, there is little reason to expect Indigenous people and local communities to agree, either. For example, Indigenous communities are experts about local biodiversity but their categories of animals and plants often differ from academic taxonomies as they are driven by different epistemic and non-epistemic interests. Just as ecologists, microbiologists, and paleontologists may represent biological diversity through different taxonomies that reflect their heterogeneous interests, Indigenous communities will represent the biological world through ontologies that are adapted to local — e.g., agricultural, medicinal, fishing, hunting — practices and contextually negotiated interests (Kendig 2020; Ludwig 2018; Robles-Piñeros et al. 2020).

**III Representational Pluralism in Action — From Brazil to Ghana**

The previous section summarized an abstract philosophical case for representational pluralism. How does this abstract case relate to the negotiation of representational traditions in local livelihood practices? This section synthesizes insights from three research projects with local communities in Brazil and Ghana that the authors of this article have been involved in. In all three cases, we studied local biological knowledge in connection to livelihood practices such as farming and fishing. We found that local ontologies substantially diverge from academic taxonomies because they reflect the representational needs of these practices.

*Siribinha, Brazil*: The first case takes us to Siribinha, a community of artisanal fishers in Bahia in the Northeast of Brazil. A small village of around 500 inhabitants, Siribinha was relatively isolated up to the 1990s when an unpaved road connected it to nearby villages and cities. In the community, fishermen usually catch fish while fisherwomen generally collect shellfish. Some also earn their living from small-scale tourism, but a large part of the community relies on fishing. As the village is located on a small strip of land between the river and the sea, the community utilizes both of these environments for fishing — both for self-consumption and small-scale commercialization.

In Siribinha, we have been involved in a transdisciplinary research project that aims to document local knowledge about biocultural diversity and bring this knowledge into the negotiation of conservation, economy, education, and other practices (El-Hani 2022, El-Hani et al. 2022, Renck, Apgaua et al. 2022, Renck, Ludwig et al. 2022). In his PhD research, Vitor Renck addressed the ontological dimensions of knowledge about biodiversity through local categories and classifications of fish. The results provide a straightforward illustration of representational pluralism in the biological domain. Indeed, there are many cases in which the fishers of Siribinha distinguish between kinds of animals along similar lines as those drawn by academic researchers. In other cases, however, local taxa of animals differ substantially from biological taxonomies in academic research. We found that locally important populations are sometimes split into several kinds even if academic biologists only recognize one species — for example, two locally important ethnospecies of snooks (*robalo espalmado* and *robalo branco*) are recognized as only one species by academic biologists (*Centropomus parallelus*). In contrast to these cases of taxonomic splitting, we found also taxonomic lumping, especially in the case of animals other than fish and shellfish — for example, the community identifies two sandpiper ethnospecies, *maçarico-pequeno* and *maçarico-grande* (small and large sandpipers), which correspond to 11 species distinguished by academic biologists. These ontological differences clearly reflect distinct representational needs. While the Siribinha fishers make distinctions not made by academic scientists in species highly important to their fishing practices and livelihood, such as *robalo branco* and *robalo espalmado*, academic scientists make distinctions between bird species that are dependent on the relationship between their taxonomic practices and phylogenetic inferences.

One of the empirical techniques we employed is called "triad tasks" (Ross et al. 2005), carried out to understand how members of the community categorize living organisms, and to what extent the categories are shared across the community. During our triad task, a series of ten sets of three photographs of fishes as well as a similar series of photographs of birds were presented to forty-five members of the community (9% of the local inhabitants) to elicit local similarity judgments of which fish or birds "go together". For each attempt, participants could describe the pairs as "different" (codes 1–3), "very different" (code 0) or "very similar" (code 4). Comparing these judgments by the community with academic taxonomies leads to a nuanced picture beyond the assumption of universal

recognition of identical natural kinds or full incommensurability of bioontologies. Instead, a complex pattern of partial overlaps (Ludwig and El-Hani 2020. See also: Popa 2020; Renck et al. 2023; Renck, Ludwig et al. 2022; Villagómez-Reséndiz 2020) emerges in the sense that some categories of fish in Siribinha correspond perfectly to monophyletic taxa that are used by academic biologists while others rely on patterns of properties (often morphological but also taste, fishing practice, habitat, and economic value) that "carve up" biological diversity along epistemic and practical concerns of the community.

