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REVIEW ARTICLE



Speaking for nature? Irreduction and demo-genesis in Bruno Latour

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ABSTRACT

This article examines what it means to *speak for nature* in the Anthropocene, a moment in which the Earth's agencies increasingly reshape political, epistemic, and institutional arrangements. The Anthropocene is approached as a challenge to inherited modes of representation, raising questions about how beings whose agencies circulate across heterogeneous networks become encounterable, articulable, and capable of participating in collective life. The article brings Bruno Latour's principle of irreduction into dialogue with his demogenetic proposal, a term used to designate a new process of engendering peoples through which heterogeneous beings are composed and granted a voice in common affairs. The analysis develops through an interplay of philosophical, anthropological, and geoliterary materials. Latour's reworking of Gaia provides a conceptual framework for engaging these intersections, presenting the Earth as a constellation of actants whose reactions and demands exceed the categories of nature, object, or environment. Through this lens, the article examines the shifting conditions under which beings become perceptible and representable within shared processes of world-making. The article concludes by outlining the conceptual, institutional, and situated arrangements through which nature may appear as a participant in collective life. Rather than seeking unified voices or stable representational forms, it highlights the practices and procedures that sustain encounters with heterogeneous agencies, contributing to ongoing debates in the environmental humanities and critical social sciences on agency, representation and the composition of collectives.

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PALABRAS CLAVE

Bruno Latour; Irreducción; demo-génesis; Gaia; Antropoceno; agencia distribuida

Falar pela natureza? Irredução e demo-génese em Bruno Latour

RESUMO

Este artigo examina o que significa 'falar pela natureza' no Antropoceno, num momento em que as agências da Terra reconfiguram, em sentido crescente, configurações de ordem política, epistémica e institucional. O Antropoceno é abordado como um desafio aos modos herdados de representação, originando questões relativas ao modo como seres cujas agências circulam através de redes heterogêneas se articulam e participam na vida coletiva. O artigo coloca o princípio de irredução de Bruno Latour em diálogo com a sua proposta demo-genética, ilustrando a forma como estes conceitos esclarecem os procedimentos institucionais através dos quais seres heterogêneos são progressivamente registados e dotados de voz nos assuntos comuns. A análise que se apresenta desenvolve-se através de uma articulação de referências filosóficas, antropológicas e literárias. A reelaboração de Gaia por Latour fornece um enquadramento conceptual para abordar estas intersecções, apresentando a Terra como uma constelação de actantes cujas reações e exigências excedem as categorias de natureza, objecto ou ambiente. Através desta perspectiva, o artigo examina as condições mutáveis sob as quais os seres se tornam perceptíveis e representáveis em processos partilhados de criação de mundo.

Hablar en nombre de la naturaleza? Irreducción y demo-génesis en Bruno Latour

RESUMEN

Este artículo examina lo que significa hablar en nombre de la naturaleza en el Antropoceno, un momento en el que las agencias de la Tierra reconfiguran cada vez

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más los arreglos políticos, epistémicos e institucionales. El Antropoceno se aborda como un desafío a los modos heredados de representación, planteando preguntas sobre cómo los seres cuyas agencias circulan a través de redes heterogéneas se vuelven encontrables, articulables y capaces de participar en la vida colectiva. El artículo pone en diálogo el principio de irreducción de Bruno Latour con su propuesta demogénica, un término utilizado para designar un nuevo proceso de engendramiento de pueblos mediante el cual seres heterogéneos son compuestos y dotados de voz en los asuntos comunes. El análisis se desarrolla mediante un juego entre materiales filosóficos, antropológicos y geoliterarios. La reelaboración de Gaia por parte de Latour proporciona un marco conceptual para abordar estas intersecciones, presentando la Tierra como una constelación de actantes cuyas reacciones y demandas exceden las categorías de naturaleza, objeto o entorno. A través de este lente, el artículo examina las condiciones cambiantes bajo las cuales los seres se vuelven perceptibles y representables en procesos compartidos de creación de mundo. El artículo concluye delineando los arreglos conceptuales, institucionales y situados mediante los cuales la naturaleza puede aparecer como participante en la vida colectiva. En lugar de buscar voces unificadas o formas representacionales estables, se destacan las prácticas y procedimientos que sostienen encuentros con agencias heterogéneas, contribuyendo a los debates en curso en las humanidades ambientales y las ciencias sociales críticas sobre agencia, representación y la composición de los colectivos.

1. Introduction: framing the question of earthly participation

In a short essay from 2015 (Viveiros de Castro 2015), “O recado da mata,” written in the wake of his work with Déborah Danowski (Danowski and Viveiros de Castro 2014), Eduardo Viveiros de Castro describes the accelerated erosion of the Amazon forest as the destruction of a “living superorganism, (...) a worldmachine in natura.” Drawing on João Guimarães Rosa’s *Corpo de baile* (Guimarães Rosa 1956), he reads the cerrado of Minas Gerais as a geoliterary landscape in which vegetal, animal, and human agencies intersect, offering images of a world in which the messages of living beings compose a dense, more-than-human milieu.

The associative flow on display is, it could be suggested, subtly inebriating,¹ inexhaustible (e.g. names of existing trees, names of trees yet to come, names of trees bearing a human imprint, vegetal variations, indigenous glossolalias, floral diminutives), yielding a multitude of findings capable of describing the *cerrado*’s “living superorganism” as being, simultaneously vegetal, animal, and human. In its ostensive act of naming, the text seems to enact – composing in radical and speculative terms – an idea of Gaia (Latour 2015) as bricolage, a care of *obligation* toward the other, and a work of holobiont composition² (Latour 2021).

