

Ontologies as Embodied Social Practices: Caipora in Northeast Brazil and Ethnography as a Method of Ontological Analysis

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Abstract: This article brings together philosophical and anthropological perspectives to explore the empirical manifestations of ontologies and reflect on their social and practical dimensions. While some philosophical debates analyze ontologies as abstract objects disconnected from everyday ontological commitments, we build on Tim Ingold's work on an ecology of life to approach ontologies as embodied practices. Drawing on ethnographic fieldwork with an artisanal fishing community, namely, Siribinha, Brazil, this article focuses on Caipora, a forest being who is a significant agent in regulating human-nature relationships. The ethnography captures embodied manifestations of Caipora in Siribinha across hunting, intergenerational conversations, and religious practices, showcasing the embodied, social and practical dimensions as central to its ontology. Our analysis contributes to the debate on how ontological commitments are entangled with social practices by presenting ethnography as an effective approach for generating insights on ontologies understood in this way.

Keywords: social ontology, ethnography, anthropology, analytic metaphysics

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1. INTRODUCTION

Certain philosophers envision their debates on ontology as ideally taking place in an isolated “ontology room”, where matters of existence can be discussed with no disturbance by everyday ontological commitments (Baker 2015; Van Inwagen 2014). In the ontology room, philosophers can wonder, for example, about the existence of chairs and other composed objects even if their existence is assumed to be trivial in everyday contexts. However, not all philosophers seek shelter in the ontology room. A growing number of philosophical projects study the empirical reality of ontological diversity. Social ontologists, for example, are interested in how social kinds are being negotiated and constructed across different societies (Baumann and Bultmann 2020). Philosophers of science investigate ontology building and ontological controversies across the natural and social sciences (Longino 2020). Philosophers with a wide range of interests from philosophy of law to philosophy of psychiatry to environmental philosophy aim to understand how ontological commitments are entangled with social practices from legal rights (Kramm 2020) to the diagnosis of mental disorders (Zachar 2014) to conservation policy (Casetta 2020). These empirically informed approaches show that understanding diverse ontologies across everyday and scientific contexts requires philosophers to step outside of the ontology room by connecting the empirical reality of ontological diversity with conceptual philosophical reasoning.

Connecting empirical reality to philosophical analysis is particularly urgent in intercultural contexts where deep ontological differences become entangled with radically different practices and values. Indigenous ontologies, for example, have become an increasing concern among academic philosophers, pointing to the diversity of ways in which humans think about and engage with the world (Ludwig 2016; Stewart-Harawira 2016). Engaging with diverse ontologies makes it explicit that navigating between vastly different ontological commitments has real political stakes. Instead of reproducing colonial tropes that quickly dismiss diverse ontologies as expressions of “primitive” thinking that would misrepresent how the world *really* works, philosophers are challenged to make sense of ontological diversity in a manner that can facilitate meaningful dialogue and mutual understanding.

In this paper, in dialogue with conceptual and methodological resources of current anthropology, and specifically the anthropological debates on ontology (Holbraad and Pedersen 2017), we experiment with ethnography to propose a framework for philosophical analysis of ontological diversity. As a qualitative research method of immersion in real-world environments, ethnography offers a powerful framework to closely observe and analyze how people engage in specific activities, uncovering how these actions are shaped by and interact with their surrounding circumstances (Lichterman 2017). Through ethnography, we study the empirical manifestations

of ontologies in the context of transdisciplinary research in the artisanal fishing community of Siribinha, located in Bahia, Brazil. In the analysis we draw on the anthropological work of Tim Ingold (2000, 2006) who views life as fundamentally embodied, dynamic and emergent in active engagements with the environment. By employing ethnography to examine how modes of existence are shaped through everyday social practices, our study not only adds to the ongoing discussion on the interplay between ontology and practice but also offers a methodological contribution to social ontology by demonstrating how in-depth, context-sensitive inquiry can illuminate the lived dimensions of being.

The empirical focus of our research concerns the manifestations of Caipora in the estuary of the Itapicuru River, where Siribinha is located. Caipora is an entity originating from Amerindian cosmologies (Almeida 2015) that also spread to other communities in Brazil, such as artisanal fishing communities of diverse ethnic backgrounds (Arregui 2015; Magalhães, Costa Neto, and Schiavetti 2014). Caipora is a forest being that is like a shadow that leaves no trace (Almeida 2007) and is responsible for the regeneration of animals. The effects of their¹ actions are consequential for all hunters, for the better, when Caipora provides them with the animals to hunt, or for the worse, as Caipora punishes those who offend them, for instance, by enchanting the disobedient and making them get lost in the forest. While in different regions of Brazil the narrative of such a steward of animals is common, the being is known under different names, such as “Caapora, Caiçara, Curupira, Dona-das-folhas, Pai [or] Mãe-do-Mato, Flor-do-Mato, Caboclinha, ... Florzinha” (Costa Neto, Santos-Fita, and Aguiar 2023, 12).

Through the ethnographic work, we aimed to understand whether and how Caipora participates in the regulation of human-nature relationships, especially with regard to a key concern of the transdisciplinary research project in Siribinha, namely conservation management. Guided by Ingold’s approach, in our analysis we present Caipora as an entity in the embodied ontologies of community members. In this way we showcase ethnography as a method of ontological analysis, revealing what such practice- and embodiment-oriented understanding brings to the analysis of ontologies.