The triad tasks provide an empirical window into cross-cultural variability of bioontologies. Rather than assuming that expertise about the biological world leads to one "absolute conception [of] the world as it is independent from our experience", different forms of expertise often lead to different ways of representing the biological world. Fishers in Siribinha know a lot about fish. Academic biologists know a lot about fish. However, their expertise is embedded in different interests and practices that guide classificatory attention and lead to different strategies of dividing biodiversity into distinct categories. To further explore this entanglement of ontology and practice, we move to our second case study.

*Coração de Maria*: For our second case study, we remain close to the fishing village of Siribinha but travel three hours inland to the farming communities of Coração de Maria and Retiro. The area of Coração de Maria has been prized for its pineapples and remains characterized by its rich agricultural traditions. However, Coração de Maria is not just a site of rich traditions in tropical agriculture but also a site of cultural and economic struggle about the increasing dominance of industrial agricultural production and the livelihoods of peasant communities in globalized agrifood markets.

In Coração de Maria, the data collection has been carried out by Jairo Robles-Piñeros as part of his PhD project. Moving from a fishing village along the coast to an inland farming community requires a shift in reference organisms and this study does not focus on fish but rather on insects with agricultural relevance. In some cases, the community of Coração de Maria and academic biologists classify agricultural pests in strikingly similar ways. One straightforward example is the lesser cornstalk borer (*Elasmopalpus lignosellus*) that is locally named *lagarta cinza do milho* (grey corn caterpillar) and mostly affects maize. Another widely recognized species is the fall armyworm (*Spodoptera frugiperda*), which has a great impact on the development of sprouts and is locally called *lagarta verde do milho* (green corn caterpillar). In these cases, the community and academic researchers operate with converging ontologies in the sense that they employ categories with identical extensions that appear to identify the same biological kinds.

Despite these cases of convergence, there are also substantial differences between classificatory practices. One intriguing case is the local classification of organisms in the Pseudococcidae (Coccoidea) family as fungi, while academic taxonomies treat Coccoidea as insects of the order Hemiptera. As one

farmer explained: "let me see, there is a fungus, it is very small, it almost does not seem to see, but when it arrives it attacks the plant and the plant looks bad and is very difficult to remove" (Senhora N). Ethnotaxonomic studies (Costa-Neto 2002; Robles-Piñeros and Baptista 2022) show that local classifications of insects often include phylogenetically heterogeneous organisms (e.g., spiders, snakes, myriapods) that share morphological characteristics, including patterns of corporality such as a head, a thorax, and extremities (Bentley and Thiele 1999). Coccoidea do not conform to this morphological pattern and they also do not behave like insects — females in their imago stage are sessile. Furthermore, these differences in taxonomic practices do not only relate to behavioral and morphological features but also ecological roles of the organisms, such as their agricultural significance as an organism that attacks the manioc plants in ways that are similar to other fungi rather than insects. To sum up, farmers have a variety of reasons for not treating Coccoidea as insects, which include behavioural (the organism is sessile), morphological (the organism does not have an insect-like body), and ecological/agricultural aspects (the organism has similar roles as other fungi).

The case of Coccoidea provides a window into the entanglement of ontologies and practices. For an academic taxonomist, Coccoidea are insects because they are phylogenetically related to other members of this class rather than fungi. For the community of Coração de Maria, Coccoidea are fungi because they are more similar to fungi in behavioral, ecological, and morphological aspects that matter most for local agricultural practices of the community. When it comes to these local practices, it is more important how Coccoidea resemble other fungi than how they resemble other insects. This is not to say that a treatment of Coccoidea as fungi would be suitable for all practices. For example, the increasing displacement of local agricultural practices by industrial agriculture may come with the application of pesticides that make it important to distinguish Coccoidea from fungi that may be affected by fungicides. Instead, the lesson of this example is that different practices come with different representational needs that translate into different ontologies.