Against this backdrop, the present article examines what it means to *speak for nature* at a moment when the very contours of the Earth are being reconfigured by climatic, political, and epistemic turbulence. Rather than treating the Anthropocene as a merely descriptive label for planetary disturbance, the text approaches it as a conceptual and institutional challenge: how can beings whose agencies are distributed across heterogeneous networks be represented, acknowledged, or made present within collective life?

A key underpinning of the article is that the combined lens of irreduction, Gaia and demo-genesis, offers a distinctive way of approaching the problem of *speaking for nature*. Rather than treating agency, representation, and responsibility as separate questions, the article argues that they must be thought together, by considering irreduction as a constraint against premature ontological hierarchies, Gaia as the reference adopted to designate an Earth that insists on its presence and capacity to act, and demo-genesis as “a

¹By way of exemplification (Guimarães Rosa 1956, 697): names of trees yet to come (e.g. “ana-sorta,” “joão-curto,” “três-marias,” “sebastião-de-arruda”), vegetal variations (e.g. “erva-luísia,” “a sempreviva-serrã,” “árvore-de-folha-parida”), Indigenous glossolalias (“coti-caém,” “guabipocaíba,” “uuucuuba”), and floral diminutives (e.g. “azedinha-aleluia,” “chumbo-de-flor-miudinha,” “miserinha”).

²In *Où suis-je? Leçons du confinement à l’usage des terrestres* (2021), Latour introduces the notion of the holobiont to designate a figure endowed with heuristic potential for rethinking agency, territory, and interdependence in the Anthropocene (Latour 2014). In this sense, the notion aims to represent a living system of composite character (e.g. symbiotic, parasitic, and co-evolutionary organisms forming a network of mutually dependent agencies). In the wake of earlier works (2004, 2013, 2014, 2015, 2016, 2021), Latour mobilizes this image to challenge classical and totalizing conceptions of action and sovereign territoriality, to highlight the superposition of geological strata, and to demonstrate how local life depends on its inscription within vast, distributed, and often invisible global networks. In its interdependence and vulnerability, it is, in genetic terms, a figure close to the cosmogonic horizon present in Gaia (Lovelock 1979).

new operation of engendering peoples, a demo-genesis” (Latour [2013] 2017, 181) through which heterogeneous beings are composed and granted a voice in common affairs. This framework is unfolded in conversation with Latin American anthropological and geoliterary references, with the aim of contributing to ongoing debates in the environmental humanities and critical social sciences concerning agency, representation, and the composition of collectives.

The article unfolds through a conceptual trajectory that traces how nature becomes articulate within contemporary ecological and political conditions. It begins by examining Latour’s reworking of Gaia (2015) and the methodological role of irreduction in suspending inherited ontological hierarchies. Subsequent sections explore the ethical and political implications of attributing agency to natural beings, the shifting conceptual terrain of the Anthropocene, and the challenges posed to scientific authority within contemporary cosmopolitics. The text then develops the notion of demo-genesis as an institutional horizon for composing collectives of human and nonhuman beings, culminating in an analysis of interest, plurality, and the fragile procedures through which heterogeneous worlds are brought into relation. The concluding section draws these threads together by outlining the conceptual and institutional conditions under which nature may appear as a participant in shared processes of world-making.

2. Gaia, the Anthropocene and the problem of nature as a political actor

The remoralization or “re-animation” of nature requires a repositioning of what may be designated as reason in terms that do not, in themselves, empty it of ethical meaning. Authors such as Ferrer (2024), following Hans Jonas ([1979] 1984) and Latour (2015), argue that, in the context of the hegemony of technique – understood as the *nemesis* of nature, opposing it and usurping its power, in Promethean terms – and of the predictability and reach of its effects in late modernity, the alteration of the essence of human action should correspond to a reconfiguration of the understanding of nature as a subject of action and an object of human care as well as of the horizon of normativity taken as an ethical reference:

The notion that the human being is made by his action – in his concept of himself and, today, also technically – confers a new meaning upon the principle that every action rebounds upon the agent. (...) The situation has changed with the hegemony of technique, and the validity of the principle that our actions shape us extends indefinitely. Technical action transforms its subject. (...) Consequently, (...) the universe of subjects of action should perhaps be extended beyond the human, so as to encompass all of nature and the Earth, [and] the transformation of the agent (...) may mean the definition of a new geological era, the Anthropocene, in which human actions transform the totality of the Earth. (Ferrer 2024, 174)

The *Anthropocene* (Conway 2016) marks this inflection, designating a geological regime in which the boundaries between human action and planetary processes become porous, and in which the Earth appears as a participant in collective life. This is a notion problematized by Latour through his exploration of its hybrid and, to some extent, confused or conflated representations: is, or should, the Anthropocene be considered a *humanization of nature* (e.g. humans have finally left their mark) or a *petrification of humanity* (e.g. the human gradually turning into geology)?

