


RESEARCH ARTICLE

# Indigenous Knowledge and Ontological Difference? Ontological Pluralism, Secular Public Reason, and Knowledge between Indigenous Amazonia and the West

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## Abstract

Real knowledge emerges from “impossible” worldviews. Or, put differently, it is possible to accept knowledge that is produced by people whose ontological presuppositions—their baseline assumptions about the nature of reality—one entirely rejects. How can this fact be accommodated, not by advancing a wishful post-dualism, dangerous post-secularism, or implausible ontological relativism, but by working within the tradition of secular political philosophy so that indigenous knowledge, too, can be a basis for public policy and collective action in secular societies? Via a reframing Amazonian multinaturalist perspectivism—which has so inspired post-dualist civilizational critiques—as a social theory of health and illness that informs contemporary Western epidemiology’s struggles to theorize the distribution of health and illness in mass society, this article advances a general approach to recognizing knowledge that has been developed on the other side of boundaries of ontological difference. It argues that the accuracy or efficacy of any particular indigenous knowledge-practice implies the generative potential *as theory* of the ontological presuppositions that facilitated the knowledge-practice’s evolution. Combining the ontological turn’s interest in the innovativeness of indigenous concepts with a proposal for superseding its incommensurable worlds and abandonment of the aspiration to more-than-local knowledge, the article shows that indigenous ideas and their underlying ontologies are more than generic alternatives to inspire Western civilizational renewal, and opens a path to their legitimization as actionable knowledge in the terms of secular public reason.

**Keywords:** Indigenous knowledge; ontological turn; ontological anthropology; secularism; perspectivism; Southern theory; health inequalities; Amazonia

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In *The Relative Native* (2015), the renowned ontological anthropologist Eduardo Viveiros de Castro recounts an ethnographic vignette emailed to him by the late Peter Gow. During his fieldwork with indigenous Piro in Peruvian Amazonia, Gow observed a debate between an indigenous woman and a white missionary. The missionary was scolding the local woman for not boiling water before drinking it, but the Piro (Yine) woman responded that when they drink boiled water it gives them diarrhea. The missionary laughed and dismissed the woman's comment, saying that diarrhea is caused by drinking unboiled water. "Perhaps that is true for the people from Lima," the Piro woman replied, "But for us, people native to this place, boiled water gives diarrhea. Our bodies are different from your bodies" (ibid.: 35).

Indigenous Amazonians' bodies certainly are different from those of urbanites, but how different exactly, and how does this affect their tolerance for different kinds of drinking water? These are not the questions to be asked, for Viveiros de Castro. Instead of indicating leads for research on, for instance, health inequalities or intergenerational adaptive immunity, the vignette serves as an example of a "conceptual world," in this case Amazonian multinaturalism. Conceived as the opposite of multiculturalism, multinaturalism posits that for Amazonians difference is located not between cultures but between bodies. Instead of multiple cultural perspectives on a singular material world, multinaturalism posits a single human culture that is shared not only by different humans but by peccaries, jaguars, and other animals and spirits. Rather than preceding perspectives on it, the world is instantiated by perspectives depending on the bodily point of view of the one doing the perceiving. Given this subsidiary status of the material world, it follows that Piro maintain "a nonbiological idea of the body ... in which the question of infant diarrhea cannot be treated as the object of a [universal] biological theory" (ibid.: 37).

Examples from the terrain of medical anthropology have this tendency to raise the stakes for theoretical debates (Gamlin et al. 2020). This article argues that the choice in such instances is not between an imperious scientism and a patronizing respect for indigenous difference. It proposes a way in which knowledge claims grounded on a particular set of ontological suppositions may (or may not) travel across ontological boundaries and inform those whose understanding of reality depends upon a different set of initial ontological suppositions: baseline assumptions about the nature of reality. In other words, it theorizes the potential of and also the limits to *ac-knowledging* indigenous knowledge; that is, recognizing it as knowledge in its own right. In doing so, this article builds on ontological anthropology's interest in indigenous "conceptual worlds," while addressing the shortcoming encapsulated in Viveiros de Castro's advocacy of "refusing to actualize the possibilities expressed by indigenous thought ... neither dismissing them as the fantasies of others, nor ... fantasizing ourselves that they may gain their reality for us" (2015: 27).<sup>1</sup>

Viveiros de Castro's position on indigenous knowledge evinces a troubling aspect of anthropology's ontological turn. Intended as a vehicle to overcome the limitations of liberal multiculturalism—which implicitly contrasts cultural perspectives to "the privileged empty point of universality" (Žižek 1997: 44) occupied by the Western subject—the ontological turn ends up deepening the

<sup>1</sup>As this suggests, "knowledge" here is being identified based on its place of historical development rather than contemporary identities. In this terminology, an ethnically indigenous medical scientist is a practitioner of "Western" knowledge. This is as against calling, for example, the provision of scientific equipment to indigenous organizations a way of creating "indigenous knowledge" (Yates, Harris, and Wilson 2017: 807).

incommensurability between Westerner and Indigenous Other. While founded on taking others seriously, ontological anthropology reinforces the delimitation of the relevance of indigenous people's claims, thereby further reducing the latter's "discursive authority" (Briggs 1996). The Other's world may be conceptually rich, but those concepts cannot responsibly be taken to inform on matters, like infant diarrhea, of real substance.

This is an especially ironic outcome given claims in recent years that ontological difference may offer the solution to ecological crisis. Prestige social theory has interpreted ecological crisis as symptomatic of civilizational crisis, the logical endpoint of the epistemological separation of "Man" from "Nature" and subject from object. Rhetorical figures loosely grounded in the ethnographic record—including "the nomad" (Braidotti 2021), "the animist" (Povinelli 2016), and "the terran" (Haraway 2016)—have been put forward as solutions to the West's predicament. These proposals boil down to the recurrent notion of ancient wisdom for modern problems, a hazy prefigurative politics of "panpsychic" learning, "finding an alternative way of life ... to change the life we live ... to change the 'system'" (Viveiros de Castro 2013: 36, 40). It is hard to shake the feeling that this framing eschews something more substantial. It makes sense, then, that so many indigenous researchers and activists (Battiste 2011; Cajete 2021; Fletcher et al. 2021; McGregor 2013; McKemey et al. 2022; Meyer 2014; Pihama 2021; Steffensen 2020; Virtanen, Olsen, and Keskitalo 2021) are bypassing this deepening conceptual relativism and mobilizing instead in the name of indigenous knowledge.<sup>2</sup>

As the socially sanctioned link between the West and its others, anthropology should be able to legitimize and facilitate public resourcing of those indigenous knowledge practices—like Australian bushfire mitigation, circumpolar wildlife management, and Amazonian healing—that are most consequential for ecological and other shared human challenges. Yet the discipline remains uncomfortable involving itself in the truth or falsity of indigenous discourse. While in the first half of the twentieth century a researcher might opine, "Witches, as the Azande conceive them, clearly cannot exist" (Evans-Pritchard 1976[1937]: 18), since the latter twentieth century, anthropologists have diplomatically avoided epistemic judgement in favor of "thick description" (Geertz 1973). Instead of considering the insight or efficacy of indigenous knowledge and practices, anthropologists elucidated the universe of interrelated linguistic and symbolic meanings in which such ideas and practices make sense, and it was always a kind of sense contained to that local context.