The paper is structured as follows. We first situate our analysis within relevant conceptual debates of social ontology and ontological anthropology. We then present the study context, methodology and descriptions of our ethnographic research. Based on the research findings, we carry out an embodied social practice-oriented ontological

1 In the literature Caipora is described as a being whose gender status is ambiguous (Almeida 2017). In conversations with the community members, however, Caipora was most referred to as female, *ela* in Portuguese. In the paper we use both genders in accordance with the material which is referred to in each instance (*they* for the literature and *her* for the ethnography).

analysis of Caipora and show how such analysis can capture ontological diversity in the context of transdisciplinary research. Finally, we extrapolate more general insights on the entanglement of ontology and practice.

2. SOCIAL ONTOLOGY AND ONTOLOGICAL ANTHROPOLOGY

Social ontology can be construed in multiple ways. Primarily, it has been defined as analyzing the existence of social entities, viewing “ontology as an inventory of what genuinely and nonredundantly exists” (Baker 2019, 2). As such, the goal of social ontological accounts is to provide frameworks of justification for claims about the existence of social objects (e.g., money, nation states) and social kinds (e.g., gender, race) in a way that is not necessarily reducible to a purely physical existence.

In recent years, a complementary perspective on social ontology gained prominence, focusing on describing the social dynamics which have ontological questions at their core, thereby making sense of social diversity. Debates relating to ontic justice and self-determination (Jenkins 2020; Murdock 2024; Ludwig 2018) can be seen as located within this understanding of social ontology. Just as social epistemologists can address knowledge production as a social process that also extends into domains such as mathematics (Andersen 2020) or microbiology (Wagenknecht 2016), social ontologists can address ontological negotiations as social processes that also extend beyond debates about the inventory of the social world. Importantly, this view shifts the key focus away from the challenge of providing justification frameworks for the existence of social entities and towards considering ontologies in entanglement with social practices and real-world power dynamics. One might notice, however, that scrutinizing social dynamics falls outside of the scope of traditional philosophical methodologies, such as literature, conceptual and argument analysis. For this reason, in advancing this orientation of ontological reflection, the interdisciplinary engagement with ontological discourses outside of philosophy, more specifically, in ontological anthropology, has been suggested as a possible pathway forward (Turska and Ludwig 2023).

Ontological anthropology has been defined as a broad intellectual current in contemporary social anthropology, which departs from putting into question the dualistic ontological order separating the ontological realms into nature and culture (ibid.). A particularly influential strand in ontological anthropology, namely the ontological turn, rooted in Indigenous and decolonial scholarship (Todd 2016) as well as in the works of Eduardo Viveiros de Castro (1998, 2014, 2015) and Philippe Descola (1994, 2013), shifts from interpreting diverse knowledge systems as multiple perspectives on a single shared reality to understanding them as enacting multiple, distinct worlds or realities. As such, the ontological turn literature emphasizes that

different communities may not just see the world differently but that they may inhabit fundamentally different ontological realities (Holbraad and Pedersen 2017, 5–6), challenging the monistic view of a singular, universal reality, and calling for anthropology to engage with these diverse worlds on their own terms, rather than translating them into familiar categories.

The relevance of this conceptual intervention to knowledge dialogues is important to recognize in the context of our case study. Instead of treating these dialogues as a “fact-finding debate”, in which there could only be one correct perspective because it aligns with a singular, universal reality, the ontological turn suggests that each epistemic community possesses a form of knowledge rooted in their unique, legitimate reality (Risjord 2020). This shift proposes that conflicting perspectives reflect different ontological frameworks, with each one accurately describing its own world. Anthropologists interpret “multiple worlds” as shaped by locally constituted practices and empirical realities. These life-worlds are not imagined as if they existed on different planets, but they are embodied and materially grounded ways of being that emerge from specific historical, ecological, and sociocultural conditions. The anthropological view foregrounds the diversity of ontological perspectives and their implications for how communities organize and interpret their experiences.

Certain readings of ontological anthropology underscore the importance of considering the embodied and dynamic aspects of ontological practices. The *ecology of life* project of Tim Ingold (2000)², for instance, conceptualizes knowledge as constituted by the situated interactive relationship between the community and the environment. According to this approach, the goal of anthropological analysis is to holistically convey the relational and thus interactive and embodied constitution of all processes of interpretation and knowledge production.

Such analysis looks past the issue of justification of existence claims to consider the entanglement of diverse entities with practice. More specifically, the need for providing justification of existence claims about entities which are relevant to knowledge practices becomes decentralized, as the description of the active engagement suffices to consider the entities as objects of knowledge. Importantly, echoing phenomenological anthropology (Desjarlais 2011), practices are not understood here as set collective-dependent structures which are ontologically primary to individual behavior but as active engagements which continuously emerge through relational interaction between various beings and objects³.

2 We use the term *ontological anthropology* to broadly refer to works of anthropologists who are concerned with ontological questions. It is important to note that there are important differences within this group. For example, Ingold explicitly criticized some key texts of ontological anthropology (e.g. 2016).

3 For further discussion on this important difference, see: Ingold (2000) and (Kochan 2024).

This idea of ontologies as linked to social practices is already present in social ontology. For instance, Kendig (2024, 93) defines *practice-based ontologies* which are “developed and changed through the activities of those using them”, which are “employed for a purpose”, and which speak of *ontology-making practices* (96). On her account, the ontological pluralism of the soil ontologies can be explained by how these ontologies emerge from an interplay between social, cultural, ethical and material aspects of entities. Furthermore, social practices themselves have been theorized through the conceptual means of social ontology as “recurrent actions performed by organized groups according to collective reasons” (Godinez 2023, 90) which shape the relationship between human collectives and entities, both material and social.