*Koro, Ghana*: Our last story takes us from Latin America to West Africa (Boogaard et al. *forthcoming*). Koro is a small village in the Upper West of Ghana near the border with Burkina Faso and home to the Dagara people. Bernard Yangmaadome Guri and Daniel Banuoku from the Ghanian Centre for Indigenous Knowledge and Organizational Development (CIKOD) carried out the empirical research that focused on the entanglement of Dagara cosmologies with practices that contribute to food security, food sovereignty, and sustainable engagement with local environments. The complex biocultural system of the Dagara people is threatened through socio-environmental disruptions, such as industrialized food production, resource extraction, and outmigration toward urbanized areas. In contrast to exogenous frames of neoliberal agricultural modernization — e.g., assimilation into global market economies — CIKOD aims to create spaces for endogenous development that is driven by Indigenous knowledge and practices. In this line, CIKOD documents and supports the vital roles and

activities of the *Tengan dem* (generally translated as "land priests") in rural communities, who are the custodians and mediators of respectful relations with the environment.

Given the importance of spirituality in the Dagara cosmology, it is not surprising that many categories diverge radically from those of academic researchers. In the context of plant categories, Dagara people distinguish between two fundamentally different kinds of seeds (*bumbuure*). *Bumbuure* for *bondiri* ("seeds for life") are spiritually significant and include sorghum, millet, Bambara beans, cowpea, and yam. *Bumbuure* for *bondi-fogle* (seeds for commerce) are spiritually insignificant and include maize, rice, sweet potatoes, and groundnuts. The distinction between two fundamentally different kinds of seeds does not correspond to phytological distinctions but rather to ritual meanings and practices. *Bumbuure* for *bondiri* will be offered to the ancestors and it is a serious taboo to eat any of these crops before the *tengan dem* perform the necessary rituals. Each of these crops has a role to play in Indigenous ceremonies. For example, when the remains of deceased are presented on the palanquin *paala* for display to mourners, it is a first requirement for the family to produce a *kagyin*. *Kagyin* is sorghum that has been prepared for storage in the traditional barn, the *bogrr*, by tying them into a bundle. Failure to present a *kagyin* is seen by the community as a symbol of abject poverty and the family is exposed to ridicule by community members. In contrast, the *bumbuure* for *bondi-fogli* have no business in ritual – the ancestors do not recognize them. *Bumbuure* for *bondi-fogli* still play an important role as cash crops for the communities but they have been more recently introduced and are therefore not part of the ancestral bond (Boogaard et al. *forthcoming*).

While the distinction between *bumbuure* for *bondiri* and *bumbuure* for *bondi-fogli* does not correspond to distinctions in phytology, it is fundamental for cultural life among Dagara people and the maintenance of spiritual traditions. Furthermore, these spiritual traditions are entangled with local agrobiodiversity and livelihoods. For example, the requirement to present *bumbuure* for *bondiri* in ritual practices ensures maintenance of endemic crop varieties rather than their disappearance due to monocropping of economically more lucrative cash crops that have been more recently imported. This maintenance of local agrobiodiversity in turn contributes to food security, nutritional diversity and food sovereignty — even in the case of a bad harvest of cash crops, the Indigenous food crops are still available and widely planted. Thus, the distinction between *bumbuure* for *bondiri* and *bumbuure* for *bondi-fogli* is an essential part of people's food and agricultural practices in daily life and shows that in Dagara ontology the biological, environmental, social and spiritual dimensions are closely interrelated.

Our three encounters with Indigenous and local bioontologies in Siribinha, Coração de Maria, and Koro add up to a complex case for representational pluralism. In all three cases, the idea of one objective "view from nowhere" clashes with a multiplicity of representational traditions that reflect the interests and values of different actors. Fishers in Siribinha distinguish between types of fish primarily along

morphological properties and secondarily along taste, fishing practice, habitat, and economic value. These properties matter for the fishing community of Siribinha even if they do not converge on phylogenetic distinctions that are prioritized in academic taxonomies of fish. Farmers in Coração de Maria diverge from academic taxonomy in describing Coccoidea as fungi rather than insects. Again, the justification is partly morphological due to the lack of an insect-typical shape, as Coccoidea do not show a distinguishable head, thorax, and extremities. However, these morphological features interact with other behavioural and ecological properties that make Coccoidea more similar to fungi for local practices for dealing with them. Finally, the Dagara elders of Koro emphasize the distinction between two kinds of seeds — *bumbuure* for *bondiri* and *bumbuure* for *bondi-fogli* — that are primarily distinguished by their recognizability for the ancestors during ceremonies. Again, this distinction departs from academic taxonomy but responds to core concerns about agrobiodiversity, cultural conservation, food security, and food sovereignty in the Koro village.

