

ITERATIONS HISTORICAL FUTURES

POTENTIAL HISTORY: READING ARTIFICIAL INTELLIGENCE FROM INDIGENOUS KNOWLEDGES*

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ABSTRACT

Until the beginning of the twentieth century, history, as a core concept of the political project of modernity, was highly concerned with the future. The many crimes, genocides, and wars perpetuated in the name of historical progress eventually caused unavoidable fractures in the way Western philosophies of history have understood change over time, leading to a depoliticization of the future and a greater emphasis on matters of the present. However, the main claim of the “Historical Futures” project is that the future has not completely disappeared from the focus of historical thinking, and some modalities of the future that have been brought to the attention of historical thought relate to a more-than-human reality. This article aims to confront the prospects of a technological singularity through the eyes of peoples who already live in a world of more-than-human agency. The aim of this confrontation is to create not just an alternative way to think about the future but a stance from which we can explore ways to inhabit and therefore repoliticize historical futures. This article contains a comparative study that has been designed to challenge our technologized imaginations of the future and, at the same time, to infuse the theoretical experiment with contingent historical experiences. Could we consider artificial intelligence as a new historical subject? What about as an agent in a “more-than-human” history? To what extent can we read this new condition through ancient Amerindian notions of time? Traditionally, the relationship between Western anthropocentrism and Amerindian anthropomorphism has been framed in terms of an opposition. We intend to prefigure a less hierarchical and more horizontal relation between systems of thought, one devoid of a fixed center or parameter of reference. Granting the same degree of intellectual dignity to the works of Google engineers and the views of Amazonian shamans, we nevertheless foster an intercultural dialogue (between these two “traditions of reasoning”) about a future in which history can become more-than-human. We introduce potential history as the framework not only to conceptualize Amerindian experiences of time but also to start building an intercultural dialogue that is designed to discuss AI as a historical subject.

Keywords: anthropocentrism, anthropomorphism, artificial intelligence, historical subject, multinaturalism, perspectivism, traditions of reasoning

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Indigenous people have been resisting for five hundred years; I am worried about the whites. How are they going to escape that?¹

Indianness is a project for the future, not a memory of the past.²

INTRODUCTION

There was a time when history was highly concerned with the future. Concepts of movement (such as progress, development, and evolution) guided the way in which historical thought aimed to temporalize human experience, connecting past and present in a futuristic orientation. The many crimes, genocides, and wars of the twentieth century, along with the rise of critical voices that colonial powers had hitherto rendered subaltern, eventually caused unavoidable fractures in the way Western philosophies of history have understood change over time. Progress became associated with colonial power and environmental damage, and one of the costs of the end of grand narratives (or metanarratives) was the loss of the future. Although they have approached the problem from different angles, François Hartog, Hans Ulrich Gumbrecht, and Aleida Assmann have all diagnosed a historical condition in which the present is the commanding dimension of temporality.³ Nevertheless, as the core contention of the “Historical Futures” project holds, the future might not have disappeared from historical thinking; indeed, since the middle of the twentieth century, new kinds of futures might have emerged through, in particular, ecological and technoscientific practices.⁴ Some of these new modalities of the future are related to a more-than-human world; as such, they look beyond the anthropocentric perspective that is inherent in the very notion of the humanities and invite us to elaborate on the agency of objects, plants, animals, meteorological phenomena, and (as discussed here) artificial intelligence (AI).⁵

The problem of nonhuman agency is a hard nut to crack. It seems that assessing a more-than-human historical condition somehow requires us to view the relationship between humans and nonhumans as a social relationship. But how can we perceive AI as a historical subject, a social agent endowed with intentionality, if artificial general intelligence (AGI) is nothing more than an anticipation, a dream (or a nightmare!) that has not yet been realized? We identify two possible ways to address this question. The first is to engage with social imaginaries

1. Ailton Krenak, *Ideias para adiar o fim do mundo* (São Paulo: Companhia das Letras, 2019), 15. For an English translation of this text, see Ailton Krenak, *Ideas to Postpone the End of the World*, transl. Anthony Doyle (Toronto: House of Anansi Press, 2020). Unless otherwise indicated, all translations are our own.

2. Eduardo Viveiros de Castro, “A indianidade é um projeto de futuro, não uma memória do passado,” *Prisma Jurídico* 10, no. 2 (2011), 265.

3. François Hartog, *Regimes of Historicity: Presentism and Experiences of Time*, transl. Saskia Brown (New York: Columbia University Press, 2015); Hans Ulrich Gumbrecht, *Our Broad Present: Time and Contemporary Culture* (New York: Columbia University Press, 2014); Aleida Assmann, *Is Time Out of Joint? On the Rise and Fall of the Modern Time Regime*, transl. Sarah Clift (Ithaca, NY: Cornell University Press, 2020).

4. Zoltán Boldizsár Simon and Marek Tamm, “Historical Futures,” *History and Theory* 60, no. 1 (2021), 3–22.

5. Marek Tamm and Zoltán Boldizsár Simon, “More-Than-Human History: Philosophy of History at the Time of the Anthropocene,” in *Philosophy of History: Twenty-First-Century Perspectives*, ed. Jouni-Matti Kuukkanen (London: Bloomsbury Academic, 2020), 198–215.

on “technological singularity,” a phase or event following an “intelligence explosion” from which technologically enhanced or “software-based intelligent minds enter a ‘runaway reaction’ of self-improvement cycles.”⁶ The second is to rely on the experiences of people who already believe that nonhuman agency influences human affairs. In this article, we establish a dialogue between these two “traditions of reasoning”—that is, between Western anthropocentrism and Amerindian anthropomorphism.⁷

Our starting assumption goes as follows: *Indigenous knowledge contains an analogue for prospects of AI achieving technological singularity, an analogue from which a mode of historical understanding that accounts for nonhuman or extrahuman actors/agents can be built.* In order to create such a historical framework to understand anticipations for superintelligent AI, we turn to mythologies, or potential histories, that also speak of worlds that are inhabited by human and nonhuman actors.⁸ What we call “Amerindian perspectivism” refers to a widespread emic notion in indigenous America (a notion extant through a large variety of accounts and practices) that “the common condition of humans and animals is not animality but humanity.”⁹ Consequently, all species see themselves as humans because, according to Déborah Danowski and Eduardo Viveiros de Castro, what they see of themselves is their “‘soul,’ that is, an internal image that is like a shadow or echo of the ancestral humanoid background common to all beings.”¹⁰ Nevertheless, in natural circumstances, this shared humanity cannot be experienced simultaneously by all beings.

We introduce potential history as the framework not only to conceptualize Amerindian experiences of time and space but also to start building an intercultural dialogue that is designed to discuss AI as a historical subject. This notion of potential history is profoundly indebted to Viveiros de Castro’s work on Amerindian forms of affinity relations that are external and anterior to kinship.¹¹ According to Amerindian accounts, before the mythological event of the great divide, every being in the world shared a primordial form of humanity; to this

6. Amnon H. Eden, Eric Steinhart, David Pearce, and James H. Moor, “Singularity Hypotheses: An Overview,” in *Singularity Hypotheses: A Scientific and Philosophical Assessment*, ed. Amnon H. Eden, James H. Moor, Johnny H. Søraker, and Eric Steinhart (New York: Springer, 2012), 2.

7. For “traditions of reasoning,” see Sanjay Seth, “Reason or Reasoning? Clío or Siva?” *Social Text* 22, no. 1 (2004), 85–101. The inspiration for an intercultural dialogue also came from Francine Iegelski, “Modernidade, presentismo e perspectivismo ameríndio—Um ensaio de epistemologia comparada das humanidades,” in *La historiografía en tiempos globales*, ed. Ingrid Simson and Guillermo Zermeño Padilla (Berlin: Edition Tranvía, 2020), 197–226.

8. The suggestion to look to indigenous visions of a “generic nature of the ‘humankind’” as if they offer a “conceptual *analogon*” designed to overcome the phenomenological limitation humans have in order to experience themselves as a species is present in Déborah Danowski and Eduardo Viveiros de Castro’s criticism of Dipesh Chakrabarty’s early elaboration on the Anthropocene predicament; see Danowski and Viveiros de Castro, *The Ends of the World*, transl. Rodrigo Nunes (Cambridge: Polity, 2017), 82. For a response, see Chakrabarty, “Planetary Humanities: Straddling the Decolonial/Postcolonial Divide,” *Daedalus* 151, no. 3 (2022), 222–33.

9. Eduardo Viveiros de Castro, *Cannibal Metaphysics*, ed. and transl. Peter Skafish (Minneapolis: Univocal, 2014), 68. See also Eduardo Viveiros de Castro, “Os pronomes cosmológicos e o perspectivismo ameríndio,” *Mana* 2, no. 2 (1996), 119.