As such, when indigenous knowledge was reconceived as a source of empirical data within sustainable development and so-called ethnodevelopment from the 1990s, anthropologists were less likely to support such moves and push for a broader legitimacy for indigenous knowledge than they were to critique the de-contextualization of indigenous knowledge *tout court* (e.g., Nigh 2002; Pool 1994). Ontological anthropology has since developed an alternative way of taking indigenous claims seriously (Henare, Holbraad, and Wastell 2007; Lima 1999; Verran 2001; Viveiros de Castro 1998). Yet in comparison with the cultural contextualization approach, the ontological approach only deepened the degree of contextual

<sup>2</sup>Of course, indigenous scholars are not uniform in their approach; there are also influential voices mobilizing the concept of ontology (Moreton-Robinson 2013; Watson 2015).

relativism and the objection to indigenous knowledge transcending or being “detached” from its context (see Candea 2019: 140).

Indeed, the novelty of the ontological turn arguably lies less in its interest in informants’ “ontology”—which had been long-established not only as an implicit interest (e.g., Radin 1927) but also an analytical term (e.g., Brown 1986: 26; Geertz 1983: 61; Hallowell 1960)—and more in advancing a more fundamentalist position on the incommensurability of concepts drawn from the different worlds that ontologies are said to instantiate. Thus, where for Geertz “an ethnography of witchcraft as written by a witch” would be fundamentally flawed, “imprisoned within their mental horizons” (1983: 57), for ontological anthropology it is an ideal to approximate (e.g., Holbraad 2012: 93–94). Where for Geertz the field was “a total pattern of social life” (1983: 67), the ontological turn sees a different reality altogether.<sup>3</sup>

In the following section, this article proceeds into a more substantial contextualization of the problem of indigenous knowledge *qua* knowledge in Western social science, with a focus on ontologically minded anthropological theory and on the research that emerged from the sustainable development- and ethnodevelopment-era interest in “indigenous knowledge for development.” This brief review will establish the dialectical terms of our problem. On one side is indigenous knowledge conceived as potentially practicable but delimited to localized observations and data. Devoid of cross-contextually relevant conceptual insight, indigenous knowledge in this developmentalist sense can only serve to inform existing scientific theories upon which policies may then be based.

On the other hand, in the ontological turn, I suggest, indigenous knowledge is not recognized as such at all. Instead, indigenous people’s notions about the world construct that very world purely for themselves, such that the model ends up imagining a multiplicity of worlds that are essentially and normatively autonomous. An unwitting extension of the Foucauldian power/knowledge formulation to the ontological level of power/reality, this model denies indigenous and other non-Western knowledge the liberating leverage of truth. It removes the bite to the claim to knowledge because each and every group has their own, which is simply whatever is produced in their day-to-day activities that adds up to constitute their “world.” By pluralizing knowledge and realities, the ontological turn in this way permits a less ethnocentric understanding of difference, but at the price of being content for the political and practical consequences of that understanding to remain in the domain of “virtualities of thought” (Viveiros de Castro 2014: 194).

How can subjugated knowledges, in the plural, supersede this delimitation, going beyond their locality of origin and making legitimate claims, as knowledge-in-the-singular, upon the resources for collective action in plural societies? This article’s proposal is a synthesis of ethnodevelopment’s claim for the empirical legitimacy of indigenous observations and practices as local knowledge, on one hand; and, on the other, the ontological turn’s attention to the radical difference of indigenous concepts and thought and their potentially transformative effect on Western thinking. It proposes that the accuracy or efficacy of any particular indigenous knowledge-practice implies the generative potential *as theory* of the

<sup>3</sup>For essential counter-arguments to incommensurable worlds, see Descola (2013: 65–68) and Kohn (2013: 94–100).

ontological presuppositions that facilitated the knowledge-practice's evolution. Hypotheses generated from indigenous ontologies and the thought that flows from them can then provide new research directions. In other words, in a cyclical process material traces of indigenous knowledge practices partially legitimate the conceptual-ontological framework within which they arose, which may then become the theoretical basis and creative insight for speculative hypotheses to be pursued in further research.

The subsequent two sections carry this proposal into a case study in order to explore the promises and limitations of translating indigenous knowledge as knowledge, of recognizing the conceptual innovation of indigenous ontologies without setting up incommensurable worlds or abandoning the empirical claim to truth. The section presents an original synthesis that reframes the "venatic" (i.e. hunting-derived) and "predatory" ontologies of Amazonian multinaturalist perspectivism (Århem 1996: 188–90; Lima 1999; Overing 1986; Viveiros de Castro 1998: 472), which have so inspired post-dualist civilizational critiques, as a social theory of health, illness, life, and death.

Following the previously described model for acknowledging indigenous knowledge, the emerging verifications of Amazonian healing practices as empirically valid, I argue, justify the treatment of the ontology within which such knowledge-practices evolved as theories with hypothesis-generating potential. Such hypotheses can then be pursued in other arenas to determine whether they produce empirically verifiable material effects. This is, in other words, a self-consciously secular notion of epistemology, acknowledging that the materiality of *the* world constitutes the substrate of reality and epistemic criterion in secular public reason, but without discounting that knowledge-practices emergent from other ontologies may also gain traction on that same materiality. This proposal thereby legitimizes a political space for indigenous knowledges to be both empirically verifiable fact and cross-contextual, or put otherwise, "transparticular" (Boyer and Howe 2015) theory.

The second of the two case study sections verifies many of the postulates of this Amazonian social theory of health, thus demonstrating the generative potential of the proposed model for treating indigenous knowledge as knowledge *per se*. It does so through the observation that this Amazonian social theory of health, which has been established in the ethnological literature since the 1990s, prefigured recent decades' findings in social medicine and epidemiology regarding the socio-economic gradient in health (see Marmot 2015). These recent epidemiological findings have shown that health, illness and, ultimately, life and death depend upon one's positioning within socio-ecological webs of relative power, just as posited by Amazonian indigenous theories. In an alternate history in which indigenous ontologies were acknowledged as theoretically important and hypothesis-generating, accounts of empirically verifiable instances of Amazonian healing practices could, then, have opened space for considering the insights of Amazonian ontologies as theoretical contributions to Western understandings of health, and thus hastened the progress of epidemiology.

Yet more than just prefiguring what Western science has now established, Amazonian theories of health and illness offer investigative leads for ongoing scientific health research. As we will see, by virtue of the distinct ontological presuppositions from which their thinking originates, Amazonians have framed the operative units of analysis entirely differently to Western epidemiologists, who construct social theories of health and illness upwards from material evidence of

physiological conditions suffered by the individual (Krieger 1994). In its emphasis on behavioral risk factors, Western health knowledge also incorporates the equation of functionally equivalent individuals who experience free will but not freedom from consequences, thereby repurposing the metaphysics inherited from Christianity. In its differences from these sort of structuring premises, indigenous knowledge attains a conceptual leverage vis-à-vis Western knowledge production that more than compensates for the distorting effects of translation that preoccupy ontological anthropology. In this way, anthropological attention to indigenous knowledge as both empirical knowledge and “transparticular” theory has the potential to set off scientific innovation, which would in turn strengthen its political legitimation. All of this also suggests there is far more to learn by opening paths for treating indigenous knowledge as knowledge per se, rather than as a generic alternative for civilizational renewal in the face of social and ecological crises.

Before continuing, it is worth making explicit that this formulation deliberately retains the structuring concepts of secular political philosophy in the European Enlightenment tradition and does so as a consequence of the following key premise. The various proposals for civilizational renewal—advocating either ontological pluralism or a replacement of Western naturalism with a putatively indigenous or entirely new post-dualist alternative—err in establishing a contest between ontologies as the subject of debate. The defense of Western naturalism then appears as a parochial attachment to a particular worldview that is, moreover, bound up in a legacy of myriad social and ecological ills.