Academic philosophy has a long tradition of looking down on "the folk" whose beliefs are assumed to be flawed and whose "manifest image" of the world is corrected by a proper "scientific image" (Sellars 1962). In our fieldwork, however, this divergence between manifest and scientific images does not derive from ignorance but rather from expertise of "the folk". It is not that community members are simply ignorant about the structure of the biological world and should be corrected by scientists, but rather that different forms of expertise point towards different structures. The distinctions between fish in Siribinha are adapted to the practices of this fishing community that require the ability to discern between kinds on the basis of morphological properties and their linking to different fishing practices (e.g., different nets, times, and places), even if they do not correspond to the distinctions that matter from the phylogenetic perspective of a taxonomist. The distinctions between fungi and insects in Coração de Maria matter for the agricultural practices of this community, even if the treatment of Coccoidea departs from the distinctions of entomologists. Finally, the distinction between *bumbuure* for *bondiri* and *bumbuure* for *bondi-fogli* is fundamental for cultural self-determination and livelihoods in Koro, even if it does not correspond to any distinction in phytology.

All of these cases illustrate that the distinction between a manifest and a scientific image is not a reflection of ignorance in local communities, but rather a reflection of ignorance and paternalistic attitudes of academic researchers who mistake their own representational tradition with a "view from nowhere" with supposedly universal authority. There is no stance-independence in biology. Biological organisms are complex, in messy relations with each other, and resemble each other along many different (e.g., ecological, ethological, genetic, morphological, reproductive, phylogenetic, but also agricultural, economic, medicinal) dimensions. Different ontologies emerge from different practices that highlight different concerns about issues such as explaining evolutionary dynamics, conserving biodiversity, securing livelihoods through agriculture, identifying medicinal plants, and so on.

**IV Relational Pluralism**

The previous sections interpreted ontological diversity as representational diversity. There is not just one fundamental way of representing the world as it is in itself that is approximated by modern science. Instead, different ontologies are representational tools that respond to different practices. Challenging the marginalization of practices and concerns of Indigenous peoples and local communities therefore also requires challenging ontological marginalization. Or to put it positively: social justice demands engagement with ontologies that challenge colonial legacies as expressed in the hierarchization of different representational traditions. In all three of our case studies, these abstract philosophical slogans become concrete: local bioontologies in Siribinha, Coração de Maria, and Koro are deeply entangled with core livelihood concerns of the communities, related to agricultural and fishing practices. Striving for social justice in these communities requires engagement with ontologies and our work in all three communities aims to create spaces for local ontologies in the face of rapid social-environmental change that threatens local community structures.

Representational pluralism captures an important aspect of the relations between ontology and global justice: the marginalisation of Indigenous and local ontologies, that is, of the ways in which they represent the world. At the same time, it does not capture the entire scope or political import of debates about ontologies in the Global South. As highlighted in extensive debates about the "ontological turn" in anthropology (e.g., Holbraad and Pedersen 2017; Paleček and Risjord 2013), ontologies do not only involve different ways of representing the world but also different ways of being in the world and relating to the world. Consider, for instance, Indigenous ontologies that radically expand notions of cognition, intentionality, and personhood far beyond the human. Only some aspects of these debates can be captured through representational pluralism.

For example, Kohn's influential *How Forests Think* (2013) is based on ethnographic work with Indigenous Runa communities of the upper Amazon. To say that forests think is unfamiliar for many scientists but it is far from absurd. Forests are not passive objects but complex systems that involve equally complex information processing and active responses to environmental stimuli. Indigenous communities that live in and with the forest have a much richer understanding of its agency than those who do not share this experience and way of living, and their livelihoods depend on this understanding in countless ways. It is therefore not that surprising that Indigenous ontologies strongly depart from modern European philosophy in the Cartesian tradition, which applies the category of *thinking* in restrictive ways to humans and, at most, a narrow subset of non-human animals. In fact, one may even point to the recent literature from embodied and extended cognition to plant cognition and plant intelligence to motivate the possibility of alternative ontologies that demarcate the boundaries of

*thinking* in dramatically different ways (Segundo-Ortin and Calvo 2019; Lyon et al. 2021). The boundaries of *thinking* are contested within academic research itself and do not provide a plausible candidate for a natural kind that is identified independently of contingent explanatory priorities, practices, and values. As this process is already blatantly obvious within academic research, it should not come as a surprise when comparing academic and Indigenous ontologies of *thinking.*

