

Rethinking Responsibility in a Planetary Age; or, Facing the Anthropocene with Hans Jonas and Bruno Latour

Repensar la responsabilidad en una era planetaria; o, enfrentar al Antropoceno con Hans Jonas y Bruno Latour

Rodrigo Chacón Aguirre

Instituto Tecnológico Autónomo de México, México

Rodrigo.chacon@itam.mx

Abstract: This paper argues that the coming of the Anthropocene requires a shift in the meaning and scope of responsibility. Drawing on Hans Jonas and Bruno Latour, I argue that responsibility is a defining feature of humanity which is nevertheless haunted by its opposite. Indeed, if to be responsible is primarily to be responsive to the claim of the Other, then the culture of ‘personal responsibility’ that prevails today is a betrayal of both humanity and the Earth. When Jonas formulated such thoughts in 1979 the ‘Earth system’ was neither a field of scientific study, nor a matter of existential concern. Few scholars took him seriously. However, recent developments in scientific, legal, and environmental thought have vindicated his vision. To test this hypothesis I turn to Latour, who was a careful reader—and critic—of Jonas. Both thinkers regarded the modernist belief that only humans are sources of valid moral claims as an error that ought to be corrected. As the Earth today ‘reacts’ to our interventions with extreme weather and zoonotic diseases, their message is resounding in growing circles. The Anthropocene upends an era in which only (some) humans were allowed to speak. Now we must teach ourselves how to listen and respond to other living beings and future generations. This responsiveness, I argue, will form the core of emerging regimes of planetary responsibility.

Keywords: Hans Jonas, Bruno Latour, responsibility, justice, climate change, Anthropocene.

Resumen: Este artículo sostiene que la llegada del Antropoceno requiere un cambio en el significado y alcance de la responsabilidad. Con base en Hans Jonas y Bruno Latour, sostengo que la responsabilidad es una característica definitoria de la humanidad que, no obstante, está accechada por su opuesto. Si ser responsable es primariamente ser receptivo a lo Otro, entonces la cultura de ‘responsabilidad personal’ que prevalece hoy en día es una traición tanto a la humanidad como a la Tierra. Cuando Jonas formuló tales ideas en 1979, el ‘sistema tierra’ no era ni un campo de estudio científico ni una cuestión de preocupación existencial. Pocos académicos lo tomaron en serio. Sin embargo, desarrollos recientes en el pensamiento científico,

legal y ambiental han validado su visión. Para probar esta hipótesis, retomo a Latour, quien fue un cuidadoso lector—y crítico—de Jonas. Ambos pensadores consideraron que la creencia modernista de que solo los humanos son fuentes de reclamos morales válidos es un error que debe ser corregido. A medida que la Tierra hoy ‘reacciona’ a nuestras intervenciones con fenómenos climáticos extremos y enfermedades zoonóticas, su mensaje resuena en círculos cada vez mayores. El Antropoceno trastoca una era en la que solo algunos humanos tenían permitido hablar. Ahora debemos enseñarnos a escuchar y responder a otros seres vivos y a generaciones futuras. Sostengo que esta capacidad es el corazón de regímenes emergentes de responsabilidad planetaria.

Palabras clave: Hans Jonas, Bruno Latour, responsabilidad, justicia, cambio climático, Antropoceno.

One does not have to be a great seer to predict that the relationship between humans and nature will, in all probability, be the most important question of the present century.

Philippe Descola

That tree, this fish, those woods, this place, that insect, this gene, that rare earth—are they my ends or must I again become an end for them?

Bruno Latour

I. Introduction

This paper compares two highly influential answers to the current ecological crisis as developed by Hans Jonas (1903-1993) and Bruno Latour (1947-2022). Although their work has often been dismissed in academic circles, it has gained a remarkably large following among the wider public. Jonas’s 1979 *The Imperative of Responsibility* sold more than 200,000 copies in Germany alone, becoming a source of key terms of public discourse, including ‘sustainable development’, the ‘precautionary principle’, and the ‘heuristics of fear’.¹ Latour is today one of the most cited scholars in the social sciences and humanities. Arguably the most famous French philosopher of the present, his pioneering work has inspired scientists, scholars, artists, and COP-21 negotiators in a movement to re-imagine life on Earth for our troubled times (Maniglier, 2021).