This framing of a contest between naturalism and alternative ontologies overlooks one of ontology’s most important senses: the established form of public reason in a given cultural context. An ontology never actually encapsulates all of the subtleties in the “reality view” (Harner 1968) of all members of a given society, but it does provide the shared premises for people to communicate and agree to collective action.<sup>4</sup> Conceiving of ontology in the sense of public reason, naturalism then becomes inseparable from secularism.

Originating with the Baconian ideal of incremental knowledge production based on material observation, secular materialism began as methodology, and only became a metaphysics over time as a consequence of its ever-increasing effectiveness. Its minimalism as a metaphysics subsequently became invaluable in setting the terms of the public sphere amid Christian sectarian divides and has gone on to become fundamental to our sense of individuals’ freedom of conscience. From a secularist position, then, post-dualist critiques are directed at a subject—the morality of worldview—that was never open for debate. A secular approach to indigenous knowledge aims to demonstrate that there is no need to advance such *Dialectic of Enlightenment* (Horkheimer and Adorno 2002[1944]) styles of critique against the normative Western reality view in order to recognize indigenous knowledge, as if indigenous knowledge were necessarily the West’s opposite and its solution (e.g., Gómez-Baggethun 2022: 1151). Rather than recognition of indigenous knowledge requiring, as some suggest, an unlikely “unlearn[ing] of Cartesian dualities” (Conty 2022: 130) or a dangerous “post-secularism” (Hokowhitu 2021), this article considers

<sup>4</sup>This proposal extends from David Graeber’s (2015) insistence that ontology is discourse about reality rather than reality itself. Relatedly, Charles Taylor describes the historical change from the ordered medieval cosmos to an ontology of nature as a shift in “public doctrines” (2007: 352).

the practical potential, as well as the limitations, of mobilizing indigenous knowledge within the terms of secular polities.

### Indigenous Knowledge between Data and Worlds

For a century, anthropology has been concerned with “the native’s point of view” and “his vision of his world” (Malinowski 2014[1922]: 63). The contemporary discipline traces its lineage from these ethnographers who sought to understand and show that indigenous groups’ ideas made sense in their own terms, so as to disprove the claim that they were incapable of logical thought (see Boas 1938[1911]: 197–225). The present-day ontological turn clearly descends from their interest in “the actual facts regarding aboriginal man’s [*sic*] notion of what constitutes reality and human personality,” as John Dewey (1927: xvii) glossed the significance of Paul Radin’s research, and this impulse was refreshed in Irving Hallowell’s investigation of indigenous ontology as “ethno-metaphysics” (1960: 22).

Yet while these researchers were invested in showing that indigenous groups had their own thinkers and ideas about the world, the prospect that indigenous knowledge was superior to Western knowledge in particular respects was not on their agenda. Hallowell made it plain that his detailed account of Ojibwe ontology should nonetheless be taken as the view of a “pre-scientific” people who were “accepting” of “magical tales and practices” (*ibid.*: 27–28). Evans-Pritchard was only saying the quiet part out loud when he stated that witches as Azande conceive them cannot exist. Their actual existence (or not) was beside the point, because anthropologists bracketed the question of the “objective truth of particular customs, beliefs, or worldviews” (Jackson 1996: 10), and continue to do so today in order to convey lived experiences (in the phenomenological tradition) or universes of symbolic and linguistic meaning (in the interpretive tradition).

While respecting meaning and experiences, this permanent agnosticism regarding the truth or efficacy of the knowledge and practices that ethnographies describe is unsustainable. Yet it is equally unsatisfying to coyly present happenings that surpass the Western understanding of reality matter-of-factly, without unpacking the ostensibly awesome significance of their occurrence (e.g., Stoller and Olkes 1987). What is the alternative to anthropology remaining this epistemically evasive trickster discipline, where, like Tylor’s sorcerer, we play the role of “both dupe and cheat” and “combine the energy of a believer with the cunning of a hypocrite” (Taussig 2016 [1998]: 455, 459)?

One answer is the ontological turn. Yet despite its innovativeness, in renewing the classical impetus of the discipline—as evidenced in its parallels with *HAU*’s manifesto for “ethnographic theory” (da Col and Graeber 2011)—the ends of the ontological turn have remained ambiguous. Thus, the debate between Mario Blaser and Martin Holbraad centers on the fact that while, in principle, ontological anthropology should make absolutely no presumptions about how different difference might be or what form it might take, this would leave little basis to make political or ethical claims (see Blaser 2013: 563–66). With the question unresolved, it seems understanding itself has become the ultimate goal—nothing to be disparaged, of course.

A starting point for the kind of understanding ontological anthropology might facilitate was set out by Eduardo Viveiros de Castro (2004) and Marisol de la Cadena

(2015). These theorists build from the notion of “equivocation,” which signifies the unrecognized misunderstandings that arise when an equivalence is drawn between concepts from different cultural contexts or “worlds.” In response to this barrier to understanding, they advocate holding in focus the tension between concepts and the different worlds they supposedly instantiate. De la Cadena advocates “slowing down the translation” (ibid.: 95) and keeping the “partial connections” (ibid.: 4; Strathern 2004) between worlds in view, thereby making visible whatever would be erased by converting one thing into another in the act of translation and explanation. Likewise, in the encounter with alterity Viveiros de Castro prefers “to decline to explicate” so as “to privilege the immanent notion of the problem” (2014: 188).<sup>5</sup> As Mark Risjord summarizes, “The challenge of radical alterity is to understand and appreciate it, without assimilating it to one’s own view” (2021: 140).

The result of this “methodological” settlement of the problem raised by the ontological turn (Fontein 2021; Holbraad and Pedersen 2017) is a vehicle for conceptual innovation. Rather than treating ethnography as the harvesting of data for calibrating existing theories, this approach argues that new, ethnographically derived concepts are necessary just to adequately describe fieldwork scenarios, let alone offer broader explanations (Carrithers et al. 2010: 180). The contention is that concepts originating at the level of ethnography are the preferred tool, so that the “analytics” may belong to the same scale as the ethnography (Kohn 2018). If there is a sense to be made at all, then sense-making is immanent in the local experience; the anthropologist’s task is to extend “the form of the object of the analysis to the form of the analysis itself” (Pedersen 2011: 221). The impetus could be traced to Helen Verran’s critique of the construction and reification of cultural difference as if it were “an English language type of object” (2001: 31).

The emphasis on deriving new concepts dovetails with a philosophical orientation. Viveiros de Castro resists explaining fieldwork scenarios in pre-established etic terms, but not so much to articulate more accurate ethnographies as to extract the imaginative potential of alterity. “The indigenous concept” is seen as “a *dispositif* for understanding,” and anthropologists are enjoined to contemplate “the effects it can produce in our own thought” (2014: 194). Some dismiss this methodology as an elitist abstraction of indigenous culture from the colonial realities in which indigenous nations are immersed (Andersen 2009; Ramos 2012). Yet even Vine Deloria Jr., who once called anthropologists “ideological vultures” (1988[1969]: 95), admitted his esteem for Paul Radin and his studies of “primitive man as philosopher” (2012[1979]: 212, 252; see Radin 1927). It is this recognition of indigenous thought that also seems to be the principal objective of Zoe Todd (2016).