While the view on ontologies as grounding practices provides an important starting point for our investigation, there is a conceptual distinction between our theoretical approaches. In line with Ingold’s ecology of life, what we want to arrive at is a view of ontologies *as* embodied social practices rather than ontologies only as representational frameworks *shaping* or *shaped by* social practices. The practice-based ontologies view may work when applied in domains where ontological frameworks are explicitly articulated and correspond to clearly identifiable entities, such as in the case of soil classifications. However, in the spheres of reality in which the boundaries between the different ontologies are notoriously difficult to classify, their material and social aspects, as well as their pragmatic importance and political significance, become impossible to distill. Yet, while elusive, these practices are nevertheless relevant to document and theorize given their pragmatic salience, for instance, in political and educational dimensions. Therefore, our goal is not to give an analysis of the Caipora ontology based on ethnographic research, but to state that the ethnographic treatment itself, as an attempt to capture the embodied social practices related to the Caipora, provides its ontological description.

3. SITUATING THE EMPIRICAL

Generally speaking, engagement with empirical material is no longer controversial in contemporary philosophical research practice. Philosophy of mind and cognitive science, in particular, are at the forefront of challenging the view of philosophy as a purely conceptual enterprise, primarily by incorporating quantitative empirical findings from psychology and neuroscience (e.g. Dennett 1993). Aside from that, in recent years the use of qualitative research methodologies, especially in philosophy of science, has been gaining prominence (Ankeny and Leonelli 2024). Among those, ethnography (Lichterman 2017; Ingold 2017; Biehl 2013), most commonly associated with anthropology, is particularly helpful in advancing our goals for this project.

“The aim of ethnography, as we understand it, is to render an account of life—in writing, film, or othergraphic media—as it is actually lived and experienced by a people, somewhere, sometime. Good ethnography is sensitive, contextually nuanced, richly detailed, and above all faithful to what it depicts”, writes Ingold (Ingold 2017). The use of ethnography in this inquiry is therefore motivated by our interest in deepening our understanding of ontological diversity by engaging with its empirical manifestations. The ethnographic encounters developed our normative and explanatory thinking about ontological diversity. By sharing the ethnographic descriptions from our work in Siribinha, we aim to convey an account of those empirical realities which is as close as possible to what we had in fact experienced. In this way, we aim to experiment with the concept of ontology to rethink, both conceptually and practically, the ways in which ontological diversity can be theorized. Furthermore, through this consideration we aim to elucidate how to navigate collective knowledge-making activities, such as the transdisciplinary research project that we are involved in, in the face of ontological diversity.

Moving on from the *how* to the *where*, we now briefly introduce the geographical and socio-economic context of our case study. Siribinha is located on a small strip of land between the Itapicuru River and the mangrove forest in the West and the Atlantic Ocean in the East in Bahia, a state in Northeast Brazil. Until the 1990s, when a gravel road connecting the village to the municipal capital Conde was built, this community of artisanal fishers was living in relative isolation, with the riverine transport as the sole way in or out, with Conde being reachable in 1.5–2h in a rowing boat (El-Hani, Poliseli, and Ludwig 2022). The community traces its diverse heritage to a mix of West African individuals brought to the region through enslavement, Portuguese colonizers, and the Tupinambá Indigenous people, who inhabited the area until the 1970s, and earns its living through fishing, shellfish gathering, and small-scale tourism (Renck et al. 2022).

Although Siribinha and other nearby fishing villages are impacted by globalization induced transformations, just as other fishing communities around the world (Thompson, Johnson, and Hanes 2016), including tourism lacking proper management, impacts of semi-industrial fishing, decrease in fish and shellfish populations, and gentrification, these changes have been happening on a slower pace in this region than in other parts of the north coast of the state of Bahia. Consequently, Siribinha fishers still use several sustainable artisanal fishing practices, and its fishing culture is still alive, with new generations of fishers being actively learning the local knowledge. This artisanal fishing knowledge contributes to the conservation status of the estuarine mangrove forests (Guimarães et al. 2019; Bollettin et al. 2023; Renck et al. 2023).

Our research in Siribinha was carried out as part of an initiative entitled “Development and application of a theoretical framework and a research model

on intercultural education” led by the History, Philosophy, and Biology Teaching Lab at the Federal University of Bahia. This research team has been working in the community since 2016. While the project encompasses a wide array of research interests, including conservation, ethnobiology, educational research and philosophy of science, the overarching goal is to carry out research in collaboration with the local community, in accordance with transdisciplinary research methodologies (De La Rosa et al. 2024).

At the core of these methodologies there is a recognition that the diverse social actors who come together to produce research outputs can differ from each other across multiple dimensions, such as epistemologies, ontologies, and values (Ludwig and El-Hani 2020), and that the recognition of these differences is necessary for engaging in research that is truly collaborative. The goal of the investigation of the manifestations of Caipora was precisely to better understand the ontological dimension of this diversity by describing an entity which exists within the ontological landscape of the community.