(...) the Anthropocene, despite its name, is not an immoderate extension of anthropocentrism, as if we could boast of having been transformed into something like super-humans, flying around in red and blue suits. It is rather the human as a unified agent, a virtual political entity, a universal concept that must be decomposed into several distinct peoples, endowed with contradictory interests, competing territories, and brought together by belligerent agents – if not belligerent divinities. (Latour [2013] 2017, 122)

The Anthropocene thus exposes the fragility of the category of the human and reveals the multiplicity of agents whose trajectories intersect within the same ecological field. Contemporary ecological theory further amplifies this shift, with different authors (e.g. Moore 2015; and Tsing 2015) framing the concept of the Anthropocene in an ambivalent sense (as both a challenge and an opportunity), in a manner similar to Latour (in light of notions such as the *Anglocene*, *Capitalocene* or *Plantationocene*). Donna Haraway’s (2016) proposal, *Staying with the Trouble: Making Kin in the Chthulucene*, deserves particular emphasis in this regard. In it, Haraway introduces the term *(Ch)thulucene* (from *(ch)thonic*, meaning ancient or subterranean) to designate a tentacular mode of understanding existence, in which humans and nonhumans are entangled in a web of relations, arguing that the Anthropocene emphasizes human exceptionalism and

individualism, which may lead to destructive behaviors toward the planet and its ecosystems. Across this circulation of ideas, the different proposals mentioned tend to share: (i) the view that dichotomies such as nature/culture reveal their insufficiency as intellectual resources for understanding changing climatic regimes; (ii) the view that nature, in definitional terms, should not be considered an inert and discrete backdrop within or against which humans orient themselves; (iii) the sense of "(...) a signal suggesting that we should turn toward the Earth" (Latour [2013] 2017, 219).

Latour's contribution to this regard lies in his reconfiguration of the notion of agency: for Latour, in a relativist sense, speaking of the *Anthropocene* entails the refusal of totalizing visions, a source of astonishment at the very possibility of *making nature speak*, of making it confess its laws, in a manner reminiscent of the response to Galileo's formulations ("*Eppur si muove!*"). Galileo, for Latour, did not make nature speak; rather, he spoke in its place, turning it into a matter of fact. It is therefore, one may suggest, a question of putting into practice a work of mediation in light of the reformulation of the notion of agency described earlier and of a principle of (re)distribution of rights and access to speech between humans and nature, foregrounding the principle of irreduction proposed by Latour ([1984] 1988) as both condition and apex of a re-enchantment of the world (of nature):

(...) the famous phrase of Galileo – "*Eppur si muove!*" – (...), the immemorial and fixed Earth, which provided the conditions and foundations of our lives, is moving, (...) the new Inquisition (now economic rather than religious) is shocked to learn that the Earth has become – has once again become! – an active, local, limited, sensitive, fragile, trembling, and easily irritable envelope. (Latour [2013] 2017, 60)

If it was indispensable for Galileo to remove all behaviours from bodies and retain only their movement, there was no reason to transform that practice into a general philosophy and even less into the politics of an Earth deprived of any possibility of being moved. What was merely a convenient expedient for Galileo became a metaphysical foundation in the hands of Locke, Descartes, and their successors. (Latour [2013] 2017, 85)

(...) in the contemporary ecological crisis, humans are those who remain on the sidelines as inert objects, while nature assumes the role of active subject. (Latour [2013] 2017, 71)

The Anthropocene becomes intelligible only if this (re)distribution of action is reconsidered and if the Earth is approached as a being capable of generating demands, reactions, and constraints. Galileo's gesture – removing behaviors from bodies to retain only movement – was a methodological expedient that later hardened into a metaphysics of inert nature. Latour's principle of irreduction ([1984] 1988) becomes central in this context, since it prevents the premature stabilization of entities and opens the space in which their demands can be articulated. Within this positioning, the question to pose is no longer how to *speak for nature*, but how to compose the conditions under which nature can appear as a participant in shared processes. This reconfiguration of agency exposes the limits of the descriptive symmetry that characterized Latour's Actor Network Theory (ANT, in short) (2005).

Latour's ANT (2005) traced associations, yet it did not address the ecological regime in which the Earth behaves as a reactive and demanding presence. Latour acknowledges this putative limitation when he writes that ANT "(...) has no other ambition than to trace a network and that it '(...) does not tell actors what they should be'" (Latour 2005, 128). ANT's descriptive discipline revealed the heterogeneity of agencies, although it offered little guidance for understanding how these agencies become matters of concern for a collective or how they enter into processes of representation, obligation, and decision.

This analytical horizon becomes strained once the Earth behaves as having a demanding presence whose trajectory reorganizes the conditions of collective life. Gaia introduces this pressure by designating a mode of existence in which the Earth is understood as a composite being whose reactions generate obligations and whose presence alters the distribution of agencies. Latour describes Gaia as "(...) a being that with (...) a power that reacts to our actions" (Latour 2015, 75–76), a formulation that foregrounds the need for procedures capable of receiving the demands that arise from ecological interdependence. Gaia's movements, therefore, reveal the fragility of the arrangements that have sustained modern institutions and expose the need for conceptual resources that exceed ANT's descriptive repertoire.

Latour's inquiry into modes of existence (2013), describing the regimes of veridiction, obligation, and transformation through which beings acquire consistency, emerges from this pressure. Each mode of existence sustains a distinct trajectory, and the articulation of these trajectories requires attention to the operations that allow beings to appear, persist, and affect one another. The ecological regime associated with

Gaia (Latour 2013, 2015) intersects with several of these modes, particularly those concerned with scientific reference, political articulation and the beings of metamorphosis. Gaia's presence therefore demands a reconfiguration of the *modus operandi* through which beings are registered and sustained, since the agencies involved traverse multiple modes and generate consequences hardly absorbed by a single descriptive framework. This pressure forces a return to the methodological operator that first made such articulations possible: the principle of irreduction (Latour [1984] 1988).