Building mutual comprehension across strong cultural differences is a worthy aim. It is theoretically innovative to recognize indigenous concepts and philosophy in the endeavor to continually articulate a more accurate, less ethnocentric ethnographic representation. A problem persists, however, in the highly localized object and objective of this style of ontological anthropology. Indeed, this “methodological” version of the ontological turn has been advanced as the most sophisticated form of phenomenology (Pedersen 2020). In the more expansive case of Viveiros de Castro, the scope for indigenous philosophy is a device for initially seeing otherwise so as to

<sup>5</sup>A different reading on incommensurability in Viveiros de Castro’s sprawling theoretical corpus is offered by Arregui (2020: 336).



better see ourselves, as with “multinaturalism” and “the brother-in-law” (2004: 17–18; 2014: 193–94). In both versions, the outcome is understanding rather than any more concrete claim to universal or at least cross-contextual knowledge.

Ontological anthropology is associated with the critique of “belief,” of the implicit contrast between “their” beliefs and “our” knowledge that the term evokes (Pigg 1996). Though it has been advanced by researchers at a friendly distance from the ontological project (Bubandt 2014; Sanders 2008), the critique of belief is also posited as the ontological turn’s “bottom line” (Holbraad and Pedersen 2017: 188). Yet although ontological anthropology eschews representing indigenous thought in terms of belief, in its political implications it can be said to deepen the very dynamic implied in it. The notion of indigenous concept-practices “enacting” altogether distinct “worlds” furthers the sense of incommensurability and irrelevance of indigenous knowledge that the culture concept itself produces. If ethnography is elucidating different worlds—now “ontologically self-determined” ones (Viveiros de Castro 2014: 32)—then anthropology may certainly serve to foster understanding and, more wistfully, the post-humanist goal of civilizational renewal. However, as Paul Nadasdy writes, this also forecloses the possibility that indigenous knowledge “can help us understand important aspects of the (one) world in which we all live” (2021: 366). Nadasdy’s is an ethnocentric but necessary argument: it reveals rather than obscures the position and the stakes from which its ethic of engagement with those outside or on the margins of the West is articulated.

### The “Knowledge” of Indigenous Knowledge for Development

The indigenous knowledge for development initiative stands in precise contrast to the ontological turn’s interest in concepts that conjure incommensurable realities. For researchers and policy-makers committed to sustainable development and ethnodevelopment, indigenous knowledge has been seen as a valuable source of raw data and observation on *the* world. Just as in the “lateral comparisons” of twentieth-century anthropological “science” (Candea 2019: 29–31), indigenous knowledge for development was framed as inputs to inform and recalibrate established Western theories. In the 1990s, indigenous knowledge was even called “an important natural resource” in a World Bank discussion paper (Agrawal 1995: 419), as though geopolitics could be seamlessly extended to knowledge production (Walsh 2004).

The critiques that followed (e.g., Nadasdy 2005; Sillitoe 2010: 16) about the “monoculture” of Western-led development (Shiva 1993) centered on this abstraction of isolated elements of indigenous knowledge for use within a development model (primarily agribusiness, pharmaceuticals, and commodity extraction) that was not open to dialogue with non-Western perspectives. At the same time, the anthropological response was paradoxical. Instead of arguing that indigenous knowledge should be recognized as empirical data *and* as theories containing important general insights, the decontextualization of indigenous knowledge was condemned *tout court*. From a political-economy perspective, mobilizing indigenous knowledge for sustainable development in Amazonia was described as “efficient exploitation” in the context of “extractive economies that have characterized Amazonian integration into the global economy” (Nugent 2006: 281–82). Meanwhile, grounded in the interpretivist tradition, a pharmaceutical

research project centering on Mayans' knowledge of medicinal plants was said to "do violence to indigenous meanings of nature" (Nigh 2002: 452).<sup>6</sup> Yet these theorists miss the point that knowledges "act not just in but on the local" (Monnais and Tousignant 2016: 435). It is true that indigenous people often describe their knowledge as "located" (Nakata 2006), but such locatedness should be understood as the necessary grounds from which knowledge emerges: "specificity leads to universality," rather than being a boundary of knowledge's enclosure (Meyer 2014: 217; see also Hountondji 2002: 198–200; Putnam 1981: 215–16).

Seeing ontologies as not just reality views but frameworks for public reason sheds light on why scientists, anthropologists, and developmentalists struggle to accept this connection from the particular to the universal. Drawing on fieldwork in northwest Canada, Paul Nadasdy (1999) shows Canadian ecologists unable to countenance the conceptual knowledge of the indigenous people with whom they were "co-managing" wildlife. When planning a cull of wild sheep, ecologists proposed targeting the elder males, who were considered dead weight in the quantitative sense of breeding and reproduction. Indigenous experts rejected the idea, describing these rams as the "elders" of the sheep community who taught proper behavior and survival strategies to the younger males (*ibid.*: 7–9). In Nadasdy's words, "The scientists and resource managers present at the meetings neither dismissed nor refuted this argument. They simply ignored it" (*ibid.*: 8).<sup>7</sup>

This is a neat example for the general model I am proposing for acknowledging indigenous knowledge. Ecologists were able to contemplate accepting indigenous people's counts of sheep numbers, for instance, but could not consider the import *as theory* of the ontological assumptions within which their empirical knowledge is structured: in this case, that a quality of wild sheep is a sociality comparable to that of human communities. This is a theory that clearly could inform hypotheses for ecological research.

Now, the concept of "sociality" is only a translation, one that, to an uncertain degree, misrepresents because of the only "partial connection" between the lives of sheep and the lives of humans. Sheep possess a sociality that is *not only* sociality, as de la Cadena (2015: 97–100) might put it. In fact, the rendering of these leaders of the sheep "community" as "elders" is also a misrepresentation that draws on a convention for making a particular indigenous North American social role intelligible in English. Then again, Nadasdy's interlocutors may have been intentionally saying "elder" while conscious of the insufficiency of the English-language term; or potentially they had absorbed those very elements into their own conception of indigenous culture in a process of Westernization of indigenous self-awareness (Andersen 2009: 80). These are the kind of questions that arise from a focus on equivocation and incommensurability, and they pull us further and further from the constructive intent of translation.

The speculative extension of inevitably imperfect concepts into new domains is one of the bases of generating new knowledge. Nadasdy's example fleshes out the generative potential of acknowledging indigenous knowledge, where the fidelity

<sup>6</sup>Certainly there is indigenous knowledge not intended to be known by outsiders (Robinson and Raven 2020; Smith 2000).

<sup>7</sup>The same has been reported in Inuit disputes with ecologists over the culling of elder male musk oxen (Freeman 1992).

of indigenous empirical knowledge justifies consideration of their underlying ontological assumptions as theories about reality. The result, the sociality of sheep, is not just contextually embedded knowledge as presumed by the developmentalist project, but also supra-local theory.

There is even more to the example, however, because it sheds light on not just indigenous knowledge but also the ecologists. For it is implausible that these life-long wildlife enthusiasts could not possibly envision a reality in which sheep develop social relations akin to humans', and that the ontological suppositions contained in such an idea are for them a pure existential impossibility. Symmetrical anthropology has made these messy commitments in supposedly "naturalist" societies abundantly clear (Candea and Alcayna-Stevens 2012). The distinction between social life and the scientific facts with which we represent nature is an elaborate illusion conjured by intricate experimental interventions designed to purify the domains of nature and culture (Latour 2004). Fair enough, but one has to wonder: why are the supposedly pragmatic ecologists so invested in this elaborate ruse?