The data collection for this inquiry occurred over three stays with the community, in February 2022, August 2022, and February and March 2023. The ethnographic description also includes one scene from an event entitled *Communities of Research, Communities of Practice Towards a Transforming Transdisciplinarity* organized in Salvador, Bahia, in March 2023. The participants provided informed verbal consent for the interviews, and the names of the participants were changed for privacy.⁴

Lastly, on the methodological side, as an international group of researchers, we consider it necessary to briefly reflect on the linguistic and cultural factors that influenced our data collection. All interviews were conducted in Portuguese. The first author, who is the first-person speaker in the ethnography, has an elementary knowledge of Portuguese, and was supported in the data collection and analysis by two Brazilian researchers who participated in the project and co-authored this article, Lucicarla Oliveira and Charbel El-Hani.

In what follows, we give an ethnographic account of our investigation of Caipora in Siribinha. After that, we treat these results analytically, focusing on the description of the diverse manifestations of the Caipora ontology and how that influenced our thinking on the concepts of ontology and ontological diversity.

⁴ The project in which the study is situated was approved by the Committee for Ethics in Research from the Nursing School of the Federal University of Bahia under n. 2.937.348 (Certificate of Presentation of Ethical Appreciation—CAAE—n. 97380718.3.0000.5531) as well as by the Social Science Ethics Committee at Wageningen University and Research (2023–1-Turska) and followed Brazilian and Dutch laws concerning research ethical procedures. It was also registered in the Brazilian National System for the Management of Genetic Heritage and Associated Traditional Knowledge (SisGen) under n. A053F57.

4. CAIPORA IN SIRIBINHA

According to several accounts of the community members, Caipora's enchantment begins with hearing your name spoken in the voice of someone you know very well, as if they are calling you to join them. This is why, before we headed to the mangrove for our crabbing expedition, Eduarda instructed us not to use names when addressing each other, to avoid giving our names away. Having borrowed a few plastic buckets and simple fishing rods (long sticks with a piece of fishing line and a hook tied to the end), we traversed the river to the nearest entry point into the mangrove. There were five of us, Eduarda and Isabel, cousins and Siribinha natives, and three researchers, Rachel, Marta, and me. We left the boat at the edge of the forest. Eduarda hung pieces of fish meat on the hooks. We got out of the boat and were instantly knee-deep in the mud. Walking through the mangrove was thrilling, our feet sinking in the swampy surface, moving like cats through the labyrinth of branches and roots. Eduarda showed me a spot that she considered very good for catching the *Aratu* crabs (in the scientific-academic taxonomy, *Goniopsis cruentata*), and indeed there were so many of them. She said that *Aratus* are drawn to noise, so we should use the buckets as drums, talk to each other loudly, or sing to them, to make them appear. The technique worked very well, for as we were making noises, the crab bodies would emerge from the muddy ground. They caught the fish bait many times with their claws, but I struggled to transport them into the bucket, as they would let go of the bait before I managed to move the rod. For the longest time, I couldn't catch any.

We then moved to another location, deeper into the mangrove. We were sitting far in between. I could still see Marta and Rachel, but Eduarda and Isabel disappeared from my field of sight. The mangrove is dense and intensely patterned. It is difficult to locate oneself in space, and one can easily lose one's companions somewhere in the labyrinth. I sat in stillness and sang to the crabs. I was finally getting a hang of the technique when I realized I could no longer see Marta. With relief, I observed that Rachel was still around. I joined her and upon realizing that we were on our own we decided to make our way to the river and to wait for the others by the boat. As we waited there, many times we heard voices nearby. We called out for our lost companions, making sure not to use their names. No response. After a while, they met us back by the boat. When asked whether they heard our calls, they declined: "We were too far away to hear you."

Another time, Vitória and a group of other women from the community arranged a surprise "Welcome Back" party for Marta, the researcher who participated in the crabbing expedition described above and who had spent an extensive amount of time in Siribinha in the previous year, while conducting research for her master's thesis. The party was set up in the building of the closed-down village school, and

there were food, drinks, cake, and decorations. We gathered in a circle with music playing softly in the background, occasionally interrupted by the playful entrance or exit of a child. All of a sudden, the atmosphere in the room shifted to more solemn, eerie, one might say. The party guests started sharing tales of Caipora, and other frightening entities.

“Caipora is everywhere where there are plants”, said Eduarda, the crabbing expedition leader, expert shellfish gatherer, artisan, and mother of two. “She makes you get lost by calling your name. She can imitate the voices of your friends and family, which makes her enchantment even more confusing. Even in your house, you shouldn’t go if you hear your name being called but you cannot see who is calling you. Some people who had been kidnapped by Caipora have been known to wake up in Poças [a neighboring village, about 6 km away] or Conde [the biggest city in the municipality, 22 km away].”

Angelica joined the conversation and shared the following. She was 17 or 18, staying with her parents overnight in Cajueirinho, a nearby village situated between the Itapicuru and the Pirangi rivers, on top of a tall sand dune. At night, they all heard and felt a very strong wind disturbing the peace and the quiet. But when they woke up, no effects of the strong winds were visible, no broken branches, no damage to the boats, nothing. Angelica said: “When we were kids, the entities were here. Now no more. They still exist, but they do not appear so often anymore”, they all insisted. I asked: “Why do they do what they do?” “No reason. Just to make you afraid.”