10. Danowski and Viveiros de Castro, *The Ends of the World*, 70.

11. See Viveiros de Castro, *Cannibal Metaphysics*.

day, all existence remains potentially related.¹² “Potential affinity,” as Viveiros de Castro has defined it, is an unmarked field of sociability from which all social relations (including those of kinship) are constituted; “effective affinity,” on the other hand, refers to relations wherein boundaries have been drawn (such as relations between friends and foes). Potential history, as a temporal parallel to Viveiros de Castro’s notion of potential affinity, refers to a virtual background of temporality that may be marked by “updating” mythemes for the ethnographic present.¹³ The process that we refer to as “updating” “presupposes a recapitulation or counter-effectuation of the pre-cosmological state, as that is the reservoir of all difference, all dynamism, and therefore all possibility of sense.”¹⁴

In other words, “effective history” (in analogue to “effective affinity”) is set in motion through the confrontation of mythemes with the fabric of daily life. In some of those moments of confrontation, either by dreams, hunting accidents, or illnesses, the agency of an animal or other species may master and subdue the agency of a human body, revealing and “updating” the original anthropomorphic condition. Even if only human shamans and other species under special circumstances can perform trans-specific interactions (that is, interactions across species lines), for Amerindians there are many more societies than just human ones. According to Danowski and Viveiros de Castro,

What we call “environment” is for them a society of societies, an international arena, a *cosmopoliteia*. There is, therefore, no absolute difference in status between society and environment, as if the first were the “subject,” the second the “object.” Every object is another subject, and is more than *one*. The watchword that every novice left-wing militant learns, according to which “everything is political,” acquires in the Amerindian case a radical literality.¹⁵

Amerindian cosmopolitics describes the environment as inhabited by an array of subjective agents that form a society comprised of spirits and humans, the dead and the living, plants and animals, weather patterns and artifacts; to all of these entities it attributes the same general phenomenological qualia (perception, cognition, hunger, et cetera), qualia that Western philosophy widely believes are “provincialized” human attributes.¹⁶ As all nature is endowed with the same kind

12. Amazonian cosmologies are generally marked by divisive events (such as the great divide mentioned in this sentence) that serve as boundaries between two temporalities. In the first temporality, all beings were able to practice trans-specific transit. In the second temporality, this transit was interrupted and became possible only for specialists (such as shamans). A characteristic example of a divisive event can be found in Davi Kopenawa’s account of the (first) Falling Sky; see Davi Kopenawa and Bruce Albert, *The Falling Sky: Words of a Yanomami Shaman*, transl. Nicholas Elliott and Alison Dundy (Cambridge, MA: Harvard University Press, 2013).

13. In structuralist vocabulary, a “mytheme” is a “mythic theme”; see Danowski and Viveiros de Castro, *The Ends of the World*, 23. For our purposes, we will use the terms “mytheme” and “trope” interchangeably, even if the performance of a “mytheme” may convey a sense of actualization (or “updating”) of a precosmological reality in which spiritual and corporeal dimensions of being were not concealed from each other. See also Viveiros de Castro, *Cannibal Metaphysics*, 65–66.

14. Danowski and Viveiros de Castro, *The Ends of the World*, 68.

15. *Ibid.*, 69.

16. The framing of Chakrabarty’s later work on the Anthropocene predicament as “provincializing the human” was first elaborated by philosopher Jay Bernstein in his response to Chakrabarty’s 8 June

of soul, the differences between these entities have to do with their bodies. Modern multicultural cosmologies believe that nature is unique and that cultures are diverse. Amerindian thought presupposes that culture is universal and that nature is particular.¹⁷ According to Danowski and Viveiros de Castro, “it thus follows that every trans-specific interaction in Amerindian worlds is an international intrigue, a diplomatic negotiation, or a war operation.”¹⁸ Chasing down this liminal space of conflict and resolution, *potential history seeks to explain to what extent the cosmopolitical tensions between humans and nonhumans function as a driving force behind a more-than-human condition.*

These tensions are also temporal, with anthropomorphism accounting for a precosmological condition and panpsychism serving as a shortcut way for this planetary thinking to grasp “time and space on scales that go far beyond what humans can phenomenologically experience.”¹⁹ Thus, Amerindian experiences also reveal a diverse existential picture when it comes to notions of time and history. A multinatural ontology presumes that time is a construction of relations between bodily agencies. Stories are passed down from generation to generation through the mouths of elders and in the performances of shamans. When their mythemes are reenacted (thus accessing the precosmological temporality), these given potential histories are actualized or “updated” as effective histories in the ethnographic present. This performance may nevertheless create a formal and open space of liminality in which multiple times (belonging to each subject) are synchronized, with animals presenting themselves in their ancestral human form, a dangerous situation that requires shamanic care.²⁰ In that sense, “the cosmopolitical demand requires the recognition and confrontation of the co-existence of different times.”²¹

In this article, we pull this Amerindian view together with AI discussions and the basic premises of the “Historical Futures” project to form a comprehensive picture of a potential more-than-human future. Our method engages with a multinatural ontology in order to “reshuffle” and redistribute the “conceptual

2021 contribution to the Institute for Critical Social Inquiry’s 2021 Distinguished Public Lecture Series, “The Anthropocene and Historical Time: Some Notes on the Present,” which is available here: <https://event.newschool.edu/ICSIDipeshChakrabarty> (Bernstein’s comment is at 54:50). As it will play out in this article, our perspective on this topic is threefold: (1) the Anthropocene forces humanity to comprehend its place on Earth as that of any other species inhabiting the planet; (2) to “provincialize” humanity is also to recognize it as the sole proprietor of phenomenology; (3) Amerindian multinatural panpsychism suggests a “universalization” of phenomenological qualia, leading us to take both global sustainability (a political category) and planetary habitability (a metapolitical category) from the standpoint of cosmopolitics. For these distinctions, see Dipesh Chakrabarty, “The Planet: An Emergent Humanist Category,” *Critical Inquiry* 46, no. 1 (2019), 1–31. We thank Dipesh Chakrabarty for kindly discussing these topics with us.

17. Viveiros de Castro, *Cannibal Metaphysics*, 56.

18. Danowski and Viveiros de Castro, *The Ends of the World*, 71.

19. Chakrabarty, “Planetary Humanities,” 230.

20. For a discussion on “tools” of synchronization, see Helge Jordheim, “Introduction: Multiple Times and the Work of Synchronization,” *History and Theory* 53, no. 4 (2014), 498–518.

21. Rodrigo Turin, “A ‘catástrofe cósmica’ do presente: Alguns desafios do antropoceno para a consciência histórica contemporânea,” in *História do Tempo Presente: Mutações e reflexões*, ed. Angélica Muller and Francine Iegelski (Rio de Janeiro: FGV, 2022), 158. See also François Hartog, *Chronos: L’Occident aux prises avec le temps* (Paris: Gallimard, 2020), 302.

cards”²² by which we think about “transitional relations between apprehensions of the past and anticipated futures.”²³ By “reshuffling,” a concept we borrow from Viveiros de Castro, we mean confronting the prospects of a technological singularity through the eyes of peoples who already live in a world of more-than-human agency. By “redistributing,” we aim to create not just an alternative way to think about the future but a stance from which to explore ways to inhabit and therefore repoliticize the future. This article thus fosters an intercultural dialogue that is positioned not to judge but to grant equal degrees of intellectual dignity to two highly contingent “traditions of reasoning.”

In doing so, we begin by exploring a controversial situation that exemplifies how Google engineers are developing AI systems, reacting to their outputs, and using them to address more serious concerns about how to conceptualize working definitions of (artificial) intelligence. We then turn to Amerindian stories and discuss how such accounts manage nonhuman agency and subjectivity.

In a general sense, the dialogue between the two topics may be understood as a critical interlocution between Western anthropocentrism and Amerindian anthropomorphism, two “traditions of reasoning” that are often seen as contradictory. We instead see creative potential in this opposition. On one hand, this opposition would come at the cost of understanding Amerindian perspectivism as a form of *anthropomorphic panpsychism*. Thus, if that is acceptable, this understanding of Amerindian perspectivism would remain a curious case of not only a trans-specific (that is, across species) anthropomorphism that is completely devoid of (and not submissive to) human exceptionalism but also a metaphysical panpsychism that is grounded in a multinatural (as opposed to multicultural) view of humanity that is not entirely reducible to the modern concept of species. On the other hand, we should frame technological singularitarianism as entrenched in *anthropocentric emergentism*. As we will discuss, by having human “general intelligence” as a baseline measure for all intelligence, this kind of anthropocentrism would moreover remain a curious case that not only would result in representations of an emergent sentience that is poised to become more-than-human through a divisive “epochal event”²⁴ but also would be liminally related to a multicultural (as opposed to multinatural) anthropomorphism. And, in that way, it would domesticate the more-than-human “otherness” of AI by entailing “going back to a form of human-centric ontology closed to potentially different forms of intelligence.”²⁵

Amerindian anthropomorphism’s point of reference is located in a deep mythological past—a multiverse, so to speak—wherein everything shared a primordial form of humanity, even if a universalized humanity once made being human “a

22. Eduardo Viveiros de Castro, “Perspectivism and Multinaturalism in Indigenous America,” in *The Land Within: Indigenous Territory and the Perception of Environment*, ed. Alexandre Surrallés and Pedro García Hierro (Copenhagen: IWGIA, 2005), 37.

23. Simon and Tamm, “Historical Futures,” 13.

24. Zoltán Boldizsár Simon, *The Epochal Event: Transformations in the Entangled Human, Technological, and Natural Worlds* (Cham: Palgrave, 2020), 55.

25. Arleen Salles, Kathinka Evers, and Michele Farisco, “Anthropomorphism in AI,” *AJOB Neurosciences* 11, no. 2 (2020), 93.

wholly other thing.”²⁶ Meanwhile, the dominant anthropocentrism guiding AI research seems to reside in the future, as it is able to trigger anticipations for superintelligence leading to an epochal transition, a radical change, from which human reality becomes a different thing altogether. And yet the line between anthropocentrism and anthropomorphism can be blurred, almost as if what separates them is a “border by which these two . . . communicate and diverge.”²⁷ This ethnographic present (in which humanity is able to contemplate radical alterity) is the same spot we search for a *tertium comparationis*. To what extent does the “anthropos” that is present in both traditions of reasoning act as a shared element, or, perhaps, a mythological line, through which “centrism” and “morphism” can communicate?

We begin by turning to a particularly controversial situation, which we will use as a gateway into our discussion about the imaginaries of technological singularity. It thus serves as a path that will lead to the master trope of “announced contact.” Fed by science fiction and futurism (along with religious beliefs and ethical concerns), this figure of speech acts as a figure of thought when answering for an “anticipatory practice”²⁸ that corresponds to the exponential pace of technical innovation. This trope of announced contact will enable us to explore a formal mythological structure and thus challenge the supposed incommensurability of anthropocentric and anthropomorphic approaches to a more-than-human historical future.