Even if representational pluralism provides helpful insights for interpreting *thinking forests*, it reaches limitations in other cases of ontological alterity, such as *rivers as ancestors.* Sure, philosophers may wonder what Indigenous characterizations of rivers as ancestors represent and refer to in the world. However, such a narrow focus on representational content misses the crucial role of rivers in building relations and moral orders between human and non-human beings. In the case of rivers, these relational factors have become widely reflected in the debates about "rights of nature" (Gudynas 2016) and the recognition of legal personhood of rivers in Aotearoa New Zealand (e.g., the Whanganui River), Canada (e.g., the Magpie River), Colombia (e.g., Río Atrato), India (e.g., the Ganges River and the Yamuna River), and the United States (e.g., the Klamath River).

For example, consider the case of the Whanganui River in Aotearoa New Zealand, who was granted the status of a legal person through the *Te Awa Tupua Act* of 2017. The understanding of the Whanganui River as an indivisible and living whole is deeply embedded in the *whakapapa* ontology of the Whanganui Iwi (Kramm 2020; Ruru 2018). *Whakapapa,* which could be translated as connectedness, puts emphasis on the ancestral relations between human beings (both living and dead) and non-human beings such as the Whanganui River. These relations are deeply moral in the sense that they imply reciprocal duties. The river has provided for the Whanganui Iwi and the reciprocity of this relation demands duties towards the river. When the New Zealand Government recognizes the Whanganui River as a legal person, it therefore recognizes a different moral order that is built around an understanding of connectedness that demands reciprocal duties and care between human and non-human beings. Questions about representational content and referent *personhood of rivers* fade in the background compared to the question of what the *whakapapa* ontology does for building relations that are remarkably different from Western perspectives on natural resource extraction, which do not see rivers as having moral rights (or even duties), but rather as fragile objects whose finite resources need to be managed.

The case of the Whanganui River highlights that questions of ontological difference do not reduce to questions about representation in the narrow sense of matching concepts and referents. Ontologies have many representational and non-representational functions, including different ways of building relations and moral orders. Taking these non-representational functions of ontologies seriously broadens the practical and political import of appeals to Southern Ontologies by highlighting a wide range of issues

concerning interactions within social-environmental systems. It is this wider relational meaning that has made "ontology" a booming term among scholars and activists in the Global South. For example, Escobar (2018) highlights this relational and practice-oriented understanding through the notion of a "pluriverse" — a world that fits many worlds and opens opportunities of building different futures beyond the hegemony of environmental and socioeconomic exploitation of the Global South. The relational dimension of ontologies therefore leads to a second angle of relating ontological conflicts and questions of global justice: it is not just the case that different communities require different representational tools but that ontologies are constitutive of different ways of being and relating to the world. Different ontologies therefore highlight different moral orders, values, and ways of creating relations in social-environmental systems.

## V Relational Pluralism in Action — The Case of Caipora

The previous section argued for a broader understanding of ontologies that do not only include different ways of representing but also different ways of being and relating to the world. In the case of the personhood of rivers, for example, a focus on the representational content and referent of *personhood* will at best generate a superficial understanding of complex Indigenous practices of mutual care between human beings and rivers who are treated as agents in reciprocal relations (de la Bellacasa, 2017). Taking the politics of Southern Ontologies seriously requires recognizing them as more than symbolic systems for representing structures in the world. To explore the practical import of this wider argument for relational pluralism, we return to our empirical work with communities in Brazil.

Indigenous Amazonian ontologies have long been at the centre of anthropological interest and challenge philosophical debates through cases of deep ontological difference such as *thinking forests* (Kohn, 2010) and Viveiros de Castro's (2009) wider case for Amerindian multinaturalism which inverts modern European perspectives on one nature interpreted through different cultures by assuming the idea of different natures that share one culture. However, cases of deep ontological difference also appear in local and peasant cultures in Brazil more generally, including the fishing community of Siribinha, in the north shore of Bahia, which have been the focus of part of our research.