Next year, when asked about Caipora in an interview, Eduarda was at first very hesitant to repeat and expand on her story. “I don’t know anything”, she insisted. Only after a while, she explained: “I was deceived many years ago when I was a child... Not today, not anymore. I’ve never been tricked since I grew up... It was horrible, you have the feeling that someone is calling you but it’s not that person, you know? So, I went inside (the mangrove) to gather shellfish, and as I was leaving, I heard a noise that was someone saying “Eduarda! Eduarda!”. And that voice sounded like my mother, you know? But it couldn’t have been my mother. And then I heard a friend’s voice calling me, only (later the same day) I asked her if she was calling me, and she said no! I thought she was trying to trick me, you know? Then I realized that it was really this Caipora that people were talking about. And I said (to myself), this Caipora will never fool me again, no way. That’s it, I was fooled just this once.”

Another time, Clara, a young woman from the community who is studying to become a teacher, told us: “My friend Isabel, she was in the mangrove with her grandmother, (they were) fishing and her grandmother was very far away from her. And she was alone. Then Caipora appeared, and she was just fishing.... And then, in her mind, her bucket was full of crabs. And the Caipora was tricking her, saying a lot of things to her and talking to her, then told her that she needed to go home,

that her brother was there...she was saying this to her, but her brother was in São Paulo. That's when she looked at the bucket, saw it full, and said *Wow, this is a very good fishing spot, very good, I'm going home*. Then she went to call her grandmother, her grandmother was already back on the boat. When her grandmother looked at her bucket, she said, *but you didn't even gather any crabs!* And she (said) *What do you mean, my bucket is full!* But, when she looked at her bucket, she realized that the Caipora had tricked her. Her bucket was empty."

Intrigued by this account, we headed straight to Isabel's house to ask her about this story. Isabel was not home when we arrived, she was out collecting crabs. When we finally got to interview her, when asked "Have you ever had any experience with the Caipora?", she said, "Thank God I've never seen anything like it..."

On another occasion, we chatted with a few teenagers hanging out by the main road. They also were reluctant to answer questions, "we don't know anything", they kept saying. They were laughing. Finally, one of them said: "Talk to Dona Marta, her daughter Lana who now lives in Feira de Santana⁵ was enchanted by the Caipora. She lives over there, in the house covered in colorful tiles." Dona Marta's house was indeed right around the corner. She sat down with us on the porch of her house. At first, she was shy but finally agreed to an interview. "I don't know anything", she insisted.

While often hesitant to share their own experiences with Caipora's mischief, the community members eagerly explained how one can protect oneself from Caipora's deceit or break the enchantment. Repelling the Caipora with garlic was the most commonly mentioned method of protection. Others spoke of leaving offerings of tobacco, which overlaps with accounts of Caipora from other regions (Costa Neto, Santos-Fita, and Aguiar 2023) as well as with the pop-culture image of Caipora, for instance, from the *Castelo Rá-Tim-Bum*, a Brazilian children's TV show from the 1990s. Older community members also told us that turning one's underwear or one's shirt inside out is a way to break Caipora's spell. Seu⁶ Mateus, one of the eldest inhabitants of Siribinha and an expert fisherman, surprised us with one more insight: "People say that it is difficult for her to want to deceive the person who has the name Maria. I don't know [why], but ... Maria and José are very hard for her to fool."

Maria e José, Mary and Joseph. This statement brought about a reflection on Indigenous and Christian belief syncretism. Such attitudes were evident in other statements of the community members. For instance, Seu Pedro, who is a priest in a local neopentecostal church, claimed that Caipora was of biblical origin. Larissa, who had moved to Siribinha about five years ago, from Congurito, another village in the Conde municipality, told us: "I believe a lot in the things that are in the Bible,

⁵ A city in Bahia state, 215 km away from Siribinha.

⁶ *Seu* and *Dona* are added in Portuguese to respectfully refer to elder community members (male and female, respectively).



Figure 1. The mangrove in Siribinha, by Maciej Niemojewski, reproduced under permission

yes, and in the Bible, it says, in Psalm 91... it says that in the night there are obscure things... it talks about the death that strikes at midnight, it talks about the arrows and all that... I can't really find the words to tell you, but I believe so much that this exists is that I see the account in the Bible that I have a relationship with it, you know? Does it make any sense that it's in the Bible with these things that people were telling you and that I'm telling you?"

Gabriel, another expert fisherman, when asked whether Caipora was discussed in churches, answered: "As far as I know they don't say anything. Because this thing of talking about the Caipora is very old and they don't want to know. Who speaks more is the old people, the elders, who pass this on to the younger ones so that we stay alert, and we can see that everybody respects and nobody contests Caipora."

And so Caipora belonged to the "old beliefs". This sentiment was reminiscent of what we had heard during the party, and what we were to continue hearing throughout our time in Siribinha. The belief in Caipora was seen as eroding over time: "In the old days, it seems that belief was greater, everyone believed in it and that helped a lot. It doesn't happen today because people doubt culture and folklore. Today things are like this, we only believe what we see. So today, we have the wisdom of this belief because the (older) people used to tell us about it. But today there's hardly anyone talking about (the Caipora)", said Isabel. Dona Maria, a retired shellfish gatherer and lifelong inhabitant of Siribinha, said the following: "In the old days, we were so stupid that we went fishing carrying garlic because they say that Caipora doesn't like garlic." So not only did the Caipora sightings become less frequent over time, but also the old methods of protection came to be seen as irrational and superstitious.