Ontology has many senses, but an important and unrecognized one is the established form of public reason in a given cultural context. Putative naturalists do indeed sometimes act in a way suggestive of more "super-naturalist" dispositions. However, as Alf Hornborg points out, founding any kind of claim or proposition on such dispositions is rendered invalid within "the professional subcultures which organize the most significant share of our social agency" (2006: 24). Regardless of private sentiment, all members of secular societies are obliged to operate within the terms of the public sphere that define rational and irrational discourse. In light of this connection between ontology and public reason, secularism becomes inseparable from naturalism. This is not to say that the exact terms of secularism are incontestable, but it does clarify the stakes that inhere in politically charged injunctions for "ontological self-determination" (Viveiros de Castro 2014: 32; Ludwig 2016), or for people outside a particular group to accept that group's established ontology as valid (Hokowhita 2021; Hunt 2014). To be comprehensive, such claims need to be accompanied by a proposal for an arduous reformulation of the philosophical settlement that structures the secular public sphere, the terms of legitimate debate, multicultural pluralism, and accountability for truth-claims.

Seeing ontologies as public reason also explains the potential for theoretical innovation from "standpoints" in ontological difference (Moreton-Robinson 2013). People mostly think within the established ontological boundaries of their context. We reason within certain parameters and start from certain structuring concepts, and this profoundly shapes what, at the end of the process, may be considered a plausible hypothesis. At the same time, socialization "inhibit[s] the production of non-standard inferences" (Descola 2016: 325). The genius or visionary may escape those constraints but will struggle to articulate or develop their insights in collaboration with others in public fora. Changing the starting terms (by acknowledging thought that originates from standpoints in ontological difference) generates enough innovative leverage to compensate for the inevitable distortion of signal when translating across the partial connections that link ontological standpoints. The following case study substantiates this argument for recognizing indigenous knowledge across ontological difference.

## An Amazonian Social Theory of Health

Indigenous Amazonians know something about health, illness, and healing, and one of their notable health-related practices is ayahuasca shamanism. The ayahuasca seekers claiming emotional renewal and the impressive psychological test results of Brazilian members of ayahuasca churches might just be accounted for under the category of mental health (Kavenská and Simonová 2015; Labate, Rose, and Santos 2008). Yet Amazonian healing is not merely psychological or placebo-generated but also undeniably physiological as well. Nowadays, when ayahuasca shamans heal indigenous patients, it is difficult to discount the material efficacy of that healing, because the same patients that visit shamans also attend clinics and hospitals, sometimes receiving prognoses and recommendations of surgery that drive them to consult with shamans instead (Tym 2017: 212–18).

If we know, at least, that there is *something* there, what, of theoretical value, is to be found in the thought and underlying, structuring ontological suppositions within whose logic Amazonian shamanism is developed and practiced? The ethnographies suggest that ayahuasca shamanism is more than casually linked to Amazonia's "venatic" ideologies<sup>8</sup> and the "metaphysics of predation" (Viveiros de Castro 1998: 472; 2014: 139–50). After all, a notable outsider to the group of "predatory" Amazonian peoples is the Ecuadorian Waorani, and they historically maintained that the ayahuasca vine only grows in the "abandoned gardens" of their "cannibal enemies" (Rival 2005: 296). Their neighbors happen to be the Shuar, Achuar, and Tukanoan peoples who the ethnographies firmly situate in the set of ideologically "predatory" peoples and who make extensive use of ayahuasca within a perspectivist ontology. So, what implicit conceptions of life, health, sickness, and death are contained in this metaphysics of predation and the moral ideas embedded in their associated ideologies? And in the process of rendering these conceptions intelligible in the anthropological act of translation, what hypothesis-generating insights might become available?<sup>9</sup>

Many Amerindian peoples have historically understood their position vis-à-vis the other humans, animals, plants, and spirits with which they share their lives in terms of predation and perspectivism. To summarize, "The driving force behind much Amerindian social practice is the essentially predatory struggle to impose one's perspective on others, to make others conform to one's own vision of the world rather than conforming to that of others" (Course 2010: 250). The importance of imposing one's perspective arises because, as indicated in the introduction, the status of being predator or prey is not a given material or biological fact: Amazonians have understood bodies to be "chronically unstable" and subject to "the dangers of metamorphosis" (Vilaça 2016: 126). Instead, one's physical state is a relational condition dependent on a clash of perspectives: a being who is drawn into the perspective of another may become their prey.

<sup>8</sup>With "ideologies" as narratives of the world that incorporate normative concerns with the right way to live.

<sup>9</sup>Ideology and behavior are distinct: these "predatory" groups are no more perennially violent than the Waorani are pacifists (Narváez Collaguazo 2016). Like the Waorani (see also High 2015), Cofán (Cepek 2015), Paumari (Bonilla 2005), Sanema (Penfield 2017) and Urarina (Walker 2012) recognize the predatory ideology of their neighbors but identify as victims, prey, or subordinates, while other Amazonian groups are different again (e.g., Turner 2017).

The threat of metamorphosis by being drawn into another's perspective is posed not so much in the daily life of the village—humans' home turf, so to speak—but, more so, in the forest as well as in dreams and hallucinogenic visions, “a form of interaction with all the entities of the cosmos in their condition as persons—that is, as subjects endowed with intentional agency and perspective” (Fausto 2004: 161). In the forest, a hunter may mistakenly perceive an animal as a human and be led off to eat and drink with them, leading to their unwitting incorporation into the “human-like” community of that creature (Lima 1999: 111; Vilaça 2018: 11–12). Or a person's spirit may be led away by an apparently-human jaguar, for example, while dreaming about drinking gourds full of blood; the victim's “soul” (so to speak) fails to return to their body and they ultimately sicken and die (Fausto 2007: 502). In each case, one's hold on one's own perspective on reality—a perspective that, in normal circumstances, constitutes reality—is undermined by the interventions of another with a more powerful perspective.

This metaphysics of predation has been described as effecting a “political economy of life.” Creatures seek to hunt each other or incorporate another into their own community “because, in native Amazonia, vitality, or life force, is considered to be the scarcest resource, ... all life forms are engaged ... [to] secure as much life force as possible” (Santos-Granero 2019: 465).<sup>10</sup> Importantly, this “life force” has been translated not only as “energy” (Reichel-Dolmatoff 1971), which could be assimilated to naturalist views of life force as calories and protein, but also as “intentionality” and “agential capacities” (Santos-Granero 2019: 464).

The “political economy” metaphor is apt, moreover, because this vital agency is “unequally distributed” and “there is a hierarchy among beings that possess it”; the food chain is “a cardinal index of agency” (Fausto 2007: 503). The most powerful beings in Amazonia accumulate these “packs of agency, quanta of intentionality” (Fausto 2004: 164) from those who they manage to dominate and draw into their own perspective. Thus, the exemplary state of being for such peoples is the predatory or warrior state (Lagrou 2018: 141; Taylor 2014: 102). The weak—that is, the prey—are objectified as “stuff,” a term that for some groups encompasses both game animals and inanimate objects (Fausto 2004: 162; Lagrou 2018: 141). In short, agency or perspective are constitutive of life as predatory capacity.

The political implications of perspectivism and this metaphysics of predation have become more explicit as Amazonian indigenous groups enter into closer engagements with the institutions of market and state. In more autonomous contexts, animal collectives have been said to have a “master,” who may be described as the “jaguar” of its kind (Fausto 2008); thus, the leader of the peccaries is “the jaguar of the peccaries” (Gow 2001: 69). This coheres with the unmatched power of the jaguar, a creature with “an almost unlimited predatory capacity” (Fausto 2007: 507).