3. Irreduction as a methodological operator

The principle of irreduction was developed by Latour as a conceptual operator in a *half-book* (of aphorisms) inspired by Spinoza (Latour [1984] 1988). In this work, Latour introduces a set of central philosophical proposals concerning agency, reality, and knowledge, later developed in other writings (Latour 2005): (i) a non-dualist ontology (in Latour, everything is situated on the same ontological level, whether ideas, persons, or inanimate objects), (ii) an anti-reductionism (for Latour, beings are not considered fundamental, nor do perfect ideas exist in another realm, as in Plato, which imperfect objects attempt to imitate), and (iii) a conception of social relations in the form of a pretzel, in which elements of mutuality (Ferrer 2024), reciprocity, and co-influence contribute to describing processes of association (composition) among agents that produce social effects.

The search for a (re)distribution of rights and access to speech between humans and nature resonates with the difficulty identified by Leibniz in articulating (or distributing) differences, in the sinuous path that leads to the establishment of harmony as a vector guiding action in the world (Danowski 2001). The problem of the (Leibnizian) bond and of symmetry (Callon 1986) between monads, which precariously associates truth and becoming, is taken up again in Latour ([1984] 1988) through the proposal of irreduction, an operative principle that suggests the need for distancing oneself from the pretension to know and to judge in absolute terms. For Latour, irreduction signifies a distrust toward positions that induce impulses to explain by reducing, or toward the construction of a difference between two terms that collapses them into a relation of agonistic, irreducible opposition.

Transposing this to the relation between humans and nature, it is important to attend to Stengers's argument ([1993] 2000, 108), a proposal marked by a different kind of *phronesis* (practical wisdom), capable of rendering intelligible, in epistemological and ontological terms, a field of relations and interests defined by plurality (e.g. conflict, complementarity, mutuality) and heterogeneity.

Matter, the electron, the vacuum do not receive operative definitions, as if it were enough to decide to subject them to an operation: they are (...) the creation of a collectivity in which matter, electron, or vacuum will make history. Epistemological terms such as objectivity acquire meaning from the political definition of this collectivity. (Stengers [1993] 2000, 108)

3.1. From agency to irreduction: assemblages of interdependence

In the terms highlighted by Ferrer (2024, 163), to consider the political role and moral status of nature constitutes "(...) a problem that no ethics within the epic of technique, technology, and mass consumption can ignore." This horizon of questioning entails, in closely related terms, examining the conditions under which a capacity for agency may be attributed to nature, since, in Ferrer's formulation (*op. cit.*, 164), "(...) I can only act morally in relation to other subjects whom I can also recognize as subjects endowed with rights and duties."

Latour challenged at various moments (Latour 2005, 2014, 2016) the classical uses of the concept of agency, considering it too fluid and adventitious, and proposing instead an expanded and multiplied meaning of this notion, one that "(...) precedes the ascriptions of humanity and personality" (Latour [2013] 2017, 49). The consideration of a capacity for action on the part of natural forces and objects thus entails, in these terms, a re-examination of the difference between object and subject, subjects and centers of action, in what may be described as a process of remoralization, re-animation, or "re-enchantment of the world" (Ferrer 2024, 164). Latour addressed this theme at various stages of his scientific trajectory (Latour [1991] 1993, 2004, 2013, 2014, 2015, 2016, 2021), analyzing the ways in which modern science

and technology carry out this demoralization or “de-animation” of nature, reducing it to inert matter, devoid of possibilities for action or initiative.

A pivotal work for understanding Latour’s position regarding the anti-rationalism embedded in modern scientific rationality³ at the intersection with a political theology of nature is the reworking of the Gifford Lectures he delivered at the University of Edinburgh in 2013, which gave rise to his *Face à Gaïa. Huit conférences sur le nouveau régime climatique* (Latour 2015). In this text, with regard to the aforementioned, Latour presents two central (anti-idealist) notions of his intellectual proposal: (i) contemporary environmental concerns have provoked a profound mutation in our relation to the world, with fanatical climate skepticism, hubristic techno-optimism, and apathetic quietism emerging as common responses to climate change; (ii) nature constitutes an unstable, contested, and therefore problematic category. Additionally, drawing on a formulation by William James ([1909] 2012) (“Nature is but a name for excess”), Latour argues that neither natural law nor the facts of nature nor the natural world are as reliable as one might suppose for grounding moral judgments or political action.

What was possible for Aristotle is no longer possible today: nature can no longer unify the polis. It is enough to say that a position has been “naturalized” for us to conclude that this position must be contested, historicized, or at least contextualized. (Latour [2013] 2017, 21)

(...) the invocation of the “natural world” offers a (...) prescriptive charge. (...) what is de facto, in practice, is also, here again, *de jure*. (Latour [2013] 2017, 24)

The concept of “nature” now appears as a truncated, simplified, excessively moralizing, overly polemical, and prematurely political version of the world’s alterity to which we must open ourselves if we do not wish to go collectively mad; to alienate ourselves, so to speak. In short: for Westerners and for those who have imitated them, nature has rendered the world uninhabitable. (Latour [2013] 2017, 37)