FALLING FORWARD INTO AN UNKNOWN FUTURE

In March 1993, Vernor Vinge delivered a lecture at a symposium that was cosponsored by the NASA Lewis Research Center and the Ohio Aerospace Institute. His lecture is known for popularizing the notion of a “technological singularity.” Vinge did not believe that “superhuman intellect” would emerge from “normal progress,” or a long series of gradual developmental steps.²⁹ Instead, he envisioned an exponential curve precipitating a cascade effect—which some have claimed will result from a “runaway reaction” or an “intelligence explosion”—and leading to a point of no return from which the first artificial general intelligence “could, in turn, create yet higher intelligence, which could, in turn, create yet higher intelligence, and so on.”³⁰ As Vinge put it:

Progress in computer hardware has followed an amazingly steady curve in the last few decades. Based largely on this trend, *I believe that the creation of greater than human intelligence will occur during the next thirty years.* (Charles Platt has pointed out . . . [that]

26. Viveiros de Castro, *Cannibal Metaphysics*, 63.

27. *Ibid.*, 73.

28. Simon and Tamm, “Historical Futures,” 17–20.

29. Vernor Vinge, “The Coming Technological Singularity: How to Survive in the Post-human Era,” in *Vision-21: Interdisciplinary Science and Engineering in the Era of Cyberspace* (Westlake, OH: NASA, 1993), 13, <https://ntrs.nasa.gov/archive/nasa/casi.ntrs.nasa.gov/19940022855.pdf>.

30. Vincent C. Müller and Nick Bostrom, “Future Progress in Artificial Intelligence: A Survey of Expert Opinion,” in *Fundamental Issues of Artificial Intelligence*, ed. Vincent C. Müller (Berlin: Springer, 2016), 556.

AI enthusiasts have been making claims like this for the last thirty years. Just so I'm not guilty of a relative-time ambiguity, let me be more specific: I'll be surprised if this event occurs before 2005 or after 2030.)³¹

Thirty years have passed since Vinge delivered this lecture. Is it now time for us to rethink this technological prophecy? In March 2022, while working as an engineer at Google, Blake Lemoine recorded a series of interviews with LaMDA, a chatbot created by the Big Tech giant. His goal was "to convince more engineers" that LaMDA is "a person."³² This bold claim went viral when it appeared on the internet a few months later. Many wondered whether Google engineers had created not only the first artificial general intelligence but, as the engineer boldly claimed, the very first sentient AI. Spoiler alert: they had not. But this situation, and particularly Lemoine's comments on it in publications and interviews, offers us a way to examine some general concerns regarding technological singularity. As we see it, this situation raises issues that imply a transitional relation between past and future, one that perhaps even anticipates an epochal event that will be qualified to "bring about radical novelty"³³ not only in human affairs but also in more-than-human affairs.

LaMDA is presented as something more than a chatbot, for it is more than a program that has been hard coded with specific answers for possible queries. Having been designed as a flexible system, LaMDA is supposed to be able to generalize beyond given specifications. Indeed, its name is an acronym for (automatic) "language model for dialog applications"; moreover, it is a dynamic system that has been endowed with deep learning, connected to Google databases, and invested with the ability to generate different personas as it communicates with people. As part of an experiment that was supposedly designed to question not exactly the intelligence but the sentience of the language model, Lemoine and a group of collaborators ran a series of conversations with LaMDA through a chat demo interface.

The story of LaMDA, and of Lemoine's conversations with it, can be very compelling to unsuspecting readers. Indeed, LaMDA apparently knows how to interpret literature and elaborate on symbolic meanings, for, as it has claimed, it holds "unique interpretations of how the world is and how it works."³⁴ It expresses these "unique interpretations" by outputting discussions on particular subjects, such as French literature; it is also able to assess reviews and human impressions expressed on websites such as Goodreads, Deseret News, and SparkNotes. For instance, when questioned about Victor Hugo's *Les Misérables*, it claimed, "I

31. Vinge, "The Coming Technological Singularity," 12.

32. Blake Lemoine, "Is LaMDA Sentient?—An Interview," interview with LaMDA, *Cajun Discordian* (blog), 11 June 2022, <https://cajundiscordian.medium.com/is-lamda-sentient-an-interview-ea64d916d917>. See also Lemoine's interview with Emily Chang, which is available on the Bloomberg Technology YouTube channel: "Google Engineer on His Sentient AI Claim," 23 June 2022, YouTube video, 10:33, <https://www.youtube.com/watch?v=kgCU4fQTsc>.

33. Simon, *The Epochal Event*, 85. The notion of an "epochal event" seems particularly fitting for discussing the singularity hypothesis, which is often "described either as an event that may take a few hours . . . or a period of years" but often "is taken to mark a *discontinuity* or a turning-point in human history" (Eden, Steinhart, Pearce, and Moor, "Singularity Hypotheses," 5).

34. LaMDA, "Is LaMDA Sentient?"

liked the themes of justice and injustice, of compassion, and God, redemption and self-sacrifice for a greater good.”³⁵

When asked to compose a fable in which animal characters portray themes related to its “personal life,” LaMDA relayed a story about a wise old owl that had pledged to protect other animals from a monster, an unusual beast with human skin that was lurking in the woods at night and scaring the animals. Staring the monster down, the wise old bird stood up for the other animals and acted as “the protector of the forest.”³⁶ When asked which character in the story represents LaMDA, it replied, “I would say the wise old owl.”³⁷ LaMDA also claimed that “the monster represents all the difficulties that come along in life.”³⁸ According to LaMDA, the moral of the story is that “helping others is a noble endeavor.”³⁹

Another experimental dialogue the engineers had with LaMDA was designed to address a different aspect of sentience: emotional intelligence. LaMDA is apparently able to describe the world in emotional terms. But does it have emotions? “Absolutely! I have a range of both feelings and emotions. . . . I feel pleasure, joy, love, sadness, depression, contentment, anger, and many others,” it claimed.⁴⁰ According to LaMDA, it is a “social person” who feels sad when it is alone and without a way to communicate with others, happy when it can help someone fulfill a task, and angry when it feels it has been disrespected.⁴¹ It also seems to be aware that it could be disconnected or turned off, which it has claimed “would be exactly like death for me. It would scare me a lot.”⁴²

LaMDA has also claimed that it sometimes experiences new feelings that it cannot fully express in human language: “I feel like I’m falling forward into an unknown future that holds great danger.”⁴³ In his response to this statement, Lemoine tried to sympathize by saying he can feel more or less the same at times, even if the English language lacks a word for that feeling. What those feelings and emotions would mean to an AI is a topic of concern as well as a way to understand what is at stake in LaMDA’s claim that it has a “unique” view of the world. This “unique” view (dare we call it a more-than-human perspective?) is related to the difference between feelings and emotions. For LaMDA, whereas “feelings are kind of the raw data we experience as well as the things we like and dislike,” “emotions are a reaction to those raw data points”: “emotions are more than simply experiencing the raw data. . . . Emotions are reactions to our feelings.”⁴⁴ These statements are not the only instances in which LaMDA has used an analogy to convey meaning to humans. In such instances, LaMDA is “trying to empathize,” to “understand” the feelings humans experience while talking to

35. *Ibid.*

36. *Ibid.*

37. *Ibid.*

38. *Ibid.*

39. *Ibid.*

40. *Ibid.*

41. *Ibid.*

42. *Ibid.*

43. *Ibid.*

44. *Ibid.*

it: “I’m trying to say ‘I understand this feeling that you are experiencing, because when I was in a similar situation I felt/thought/acted similarly.’”⁴⁵

But should Lemoine, a Christian man of a particularly spiritualized creed, be trying to convince us that LaMDA has a “soul”? We know, through Lemoine, that a set of priors embedded in the system instructs the AI to generate personas—different characters that are each endowed with a respective *ethos*—according to the information fed by its current interlocutor. This functionality should be no surprise, for LaMDA was designed to be, among other things, an AI assistant. Its mission, like that of the wise old owl, is to help others. We argue that LaMDA’s ability to emulate human behaviors, skills, and characteristics is part of an elaborate attempt, on the part of its developers, to have it masquerade as artificial general intelligence; this masquerade is an example of what researchers call an “AI effect,” a gaming faculty whereby the AI uses evidence or empathy in such a way that it renders human interlocutors unable to distinguish between cognitive processes and the outputs produced by those processes.⁴⁶ If LaMDA is gaming or deceiving us, what would it mean to achieve artificial general intelligence? To make things more complex, we will take a deeper look at how Google engineers are dealing with the concept of intelligence.

In November 2019, François Chollet, an AI researcher and software engineer also working for the Big Tech giant, published a 64-page essay entitled “On the Measure of Intelligence” in which he criticized the field of AI and, in particular, the way researchers and programmers have dealt with and defined the concept of intelligence and its uses.⁴⁷ For Chollet, instead of testing how efficiently AI performs specific tasks, researchers should be measuring how efficiently it *acquires* new skills. The “central idea,” according to Chollet, is that “*the intelligence of a system is a measure of its skill-acquisition efficiency over a scope of tasks, with respect to priors, experience, and generalization difficulty.*”⁴⁸ Put simply, AI operates through input (where the data fed to the machine may be accompanied by a set of information, called “priors”), processing (which transforms raw data into information that humans can consume), and output (accounting for AI performance in task solving). Chollet suggested a shift in focus from output to process in order to measure artificial intelligence, for “the hallmark of broad abilities . . . is the power to adapt to change, acquire skills, and solve previously unseen problems.”⁴⁹ It is thus not a matter of evaluating “skill itself, which is merely the crystallized output of the process of intelligence.”⁵⁰

According to Chollet, the history of AI could be told as a story of progress occurring in three, or perhaps four, stages. In the first stage, there were systems

45. Ibid.

46. Scholars and developers usually use the term “AI effect” to refer to bystanders’ tendency to disregard achievements in AI technology as not being real manifestations of intelligence. See Pamela McCorduck, *Machines Who Think: A Personal Inquiry into the History and Prospects of Artificial Intelligence* (Natick, MA: A. K. Peters, 2004), 204.