Jonas and Latour had much in common. Both were heterodox thinkers who blen-

ded the (so-called) ‘social’ and ‘natural’ sciences. Both thought of themselves as philosophers, though they were similarly steeped in theology, while drawing on a wide range of academic fields, including history, biology, and anthropology.² Both were remarkably erudite scholars, but they did not belong to the academic elite. Most importantly for our purposes, they became authors of public philosophies directed at anyone willing to listen rather than professors. Their key message was that we need to think and live in a radically novel way to remain human on a damaged Earth. More concretely, what we need is a political ethics grounded in our condition as vulnerable, precarious, and transitory beings who belong to an Earth that is equally alive and fragile.

As first formulated by Jonas in 1979, this message proved academically untimely. In an age that began to be dominated by ‘post-metaphysical thinking’ (Habermas, 1988), Jonas called for a “future metaphysics” (Jonas, 1999, p. 108) –a call that was echoed by Latour in numerous writings. Drawing on relatively marginal, yet powerful, strands of European thought –notably on Alfred North Whitehead–both thinkers articulated cosmologies that undermined some of the central tenets of the modernist philosophical and political imagination, including the defense of exclusively human conceptions of ‘freedom’, ‘reason’, ‘progress’, and ‘autonomy’. Jonas, as we shall see, postulated that all living beings are ‘free’ and endowed with ‘mind’; perhaps even non-organic matter has these qualities. Similarly, Latour’s universe (or ‘pluriverse’) is populated by living entities, which range from stones and pipes to microbes, endorphins, SARS-CoV-2, and the Earth system (or ‘*Gaia*’). From the lowliest amoeba to the Earth system as a whole, both authors suggested, we are surrounded by life which is its own end –and must be treated as such. Only this kind of thinking could ground the ethical vision that humanity will need to survive and flourish on an endangered Earth.

In what amounts to a partial vindication of their thought, much recent work in the social sciences and humanities has followed the ‘metaphysical’ turn taken by Jonas and Latour. Indeed, the question of “how the world is furnished” (Latour, 2004, p. 128) has re-emerged in a variety of fields and approaches, including the new materialism in political theory, object-oriented ontology, speculative feminism, and post-colonial thought. This turn is not simply an academic affair. It responds crucially to phenomena such as a changing climate, the rise of Earth system science, and an existential concern for the planet as a whole (Ghosh, 2017, p. 31). One important consequence has been a renewed attention to the very materiality of ‘human’ institutions –from the economy to democracy to history and law–which are increasingly understood as socio-technical assemblages involving myriad forms of life. Thus, the ‘vibrant matter’ that makes up

our climate, geology, land, and soil has come into focus, resulting in emerging regimes of ‘ecological democracy’, ‘multispecies justice’, ‘intraspecies solidarity’ and ‘Earth-centered law’ (Bennett, 2010; Haraway, 2016; Bertram, 2022; Kotzé, 2019). Following Latour, these developments may be understood as ways of ‘landing back on Earth’ (Latour, 2018).

This paper focuses on a key component of such a landing –what I shall call emerging ‘regimes of responsibility’. I return to Jonas’s *The Imperative of Responsibility* to take stock of how the meaning of responsibility has shifted as we enter the Anthropocene. First proposed in the year 2000, the term Anthropocene designates a geological era in which humans have become a geological force, as potent, say, as major earthquakes, meteorites, or volcanic eruptions.³ Both the meaning and scope of responsibility have shifted accordingly: from legal liability to accountability to an ‘infinite’ responsibility for future generations and the planet as a whole. What all of this entails is a major enigma, involving questions that range from intergenerational justice, institutional design, and intraspecies solidarity, to the limits of individual freedoms and the very meaning of ‘Life’ (Lenton et al., 2020).