In the same text, taking up and articulating the notions of *Gaia*⁴ and the *Anthropocene* as key illustrations of the arguments presented, Latour explores the possibility of nature being re-presented as a secular actor, “animated”⁵ in the moral and political register, contributing to co-organize, in an Aristotelian sense, the life of ordinary humans. In light of a decentered metaphysics, a non-dualist, horizontal approach, distinct in this regard from the one endorsed by authors such as Hans Jonas⁶ ([1979] 1984), Latour affirms, at this level, the possibility (and the advantage) of practicing a shared perplexity, which places those it gathers on the

³For Latour ([1991] 1993), modernity – if conceived as a revolution grounded in ontological foundations – has never existed, with techno-scientific reason constituting another form of myth, insofar as it anchors itself in positive objects (that is, objects whose primary sense is to withstand the test of controversy), in objectivity, and science becoming a counter-religion in its zeal to affirm absolute truths. For Latour ([1991] 1993, 2005), the construction of objectivity has nothing objective about it, involving a particular – though not exemplary – way of referring to the equivalence between objects, to things and to others, to the relation between causes and effects: “The difference between being equivalent and making equivalent is the same as driving a Renault 5 and building a motorway” (Latour [1984] 1988, 191); “The words science, technique, organization, economy, abstraction, formalism, university, also designate real effects that we must respect and that we must justify. They are good nouns, but poor adjectives and adverbs” (Latour [1991] 1993, 157).

In this regard, it is worth attending to the comparison Stengers ([1993] 2000, 107) establishes between scholastic practices and scientific practices: “The difference between scholastic practice and scientific practice is not as radical as one might think. St. Thomas acknowledges that authors hold authority [that is, they may be commented upon but not subjected to contradiction], yet behaves as if he knew he was free to determine how to take them into consideration. Scientists recognize nature as authority, (...) but they know that the possibility of exercising authority is not given. It is up to them to constitute nature as authority. In reality, the great difference depends on the nexus between authority and history. The scholastics attempt to harmonize the authors – pagan philosophers, Christian doctors, and the divine author of revelation. Their ambition is to stabilize and harmonize history. In the sciences, to succeed in constituting nature as authority and to make history are synonymous.”

⁴Latour argues that the complex and ambiguous figure of Gaia, as recovered by James Lovelock (1979), delineates a relevant operator for unveiling the ethical, political, theological, and scientific aspects of nature, considered as an obsolete notion. Hesiod’s *Theogony* (1914, 14) describes how, in the beginning, there existed only chaos – a void or primordial abyss. From this emerged *Gaia* (Earth), *Tartarus* (the Underworld), and *Eros* (Desire). In this account, the genesis of Gaia as Earth presents her as a feminized primordial divinity who represents “(...) the ever-secure foundations of the immortals who hold the peaks of Mount Olympus.” As Latour describes, in the late 1970s James Lovelock, together with the biologist Lynn Margulis, recovered the concept of Gaia to account for not an immeasurable organism or a compassionate deity, contrary to the myth presented by Hesiod, but rather a self-regulating system composed of a multiplicity of indivisible elements that evolve through mutual modifications.

⁵In this regard, Latour notes: “(...) although the official philosophy of science takes the (...) movement of de-animation as the only one that is important and rational, the opposite is true: animation is the essential phenomenon, and de-animation is the superficial, auxiliary, polemical, and often apologetic phenomenon” (Latour [2013] 2017, 86).

⁶Bruno Latour was an attentive (and critical) reader of Hans Jonas (Aguirre 2023). Both considered the modernist belief that only humans are sources of valid moral claims to be an error in need of correction. Both rethink ethics in light of the ecological crisis, but they diverge in their metaphysical grounding: Hans Jonas frames life as endowed with intrinsic value and humans as guardians of future life (Ferrer 2024). Latour (2005) rejects teleology, the idea of a pre-inscribed end, considering possibilities for agency as being distributed across networks, including nonhumans.

same plane, locating the genesis of their (legitimacy) differences in the domain of becoming, indeterminacy, and immanence. Here, we find echoes of the distinction proposed by Deleuze between “foundation” and “ground”:

Foundation concerns the ground, and shows how something is established upon it, occupies it, and possesses it. But ground comes rather from the sky, goes from the summit to the foundations, and measures between them the ground and the possessor according to a title of property. (Deleuze [1968] 1994, 134)

3.2. Irreduction, symmetry, and the limits of actor network theory (ANT)

Latour’s principle of irreduction has generated a substantial philosophical debate, most notably through Graham Harman’s influential interpretation in *Prince of Networks* (2009). Harman reads irreduction as the cornerstone of a metaphysics of objects, in the sense that if nothing is, by itself, either reducible or irreducible to anything else (Latour [1984] 1988), then every entity must possess a withdrawn reality that cannot be exhausted by its relations. On this reading, Latour becomes an inadvertent precursor to object-oriented ontology, a position in which objects enjoy a form of autonomy that exceeds any network of associations.

Harman’s interpretation has been productive, but it diverges from the methodological and political role irreduction plays in Latour’s own intellectual trajectory. As mentioned, for Latour ([1984] 1988), irreduction, considered as an operative principle, suggests the need for distancing oneself from the pretension to know and to judge in absolute terms, thus conveying a sense of distrust toward positions that induce impulses to explain by reducing, or toward the construction of a difference between two terms that collapse them into a relation of agonistic, irreducible opposition. Rather than grounding a metaphysics of withdrawn substances, irreduction seems to function for Latour as a procedural rule that prevents the analyst from deciding in advance what counts as natural, social, human or non-human, thus keeping open the possibility of tracing how beings acquire their capacities through concrete associations. This is why one can suggest that irreduction should be read alongside Latour’s later work on Gaia, considering it a reactive, bounded actor whose effects demand institutional reconfiguration.