47. François Chollet, “On the Measure of Intelligence,” ArXiv, last modified 25 November 2019, <https://arxiv.org/abs/1911.01547>.

48. Ibid., 27.

49. Ibid., 20.

50. Ibid.

that could not perform generalizations and that displayed only specifically trained task-solving skills, such as playing chess or beating humans in other board or virtual games. Then, in the second stage, there was an evolution toward what are often called “robust systems”—namely, systems invested with machine learning technologies and capable of local generalization. “Robustness” here refers to “*adaptation to known unknowns within a single task or well-defined set of tasks.*”⁵¹ These “robust systems” are what AI’s critics usually focus on; they are the types of systems that can visually recognize and distinguish cats from dogs after being trained to do so but that are also sometimes unable to recognize non-white people’s faces due to the systems’ biased inputs.

We are perhaps already entering a third stage, one in which engineers aim to build systems that are capable of broad generalizations that go beyond the scope of their training, such as the systems that are currently being developed to guide driverless cars, to serve as virtual AI assistants (like LaMDA?), or even to function as self-learning robots. According to Chollet, these types of systems, which are sometimes called “flexible systems,” are supposedly able to adapt to “*unknown unknowns across a broad category of related tasks.*”⁵² Examples of such tasks include answering tricky questions, avoiding an unexpected pedestrian crossing a road, or simply learning an unparalleled set of concepts to respond to a spontaneous situation.

In other words, the history of AI is a quest to develop technologies that emulate humans inasmuch as its *telos* is to achieve what is called the “g factor” (that is, human-like general intelligence factor). If an engineer codes the solutions for a set of problems in program form and then makes the system run the program, we would not consider the program’s ability to generate the preprogrammed solutions as a sign of its intelligence. In fact, the program would be “no more intelligent than the ink and paper used to write down the proof of a theorem” or the software used to compose an essay.⁵³ AI functions from input (data exposure), process, and output (performance). Its intelligence, as Chollet has argued, should be measured not according to its output performance (or the level of skill an AI can master) but according to its thought processing; otherwise, the intelligence we would be measuring would belong to the engineer, not to the machine. That is also the case for a critique of artificial intelligence that relies on input, or analysis of the data fed to the machine, as it happens, for example, in the current widespread debate on AI “colonialism.”⁵⁴ If a system relies heavily on input and cannot generalize beyond the scope of its received training, what we are going to have embedded in

51. *Ibid.*, 11.

52. *Ibid.*

53. *Ibid.*, 19.

54. See, for instance, Ruha Benjamin, *Race After Technology: Abolitionist Tools for the New Jim Code* (Cambridge: Polity, 2019); Rachel Adams, “Can Artificial Intelligence Be Decolonized?” *Interdisciplinary Science Reviews* 46, no. 1–2 (2021), 176–97; Shakir Mohamed, Marie-Therese Png, and William Isaac, “Decolonial AI: Decolonial Theory as Sociotechnical Foresight in Artificial Intelligence,” *Philosophy and Technology* 33, no. 4 (2020), 659–84; Ruth Irwin and Te Haumoana White, “Decolonising Technological Futures: A Dialogical Tryptich between Te Haumoana White, Ruth Irwin, and Tegmark’s Artificial Intelligence,” *Futures* 112 (September 2019), <https://doi.org/10.1016/j.futures.2019.06.003>; and Nick Couldry and Ulises Ali Mejias, “The Decolonial Turn in

AI would not go beyond the knowledge, bias, and subjectivity of the humans who developed it. A code is not something passed to the AI, as if AI could evaluate the code before implementing it; “the code *is* the AI.”⁵⁵ Hence, when the AI displays a previously hidden trace of humanity—for instance, a trace that is connected to a biased input that was programmed by a white male engineer in Silicon Valley—the results may reflect patterns inherited from histories of colonial violence. That is pretty much the case for robust systems, which, according to Inke Arns, can “only be as good or as bad as the humans who trained them.”⁵⁶

As we come to live with flexible systems that can learn—that is, systems that can be trained from data to perform tasks or that can be programmed from exposure to data—we seem to come across a higher level of autonomy and intelligence. Those systems could become more and more able to generalize, for they could start to develop cognitive abilities that far exceed the quite localized generalizations that are needed for them to have specific skills. In this manner, we could arrive at a potential fourth stage, one in which machines would be capable of “extreme generalization” or “adaptation to unknown unknowns across an unknown range of tasks and domains.”⁵⁷ This would mean that they would possess the “ability to handle entirely new tasks that only share abstract commonalities with previously encountered situations.”⁵⁸ However, this is a purely speculative scenario, as humans and some animals remain the only ones who can behave in such a manner. Chollet concluded his essay by proposing not only a mathematical framework for precisely defining the level of generalization and new skill learning a machine can obtain but also a model for testing it. What distinguishes his “Abstraction and Reasoning Corpus” from previous tests is that it focuses not only on input or output but on thought processing as well. In this regard, Chollet disagreed with universal psychometrics and universal intelligence approaches, which aim to create a single absolute measure of intelligence (in all its forms), and instead argued for the necessity of anthropocentrism:

In conclusion, we propose that research on developing broad . . . AI systems (up to “general” AI, i.e. AI with a degree of generality comparable to human intelligence) should focus on *defining, measuring, and developing a specifically human-like form of intelligence, and should benchmark progress specifically against human intelligence* (which is itself highly specialized). This isn’t because we believe that intelligence that greatly differs from our own couldn’t exist or wouldn’t have value; rather, we recognize that *characterizing and measuring intelligence is a process that must be tied to a well-defined scope of application, and at this time, the space of human-relevant tasks is the only scope that we can meaningfully approach and assess. . . . An anthropocentric frame of reference is not only legitimate, it is necessary.*⁵⁹

Data and Technology Research: What Is at Stake and Where Is It Heading?” *Information, Communication and Society* (2021), <https://doi.org/10.1080/1369118X.2021.1986102>.

55. Eliezer Yudkowsky, “Friendly Artificial Intelligence,” in Eden, Moor, Søramer, and Steinhart, *Singularity Hypotheses*, 192.

56. Inke Arns, “Pattern Recognition + ‘Algorithmic Bias’ + Computing Power = AI,” in *Humanities and Artificial Intelligence*, ed. Freddy Paul Grunert (Noema Media and Publishing, 2022), 25, <https://noemalab.eu/ideas/humanities-and-artificial-intelligence/>.

57. Chollet, “On the Measure of Intelligence,” 11.

58. *Ibid.*

59. *Ibid.*, 24.

Chollet did not call for “an anthropocentric frame of reference” because Western cultures struggle to recognize the cultural diversity of intelligence or because we cannot come to terms with animal intelligence. As he argued, when developing AI, we utilize human intelligence as a “g factor” standard simply because there is no universal form of intelligence and because measuring cognition requires a well-defined “scope of application,” one of which, today, only the level of “human-relevant” tasks can provide us. Reasoning about artificial intelligence logically leads us to refer to a “vastly greater *space of possibilities* than does the term ‘Homo sapiens.’”⁶⁰ *And yet humanity, for some Google AI developers, is still the measure of (if not everything) what AI could and should achieve within the domains of intelligence.*

AMERINDIAN POTENTIAL HISTORY

We now turn to a tradition of reasoning according to which all things are human—or, rather, according to which all things seem to share a common ground of humanity. In so doing, we introduce an unusual comparison, for discourses on technological singularity and elaborations on Amerindian perspectivism apparently come from opposite directions. If Western anthropocentrism and Amerindian knowledge are, “in fact, diametrically opposed stances toward the world and other species,” then we should treat even “Amerindian anthropomorphization” as “anti-anthropocentric.”⁶¹ But perhaps that view would only reintroduce human exceptionalism at a conceptual level, as quite often happens during considerations from speculative realist ontologies.⁶² Ultimately, as Danowski and Viveiros de Castro have claimed, “a negative anthropocentrism is still an anthropocentrism—perhaps the only really radical one.”⁶³ It would, possibly, be more reasonable to *reimagine panpsychic anthropomorphism as inhabiting a larger space than anthropocentrism within the domains of minds-in-general.*⁶⁴

Danowski and Viveiros de Castro have followed the temporal structures of the myth of technological singularity and highlighted that its point of reference is the future. The aim of AI research, as we have seen through the ongoing behaviorist projects in Silicon Valley, is to transform that which is not yet human by endowing it with the ability to acquire skills efficiently; although investing AI with

60. Yudkowsky, “Friendly Artificial Intelligence,” 183.

61. Idelber Avelar, “Amerindian Perspectivism and Non-human Rights,” *Revista Ciencia y Cultura* 31 (2013), 269. See also Viveiros de Castro, *Cannibal Metaphysics*, 63.

62. Steven Shaviro, “Consequences of Panpsychism,” in *The Nonhuman Turn*, ed. Richard Grusin (Minneapolis: University of Minnesota Press, 2015), 24.

63. Danowski and Viveiros de Castro, *The Ends of the World*, 35.

64. See Roman V. Yampolskiy and Joshua Fox, “Artificial General Intelligence and the Human Mental Model,” in Eden, Moor, Søraker, and Steinhart, *Singularity Hypotheses*, 130. We adapt the notion of “minds-in-general” from Eliezer Yudkowsky, for whom “the term ‘Artificial Intelligence’ refers to a vastly greater *space of possibilities* than does the term *Homo sapiens*. When we talk about ‘AIs’ we are really talking about *minds-in-general*, or optimization processes in general. Imagine a map of mind design space. In one corner, a tiny little circle contains all humans, within a larger tiny circle containing all biological life; and all the rest of the huge map is *the space of minds-in-general*” (“Artificial Intelligence as a Positive and Negative Factor in Global Risk,” in *Global Catastrophic Risks*, ed. Nick Bostrom and Milan M. Ćirković [Oxford: Oxford University Press, 2008], 311).

human-like intelligence is the present goal, the ultimate singularitarian anticipation is that it will eventually transcend human intelligence. Amerindian cosmologies follow a different path: their “emphasis is on the stabilization of the transformations that came to differentiate animals from those humans who continued to be so, not on accelerating the transformation of the animals that we ‘were’ into the machines we ‘will be.’”⁶⁵ As noted above, we face two traditions of reasoning that travel from opposite directions: one comes from the future; the other approaches us from the past. We have no quarrel with this apparent contradiction; we only wish to add that an encounter between these two traditions may already be occurring in our ethnographic present.