I shall argue that Jonas and Latour are helpful guides in this emerging landscape. Not only was Jonas a key interlocutor for Latour –a neglected fact in the scholarly literature– but he was also a kind of *alter ego*: both a kindred spirit and a foil. Their shared intuition is that modernity has been (in many respects) an “error” that ought to be “corrected” (Jonas, 1992; cf. Latour, 2013, p. 16). I argue that this provocation ought to be taken seriously in light of the devastation that modern –mainly Western, capitalist– humanity has inflicted on the Earth. ‘Correcting’ modernity involves, in particular, questioning the modern ‘Constitution’ that separates facts from values, nature from society, ‘individuals’ from their ‘environment’, and ‘unthinking’ animals from conscious humans (Latour, 1993; 2004). As we enter an era marked by an increasingly violent Earth system, which ‘reacts’ to human interventions with rising temperatures, zoonotic diseases, and extreme weather, the soundness–and indeed urgency –of envisioning alternative ecological futures is becoming evident. I compare Jonas and Latour to highlight just how much turns on how we understand responsibility in this context.

Section I introduces Jonas’s untimely meditations on responsibility. I argue that his demanding vision has been partly vindicated by recent legal developments, including the emergence of constitutional duties of ‘care’ for future generations. Section II places Jonas’s thought in the context of contemporary debates on the meaning of responsibility. Recent accounts call for a ‘culture of environmental responsibility’ that extends to more-than-human beings (Krause, 2020a; 2020). Jonas would have welcomed

such developments, not least because they undermine the modern dogma that only humans can be sources of valid moral claims. However, I argue that an even broader horizon may be needed. Just how far responsibility may reach remains a puzzle, which I address by following the thought of Jonas and Latour who approach different forms of planetary responsibility through alternative forms of aesthetic and sentimental education. I conclude by outlining alternative ‘regimes of responsibility’ that should replace the (paradoxically) irresponsible culture of ‘personal responsibility’ that prevails today.

II. Jonas’s Untimely Meditations on Responsibility

Looking back from 2023, it is hard to believe that *The Imperative of Responsibility* (1979) was once a philosophical bestseller. The book is not only long and dense but also deals with abstruse metaphysical issues in notoriously difficult prose. To understand its wide impact—and thus to get to the core of Jonas’s conception of responsibility—we shall first recall some basic facts about his life.

Having been an expert in Gnostic religions in the first stage of his career during the 1930s, and after developing a philosophical biology in the second stage, which culminated in the 1966 publication of *The Phenomenon of Life* (Jonas, 2001), Jonas turned to ethics late in life to publish his ecological manifesto when he was 76 years old. The book grew out of a maturation of philosophical and existential concerns that peaked during the Second World War. From 1940 to 1945, Jonas served as a front-line soldier in the Jewish brigade of the British army, before returning home to learn of his mother’s death at Auschwitz (Jonas, 2008, p. 128). As he confronted death and destruction, his mind turned to life—in his words, to examining “the very foundations of our being and [...] the principles by which we guide our thinking on them” (Jonas, 1974, p. xii). The result was, first, an “‘existential’ interpretation of biological facts” presented in *The Phenomenon of Life* (Jonas, 2001, p. xiv) and, a decade later, *The Imperative of Responsibility*: Jonas’s call for a new orientation for human thought and action.

The book’s argument is based on the premise that “the nature of human action has changed” (Jonas, 1984, p. 1). Human beings have become “near-omnipotent” and can now transform—or destroy—the very foundations of life on our planet (Jonas, 1984, p. 23). The new nature of human action “forces upon ethics a new dimension of responsibility never dreamed of before” (Jonas, 1984, p. 6). Aware of the difficulties involved in developing such an ethics, Jonas ventures an “attempt” to ground our responsibility

for the survival of life on Earth, including the “future wholeness” and the “idea of Man” (Jonas, 1984, pp. 11, 43). This ethics begins with a duty to *know*, for example, that the way of life of the richest part of humanity has greatly contributed to making life unbearable for millions of people, from Guatemala to Gujarat.⁴ This awareness would then ground an imperative to *act* according to completely new norms, foregoing dreams of unlimited growth, renouncing the satisfaction of ever new ‘needs’, and even limiting basic freedoms (Jonas, 1992, p. 101).