By contrast, in parts of Western Amazonia the position of master of game animals has been usurped by white men and landlords. Among Ávila Runa, animal masters have been said to have “attributes of whiteness”; their city is called “Quito” (the Ecuadorian capital), where they have indigenous peons working for them and shuttle game animals about in pick-up trucks as though they were livestock (Kohn 2013: 168–70; see also Guzmán-Gallegos 2015: 123–25). In Achuar territory, the collapse of

<sup>10</sup>The previous caveat on generalization to peoples like the Waorani and Kayapó applies.

agency that occurs during illness has been likened to being “proletarianized” and “going peon” (Taylor 2014: 108–12). In the Peruvian-Amazonian piedmont, Yanesha have considered white people “great killers” who “use their supernatural powers to deprive the Yanesha of their life force” (Santos-Granero 2015: 95). In a sense, colonialism forces all Amazonian peoples into the “victim” or “prey” position.

The effect is most marked among those indigenous groups who have been subjugated since at least the Rubber Boom around the turn of the twentieth century. Urarina people, who live within the orbit of the Peruvian city of Iquitos, use the same word for masters of game as for the “white” traders to whom they are regularly in debt peonage. When hunting, the Urarina consider themselves as soliciting gifts from the owners of game just as they do from the owners of manufactured goods (Walker 2012: 148, 157). Cofán people have described their newly born children as being captured from *vajo*, a game owner who sometimes appears in the form of a colonial priest (Cepek 2015: 548).

The Brazilian Paumari, whose ethnonym means “debtor,” have also mapped the new socio-economic hierarchy into their cosmology. For Paumari, the most powerful “bosses” include the sun and the rainstorm, the latter of which is said to live with its employees in the Brazilian city of Manaus and has them collect water in a giant reservoir and dump it over the land of the Paumari. This rain-owner is a “kind and generous” boss with “endless quantities of diverse commodities,” and becoming its employee is a sort of heavenly afterlife for the Paumari (Bonilla 2016: 121). Each of these groups is recognizing in the new political-economic hierarchies the same enhanced “agentive” capacities as once pertained to the “jaguar” masters of game.

### The Enigma of Health Inequalities and Western Epidemiology’s Struggle for Theory

Clearly, indigenous Amazonian thought about health and illness, and indeed life and death, is structured by a vastly different ontological matrix than that within which Western life scientists carry out their professional activities. Instead of focusing on the equivocations between their respective worlds or worldviews, what conceptual innovativeness does this permit Amazonians when they contemplate these shared human problems? Moreover, how might their knowledge contribute, not as data points but as theory, to resolving the struggles Western epidemiologists are having to integrate their emergent findings over the past two decades about the distribution of health and illness in Western mass societies?

At a surface level, health inequalities are intuitively understandable. Few social scientists would be surprised to learn that the poor in France live on average 12.7 years less than the rich (Lynch 2020: 54), or that life expectancy in a wealthy Glasgow suburb is eighty-two years while in a poor neighborhood it is fifty-four (Marmot 2015: 21). Progressives point to deprivation, while conservatives attribute health failings to people’s own actions. Yet a comprehensive theoretical framework—a model that is predictive and not just descriptive—continues to elude epidemiology.

Knowledge of a socio-economic gradient in health began with the Whitehall Studies, which longitudinally assessed health outcomes in male employees across all levels of the British public service. Having anticipated that optimum health would pertain at a “happy medium”—neither the relatively materially deprived at the low-end of the pay-scale, nor the overworked and presumably stressed out upper-level of

executive management—researchers were surprised to find that health status improved each rung up the employment hierarchy (Wilkinson and Pickett 2009: 75). The findings, moreover, could not be accounted for using conventional explanations based on disease “risk factors.” So, in the case of cardiovascular disease, so-called “behavioral risk factors” (e.g., diet, smoking) in combination with physiological measurements (e.g., body weight, blood pressure) accounted for only half of the discrepancy in health outcomes across the public service, while the rest remained unexplained (Marmot et al. 2008: 1980–83).

The challenges to explanation have since accumulated along with the empirical findings. Average members of poorer societies have higher life expectancies than those low on the social hierarchy in wealthy societies, even though the latter have greater wealth in absolute terms (Marmot 2015: 20–21). There is no relationship between health spending and life expectancy once countries pass just US\$10,000 GNP per capita (Wilkinson and Pickett 2009: 75, 81). Health inequalities correlate poorly with the extensiveness of welfare state regimes; in other words, the latter do not predictably ameliorate the former (Mackenback 2012). Neighborhood of residence, which tends to sort us according to class, wealth and income, nonetheless affects health in a manner surpassing the measurable characteristics of residents (Bambra 2016; Macintyre, Ellaway, and Cummins 2002: 129).

These facts have been said to underscore “the limitations of existing theories” (Bambra 2011: 743–44) and suggest a major lacuna in the Western conceptualization of health. As a mode of explanation, Western epidemiology has historically relied on the “web of causation” (Krieger 1994), which extrapolates biomedical individualism to the macro level: if health is defined as the absence of illness and illness is studied as having standardized causes, then social health is the distribution of these illness-causes. Nancy Krieger describes it as a “model” rather than a “theory” and laments the discipline’s reluctance to propose “epidemiologic hypotheses” (ibid.: 887, 891). In being led strictly by the “biomarkers,” epidemiology is hampered when trying to envision a “public health [that] is more than the accumulation of individual health states” (Keuck and Freeborn 2020: 470), and it struggles to articulate “the connection between local experience and statistical probability” (Hagner 2014: 107).

The most straightforward theory to explain the evidence of health inequalities has been the instrumental view, which posits that “illness is a result of a combination of exposure to risks, vulnerability to those risks, and treatment” (Lynch 2020: 55). Such researchers (e.g., Link and Phelan 1995; Phelan and Link 2015) take the existing picture of the social determinants of health and then apply a rational actor model. They portray health as the utility being maximized by the individual, a position that is phenomenologically implausible outside of the illness experience itself.

The principal theoretical explanation for the socio-economic gradient in health aside from the web of causation is chronic stress as the structural outcome of a lower relative position in hierarchical societies (Sapolsky 2004; 2005; Steptoe 2006; Wilkinson and Pickett 2009: 85). This work dovetails with the evidence that stressful early life experience can have lifelong health impacts on the individual (Hertzman and Boyce 2010). While building insightfully from research on the qualitative dimensions of inequality and “social suffering” (Mendenhall 2019), this theory struggles to explain continued upward progression of health outcomes as one ascends the social hierarchy beyond strata where chronic stress is widely present. Even at the highest levels of social status, Nobel Prize and Academy Award winners have been seen to have higher average longevity than the nominees for these awards

(Rablen and Oswald 2008; Redelmeier and Singh 2001). Something is shaping health from the very bottom to the highest levels of Western societies that surpasses existing modes of explanation, with their focus at the individual level on disease causation coupled with psychosocial suffering.