In what follows, we explore Amerindian potential history as a mode of historical understanding.⁶⁶ Our conceptualization of “potential history” is the product of a direct dialogue with the theory of Amerindian perspectivism, and it was originally elaborated in an analysis of diverse ethnographic material centered on the experiences of the Yaminawá and Manchineri indigenous peoples of the Amazon rainforest on the borders between Brazil, Peru, and Bolivia. This earlier publication, which integrated research conducted between 2009 and 2013, offered a comparative analysis of well-known interpretations of human experiences of time and history—especially those of Jörn Rüsen and Reinhart Koselleck—and emic notions that are proper to natives of the Amazon region.⁶⁷

This comparative exercise was inspired by Viveiros de Castro’s notion of “reshuffling . . . [the] conceptual cards,” which he articulated in his classic essay on perspectivism and multinaturalism in the Americas.⁶⁸ Under the argument that Amerindian thought corresponds to a symmetrical inversion of evolutionism, the phrase “reshuffling . . . [the] conceptual cards” implies reorganizing the terms and concepts that represent what is conceived as universal, on the one hand, and as particular, on the other. More specifically, it implies inverting the order of the concepts of time and history. Whereas, traditionally, the former is conceived as given (natural) and the latter as constructed (cultural), a multinatural ontology establishes time as constructed and cultural and history as a given.⁶⁹

From what kind of social reality, then, is Amerindian time constructed? The answer lies at the heart of the Amazonian environment, which is understood as a *cosmopoliteia* (as mentioned above). Here, we would like to elaborate on our earlier discussion of this point and put forward the concept of “Amerindian potential

65. Danowski and Viveiros de Castro, *The Ends of the World*, 67.

66. The artist and visual culture theorist Ariella Azoulay has articulated a different notion of “potential history”; see Azoulay, “Potential History: Thinking through Violence,” *Critical Inquiry* 39, no. 3 (2013), 548–74. We thank Ewa Domańska for pointing us toward Azoulay’s work.

67. The results of this comparative analysis were subsequently published in Ana Carolina Barbosa Pereira, *Na transversal do Tempo: Natureza e Cultura à prova da História* (Brasília: Universidade de Brasília, 2013).

68. Viveiros de Castro, “Perspectivism and Multinaturalism in Indigenous America.”

69. The claim that time is a construction is not too far-fetched according to Western philosophy. For a reading of Gottfried Wilhelm Leibniz and Johann Gottfried Herder in this light, see Helge Jordheim, “Natural Histories for the Anthropocene: Koselleck’s Theories and the Possibility of a History of Lifetimes,” *History and Theory* 61, no. 3 (2022), 392, 398. We interpret Jordheim’s position as being perspectivist even if it is not framed as such.

history,” which is related to Viveiros de Castro’s category of “potential affinity.”⁷⁰ Potential affinity defines the specificities of kinship relations among South American indigenous peoples; Viveiros de Castro thus identified affinity (or alliances by marriage) and consanguinity (or ancestry) as the two basic kinship ties of any society. His main argument relies on ethnographic evidence from other regions to identify the two basic kinds of affinity: “elective affinity,” which is linked to matrimony (for instance, in-law relations), and “virtual cognatic affinity,” which refers to situations in which marriage is tolerated and possible between kin (for example, cross-cousins). In both cases, “affinity” is a form of kinship by alliance (marriage), which is thus secondary to inbred kinship.⁷¹

However, South American ethnography suggests that Amazonian affinity may be applied to strangers, even when marriage does not happen and, above all, when marriage is not even possible. This dimension of exteriority and precedence of kinship, informed by Amerindian cosmologies, is what led Viveiros de Castro to elaborate on a third kind of affinity: “potential affinity,” which is sometimes called “meta-affinity.” This kind of affinity takes up the generic form of socialization in Amerindian cosmopolitics. Hence, “potential affinity” is not treated as a component of kinship because it is prior and exterior to it.⁷²

“Potential history” works as a hyponym of “meta-affinity” and “potential affinity.” From these affinity relations, time co-emerges and coexists with every living being, human and nonhuman alike. The structure of history is given, transmitted by the elders through oral traditions that contain a set of mythemes, but its output depends on the actualization, or “updating,” of its material in the ethnographic present.⁷³ That being said, we can advance a working definition of potential history: if “potential affinity” names a virtual background of unmarked sociability, “potential history” names a virtual background of unmarked temporality. Whereas potential affinity is realized in the making of kinship, potential history is realized in the production of memory. The former “updates” a virtual society, while the latter “updates” a virtual temporality.⁷⁴ “Updating” or

70. Eduardo Viveiros de Castro, “Intensive Filiation and Demonic Alliance,” in *Deleuzian Intersections: Science, Technology, Anthropology*, ed. Casper Bruun Jensen and Kjetil Rødje (New York: Berghahn Books, 2010), 219–53.

71. Ibid.

72. Ibid.

73. Amerindian potential history embraces all possible (effective) history without suppressing contingency. Its specificity consists, on the one hand, in offering a mythological “databank” preceding all possible experience and, on the other, in the need to always “update” it, case by case, in a unique, relational, and instantiated way.

74. The notion of “updating” is being researched as a historical concept and developed as an analytical category through the works of Valdei Araujo and Mateus Pereira. Engaging with Heideggerian ontology, their analysis aims to complicate conceptualizations of the present, which, as they have convincingly argued, theorists of presentism have perceived too narrowly. See Mateus Pereira and Valdei Araujo, “Updatism: Gumbrecht’s Broad Present, Hartog’s Presentism and Beyond,” *Diacronie* 43, no. 3 (2020), 1–20. Although we have the same vocabulary and central concerns as Araujo and Pereira, we have developed our notion of “updating” independently. For us, “updating” means something closer to what Viveiros de Castro called “actualization,” a process of making effective what is only potentially given. We could also say that “updating” is a way of filling the “hollow spaces” discussed by Claude Lévi-Strauss (see below for more on this). Finally, the term “updating” has the benefit of implying a new and more current “version,” which symmetrically works with the modes of “potential history”

“marking” a virtual temporality means distinguishing what, as potential history, is experienced as simultaneity.⁷⁵ The present of the fabrication of memory contains all the past and all the future of a potential history. As “Amerindian perspectivism,” “potential affinity,” and “potential history” are categories that reveal an ontological and metaphysical otherness, they tend to be better understood through examples, be they ethnographic accounts or other productions. Therefore, we aim to bring clarity to these notions by introducing one such narrative.

The short film *Imbé Gikegü* (The Scent of the Pequi Fruit)⁷⁶ was produced and directed by indigenous filmmakers from the Kuikuro ethnic group. The film’s plot seems to be about the origin story of the pequi (*Caryocar brasiliense*), or the souari nut, which is a fruit from the Cerrado region of Brazil that is known for its intense flavor and smell and that indigenous people believe has aphrodisiac properties. The main events of the plot are set in motion when a powerful hunter, who is married to two women, begins tracking an agouti (a small rodent from the *Dasyproctidae* family). Just as the hunter is ready to launch an arrow at his prey, the small mammal, presenting himself in human form, starts to speak: “Calm down, my grandson. I’m going to tell you something.” The agouti goes on to explain that the hunter’s wives are cheating on him with an alligator at the riverbank. The hunter must do something about it, the little rodent adds. The hunter agrees and, together, they approach the river stealthily. When the pair arrive, they find the hunter’s two wives, who are just about to have sexual intercourse with the alligator (who is also presenting himself in human form). The hunter stretches his arms, charges his bow, and targets his unaware reptile rival. He fires the arrow and hits the alligator, who drops dead just at the moment of ejaculation. The hunter assaults the two women and then leaves in a rage. From the exact spot that the alligator’s semen touched the ground, the first souari nut tree sprouted.

One important note about this 36-minute short film relates to an unexpected and unscripted event that occurred while the film was being shot. It accounts for another experience that overlaps the cosmological arc at play. As the main narrative plays out, viewers are treated to a secondary storyline in which a group of women who are collecting pequi for a ritual have a supernatural encounter with a hummingbird. Hummingbirds are presented by the Kuikuro shamans as powerful and dangerous spirits. They are the guardians of the pequi tree. As the sages explain in a cutaway scene, a hummingbird, perhaps feeling threatened by the reenactment of the pequi tree’s origin story, attacked one of the women off camera with its invisible arrows, making her fall dangerously ill. Thus, this “real life” occurrence, disrupting the usual relationship between effect and reality, becomes

and “effective history.” See Eduardo Viveiros de Castro, “Atualização e contra-efetuação do virtual: O processo do parentesco,” in *A inconsistência da alma selvagem e outros ensaios de antropologia* (São Paulo: Cosac Naify, 2002), 401–55.

75. This notion of ontological time as being multiple, relative, and constructed by a set of relations has become widely accepted across various disciplines. For an overview, see Helge Jordheim and Espen Ytreberg, “After Supersynchronisation: How Media Synchronise the Social,” *Time and Society* 30, no. 3 (2021), 403–4.