In philosophical terms, Jonas proposes a new imperative that rephrases the Kantian principle of universalization: “Act so that the effects of your action are compatible with the permanence of genuine human life on Earth” (Jonas, 1984, p. 11). Here the object of our new responsibility is not a moral law, but Being itself. For only a foundation in Being can bind the will, and only our perception of Being can instill in us the feelings of reverence and awe required to sustain responsible action (Jonas, 1984, pp. 84, 89). Inverting Kantian autonomy, the proposed ethics is heteronomous: rather than limiting ourselves, we are convoked by “the just appeal of entities” –or, more concretely, by the fragility and precarity of life– to care (Jonas, 1984, p. 90). Whoever cannot see this, Jonas would say, should behold a newborn. By nature, we *know* that we must care and respond to the infant’s needs.⁵ Indeed, parental responsibility, Jonas maintains, is “the archetype of all responsibility” and the very origin of every responsible disposition (Jonas, 1984, p. 101).

As critics have noted, this ethics is subject to important objections, beginning with the difficulty of grounding an “Ought” on an “Is”. One may concede that the sheer existence of an infant –the fact that she *is*– “evidently contains an ought for others” (Jonas, 1984, p. 131): a ‘thou shall not kill’, as Levinas would put it. Yet it is far from clear that this insight can be generalized to ground a duty to care for every animate being, as Jonas seems to intend. A further difficulty is this: human awareness of the world may allow for immediate perceptions, or intuitions, of value (as when we behold a newborn child). However, Jonas’s suggestion that we can also perceive the ‘wholeness of Man’ is debatable. The danger of a Platonic guardianship by those who claim to know what is truly human seems evident. Indeed, Jonas’s calls for “politically imposed social discipline”, and his openness (in principle) to using “noble lies” to induce compliance, confirm this danger, while opening his political philosophy to charges of “ecological dictatorship” (Jonas, 1984, pp. 142, 149; Wolin, 2015, p. 128).

There is no easy response to these objections. However, there are at least two major developments that may yet confirm the soundness of Jonas’s intuitions. The first is a re-

cent expansion in the scope of responsibility: from legal *liability* for imputable actions to *accountability* for structural injustices, including climate change. As duties toward future generations –and other beings– also become enshrined in constitutional and international law, the duties Jonas envisaged are becoming part of normative “orders of justification” in areas ranging from environmental law and ethics to green political theory to literature and the arts.⁶ Likewise, the challenge he posed concerning the need to limit basic freedoms is already being addressed, notably by courts in his native Germany (as discussed below). The second development is both philosophical and geo-historical. A ‘new materialism’ has gained importance in the social sciences and humanities during the last two decades.⁷ Considering these developments, Jonas’s call to heed ‘the just appeal of entities’ is resounding in growing circles. The most eloquent spokesperson of such views was Bruno Latour, who was also a careful reader –and critic– of Jonas.

III. Responsibility Today

Our age has been called, rather ironically, “the age of responsibility” (Mounk, 2017). Indeed, since the 1990s “personal responsibility” has emerged as a loadstar of the moral-political universe from Left to Right (Mounk, 2017). However, this age has arguably witnessed the gravest irresponsibility in human history: we have done nothing effective to prevent the human-induced catastrophe of an increasingly hot, toxic, and ecologically depleted planet.⁸ It is tempting to think that we know the reasons behind this tragic failure, including ignorance, complacency, collective action problems, technological challenges, and the power of climate change denialism. But, as the work of Jonas and Latour suggests, there are deeper reasons behind humanity’s indolence and inertia. One reason is a peculiar understanding of responsibility, which acts as a screen that conceals a profound irresponsibility toward the Earth.

Responsibility is primarily understood today as the liability or accountability of a free agent (Krause, 2020a). Legal liability obtains when a person commits an act answering the definition of a crime, and does so under conditions of intentionality and control (Krause, 2020a, p. 67). Similar considerations hold beyond the legal realm. We⁹ do not consider people morally responsible for actions they did not intend, however nefarious the consequences may be (e.g., hitting a child that ran into the path of one’s car). Neither are we liable for actions with consequences beyond our control, such as when we dump a battery that harms a child working in a landfill.