### Hypothesizing from Amazonian Theory: The Predatory Spirit of Capitalism

Amazonians' social theories of health prefigured both epidemiology's headline finding of a socio-economic gradient in health outcomes as well as its more recent investigatory angles. The notion of sickness and death resulting from being drawn into the perspective of a powerful other is consonant with the detrimental health outcomes of subordination in Western mass society. From housing and neighborhoods to the status of different businesses and professions, our options for economic consumption, and even the propagation of political discourses that legitimize certain roles and identities, our social reality is mostly constituted by the perspective of the powerful. In associating white landlords with the old jaguar masters of game animals, Amazonians are effecting their own translation, taking a social theory that emerged from predatory ideologies and a perspectivist ontology in order to explain the relative distribution of health, illness, life, and death and applying it to the functioning of the political-economic institutions that structure Western societies. Just as the jaguar master has the strongest hold on life in Amazonian perspectivism, so in contemporary society the landlord will, on average, live a longer and healthier life than the tenant at the expense of the tenant. As Andrew Liveris, former White House economic advisor and CEO of Dow Chemical, once said, "You better be at the table. Otherwise, you're on the menu."

The indigenous Shuar of southeastern Ecuador, where I have carried out long-term research, also apply the perspectivist ontology and predatory ideology to contemporary scenarios.<sup>11</sup> In the same way as other Amazonians sought to enhance their "agentive capacities" (Fausto 2012[2001]: 301), Shuar historically sought out visions—via dreams, vision quests, and hallucinogenic plants—in order to bring on "a state of super well-being" (Taylor 1996: 208; see also Harner 1972: 135–39). Yet Shuar vision-seeking nowadays centers on what was once only a partial aspect of the practice (Brown 1986: 58–61): encountering a vision of one's future. A person who has experienced such a vision is likely to realize it, and it often comes in the form of seeing one's future self as a "professional" or having harmonious intimate relationships, both of which epidemiologists now know have a strong positive influence on health (Wilkinson and Pickett 2009: 39–41).

A vision of the future also allows one to avoid the physical lethargy and psychological malaise long associated with sickness in Amazonia, a "directionless" state that contrasts with the way a person's vision "give[s] shape and direction to the flow of time" in their lives (Taylor 2014: 102–5). The challenge is that others have their own visions, and the extent to which they intercede against one's own is understood by many Shuar people as the underlying cause of much of the illness and "weakness" they experience. Illness-generating sorcery is sometimes said to work

<sup>11</sup>These paragraphs draw on ethnographies from neighboring groups in the same language family, in line with convention among regional specialists (e.g., Meiser 2015).



by diverting a person from their vision, and such “illnesses” could involve professional failure, conflict in intimate relations, or physiological illness proper.

Indigeneity in general and ontological alterity in particular have been widely considered a basis for Western civilizational renewal. Yet the prospect that indigenous ontological difference necessitates a principled opposition to established political and economic systems and institutions (e.g., Escobar 2020: 69–75) runs aground on Shuar realities. In Shuar country, animist techniques like ayahuasca vision-seeking have been repurposed to meet the challenge of surviving and thriving according to the terms set by these systems and institutions. Rather than facilitating an empathic communion with more-than-human others, contemporary Shuar people consume visionary plants principally to achieve class mobility and material autonomy. I have known individuals to embark on large-scale gold mining ventures based on their interpretation of hallucinogenic plant-derived visions of the future. Young males planning to consume ayahuasca are consistently encouraged to envision money, cattle, and a hard-working wife in their futures; if such a vision does not come, they might drink repeatedly until it does. Seeing one’s future self as a politician, engineer, soldier, or professional football player is a common goal driving consumption of vision-inducing plants (Tym 2022). Shuar today are still using the same techniques as prior generations to expand their agency in the Amazonian “political-economy of life,” and this is how “agentive” and predatory capacity manifests in the current political-economic context.

In the West, the contemporary Shuar ideal of living out a future of one’s own envisioning is a luxury mostly only enjoyed by the rich. Such a way of life implies not only the means to make “lifestyle choices” that partially correlate with health, but also to shape the very constitution of one’s life in the world and, for those in the upper echelons of society, the world itself. Conversely, powerlessness—living in a world shaped entirely by others—is an experience that both Amazonians and epidemiologists understand to be deleterious to one’s health and very existence.

This is not only a descriptively accurate model, but also a theory with hypothesis-generating potential. In fact, recent investigatory angles on the socio-economic gradient in health have converged on a very similar point. Michael Marmot speaks perceptively about the ways in which “[a]utonomy—how much control you have over your life—and the opportunities you have for full social engagement and participation—are crucial for health” (2004: 2; 2010: 34). Clyde Hertzman poses an individual’s “decision latitude” as determining how “hospitable” their “ecological niche” in society is (1999: 85). Lu Gram and colleagues have sought correlations between health and individuals’ perceived “agency” (2017; 2019), while Margaret Whitehead and colleagues have investigated the relationship between health outcomes and a person’s “control” and “sense of control” (Orton et al. 2019; Pennington et al. 2018). The latter researchers, in particular, build from the observation that, with lower socio-economic position, “income and employment are insecure, which makes the future uncertain and difficult to plan for”; this in turn produces “relative lack of orientation towards the future” (Whitehead et al. 2016: 55). These emerging epidemiological conceptions match the established Shuar convention that a life without a vision for the future is bound to be lived weaker, sicker, and more subject to whims of others.

Amazonian theory is not just corroborated by this research but contributes to it, most clearly in its rethinking of “agency.” In health research, agency tends to be conceived through the lens of day-to-day choices. Individuals whose life prospects are

circumscribed by their socio-economic situation may respond to researchers that they experience high agency, even though objectively they do not (e.g., Gram et al. 2017; Pennington et al. 2018). In this way, the individual as locus of analysis occludes the person's broader social and temporal horizon, in the context of which the breadth of possibilities of our lives is differentially shaped by socioeconomic and socio-ecological position. In contrast, relative power, personal agency, and future orientation converge in Amazonians' understanding of the relationship between health, sickness, life, death, and social position.

### Meeting Points for Ontological Difference and Secular Public Reason

Translating across boundaries of ontological difference is no straightforward task. The Amazonian conception that relations between the species of the forest, and even the physical constitution of their bodies, are an effect of their relative power is hallucinatory. It relies on basic notions about reality that few Westerners can accept, and that none can commit to within "the professional subcultures which organize the most significance share of our social agency" (Hornborg 2006: 24). Yet such distinct ontological starting points bring a unique theoretical leverage.

Scientific research has determined that Amazonian healing methods generate certain efficacious and detectable material effects (Labate, Rose, and Santos 2008; Schenberg 2013). This recognition demands investigation into the ontological assumptions from within which indigenous people developed practices that achieve that productive traction upon materiality. The indigenous ontology—in this case, the Amazonian metaphysics of predation—can then be considered a theory with the potential to generate hypotheses for further research. That social reality in Western societies might operate in a similar way to how Amazonians theorize life, death, and sickness is borne out in recent findings in epidemiology. Not only that, but Amazonians also offer a new perspective on the key concepts—agency, sense of control, future-orientation—that are shaping current investigatory angles in the discipline.

In this manner, indigenous knowledge has the potential to be more than just empirical data and observation, as posed by the indigenous knowledge for development formulation. It can also be more than a source for evocative concepts for ethnographic representation or wistful notions of civilizational change, as posited by some ontological anthropologists and post-dualist critics. Instead, instances of indigenous knowledge have the potential to contribute as both empirical observation and conceptual frame: practical and theoretical, local and transparticular.

Why, then, in a proposal that centers on the generativity of indigenous ontologies should materiality be a requirement for acknowledging indigenous knowledge? This formulation deliberately retains the structuring concepts of secular political philosophy in the European Enlightenment tradition, most notably the Baconian criterion of assessing knowledge claims based on their material effects. The social sciences were born out of this era's "demythologizing" spirit (Kapferer 2001), whose proper target was the epistemic authority of the clergy and their reasoning from first principles, final causes, and sacred text.