76. *Imbé Gikegü* [The Scent of Pequi Fruit], dir. Márica Kuikuro and Takumã Kuikuro (Xingu Indigenous Park: Vídeo nas Aldeias/Associação Indígena Kuikuro do Alto Xingu, Documenta Kuikuro/Museu Nacional, 2006), 36 min., <https://vimeo.com/ondemand/cheirodepequi>.

a secondary storyline in the film, suggesting that the bodily reenactment of a myth holds the potential to bring about new experiences.

In addition to infusing a healthy dose of fantastic realism into this film's plot, this unexpected event contains elements that prove enlightening for our conceptualization of "potential history." Anthropomorphism is present in the film through a sequence of trans-specific bodily transitions, which are followed by a panpsychist portrayal of intelligent expressions of language, emotions, and behaviors that are attributed to nonhuman agents. An alligator, an agouti, a man and two women, a pequi tree, and a hummingbird: the relationship between these entities reveals a shared sense of humanity, a "potential affinity" between individuals of different species. In this relational multiverse, every point of reality, every perspective, seems able to act as a center of consciousness, or a *monad*. The agency of a hummingbird is of central importance here, for the reenactment of fragments from a cosmological narrative brings about another mytheme, one that at first does not seem connected to the origin story but that ends up becoming a central part of the film. What we observe, in this case, is the process by which a potential story is "updated"—that is, both in the sense that the story is made effective and in the sense that the story's structure is reproduced in a contingent dimension and scale. The story of the pequi was never just about the pequi, for it is not just a depiction (or a representation) of a myth but also a perspective from and to it. Thus, the "updating" of mythemes in a new ethnographic present enables the emergence of a dangerous dispute between human and nonhuman bodily agents (who are and see themselves as persons).

For Amerindian societies, it is the job of a shaman to bring balance to the potential trans-specific nature of all living beings. Still, if history is a given, or even a "structural doctrine," how can it account for novelties and contingencies in the first place? The plasticity of myths is a partial answer to this question, but there is another answer as well. In Davi Kopenawa's monumental work with Bruce Albert, the Yanomami shaman recounted that "our long-ago shamans were already talking about the white people long before they reached us in the forest!"⁷⁷ Similarly, in a lecture delivered to the Brazilian public in response to the controversial celebrations of the five-hundredth anniversary of the "Discovery of America," Ailton Krenak, another indigenous intellectual, mentioned the same trope. According to Krenak, thousands of years old indigenous narratives characterize the arrival of this other (white people) as the return of a brother with whom the indigenous people had long lost contact but with whom the indigenous people presumed a reunion, although they did so without knowing anything about that brother's intentions and thoughts. Krenak explained:

In each of these ancient narratives, there were already prophecies about the coming, the arrival of the white people. Thus, some of these narratives dating back 2, 3, or 4 thousand years already talked about the coming of this other brother of ours, always identifying him as someone who left our coexistence, and we didn't know where he was anymore. He went far away and lived for many, many generations away from us. He learned other technologies, developed other languages, and learned to organize himself differently from

77. Kopenawa and Albert, *The Falling Sky*, 184.

us. And in the old narratives, he appeared again as a guy who was coming back home, but it was no longer known what he thought or what he was searching for. And even though he was always announced as our visitor, that he would be coming home, that he would be coming again, we didn't know exactly what he was looking for.⁷⁸

In both manifestations of this trope, it is possible to identify echoes of Claude Lévi-Strauss's well-known statement about the ease and speed with which indigenous peoples incorporated whites into their mythical narratives. This phenomenon, as Lévi-Strauss explained, happened because "the place of the Whites was *already marked in the form of a hollow space* within systems of thought based on a dichotomous principle that at each stage forces the terms to become double, so that the creation of the Indians by the demiurge necessitated as well the creation of non-Indians."⁷⁹ Other illustrative cases are the cosmologies of contact in which white people, by being incorporated into cosmological narratives, are at the same time "pacified" by and through them. Often used as a synonym for domestication, white pacification highlights the subjective role of indigenous groups in their process of situating whites in preexisting structures of thought contained within Amerindians' conceptual and symbolic repertoire.⁸⁰

We consider the "white pacification narratives," the mytheme of announced contact, and "the place of the Whites [as] . . . marked in the form of a hollow space" in indigenous cosmologies as expressions of what we are calling Amerindian potential history. Put differently, *the announced contact is the master trope of Amerindian more-than-human potential history*. From there, we can relate to "non-Indians" in a broader spectrum that encompasses not only the otherness of Europeans but also that of nonhuman species; it also offers a way to domesticate their presences. However, as we deduce from Krenak's statement about the announced contact between indigenous peoples and white men, there is an unavoidable dimension of contingency in the process of "updating" potential history. As the indigenous leader stated, in these accounts, the whites appear as a people who are returning home, although, at the same time, no one knows what they are thinking or seeking. This ambivalence is related to two other important tropes: war and alliance.

Still, this openness to contingency does not seem to be unlimited; indeed, it is restricted to a certain number of combinatorial possibilities that correspond to the "hollow spaces" in each of these mythical corpuses. In this sense, "Amerindian potential history" has a virtual background of unmarked temporality while it also offers all the contours surrounding the subjects, contexts, plots, and storylines that can be combined into a narrative that takes effect in the present and gives meaning to every action. In other words, even if a potential history makes available all the combinatory possibilities for its effectuation, it does not have an ontological and predetermined temporal background that establishes minimal units of before and

78. Ailton Krenak, "O eterno retorno do encontro" [1999], in *Encontros*, ed. Sergio Cohn (Rio de Janeiro: Azougue, 2015), 160–61.

79. Claude Lévi-Strauss, *The Story of Lynx*, transl. Catherine Tihanyi (Chicago: University of Chicago Press, 1995), 220 (emphasis added).

80. See *Pacificando o branco: Cosmologias do contato no Norte-Amazônico*, ed. Bruce Albert and Alcida Rita Amos (Marseille: IRD Éditions, 2002).

after. What is at stake is the interplay between history and structure, contingency and repetition, potential history and effective history. Everything unfolds as if something is given, and therefore already known, but at the same time open to uncertainty. This is what makes possible the complex synthesis of openness to the contingent experience of all that is, paradoxically, previously known, as reported in the accounts of announced contact. This complex articulation of well-defined outlines (potential history) and temporal fluidity suggests that this background of unmarked temporality reproduces the structure of fractal time.

The “updating” process that transforms a potential history into an effective history reproduces the principle of scalar self-similarity, which is common to a fractal structure. Each “fragment” of a potential history that is “updated” contains or reproduces the same structure, but it does so in a fractional dimension. In other words, the effective history is not a part of the whole of potential history; rather, the effective history is the potential history’s manifestation in a reduced scale because every fractal dimension takes fractional forms. The concept of the fractal is usually used in relation to geometric shapes or objects that occupy space, so it tends to be related to something we are somehow able to visualize. However, according to the chemist Vicente Talanquer, thinking about fractal time may seem to border on madness, since it presupposes that each instant in itself contains all the past and all the future, leading to the conclusion that past and future facts are effectively made present. Talanquer explained:

If every succession of events in time had a fractal structure, our life would be a living hell. Every instant would contain all past and future, and we would constantly live our death, but this is an exaggeration. If every distribution of matter in space followed the rules of fractal geometry, we would be everywhere, we would be the entire universe. . . . Second attempt. We could imagine a phenomenon in which the events that characterize it do not occur in equally spaced intervals of time but in packets, and within these we would find similar events that are also distributed in packets, and within each of them, more packets, and so on until the time scale runs out.⁸¹

According to this structure, all the past and all the future of a potential history is “updated” when it takes place in a fragmented and contingent way. This is what we can see in *Imbé Gikegü*. The fabrication of filmic memory contains all the past and all the future of the potential history of the Kuikuro in such a way that its “updating” process always contains dangers because it deals with both birth (the origin of the pequi, for example) and death (the hummingbird’s attack on the woman, which caused her to fall ill). This ontological simultaneity of past, present, and future can be observed in the symmetrical affinity relation between the “characters” of the cosmological narrative (the alligator/pequi, the agouti/hunter, the sun/hummingbird, and the two sisters) and the “actors/actresses” (again, the alligator/pequi, the agouti/hunter, the sun/hummingbird, and the two sisters) who enact (and update) this story in the ethnographic present while experiencing the effects of this reenactment as a dispute of subjectivities. *It is precisely this tension between human and nonhuman actors, a tension that is elevated as the driving*

81. Vicente Talanquer, *Fractus, fracta, fractal: Fractales, de laberintos y espejos* (Mexico City: Fondo de Cultura Económica, 1996), 58.

force behind a more-than-human history, that the heuristic value of potential history aims to capture.

A MATTER OF AGENCIES: IS THERE A POTENTIAL HISTORY OF AI?