As this last example indicates, a broader notion of responsibility results when *accountability* comes into play. A person may be accountable for unintentional harms. Dumping batteries is one example, but a person could be accountable, more broadly, for sexism (e.g. hiring only people of a certain gender), or indeed for contributing to global warming by taking a transatlantic flight (cf. Krause, 2020a).

Responsibility is a matter of legal norms and culture, broadly conceived as the shared values that shape our interests and identities (Sommers, 2009). As recent research shows, how we respond to climate change depends largely on the “cultural lenses” through which we see the world (Hoffman, 2020, p. 5). Whether a person considers climate change a serious problem—and is willing to do something about it—depends on factors ranging from group values and party affiliation to cognitive capacity, gender, wealth, scientific literacy, religious beliefs, and affective disposition (Hoffman, 2020; Malm, 2020, pp. 133-135). Cultural change thus understood helps to explain the recent expansion of the meaning of responsibility from liability to accountability in matters relating to racial, and other forms of ‘structural injustice’ (Krause, 2020a). Such injustice occurs when people are harmed by the unintended outcomes of social processes that benefit certain actors at the expense of others.

Environmental political theory has focused on climate change as a case of structural injustice (Eckersley, 2016).¹⁰ A person who takes a transatlantic flight may be law abiding and even public spirited, and yet her action may harm others –among them, those who cannot afford to fly, in part because air pollution has kept them poor (Isen et al., 2017). A similar dynamic may be discerned, on vastly different scales, when someone drives her SUV to work or when a billionaire vacations on a megayacht. Actions that occur “within the limits of accepted rules and norms” (cf. Young, 2013, p. 52) may systematically harm vulnerable groups –including the future generations that will bear the costs of global warming.

Does this mean that our way of life as members of the affluent classes is harming, or even killing, other human beings? A recent news story suggesting that provoked a minor scandal. Drawing on statements made by David Beasley, Executive Director of the UN’s World Food Program, various news outlets reported that 26 people died in a single day in Madagascar in “the world’s first climate-change-induced famine” (Pilling and Bibby, 2022). The claim was soon refuted by scientists, who belied the existence of a causal link between climate change and that particular famine. Still, it seems impossible to deny that global warming worsened the situation for countless human beings,

including those who died of hunger in southern Madagascar.¹¹ Conceived as a structural injustice, no one would be legally liable or even blameworthy for this devastation. But each person who contributes to it would be responsible in the original sense of the term. Each would have to answer the question: ‘What are you doing to challenge the system that allows this to happen?’ (cf. Eckersley, 2016, p. 350).

One likely answer – “we can do very little” – underscores the maddeningly complex problem of attributing responsibility for the climate emergencies we are witnessing. As Naomi Klein has noted, suggesting that we are ‘all in this together’ may, in effect, erase the responsibility of the 90 corporations that have historically done the most to warm the Earth (cf. Krause, 2020a, p. 76; Pistor, 2021).¹² Indeed, there is a revolting disproportion between the responsibility of those corporations – as part of the richest tenth of humanity, who contribute to half of all global emissions (Chancel et al., 2023) – and the responsibility (if any) of the poorest and youngest in the world whose impact on the climate is close to zero. In light of such perplexities, theorists of responsibility have proposed answers ranging from the principle that polluters should pay to making only those who *can* pay liable to enshrining protections for the environment in constitutional law (Eckersley, 2016; cf. Gardiner, 2011).

Much has been achieved by following these principles. Echoing Jonas, responsibility for future generations became part of Germany’s fundamental law in 1994, one year after his death. More recently, in 2021, the German Federal Constitutional Court ruled against a law that would have violated the “fundamental right to a future in accordance with human dignity” (Federal Constitutional Court of Germany, 2021).¹³ In principle, the “duty of care” of German legislators could soon extend protections to foreign complainants, such as young people from Bangladesh.¹⁴ Thus, the German state is gradually becoming a “trustee of humanity”: a legal person accountable to human beings everywhere – including those not yet born.¹⁵ As Jonas also anticipated, it is becoming clear (as the German Federal Constitutional Court suggests) that “serious losses of freedom” may soon be “justified [...] in order to prevent climate change” (Federal Constitutional Court of Germany, 2021). Thus, the question of which generation should carry the burden of such losses is growing in urgency, as is the question of the legal and political regime that could justify them. It is by no means clear that this could be done within a liberal and constitutional regime that draws its legitimacy from the defense of basic freedoms (cf. Rodiles, 2021).