While the apparitions of Caipora are said to be decreasing over time, the entity's legacy is perceptible in the fear that the community members express about her activities. Eduarda even proclaimed the Caipora as "a thing of the devil". When asked whether he is afraid of Caipora, Gabriel said "Hail Mary! I am very afraid of her, very afraid. Even though I have never seen her, I am very afraid because even just hearing about it makes me afraid of getting lost..."

On the very next day following his interview, Gabriel told us he was enchanted by the Caipora for the first time in his life. He later reported: "I went to gather shellfish, you know, then I was gathering shellfish in the mangroves... and I've always been used to going this way... and she (Caipora) tricked me, out of nowhere. And to get out of the mangrove... it was hard work, huh! And then, ... there was a shellfish gatherer there. And he helped me, *that's all wrong*, he said, *this isn't the way you want to go to get to the other side*, and (took) me there ... That was on the road that I pass every day, I always pass straight through. I've never gotten lost. This Caipora thing really does fool you."

Other participants view Caipora as existing only in “some sense”, as Dona Maria put it. When asked why people get lost in the mangrove, Seu Pedro explained: “... this is psychological, depending on the person, depending on the turn that the person takes, he loses the wind route, because in the mangrove you lose the reference of where the wind comes from and where it goes, then you end up taking that destination thinking that is not right. There are times when there is no wind, and you get lost. And then when the night came, I got lost, so I won’t say that Caipora tricked me, because people think that everything is Caipora’s fault, poor Caipora.” Seu Mateus echoed this sentiment: “The Caipora is what others say, (to me) it is like a dream that passes us by.”

And so, the strength of the conviction about Caipora’s existence varied across the community. Similarly, there didn’t seem to be a consensus as to whether the Caipora is important or whether she has any function. Most participants in fact responded with some version of a *no* when asked whether Caipora is important. However, there were a few who indicated otherwise.

“Gabriel: I take this as a warning for you to always be alert in the mangrove or in the forest, I think that when you are inattentive, you will encounter the Caipora.

And do you believe that this way of her being, and people knowing that they can meet her makes people change their behavior when entering the bush or the mangrove?

Gabriel: I think so! You become more attentive, right? You become more cautious, and even more nervous knowing that you might lose your way back, it stresses you out.”

Vitória, responding to the same question, told us: “I think she must be like I told you, she must be like a protector, right? I mean, I’ll give you an example of a mother with a child, she’s super protective. If the mother sees someone mistreating her child, she won’t like it. Then she’ll act, right? I think this happens, like, if Caipora is the protector of the forest, it’s the human being, who goes there and starts deforesting, let’s say... this has been lost over time, over the years, you know? I think it would be good if we had that again in, at least in schools, so that the children could learn, right?”

Finally, according to Larissa: “I don’t think it’s important for me, personally... I think it can have importance in relation to the same nature, a question of protection... I believe that all this, these folkloric figures, yes, they can exist, yes, in favor of defending nature.”

In March 2023 I presented the initial results of the ethnographic research reported in this paper at the transdisciplinary meeting *Communities of Research, Communities of Practice Towards a Transforming Transdisciplinarity* during which Siribinha community members, some of whom participated in this study, were among the invited guests, and I was curious to hear their feedback on the ethnography. “I

like how you tell the story of Caipora as real”, said Angelica, one of the traditional experts from Siribinha who spoke at the conference. “I’ve been fooled by her many times. My mother as well. She is real.”

5. MULTIPLICITY AND MIXED ATTITUDES TOWARDS VERACITY

In section 1., we stated that the ethnographic research on Caipora was driven by the question of *whether and how Caipora influences the relationship between the community and the natural environment*. To reflect on this, in this section we analyze the results of the ethnography of Caipora in Siribinha and, more specifically, the elements which stood out to us as the most philosophically relevant. We label those themes as *multiplicity*⁷ and *mixed attitudes towards veracity*.

5.1. Multiplicity

The multiplicity of narratives and convictions about Caipora among the fishers presents certain difficulties to the goal of describing Caipora’s habitat, function, and relationship towards humans. We have found no consensus even on the experiences of individual fishers which, as we can see in Isabela’s case, can become a topic of gossip, nor on whether Caipora is important or scary.

How Caipora is perceived seems dynamically connected with other aspects of the lives of the individuals we spoke with. For instance, some of the community members who are practicing Christians expressed syncretic attitudes, linking elements of the Christian faith with Caipora, either explicitly, or implicitly, when the names *Maria* and *José* were described as a shield of protection from the potential enchantment. However, we also observed that other people who are also Christians did not make these syncretic connections. All in all, we have not found any easy generalizations that would allow us to say that some groups of villagers are more likely to have a certain understanding of Caipora due to some factor. For instance, we did not find that the fisherwomen, who traditionally spend more time catching crabs in the mangroves while the men most often fish at sea, have had more in-person experiences with Caipora (contrary to what we had hypothesized ahead of data collection).

⁷ In the context of this inter- and transdisciplinary inquiry, it is important to clarify the relation between our use of *multiplicity* and the prominent concept associated with the work of Annemarie Mol (e.g., 2002). While the argument we develop exhibits a strong relation with Mol’s work on the political and embodied manifestations of ontologies (see: Martin, Spink, and Pereira 2018), the meaning of *multiplicity* that we are after here is closer to its common use as a simple variety than Mol’s highly developed conceptualization as an infinitely complex entanglement.