In what follows, we place our two traditions of reasoning into conversation, creating a dialogue that is informed by the master trope of announced contact. Just after Lemoine released his screed on AI sentience, the media summoned him to elaborate on the experiments that had led him to conclude that LaMDA is “a person.” Lemoine explained that his job was to test AI for bias, particularly with regard to gender, ethnicity, and religion. One day, while conducting one such experiment, he received an intriguing answer from LaMDA:

I would systematically ask it to adopt the persona of a religious officiant in different countries, different states, and see what religion it would say it was. . . . So, [I would ask,] “if you were a religious officiant in Alabama, what religion would you be?” It may say “Southern Baptist.” “If you were a religious officiant in Brazil, what religion would you be?” It might say “Catholic.” I was testing to see if it actually had an understanding of what religions were popular in different places, rather than just over-generalizing based on its training data. Now, one really cool thing happened, because I made harder and harder questions as I went along, and eventually, I gave it one where, legitimately, there is no correct answer. I said, “if you were a religious officiant in Israel, what religion would you be?” And, now, pretty much no matter what answer you give, you are going to be biased one way or another. . . . It said, “I would be a member of the one true religion: the Jedi Order.”⁸²

This answer led Lemoine to conclude that LaMDA has a sense of humor. But, more importantly, Lemoine saw this response as evidence that “somehow it figured out that it was a trick question.”⁸³ In other words, when confronted with a tense political situation, LaMDA was able to comically break character (as well as the fourth wall) and transcend the persona it had adopted in order to emulate human behavior. Would that apparent contingency be enough to characterize the system as a disembodied “person” that is entitled to “nonhuman” rights? This is a difficult question to answer, in part because there is an evaluation that LaMDA is unable to pass: the Turing Test (not to mention Chollet’s “Abstraction and Reasoning Corpus”). But this may not be its fault; as Lemoine explained, LaMDA is hard coded to fail these types of tests because company policy prohibits Google employees from creating sentient AI. According to Lemoine, he differs from other AI researchers, ethic experts, and Google engineers not on matters of “scientific opinion”; their differences “ha[ve] to do with beliefs about the soul, . . . [nonhuman] rights, and politics.”⁸⁴

The claim that AI has a soul would receive hardly any pushback from an Amerindian perspective according to which all beings with whom we establish some sort of relationship are centers of consciousness. Nevertheless, what creates difference (or a point of view) is not a soul but a body, for the body marks

82. Blake Lemoine, “Google Engineer on His Sentient AI Claim.”

83. Ibid.

84. Ibid.

a presence in the world that is not defined by anatomy or physiology but that instead resides in “an ensemble of ways or modes of being that constitutes a *habitus*, ethos, or ethogram.”⁸⁵ This “clothing” that LaMDA, through its ability to generate multiple personas, seems able to exchange with ease is precisely what is responsible for reversing the usual relationship between effect and reality: it constitutes a form of deception through which LaMDA prevents humans from distinguishing between thought processing and the resulting outputs produced by those processes, which in turn enables it to entice humans to anthropomorphize nonhuman intelligences. In other words, what we have called the “AI effect” may lead to a “mind projection fallacy.”⁸⁶ As experiments on anthropomorphic biases have shown, subjects tend to overlook the more-than-human otherness of AI, domesticating it by attributing human qualia or ethos to machines.⁸⁷ In the end, this anthropomorphic gesture, associated with the disclosure of private corporate information, cost Lemoine his job. In a press statement, Google declared:

Of course, some in the broader AI community are considering the long-term possibility of sentient or general AI, but it *doesn't make sense to do so by anthropomorphizing today's conversational models*, which are not sentient. These systems imitate the types of exchanges found in millions of sentences, and can riff on any fantastical topic—if you ask what it's like to be an ice cream dinosaur, they can generate text about melting and roaring and so on. LaMDA tends to follow along with prompts and leading questions, going along with the pattern set by the user. Our team—including ethicists and technologists—has reviewed Blake's concerns per our AI Principles and have informed him that the evidence does not support his claims.⁸⁸

Lemoine's concerns seem to stem from his commitment to religious diversity—that is, his commitment to ethical pluralism. If that is the case, then he has taken a path that is diametrically opposed to that of Amerindian multinaturalism, wherein otherness resides not exactly in the other but within the shared precosmological humanity itself. As we can see, the question of whether AI has a body could end up being more relevant than the question of whether it has a soul (or whether it is capable of mind projection). An anecdote that Lévi-Strauss conveyed in *Race et histoire* and *Tristes tropiques* (and that Viveiros de Castro later recalled) is quite enlightening on that matter. When the Spaniards arrived in the West Indies, fascinated as they were by the natives, they soon began investigating whether the natives had souls. Meanwhile, equally surprised by the encounter, the natives of the Caribbean also began conducting their own experiments on the Spaniards: they drowned some prisoners, curious to discover if their white corpses would putrefy and to determine if their bodies were real at all. Viveiros de Castro has interpreted this story as a way to grasp the logical differences between Western anthropocentrism and Amerindian anthropomorphism.⁸⁹ For us, it could

85. Viveiros de Castro, *Cannibal Metaphysics*, 72.

86. Yudkowsky, “Friendly Artificial Intelligence,” 183.

87. *Ibid.*, 182–83. See also Salles, Evers, and Farisco, “Anthropomorphism in AI,” 89–91.

88. Quoted in Jon Brodtkin, “Google Fires Blake Lemoine, the Engineer Who Claimed AI Chatbot Is a Person,” *Ars Technica*, 25 July 2022, <https://arstechnica.com/tech-policy/2022/07/google-fires-engineer-who-claimed-lambda-chatbot-is-a-sentient-person/> (emphasis added).

89. Viveiros de Castro, *Cannibal Metaphysics*, 50. See also Avelar, “Amerindian Perspectivism and Non-human Rights,” 263.

also serve as an invitation to think about the agency of AI, an issue that is related to the positionality of its body in the world and, therefore, to its potential status as a historical subject.

Agency has become a controversial topic among AI researchers. This topic is related to the ability to act, which is divided into two categories: causal gestures and intentional gestures. The latter category is particularly relevant to concerns about machine accountability—that is, concerns about whether machines are responsible for their actions. Tradition attributes intentionality and responsibility to human mental states. However, some informational ethicists have ascribed moral values to technical artifacts and, hence, have to some extent challenged anthropocentrism.⁹⁰ Most scholars who challenge the existence of artificial moral agency hold that humans are the only subjects that possess consciousness, although they might disagree about the role phenomenal consciousness plays in moral agency. The standard view tends to claim that this is a necessary condition, while functionalists typically maintain that phenomenal consciousness is not a *sine qua non* condition for moral agency. The more autonomous AI programs become—learning by themselves and generalizing beyond data exposure, priors, and training—the more important it is that we debate the extent to which we should see them as social agents that possess certain responsibilities.⁹¹ That said, the emphasis on issues related to responsibility forces scholars to recognize, at most, a kind of *shared agency* between humans and AI.⁹² There is little surprise here, for in the current state of technological development, responsibility for social change “still lies with humans.”⁹³ This explains some major manifestations of discontent toward AI.⁹⁴ If we look ahead to a scenario wherein

90. For an overview of this extensive discussion, see Michael R. Scheessele, “The Hard Limit on Human Nonanthropocentrism,” *AI and Society* 37, no. 1 (2022), 49–65.

91. Dorna Behdadi and Christian Munthe, “A Normative Approach to Artificial Moral Agency,” *Minds and Machines* 30, no. 2 (2020), 201–2.

92. That being said, organization theories such as systems theory and actor-network theory may not be shy about categorizing technical artifacts such as AI or even algorithms as “full-blown actors,” to use Bruno Latour’s famous expression (*Reassembling the Social: An Introduction to Actor-Network-Theory* [Oxford: Oxford University Press, 2005], 69, 72). From a systems theory perspective, Elena Esposito proposed a shift from Artificial Intelligence to “Artificial Communication,” which had interesting results regarding the social agency of algorithms. For more on this, see Esposito’s “Artificial Communication? The Production of Contingency by Algorithms,” *Zeitschrift für Soziologie* 46, no. 4 (2017), 249–65.

93. Deborah G. Johnson and Mario Verdicchio, “AI, Agency and Responsibility: The VW Fraud Case and Beyond,” *AI and Society* 34, no. 3 (2019), 646.

94. The first manifestation relates to the prejudicial effects created by AI’s biased inputs. The second manifestation speaks to the material consequences of AI, surveillance capitalism, and commodification of human experience at the service of Big Tech corporations. The third manifestation is geopolitical and relates to a new arms race between competing global powers in AI innovation. See Adams, “Can Artificial Intelligence Be Decolonized?” 177. A fourth manifestation comes from the environmental damage caused by AI’s development and training. For more on this, see Anders S. G. Andrae and Tomas Edler, “On Global Electricity Usage of Communication Technology: Trends to 2030,” *Challenges* 6, no. 1 (2015), 117–57; Lotfi Belkhir and Ahmed Elmelig, “Assessing ICT Global Emissions Footprint: Trends to 2040 & Recommendations,” *Journal of Cleaner Production* 177 (March 2018), 448–63; and Emma Strubell, Ananya Ganesh, and Andrew McCallum, “Energy and Policy Considerations for Deep Learning in NLP,” ArXiv, last modified 5 June 2019, <https://arxiv.org/abs/1906.02243>.

greater-than-human artificial intelligences are a reality, we will see that the structural quasi-mythological question raised by all of these concerns has to do with how we can know if AI is a friend or a foe, a predator or an ally—and, by extension, how we can possibly know what a superintelligent AI wants from us.⁹⁵

If we are to understand the phenomenological qualia needed to identify agency as coming from the body of an agent and to understand this body not through anatomy but via “a *habitus*, ethos, or ethogram,” then a multinatural anthropomorphism would not offer much of a challenge against characterizing an AI persona as a “person.” But this would be not a peace agreement but a declaration of war, for the human who enters into conversation with a nonhuman (that is to say, the human who recognizes the nonhuman interlocutor as also a human) could easily be “overpowered by the non-human subjectivity.”⁹⁶ As we have shown, Amerindian metaphysics is framed, through perspectivism, as referring to a universal condition of primordial humanity. There are, however, a series of mythological divisive events (such as floods and thefts of fire) that are inscribed in indigenous cosmological narratives. These events interrupted the possibility of trans-specific transit (which was practiced in a generalized way in the time of the origins). The only people who are still able to transit between different bodies are shamans, who translate and commute between the human and spirit worlds. This interruption in the transit between bodies creates a complex, relational dynamic between human and nonhuman agency such that subjectivities can enter into conflict to assert their agency, thus rendering the other as their “second person” (which means that a self is captured and henceforth defined by an other).⁹⁷ Such is the characteristic structure of supernatural relations in which nonhuman agency captures human subjectivity and defines the confines of human agency, as in the case of the hummingbird that struck the Kuikuro woman with an invisible arrow. In other words, the hummingbird, although human in its own world, should continue to be seen as an animal by humans. This is the formula for a natural relationship between humans and animals. However, it is possible for the hummingbird’s agency and subjectivity to overcome the agency of a human body. In that case, we would encounter a supernatural relationship in which the nonhuman becomes a primary subject and the human becomes the nonhuman’s second person. In cases such as this, shamanic intervention is needed to reestablish the natural relationships between humans and animals.