Irreduction shaped the methodological symmetry that became characteristic of ANT (Latour 2005), where humans and nonhumans are approached through the same descriptive operations. This symmetry allowed ANT to register the work through which agencies emerge across heterogeneous assemblages and to follow the stabilization of facts, technologies, and institutions. The gesture remains decisive, yet its scope becomes strained when confronted with the ecological regime that Latour associates with Gaia. Contemporary ecological theory further amplifies this shift. Authors such as Tsing (2015), Haraway (2016) and de la Cadena (2015) describe worlds in which beings acquire their capacities through entanglements that exceed the descriptive horizon of ANT: Haraway’s emphasis on *response-ability*, Tsing’s attention to precarity and multi-species assemblages, and de la Cadena’s account of *earth-beings* point toward forms of articulation that exceed ANT’s descriptive repertoire. These works foreground forms of responsiveness, situatedness, and interdependence that transform the conditions under which agencies can be traced, while illustrating how ecological relations generate obligations and demands that require institutional attention. In this context, Latour’s description of the Earth as “(...) an active, local, limited, sensitive, fragile, trembling, and easily irritable envelope” (Latour [2013] 2017, 60) acquires a sharper resonance.

The debate initiated by Harman (2009) has been illuminating one possible trajectory of Latour’s irreduction, yet the conceptual grounding adopted in the present article follows the line that runs from the first introduction of the concept in a seminal *half-book* (of aphorisms) (Latour [1984] 1988) to the *Face à Gaïa* book (Latour 2015). Along this path, irreduction becomes a discipline for engaging with a world whose actors are multiple, reactive, and situated and whose modes of existence (Latour 2013) intersect without converging. This discipline prepares the conceptual conditions for the institutional questioning that is presented in the following section, where the composition of collectives is approached through the lens of demo-genesis.

4. Demo- genesis as an institutional horizon

The ecological regime described by Latour, “(...) where humans are those who remain on the sidelines as inert objects, while nature assumes the role of active subject” (Latour [2013] 2017, 71), corresponds to a

formulation that alters the conditions under which representation, obligation, and decision can be approached. Gaia's reactions reorganize the field of possible articulations, and the emergence of these reactions exposes the fragility of the arrangements through which collectives have been composed. This fragility is closely related to the work of differentiation and mutual exposure that characterizes ecological interests' interdependence.

Interest means, in etymological terms, to be situated *in-between*. It represents not only opposition but, above all, the eliciting of a nexus, a binding relation that commits, a precise claim that articulates a constellation of rights and duties. Interest does not aspire, in itself, to the power of generating unanimity; rather, it lends itself to the proliferation of heterogeneous, often disparate interests. It is on this terrain that the task arises – as difficult as necessary, and at times embarrassing from the standpoint of mobilization – of eliciting agreements, of coming to agreement, of making cosmogonies converge through alliances among allied collectives. As Latour shows, returning to Leibniz, this is a fragile and demanding operation, for pluralism tends to be threatened by the emergence of actors (*actants*, in Latour's term for referring in the same way to humans and nonhumans articulated within a situation of controversy) who claim incommensurability as an insurmountable condition:

If pluralism is so rare, despite appearances, it is because there is always a divinity lurking that demands to be rendered incommensurable with any other. (Latour [2013] 2017, 156)

When one speaks of a religious view of the world in radical opposition to a "strictly scientific" view of that same world, one is appealing to another supreme authority that is not so different (...): it actually has the same characteristics, except that the former stubbornly over-animates what the latter de-animates. (Latour [2013] 2017, 169)

The difficulty lies precisely in what modern science sought to eliminate (e.g. friction, wind, uneven terrain, the density of media) so that Galileo could exercise his authority. In the context of a *demo-genesis* ("a new operation of engendering peoples, a demo-genesis") (Latour [2013] 2017, 181), of the inventorying of cosmogonies to come, one observes a world produced by other *actants*, pursuing other designs, implying that differentiation requires a change of attire in the recognition of those considered legitimate representatives of a practice or a problem.

Demo-genesis thus emerges, for Latour, as the institutional consequence of irreduction: if agency is distributed, then the constitution of collectives (human and nonhuman) must be rethought. An example of this is given by Arendt (1958), in her relativization of the sophistic assertion that *man is the measure of all things*. Grounded in the valorization of becoming and in an ethics of contingency, the idea of a demo-genesis that preserves the distinction between subject and object – while recognizing it as an operator of decentering (of the one who asks and the one who answers) – assigns to the object (to the thing) the possibility (to be constructed) of putting the subject to the test. The following subsections examine this institutional horizon in greater detail, beginning with the political architecture that Latour develops in *Politics of Nature* (2004) and extending to the contemporary debates that address responsibility, asymmetry and the demands that arise from ecological interdependence.