Anthropology's early disregard for and more recent evasiveness on indigenous knowledge is a misfiring of secularism's demythologizing impulse. Its error lay in missing the key fact that both religious and secular Westerners are reasoning from within a largely shared set of ontological suppositions: most particularly, the vision of a

cosmos composed of individuals expressing their rational (and, for the religious, divinely granted) free will; and who act upon a mundane material world with properties fixed by natural laws (and, for the religious, a law-maker). In this context, epidemiology's modeling of health and disease as the outcome of individuals exercising free choices whose consequences are determined by natural laws was an outcome that was overdetermined by the ontological standpoint from which Westerners, religious and non-religious, think. By contrast, the differential distribution of the agency to shape one's world and the physiological consequences of such agency, as recognized in Amazonians' social theory of health, would never feature for thinkers whose ontology starts with a fixed natural world upon which all subsequent interactions occur.

All this only makes sense. The real wonder is that despite our widely divergent ontological suppositions, both indigenous Amazonians and Westerners have produced workable knowledge in the field of health. Westerners have developed medicines based on theories modeled at the level of the individual and the common physiology (or "nature") of the human body. Amazonians have developed a perceptive social theory relating agency, control, and future orientation to physiological flourishing that maps onto both their historical experiences<sup>12</sup> as well as the struggles of power and inequality that characterize contemporary mass society. The "correctness" of one's starting ontological premises, it seems, matters much less than the thought that follows from them.

In permanently bracketing the possibility of objective truth to indigenous thought, secularism historically failed to distinguish between the unjustified epistemic authority of the clergy and knowledge that was wrongly deemed irrational merely because it developed from a different set of ontological suppositions. Where knowledge produced within such ontological frameworks manifestly works—as in the case of Amazonian healing, circumpolar wildlife stewardship, and Australian fire management—it is only logical to ask how those ontological suppositions might have facilitated lines of reasoning that were not open to European thought. It is also urgent—and in this the post-dualist advocates are absolutely right—to ask what else the present-day exponents of these traditions of knowledge might have to say.

But this depends upon recognizing and elevating knowledge in the singular, indigenous knowledge as knowledge per se, as true, justified, and *actionable* belief. This is what is lost when we speak of knowledges in the plural. If we mean to make indigenous knowledge the basis for collective action in secular societies, we cannot go around indiscriminately accepting knowledge claims and indiscriminately taking them seriously.

Yet this seems to be an inevitable result of political claims founded on the power/knowledge formulation, in which reality is simply what is "enacted" by capital-intensive technologies (Latour and Woolgar 1979) or everyday practices (Blaser 2013). In this model, truth itself becomes complicit in inequality. One is left with the option of allying with power, whose knowledge, according to this logic, is surely always going to be more effective and sophisticated anyway; or, aligning with the powerless, if their knowledge somehow paradoxically survived their disempowerment, and seeking to pluralize the very notion of knowledge itself.

<sup>12</sup>It remains an open question the extent to which the metaphysics of predation developed in response to histories of subjection to slaving and rubber peonage and the precarious lifeways that were borne of the imperative of avoiding capture by these forces. References to this problem are made by Costa (2010: 188) and Bessire (2014: 151).

This is certainly an appealing approach where the knowledge in question is local by definition. Thus, this methodology has facilitated valuable research on, for example, health impacts of environmental contamination, where a clash between “expert and nonexpert knowledges” is set up between local people’s experiences of impacts such as water contamination and official reports that render such impacts invisible (Li 2015: 3). But how, in this model, can these local “knowledges” gain recognition and legitimacy as more-than-local experiences, let alone replace Western knowledge as more adequate explanatory models, as many forms of indigenous knowledge do indeed deserve to?

It also dangerously loosens the criteria according to which we determine what does and does not count as knowledge. It is not only indigeneity advocates who are arguing for a post-secular moment. Joel Robbins’s (2020: 17–19) exploration of theology’s place in the social sciences starts from the premises of the ontological turn and “ethnographic theory” that theoretical concepts can be drawn from the domain of fieldwork. Robbins here quite properly limits his work’s field of application to ethnographies of communities of Christian believers (ibid.: 24–25). Other more ambitious proposals have been articulated, however, and these ominously propose to “probe” the self, remove “the ramparts that separate ... truth and goodness,” and tell researchers “who we have been ... and who we might still become” (Furani and Robbins 2021: 504–5).

In this, theological proposals parallel what Philippe Descola calls the “highly normative” arguments of post-dualist theorists. For such theorists, there is a morally correct worldview, through which “we might also learn better ways to be human” (Harvey 2013: 9), thereby transcending “the settler self” and its epiphenomena like “institutions,” “*jouissance*” and “control” (Paradies 2020: 441–42). The shared inspiration in Heideggerian ethics of both post-dualist and post-secular theorists sums up the dangers of presenting subjectivist speculations about the correctness of self and worldview as authoritative academic knowledge.<sup>13</sup>

The approach I have outlined is thus an explicitly secular one, designed to make it possible to distinguish between secularism’s others rather than lumping them in together, as Richard Rorty does when he dismisses the views of “Nazis” and “Amazonians” as those whom we cannot “take seriously” (1991: 29, 31). A secular approach is essential to opening the door to indigenous knowledge without allowing any ontological claim to walk in.

Presciently, for Rorty the meaning of not taking seriously is “not that we live in different worlds..., but that conversion from or to their point of view, though possible, will not be a matter of inference from previously shared premises” (ibid.: 31). Yet if scientists can recognize that Amazonians have achieved their own traction on materiality, then we do not need shared premises but can experimentally reformulate the starting-points for our hypotheses based on that shared recognition of materiality. On the other hand, without shared ontological starting points from which to infer, recognition of the other’s knowledge requires shared epistemic criteria for assessing knowledge’s effects. From a secular perspective, that criterion is material effect. After all, secularists are not unique in *recognizing* material affects, but only in *limiting* our ontology and public reason to them.

<sup>13</sup>Heidegger’s influence is explicit in Furani and Robbins’s “attitude of life” (2021: 506) and in Paradies’s (2020: 446) “praxis of living.” On Heidegger’s Nazism and the “black notebooks,” see Wolin (2023).

There are of course indigenous ideas and knowledge—more esoteric from a Western perspective—that do not have directly observable material consequences. These are matters for indigenous people, who in any event often do not want these things to be public knowledge. Moreover, majority-indigenous electorates or territories may not seek to organize their politics and institutions according to a secular logic; this is a potential outcome of indigenous Ecuadorians' and Bolivians' campaign for an “intercultural and plurinational” state (Kowii Maldonado 2011). This need not dissuade anthropology from making constructive proposals from and for our own locus of enunciation: a politics that is able to recognize indigenous people's theoretical and conceptual insights without abandoning the principles that constitute a secular, plural public sphere.

So what, in the end, do we make of the Piro woman who refuses to boil her drinking water? Do we discount the objective significance of her opinion as, in very different ways, do both the imperious missionary and Viveiros de Castro? Or could we instead posit that an *a priori* ontological emphasis on the socioecological context of the body has led the Piro woman to a possibility that Western biomedicine, with its statistically interchangeable individuals, has not considered? Perhaps local people's tolerance for the microbes of their environment might be off-set by some negative effect from drinking only boiled water that Western scientists have never seen the need to research. It is thinkable that something different happens in Piro country than can be extrapolated from the outcomes of microbial assays and public health interventions in urban environments. It also bears further investigating if it is to be considered knowledge.

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