One entity that certainly challenges the comfort zone of academic researchers is the Caipora, a herder of wild animals that mediates encounters between humans and game. Caipora is a major concern of hunters as they (Caipora's gender status is ambiguous) provides hunters access to animals but also punishes those who do not follow the appropriate etiquette, e.g., by overhunting (Almeida 2017). In our current field work in Siribinha, stories of Caipora were told by local fishers and teachers. This is no isolated finding: generally speaking, people living in the Brazilian shore think of mangroves, rivers and lakes as inhabited by beings that punish those who destroy the forests (like Caipora/Curupira, Mãe da

Mata [Mother of the Forest], Boitatá), or who mistreat animals (Anhangá), or abuse animals when reproducing (Tapiora), or fish more than necessary (Diegues 2005). These are all manifestations of what Philippe Descola (2005) calls *maîtres des animaux*.

The nature and role of Caipora are not well-defined, or, at least, do not seem so for someone who is not a holder of a knowledge system entertaining his or her existence, and Almeida (2013) describes the Caipora-ontology as "an ontology full of obscurity, because it is more implicit and assumed than explicit" (15). Almeida's assessment provides an important reminder of the difficulty of intercultural translation that inevitably involves equivocations (Viveiros de Castro 2004), especially when trying to interpret Indigenous ontologies through academic lenses. Most importantly: if we approach Caipora in analogy to scientific ontologies primarily as a tool for representing structures in the world, we are definitely going to get it wrong — it is not clear what the community of Siribinha thinks Caipora represents nor is there any obvious referent. In many cases, academic research will dismiss such creatures as superstitions, in other cases they may be hypothesized to refer to a specific entity, such as the control animal of a herd. None of this, however, gets to the core of why Caipora matters.

One way of moving towards a richer analysis is to shift the focus from the question of what an ontology represents to what it does — e.g., how relations, values, and moral orders between humans and non-humans are shaped through Caipora. Caipora enforces an etiquette in hunting and fishing activities: avoidance of hunting or fishing on certain days; of capturing certain species; of harming mangrove trees; of mistreating, insulting or abusing animals; of hunting or fishing more than needed. Here we begin to get a glimpse of what it means to say that ontologies build relations with the world. From an academic perspective, one may frame this process in terms of sustainability: Caipora matters in local ontologies by building sustainable relations between humans and natural resources. This interpretation certainly captures an important aspect of these ontologies. Caipora and related *maîtres des animaux* play an important role in regulating co-existence of humans and non-humans in complex ecosystems to which Indigenous ontologies have adapted.

At the same time, an interpretation in terms of sustainability is also an act of intercultural translation that introduces equivocation and can easily mislead. From the 1980s onwards, sustainability has become an increasingly popular concept that aims to balance the capitalist imperative of growth with concerns about the environment (Kuhlman and Farrington 2010). While sustainability is rooted in a post-Fordist ideal of non-destructive growth and capitalism, Caipora builds very different moral orders that do not appeal to growth and do not rest on the idea of finite resources that have to be managed sustainably. Many Indigenous communities do not consider resources finite (Boogaard and van Norren 2021) but rather build relations on the basis of the need to respect non-humans and etiquettes like the ones that are enforced by Caipora.

The case of Caipora provides an opportunity for philosophers to reflect about the intricate relations between ontology and practice as it makes visible contingent elements that often remain masked when taking one's own ontologies as self-evident. Taking one's own ontology to be self-evident, however, does not mean that it is free of contingent elements in building relations with domains of application. *Sustainability* provides a straightforward example due to its relatively recent and overt roots in modern capitalism and its enormous influence in (re)structuring how scientists think and "engage with environments". The same is true, however, for the very configuration of the nature/culture divide in European modernity, as increasingly stressed by environmental historians and political ecologists (Büscher and Fletcher 2020). Ontological splitting of the world into a natural and a cultural half are not only unknown to many Indigenous communities but have also fundamentally shaped how Western scientists relate to the world, both in terms of conceptual resources (e.g., "wilderness") and practices of intervention (e.g., "fortress conservation" approaches).

By changing the question from asking "What does *Caipora* represent in the world?" to "How does *Caipora* shape relations with the world?", it becomes possible to embark on a journey of intercultural learning, which can raise transformative questions without engulfing oneself in the often dubious task of mapping the conceptual vocabulary of one culture to another: What would it be like to live in a world with Caiporas? What is the experience of fearing the Caipora like and how does it factor in decision-making processes when considering strategies for using natural resources? What kinds of relation with animals, forests, mangroves and the sea would exist in such a world? How would such a world differ from the academically familiar world of sustainable resource use? What would it mean for the community of Siribinha if Caipora disappeared? What are the effects of global ontological transformation and the marginalization of Indigenous ontologies? What can we learn from being reflexive about our own ontologies and ways of relating within social-ecological systems at the brink of ecological collapse?