4.1. *Demo-genesis and reinvented republicanism*

The institutional horizon that emerges from demo-genesis intersects with the political architecture Latour developed since *Politics of Nature* (2004), where it is argued that contemporary ecological politics remains trapped in an outdated conceptual framework built around the notion of nature. For Latour (2004), invoking nature as an external, authoritative domain allows actors to shortwire political debate by presenting certain claims as indisputable facts rather than matters requiring collective deliberation. Drawing on the Platonic metaphor of the cave, Latour shows how modernity has delegated to science the task of revealing *facts*, while relegating citizens and politicians to the realm of *values*, a division considered both analytically deceiving and politically dangerous. This fact-value split obscures the socially constructed, institutionally mediated character of scientific knowledge and undermines democratic processes by excluding many voices from legitimate participation. Latour therefore calls for a *new constitution* capable of assembling humans and non-humans within the same political space, a concept that is further explored in his later evocation of a "(...) Parliament of things as a theater of negotiations" (Latour [2013] 2017, 255)

In this re-imagined collective, entities gain entry not through appeals to nature but through explicit procedures of representation, testing and contestation. With this regard, in a Leibnizian take, Latour shows how pluralism tends to be threatened by actors who claim incommensurability as a condition that suspends articulation: “(...) there is always a divinity lurking that demands to be rendered incommensurable with any other” (Latour [2013] 2017, 156). The gesture reappears in his analysis of the opposition between religious and scientific worldviews, where each invokes a supreme authority that withdraws from the work of articulation (Latour [2013] 2017, 169). Latour approaches this terrain – a theater *of* and *for* negotiations – by distinguishing the labor of inquiry from the labor of decision, a distinction that does not separate epistemic and political domains but distributes their operations across a shared field of articulation. This distinction is fragile, since the agencies involved are multiple and their trajectories intersect, yet it provides a way of approaching the institutional conditions under which beings become participants in collective affairs. The inflection of this architecture beyond a bicameral, partisan collective becomes visible in the way Latour approaches the composition of collectives:

(...) What collective can we convoke, now that we no longer have two houses, only one of which acknowledged its political character? What new Constitution can replace the old one? As for the question *Must we have a politics that is oriented toward humans or one that also takes nature into account?*, we now know that this is a false dichotomy, since, at least in the Western version of public life, the laws of nature and those of humans have always coexisted, each under threat from the other. We know, too, that today for the first time there is a credible alternative to this bicameral politics, since it is as implausible to assimilate the work of the sciences to Science as it is to reduce politics – as the progressive composition of a common world – to the Cave politics of power and interests. (Latour 2004, 50)

With this regard, Latour (2004, 55) defends the need for a “(...) passage from a divided kingdom to a Republic of things.” Republicanism, in this sense, refers to a practice of assembling a world in which both subjects and objects, human and nonhumans can appear, speak and be heard, a proposal that aligns with the ecological regime described in *Face à Gaïa*, where the Earth behaves as “(...) an active, local, limited, sensitive, fragile, trembling, and easily irritable envelope” (Latour [2013] 2017, 60):

This is the considerably more difficult question that we must now confront: how can we draw up a Constitution that will allow us to achieve a common world through due process? But first of all, what term should we use to describe what will replace this kingdom divided against itself? The venerable word ‘Republic’ is admirably suited to our task, if we agree to bring out the overtones of the underlying Latin word *res*, *thing*. As has been frequently noted, it is as if political ecology found again in the *res publica*, the *public thing*, the ancient etymology that has linked the word for thing and the word for judicial assembly since the dawn of time: *Ding* and *thing*, *res* and *reus*. (Latour 2004, 54)

Contemporary ecological and political theory has been amplifying this shift, with authors as Stengers (2010), de la Cadena (2015), Escobar (2018), or Krenak (2019) describing worlds in which the articulation of beings cannot be separated from the procedures that sustain their presence. Stengers’s (2010) emphasis on cosmopolitical hesitation and tentativeness, de la Cadena’s (2015) account of earth-beings and focus on relationality, mutual exposure, and ontological divergence, Escobar’s (2018) emphasis on the pluriverse, and Krenak’s (2019) reflections on the river as a living entity, foreground the obligations that arise from sustaining the presence of beings whose agencies exceed inherited institutional forms.

This horizon resonates with the cosmogonic and geoliterary gestures found in Viveiros de Castro’s (2015) and Guimarães Rosa’s (1956) works that were initially introduced in the article, operating as situated laboratories for testing the conceptual reach of irreduction and demo-genesis. In Viveiros de Castro’s *O recado da mata* (2015) and Guimarães Rosa’s *Corpo de baile* (1956), the proliferation of names, beings and trajectories (vegetal, animal, human, and more-than-human) functions as a literary practice that anticipates the demo-genetic composition of a (re)animated Earth: no entity is granted ontological primacy, and no single category of nature is allowed to stabilize the multiplicity of presences that populate the *cerrado*, as described by Guimarães Rosa (1956). These references converge with the institutional horizon of demo-genesis by showing that composing collectives in settings marked by ecological fragility and ontological divergence, in which many more-than-human beings are already in the room, even if not institutionally represented, requires sustained practices of attention, naming, and mutual exposure – procedures through which heterogeneous worlds are brought into relation and made capable of appearing within shared processes of world-making.

5. Discussion: responsibility, asymmetry, and critiques of Latour

The institutional horizon opened by demo-genesis encounters a set of questions concerning responsibility, asymmetry, and the evaluative judgments that arise in the Anthropocene, that have become central in contemporary ecological and political theory. Ferrer's argument (2024, 164) that "(...) I can only act morally in relation to other subjects whom I can also recognize as subjects endowed with rights and duties," acquires a different resonance once agency is understood as distributed across heterogeneous beings. The ecological crisis intensifies this resonance, since the agencies involved generate consequences that exceed the capacities of inherited moral and political frameworks.