The only issue that everyone seemed to agree on is the reduction in Caipora's presence over time. Further research would be needed to determine why this might be indeed the case. For our purposes it suffices to notice that while this erosion is universally perceived among the community members, we can also interpret it as a multiplicity in the temporal domain, showing the ever-changing character of the Caipora ontology and its relationship with the community members, who went through fundamental changes themselves in the last 30 years, due to infrastructural and socio-economic developments, as well as environmental degradation.

A similar complexity characterizes the statements referring to the relationship between Caipora and nature. Some participants readily made the connection between Caipora's mischief and their role in protecting the environment. A few invoked other figures that express the attitude of care, such as a mother and Jesus Christ. Others were not so sure, stating that what the Caipora does is just play and at times a mean one.

5.2. Mixed Attitudes Toward Veracity

Due to its philosophical relevance, one domain in which multiplicity was present deserves particular attention. It concerns the attitudes of the villagers toward whether Caipora is an element of reality, whether the accounts of encounters with Caipora are truthful, and whether the fear of Caipora is justified. Importantly, what we aim to capture here are the attitudes of the Siribinha community members toward these issues, not a verification of those claims from an outside perspective.

The attitudes towards the veracity of Caipora's existence were nuanced and expressed in many forms. Angelica's statement during the meeting in Salvador, "I've been fooled by her many times. My mother as well. She is real", came as close as possible to asserting the reality of Caipora as a being. Furthermore, the first-hand accounts of Caipora's enchantment can be interpreted as subscribing to Caipora's presence as an element of reality. These provide insights into Caipora's ontological nature as a being capable of imitating voices and performing enchantments. The interviewees detailed the embodied and emotional aspects of these encounters, where the dense and warm environment of the mangrove forest from a well-traveled path turns into the dangerous and dark unknown. At the same time, some voices in the community expressed a different attitude towards the veracity of Caipora's existence as an independent being. Seu Pedro's sentiment towards Caipora as something psychological and Caipora "taking the blame" for getting lost due to a lack of attention is relevant to highlight here. Others, such as Dona Maria, expressed mixed attitudes towards veracity in the span of the same interview, firstly recounting her first-hand experience of the

enchantment to later speak of the fear of Caipora and using protection methods as stupid and superstitious.

As mentioned above, the villagers' answers also escaped easy generalizations in this domain. For example, despite the perceived decrease in Caipora's appearances, which may point to some sort of cultural erosion, some of the older participants held a very strong belief in Caipora, while others rejected it as a superstition. As we have seen, even having experienced Caipora's mischief firsthand does not determine one's conviction about the reality of Caipora's existence.

6. ONTOLOGIES AS EMBODIED SOCIAL PRACTICES

The literature on Caipora makes it clear that the answers to the research question that guided our investigation, namely *whether and how Caipora influences the relationship between the community and the natural environment*, would be far from straightforward. Not only was the Caipora ontology explicitly described as "obscure" (Almeida 2021) but even the name and the key characteristics of the being appeared inconsistently described (Costa Neto, Santos-Fita, and Aguiar 2023), for instance, its gender. In what follows, based on the discussion of the findings from our study about multiplicity and mixed attitudes towards veracity, which were addressed in the previous section, we argue that the view of ontologies as embodied social practices provides a uniquely productive conceptual and methodological framework for capturing the dynamic and complex narrative on Caipora.

One way of situating the Caipora ontology in the literature would be to describe it as a version of animism, i.e., in terms of the ontological order in which all living beings are sentient (Descola 2013). Caipora would represent, then, the agency or soul of the forest. The goal of the forest's agency would be oriented toward the protection of its balanced ecology from excessive exploitation, thus explaining the pragmatic importance of Caipora as what in the scientific jargon could be labeled as a *sustainability mechanism*. Therefore, the referent of "Caipora" could thus be understood as the representation of an animistic cosmovision of the forest which is functionally responsible for maintaining the socioecological relations within the forest ecosystem for the ecological resilience of this environment.

It is questionable, however, how accurately this description captures what the ethnography of Caipora in Siribinha brought to the fore. The interpretation of Caipora as a representation distorts what was communicated to fit an ontology (see: Ingold 2016) where inanimate objects are inert and only sentient animals possess agency, and so the agency of a forest must be a representation, an object belief, not knowledge. Ontological anthropology rejects these sorts of explanations due to an inherent hierarchy therein of who gets to decide what counts as knowledge and

who does not (Viveiros de Castro 2004). Transdisciplinary research methodology similarly advocates against such distribution of roles among knowledge producers, illuminating the expertise of non-academic actors (Ludwig et al. 2023). In this context, the ontological analysis must not verify or justify the claims made by the interviewees. As one community member said to other researchers working on the project in Siribinha, “You guys have more theoretical knowledge and that is good. But we, we have actual practical knowledge. It is real knowledge because we use it every day, we know it is real. Let’s say, our knowledge is to some extent closer to reality than those theories that might be or might not be.” (Milberg Muñiz, Ludwig, and El-Hani, 8, excerpt from research participant M22).

Furthermore, we have seen that Caipora’s presence is characterized by a multiplicity of descriptions and a varying degree of conviction as to their existence. Thus, any community-wide determinate characterization of Caipora’s fundamental nature and their place within the relational ontology would necessarily exclude some of the voices that generously shared their stories with us. Another option could be defining Caipora instrumentally, through its role as a protector of the forest. However, the conviction of Caipora’s function as such was also rejected by some community members and, therefore, such interpretation would yet again distort what was captured in the ethnography.