Taking these questions seriously requires reorienting ontology beyond representation in the narrow sense of matching concepts and referents. Focusing on the referent of Caipora distorts a wide range of questions about Caipora ontology and its role in mediating affective, cognitive, and practical relations between communities and environments. This does not mean that questions of representation disappear. Especially when representation is understood in a broader sense, it very much bears on how we view our affective, cognitive, and practical relations with the world. One way or another, however, Southern Ontologies challenge philosophers to look beyond the question of referents and acknowledge the rich roles of ontologies in shaping our actions and ways of being in the world.

## VI Conclusion: Relating Ontologies and Global Justice

The aim of this article has been to clarify the notion of Southern Ontologies through both philosophical debate and our encounters with local ontologies in Brazil and Ghana. We argued that ontologies have both representational and relational functions. First, ontologies are representational tools that are intertwined with practices. Through three case studies of biological ontologies, we have shown that different bioontologies emerge within heterogeneous practices and are connected to equally heterogeneous representational needs. Second, we argued that ontologies are not merely ways of representing but also of being and relating to the world. Cases of deep ontological difference such as *thinking forests, rivers as ancestors,* or *Caipora* (or in converse: the modern notion of *sustainability* and the *nature/culture* dichotomy) are poorly understood through a purely representational lens, as they crucially function to shape relations with environments and build moral orders.

As ontologies are entangled with different representational and relational needs, they also raise questions of justice: Whose ontologies matter in the interaction between Indigenous/local communities and academic researchers? Whose ontologies matter in intercultural encounters more generally? Whose ontologies matter in the design of policies and the negotiation of social-environmental change at global and local scales? In this sense, appeals to Southern Ontologies are deeply political. It is not just about documenting that different people employ different ontologies. It is about understanding ontologies as ways of being and relating to the world of communities in vastly different positions of power that continue to be shaped through colonial legacies and their reproduction in current economic and governance structures.

In addressing this entanglement of ontologies and politics on a global scale, Southern Ontologies can be situated in a wider dynamic among paternalism, diversity, and decolonization. Many ontological hierarchies have survived the political collapse of European empires and become articulated through paternalism that treats the South as lacking not only economic but also intellectual resources. The silence of academic philosophy on Southern Ontologies reflects this paternalism — not because Southern Ontologies are explicitly rejected but because they are not even recognized as relevant for conversations about social ontology. Southern Ontologies challenge this paternalism through a reorientation towards both the diversity of ontologies and the need to decolonize their relations. Reorientating social ontology therefore requires navigating among deeply entrenched paternalistic assumptions, emphasis on ontological diversity across local scales, and calls for decolonizing the relations between distinct ontologies.

*Ontological Paternalism*: Epistemic paternalism constitutes a major line of continuity in the science system despite its transformation from colonial science to post-war "research for development". While

modern science has indeed improved livelihoods in some areas of the Global South, the exclusive focus on the authority of academic researchers and institutions has also played an important role in degrading environments, dispossessing Indigenous and peasant communities, and stabilizing a system of unequal development in which poor countries carry the social and environmental burden of producing cheap commodities for consumption by rich countries. While current debates about "inclusive development" aim to overcome such paternalism (Ludwig et al. 2021), it often remains invisible how this requires not only recognition of epistemic but also ontological heterogeneity. As our case studies show, epistemological and ontological issues are deeply entangled in the negotiation of different knowledge systems in the Global South. While this paternalism is most clearly expressed in modernist development that treats Southern Ontologies as naive or misguided (Kramm 2021), it also shapes the silence of academic philosophy that often fails to recognize the South as an equal conversation partner in social ontology.