Critiques of Latour (Malm 2016, 2018) have often taken shape around this point. Andreas Malm's *Fossil Capital* (2016) and *The Progress of this Storm: Nature and Society in a Warming World* (2018) foreground the concentrated forms of power that structure the fossil economy and the intentional, organized actions that have produced the current ecological regime. Malm argues that distributed agency, as proposed by authors such as Latour, risks dissolving the asymmetries that shape ecological degradation and the responsibilities that arise from it. Malm's analysis gains force in contexts where the consequences of industrial action are unevenly distributed and where the capacity to act is entangled with infrastructures, institutions, and economic systems that cannot be approached through descriptive symmetry alone. The tension identified by Malm intersects with the concerns raised by Hans Jonas in *The Imperative of Responsibility* ([1979] 1984), where responsibility is conceived through a metaphysics of life that confers intrinsic value on living beings and grounds ethical obligations in the vulnerability of future life. Latour's trajectory diverges from this metaphysical grounding, yet the question of responsibility remains central to the ecological regime he describes.

Malm (2016, 2018) and Jonas ([1979] 1984) thus intersect with the present article's underpinnings by foregrounding the need for institutional forms capable of addressing the asymmetries that shape ecological relations, while highlighting the obligations that arise from the presence of beings whose agencies generate consequences across scales. Considering Latour's demo-genesis as a reference to the procedures through which these obligations are articulated, responsibility becomes a matter of sustaining the presence of beings whose demands reorganize the conditions of collective life and of engaging with the asymmetries that arise from their entanglements.

Latour's evocation of a "(...) Parliament of things as a theater of negotiations" (Latour [2013] 2017, 255) gives this institutional horizon a distinctive inflection, considering the "Parliament of things" a site where beings expose one another to the consequences of their trajectories and where the criteria of measure remain open to revision. Latour describes this horizon as a "(...) transcendence without an opposite" (Latour [1991] 1993, 176), a formulation that captures the vulnerability of collective composition and the obligations that arise from sustaining the presence of beings whose agencies reorganize the conditions of life. As Ferrer (2024, 182) suggests, "(...) the freedom of spirit in relation to nature and the establishment of institutions of recognition among humans will correspond to the liberation of nature." No entity holds dominion over measure: the power to make nature speak, or to speak on its behalf, emerges from the procedures that sustain the presence of beings within a shared world.

6. Conclusion: toward an earthly composition of collectives

The trajectory developed in the present article has followed the forces of reconfiguration introduced by the ecological regime that Latour associates with Gaia and by irreduction conceived as a methodological operator. *Speaking for nature* in this setting involves crafting the conditions under which multiple presences can be registered and responded to, rather than identifying a stable voice or a single locus of authority, with irreduction sustaining the analytical attention required to open a space in which the institutional labor of composing collectives becomes a central problem for ecological and political theory. Demo-genesis names this labor, providing a way of approaching the institutional consequences of the ecological regime described by Latour, while foregrounding the obligations that arise from sustaining the presence of beings whose agencies reorganize the conditions of collective life. The implications of this trajectory can be summarized through three claims that structure the contribution of the article.

First, a conceptual claim: the movement that links Gaia to irreduction and irreduction to demo-genesis clarifies how agency and representation can be approached together without collapsing into either

scientism or pure constructivism. Gaia designates an Earth capable of reacting and generating obligations, irreduction prevents premature stabilization of what counts as nature, and demo-genesis identifies the procedures through which heterogeneous beings are progressively articulated and granted a voice in common affairs. This sequence offers a conceptual framework for understanding how nature may appear as a political participant without being reduced to a unified entity or relegated to the background.

Second, a comparative claim: compared to objectivist or scientific accounts of nature, and to certain strands of posthumanism that emphasize relationality without specifying procedures, this framework foregrounds the institutional architectures through which beings are made to count. Latour's republicanism, the division between epistemic and political labor, and the ongoing work of demo-genesis shift attention from metaphors of entanglement to the concrete operations – investigation, articulation, inclusion, and exclusion – through which *speaking for nature* becomes a matter of public concern. This procedural emphasis also addresses critiques such as those formulated by Malm (2016, 2018), by showing how asymmetries of responsibility can be acknowledged without reverting to human exceptionalism, while still attending to the material entanglements that shape ecological harm.

Third, a situated, cosmopolitical claim: dialogue with Latin American geoliterature and anthropology references presents demo-genesis as a situated, contested practice of composing peoples and worlds. The proliferating beings of Guimarães Rosa's (1956) *Corpo de baile* and the cosmogonic horizon of Viveiros de Castro's (2015) *O recado da mata* reveal modes of articulation that both resonate with and provincialize Latour's European cosmopolitics, while showing that the labor of composition unfolds within histories of ontological plurality, and that any attempt to *speak for nature* must attend to the specific procedures through which beings are named, sustained, and made present.

Future inquiry may therefore benefit from attending to concrete situations in which the boundaries between knowledge, authority, and experience are reconfigured through ecological entanglements. Environmental humanities and critical social science are particularly well positioned to explore how forms of representation and testimony can be re-imagined so that the agencies of the Earth are neither subsumed into a single narrative nor relegated to the background, but articulated in ways that expand the possibilities of living together. On this reading, the question of who speaks for nature becomes inseparable from the ongoing work of composing the very conditions under which nature can appear as a participant in shared processes of world-making.

Author contributions

CRedit: **João Vasco Coelho**: Conceptualization, Formal analysis, Methodology, Writing – original draft.

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