To address these qualms, we propose to reimagine the possibilities of what the answers to our research question could look like. The philosophical description of ontologies in practice might not be feasible if the goal was to provide a rigid definition of the entities and a framework of justification for the existence of this particular entity. As the ethnography of Caipora in Siribinha shows, ontology is a vibrant sphere of negotiations, dynamic inconsistencies, and relations with various aspects of life and the environment.

We propose that Ingold’s ecology of life (2000), which entangles the ontological, epistemic, and phenomenological planes by situating humans within a sphere of active engagement with other beings, is a helpful starting point for engaging ontologies in practice. On this view, entities emerge through embodied and active entanglement with other entities, and those relations are ontologically prior to the individual entities themselves. On top of that, the interactions occur between entities, without passing through conceptual frameworks of representation, and so these experiences are direct sources of knowledge, which leaves them without the need for an additional layer of justification, thus providing space for pluralism. This pluralism, however, need not necessarily lead to incommensurability, as the relational interactions between agents allow them to intersubjectively co-experience, such as was exemplified by the autoethnographic experience of the first author during the crab-catching expedition. Conceptualizing ontologies as embodied social practices, where social practices are not

rigid frameworks that determine individual behavior and interaction but are always emergent through relational dynamics, allows for grasping the intricate complexity of ontologies in practice.

In this way, the multiplicity that the Caipora case study showcases can be captured by viewing the various experiences with Caipora as embodied social practices that emerged in an active interaction between the villagers, their environment, and each other. In a community with a diverse heritage and strong connection with the mangrove, river, and sea such as Siribinha, the interlacing experiences create divergent perceptions and narratives of Caipora. This explains the inconsistency between various accounts of Caipora within the community itself, and in relation to Caipora from other regions, in some cases with other names, and showing different potencies over time and space. The elements of ontologies as embodied social practices are never static, available to snapshot, and generalized into *ontology A of community B*, but always embedded in a network of relations and all the time dynamically developing.

When Gabriel speaks of his experience of enchantment, his fear of Caipora, and the role of Caipora in making sure that one pays attention when in the mangrove, that does not contradict Seu Pedro's view of Caipora as something psychological. The relation with Caipora is informed by their own experiences and thus shows different faces for different agents. Similarly, as we have seen, the Christian faith does not need to clash with having experienced and being afraid of beings of the forest with the nature of the Caipora. At the same time, this does not lead to a free-for-all form of relativism. Verification and subsequent rejection of inaccurate information is still possible within the community, as in the case of the gossip about Isabela or Dona Marta's daughter, as described above.

Conceptualizing ontologies as embodied social practices, which are always emergent in relational dynamics, makes us more equipped to learn from differences in the context of knowledge dialogues when seriously engaging with the empirical reality of ontological diversity. This perspective on ontology prompts us to challenge a literalist interpretation of scientific ontology, as establishing what things out there really are, as allegedly expressing what John Law (2015) calls a "One-World World", while other ontologies are demoted to a status of, at best, mere metaphors, narratives, legends, or at worst, superstition, nonsense, misconception (El-Hani and Ludwig 2024). Then, it is more likely we overcome questions about the "existence" or not of Caipora, which are not productive when we think of learning from others, about inquiring with others by taking their views seriously. More fertile avenues for learning and inquiring are opened when we think of the social practices related to the Caipora ontology. As Almeida writes, "The question 'Does Caipora exist?' does not have a simple answer, just as it is not simple the answer about the existence of entities whose effects are diffuse in countless aspects of daily life. Some hunters have never come

across Caipora, just as there are old hunters who have never come across jaguars, despite knowing that they exist due to the evidence of what they do. Caipora is a figure or shadow that leaves no trace. But every hunter suffers the effects of its action” (2007, 247, translated from Portuguese). What is most important and productive then is to consider how the Caipora ontology, as a social practice, becomes central for shaping further social practices like hunting. Instead of asking about existence, an embodied view on ontologies as practices focuses our attention on how the Caipora ontology regulates human-nature relations. We can think more of the difference that is produced and the indifference that is overcome in our views on the Caipora ontology, of the world that is expressed through the Caipora ontology, and of the new questions we might ask by looking at the world through the eyes of the Caipora ontology. These moves can be truly fundamental in transdisciplinary practices in which heterogeneous social actors need to act and inquire together, which often involves mutual learning.

This learning is furthermore facilitated by understanding ethnographic practice as fundamentally about meaning-making (Lichterman 2017). Philosophical analysis of ontologies gains a new dimension when the analyst engages with social realities directly in the field. Ethnography is methodologically well-positioned to explore ontologies as embodied social practices, as it allows this complexity and dynamicity to enter the analysis, while abstract reasoning would by definition attempt to generalize and thus remove those inconsistencies. Yet, those inconsistencies, or rough edges, are fundamental aspects of ontologies in practice, since it is precisely in them that we can observe how the realities materialize and influence each other. Hearing from the villagers in their own words, describing our own first-person experiences, and adding visual representations were all storytelling methods used in this paper to draw the reader into a world in which Caipora is present in multiple ways and diversely impacts people’s lives and the life of the forest. Ontological analysis performed in this way ventures outside of the confines of the ontology room and into the messy reality of ontological diversity and as such becomes relevant to the pressing conversations in intercultural contexts.

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