*Ontological Diversity:* Emphasis on diversity provides an obvious entry point for challenging paternalist perspectives on epistemology and ontology. There is increasing recognition of epistemic diversity in both empirical sciences and philosophy. Indigenous and local knowledge (ILK) has become widely recognized in research on social-environmental systems and incorporated through methods of transdisciplinarity, participatory research, citizen science, multistakeholder platforms, and so on (Ludwig and Boogaard 2021). On the philosophical side, feminist epistemology has been successful in putting questions of diversity at the center of debates through accounts of "situated knowledge" (Haraway 1988) and "standpoint theory" (Harding 1986). These debates can be extended from epistemology to ontology, as they point towards the risk of tame diversity exercises that are largely limited to cheering a superficial pluralism of "letting a thousand ontologies bloom" without reflecting on the political relations between them. This risk is especially evident in transdisciplinary approaches of knowledge integration that largely focus on the value of ILK in contributing to research that is (e.g., in terms of questions, methods, intended impact) already defined by academic researchers. As such, appeals to diversity do not necessarily lead to more just knowledge production if they do not incorporate insights about the political structuring of standpoints in the negotiation of practice (Harding 1986).

*Ontological Decolonization*: The limits of tame diversity exercises have become a driving force of debates about decolonization in science (Tuck and Yang 2012). Diversification is not sufficient if diverse knowledge systems are simply assimilated into existing academic frameworks that already define relevant questions, methods of validation, and intended impacts. Decolonization articulates a more fundamental challenge by focusing on these frameworks as a main site of political struggles of justice and sovereignty in the Global South. This challenge also applies to engagement with ontological diversity. There is limited political potential in documenting the global diversity of ontologies while focusing on what they have to contribute to the questions that Western academics are already asking

and to the concerns that drive their current research. Instead, the challenge of decolonizing ontology reaches deeper by raising the question of how Southern Ontologies can disrupt and transform research frameworks that have been shaped through colonial agendas and the marginalization of Indigenous concerns.

Situating ontological debates in the interplay between paternalism, diversity, and decolonization constitutes a challenge for scientists and philosophers alike. For scientists, "research for development" has long been defined through its impact: elevating people out of poverty, reducing malnutrition, increasing access to clean water, or to basic medical services. Who'd want to dabble with ontology in the light of these existential issues? But the issues at hand are not ontological musings disconnected from the focus on improving livelihoods. Instead, just interventions that actually improve livelihoods require ontological reflexivity that incorporate Southern representations and relations. Ontological paternalism remains the least challenged component of paternalistic development regimes that export science and technology with the promise of improved livelihoods but often fail to fulfil this promise and instead accelerate social-environmental crises in the Global South.

The lessons for philosophers are just as challenging. Ontological paternalism remains deeply entrenched in academic philosophy as it is normalized to approach global issues without any acknowledgment of Southern perspectives. For example, social ontology has seen a burgeoning literature on race and racism with very little acknowledgment of racial concepts, theories, material conditions, or practices in the Global South. Even when social ontologists express explicitly emancipatory goals, they often aim to extrapolate from linguistic and social analysis in the Global North without any recognition of Southern Ontologies and their importance for diversifying or decolonizing debates about race (Ludwig 2019; Msimang 2022).

Southern Ontologies challenge the status quo of social ontology while providing a variety of entry points for reorienting agendas in social ontology. First, there is the challenge of broadening the scope of ontological analysis as academic philosophers are often simply not aware of ontological conflicts in the Global South. Especially in the light of growing philosophical concerns with the intersection of ontology and justice (Díaz-León 2020; Griffith 2019; Haslanger 2012; Jenkins 2020), issues of global ontological justice need to become a more robust part of the debate. Second, broadening the scope of ontological analysis also requires broadening philosophical questions about ontologies. Indeed, we have argued that more traditional philosophical questions about representation and reference matter. But they have to be complemented by a wider analysis of how ontologies shape relations, moral orders, and forms of care. It is not just about what ontologies represent but also about *what ontologies do*. Third, there is the methodological challenge of addressing ontologies in inter- and transdisciplinary ways together with empirical researchers and local communities in the Global South — ontological justice

requires talking *with* rather than merely *about* the Global South (Kimmerle 2007). While intercultural dialogue is widely addressed in African (Mosima 2016; Ramose 2007; Wiredu 1998) and Latin American (Dussel 2004; El-Hani 2022; Grosfoguel 2015) philosophies, it remains a challenge for social ontology in the Global North without established traditions of collaborative, intercultural, and interdisciplinary research. At the same time, this article also aims to demonstrate that different ways of doing philosophy are possible by bringing disciplinarily and geographically diverse researchers in conversation with local communities.

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