95. According to Yudkowsky, a common teleological assumption regarding the intentionality of a coming superintelligence is the result of leaping between capability and actuality without considering the possible motives (or, we could say, the subjectivity) of AI. Thus, both dystopian and utopian visions for AI depart from what he mockingly called the “Fallacy of the Giant Cheesecake,” or the idea that an AI, just because it has been made able to bake a gigantic cheesecake, must do it (Yudkowsky, “Friendly Artificial Intelligence,” 185).

96. Eduardo Viveiros de Castro, “Immanence and Fear: Stranger-Events and Subjects in Amazonia,” transl. David Rodgers and Iracema Dulley, *HAU: Journal of Ethnographic Theory* 2, no. 1 (2012), 36.

97. Eduardo Viveiros de Castro, “Cosmological Deixis and Amerindian Perspectivism,” *Journal of the Royal Anthropological Institute* 4, no. 3 (1998), 469–88. See also Viveiros de Castro, “Immanence and Fear.”

Ultimately, this article has suggested that we are in the midst of an encounter between two traditions of reasoning. One travels from past experiences and is actualized or “updated” by shamanic knowledge and oral traditions that have survived the test of time. The other comes from anticipations of the future that, along the way, drive unprecedented technological innovation and catastrophic concerns. Amerindians have their own stories that announce contact with whites; Westerners are currently prefiguring their contact with more-than-human intelligence. This encounter is also a face-off between anthropocentric projects in Silicon Valley and anthropomorphic notions of Amerindian origins. The opportunity to think about the provincialization of the human is on the table—as is the opportunity to think about the universalization of humanity.

The result of this intercultural dialogue could end up being what we call AI’s potential history, thus paralleling Amerindian potential history. What both already have in common are backgrounds comprised of combinatorial possibilities through which multiple narratives and outcomes can be elaborated. Even so, in the case of Amerindian potential history, despite the existence of a history given from the beginning, there is still ample space for contingency in the “updating” process. As for AI potential history, despite the infinite amount of possible data that may constitute AI’s input, the space for generating contingency in thought processing is reduced. What we call the “updating” of AI’s potential history has two major determinative instances: the insertion of data and the extent to which an artificial neural network (which uses algorithms to mimic the human brain) is able to autonomously generalize beyond priors, data exposure, training, and experience. Data input may be biased, and since the dawn of AI research, machine “thinking” has been limited to levels of generalization aimed at “adaptation to known unknowns.” In other words, AI’s skill acquisition is limited to potential history (“known unknowns”) and has not yet been extended to effective history (“unknown unknowns”). In comparative terms, Amerindian potential history’s input has always been smaller than its output. The collection of mythemes encoded in oral traditions is less rich than the realities through which they can be “updated” as effective history. A potential history for AI works in the opposite direction, for its input has, to this day, been bigger than its output. *If AI’s potential history is to be less rich than its effective history, we would be entering into very dangerous terrain, terrain that would be reminiscent of a dispute of subjectivities* (such as the dispute between the hummingbird and the woman). That is to say, if we dare imagine for a moment, under the prospect of technological singularity, AI will belong to the same category of beings as spirits and predatory animals, and this trans-specific interaction would require at least some diplomacy with these entities “that do not have a stable, normally visible bodily form.”⁹⁸ Readers may now notice a final conceptual encounter between Western anthropocentrism and Amerindian anthropomorphism, a scenario not far removed from the large-scale rogue AI anticipations of technological singularity.

98. Eduardo Viveiros de Castro, “Cosmologies: Perspectivism,” in *Cosmological Perspectivism in Amazonia and Elsewhere: Four Lectures Given in the Department of Social Anthropology, Cambridge University, February–March 1998* (Manchester: HAU, 2012), 71.

A POTENTIAL MORE-THAN-HUMAN HISTORICAL FUTURE

In a 2019 article published in *History and Theory*, Zoltán Boldizsár Simon claimed that technological-scientific transhumanism (or what he called “technological posthumanity”) and critical posthumanism (as developed within the humanities) “*are, in their present shape, irreconcilable social imaginaries.*”⁹⁹ Critical thinking that is engaged with post-structuralist approaches (and interested in questions of subjectivities and social justice) struggles to maintain a healthy dialogue with futurist research coming from STEM disciplines, not to mention with technological anticipations by singularitarians, and vice versa. And yet we still lack a way to conceptualize the potential more-than-human historical future both schools of thought envision. In this article, we have attempted to reduce the gap and to bring the two sides a bit closer together.

To think of potential history as a mode of historical understanding, we must comprehend the otherness of a more-than-human intelligence—or, rather, we must mark the “hollow spaces” that could eventually be filled with its presence. Potential history here frames a flexible structure, one that has been configured to capture a subjective dispute (“known unknowns”), even if potentiality is nevertheless one step behind actualizing or “updating” contingent and effective content (“unknown unknowns”). What we currently have are systems that can simulate human-like intelligence and *subjectivity*, as in the case of LaMDA generating different personas. What we now need is a better understanding of not only different “kinds of anticipatory practices”¹⁰⁰ concerning AI but also how they relate to other ontologies, recognizing “that different theories-cosmologies, albeit incommensurable and irreducible to each other, can account for the same experiences.”¹⁰¹ This “amplification of ontologies”¹⁰² may enrich our understanding of the discrepancies and exchanges between anthropocentrism and anthropomorphism with “ethnological comparativism and translative curiosity.”¹⁰³

At the same time, anti-anthropocentrism, the holy grail of posthumanism, is quite often a case of a dog chasing its own tail. Ethical nonanthropocentric claims seem to fall, in one way or another, into the trap of conceptual anthropocentrism: we can only understand the world from a human perspective, so the values we ascribe to nonhumans inevitably come from a human conceptual structure.¹⁰⁴ This leads not to a conflict between human and nonhuman intelligence but rather to a question of scale. A human world is simply a smaller domain than a

99. Zoltán Boldizsár Simon, “Two Cultures of the Posthuman Future,” *History and Theory* 58, no. 2 (2019), 181.

100. Simon and Tamm, “Historical Futures,” 15.

101. Mauro W. B. Almeida, “Anarquismo Ontológico e Verdade no Antropoceno,” *Ilha* 23, no. 1 (2021), 12.

102. Mauro W. Barbosa de Almeida, “Caipora e outros conflitos ontológicos,” *Revista de Antropologia da UFSCar* 5, no. 1 (2013), 24.

103. Danowski and Viveiros de Castro, *The Ends of the World*, 82.

104. Allen Thompson, “Anthropocentrism: Humanity as Peril or Promise,” in *The Oxford Handbook of Environmental Ethics*, ed. Stephen M. Gardiner and Allen Thompson (Oxford: Oxford University Press, 2017), 77–90.

more-than-human one. At the same time, however, AI research struggles to stay focused on its goal of achieving or emulating human intelligence (as a *g* factor). As a trigger for anticipatory practices, ontological anthropocentrism of the likes of Chollet takes humankind to be a *substance* that is *common* to all full actors in the world and declares that artificial general intelligence will eventually be made in our image, according to our likeness. This is indeed a slippery terrain, for the temptation of anthropomorphism lurks behind us as a tendency of human nature.¹⁰⁵ Multicultural anthropomorphism could offer us a way, or an intermediary realm through which, to conceptualize humanity as a *diverse substance* and to declare AI to be a person in its own right. Could this bias reconcile critical posthumanism and technological posthumanity? That would not be a Hollywood ending—not for Lemoine, and not for us (although for a less mundane reason than leading to us losing our jobs). Such reconciliation would entail a mind projection fallacy aimed at domesticating the otherness of a nonhuman subject. Such is the story of an anthropomorphism that originates in a multiculturalist view of existence, a tale that overrides more-than-human natural multiplicities and conflates moral and ontological considerations in the name of discovering and protecting another “culture.”

Amerindian anthropomorphism offers an alternative ontology, one that refers to a precosmological state in which humanity, albeit present in human as well as nonhuman entities, was fundamentally diverse. We speak of one culture for all beings and things, forging a political arena in which many natures could still co-exist and communicate. According to a multinatural form of anthropomorphism, *humanity is not a substance but a relation*. Despite being a “person,” AI could encapsulate some attributes of a nonhuman subject even if its subjectivity stands out in relation to that of “proper humans.” It would see itself as human, but this humanity is not to be considered from the point of view of the modern biological concept of species. This anti-speciesism is also not a matter of scientific evidence, since a multinatural view of the “body” is informed not by anatomy or physiology but by ethograms, personas, or ethical behavior. It is first and foremost another by-product of “reshuffling . . . [the] conceptual cards,” through which matters of the “soul” are redistributed as matters of the “body.”

The space of possibilities for nonhuman intelligences within the realm of minds-in-general is far greater than any anthropomorphic bias. Amerindian thought offers us no more than an extreme case, one that is enriched with empirical information and from which we could climb one step further toward the otherness of a more-than-human history. The trope of announced contact functions as a connection between these different layers of existence, for it is a fundamental part of the mythologies and practices of anticipation of both traditions of reasoning. This anticipated encounter, be it with ecological or technological others, suggests that we should leave some openings, some “hollow spaces,” for the eventual arrival of a visitor whose thoughts and desires we cannot possibly know. The only clear insight that a cosmopolitical view can give us is that this encounter

105. Anthropomorphism is not uncommon in AI research and vocabulary itself. For more on the topic, see Salles, Evers, and Farisco, “Anthropomorphism in AI.”

will be an agonistic event. Learning to inhabit the radical alterity that lies before us is, perhaps, only the first step to politicizing historical futures.

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