Meanwhile, global carbon emissions continue to grow, and not a single major industrialized country is on track to fulfill its Paris-2015 commitments.¹⁶ In response

to such failures, calls for urgent action have become increasingly radical. The world's preeminent body for dealing with global heating, the IPCC, has called for global mobilization at the scale of World War II to avert a climate catastrophe (cf. IPCC, 2018, p. 15). Similarly dire prospects –and answers– can be found across the political spectrum, from Pope Francis's 2015 encyclical (a plea to save our "Sister Earth") to massive school strikes (involving up to 1.4 million students in 2019) to "ecological Leninism" (combining economic planning with calls for suicidal acts of sabotage) (Tooze, 2021).

IV. The Origins of (Ir)responsibility in Jonas

What does it mean to be responsible in this context? The prevalent culture of personal responsibility may only make matters worse (Krause, 2020a). If I am only responsible for what I intend and control, then I will be either indifferent to climate change (since 'I did not intend this'), or crushed by its burden ('I will act on my own, even if it costs me my life'). Framing the problem as one of accountability seems to be a step in the right direction. As I become conscious that my way of life is harmful (and possibly deadly) to others, I may begin to feel accountable. No guilt is involved, since I, alone, cannot change the structure that determines my actions (from switching on the light to driving long distances to work). Yet, insofar as I care, I may join others in challenging the structures that cause harm (e.g., in a movement against state subsidies for fossil fuels). Here it is important to repeat that much *has* been achieved by broadening the scope of responsibility from liability to accountability.¹⁷ But the situation we face calls for an even broader horizon. In the remainder of this paper, I offer an account of that horizon following Jonas and Latour. I focus on three origins of (ir)responsibility that can be found in both thinkers: (1) the living Earth itself; (2) our incapacity to perceive that it "emits morality" (Latour, 2013, p. 455), which has deeper roots in modern nihilism; and (3) a new mythology that could affect humanity into action.

A. Becoming Response-able with Jonas: Heeding 'the Call of Beings'

For both Jonas and Latour, responsibility is an irreducible part of the human condition. Human beings are respondents, not absolute initiators (cf. Raffoul, 2010, p. 19). We cannot *not* answer to "the call of beings" (Latour and Hache, 2010, p. 322); indeed, not to respond is already a kind of response. Consequently, the question for them is: How does one become *able* to respond, and further, 'Before whom and for what are we responsible?'¹⁸

As noted earlier, for Jonas, we are primarily responsible before other human beings and for their care. This is a “vertical” and “nonreciprocal relation”, whose paradigm is the total, continual, and open-ended responsibility that caretakers assume for children (Jonas, 1984, p. 94). However, Jonas’s conception of responsibility goes further, in a way that aligns him with recent attempts to subvert the modernist, Cartesian, view of the universe as composed of dead matter. Thus, by following the strand in his thought that runs from Aristotle through Nietzsche to Whitehead, we reach a more radical vision of our responsibility for the Earth.¹⁹

Jonas’s work may be read as an attempt to uproot the Cartesian understanding of nature as an extended substance (*res extensa*) devoid of sensibility, meaning, and value. He was notably dismayed by the fact that men like Descartes seriously believed that (nonhuman) animals were incapable of feeling pain (Jonas, 2001, p. 56). This insensitivity to suffering was for him (as it was also for Latour) profoundly puzzling and disturbing: Are we perhaps as insensitive as Descartes without yet knowing it?

To counter the Cartesian view, Jonas developed a philosophical biology premised on a “uniform theory of being”. According to this theory, every organism partakes in “mind” (Jonas, 2001, p. 1). This is due to a capacity, inherent in all living beings, for “world perception” and “freedom of action”. Freedom here does not name the mental faculty of willing or choosing, but is rather an “ontologically descriptive term” that refers to a capacity to break with the “vast necessity of the physical universe”. Thus, insofar as a living being finds itself “suspended in possibility”, hovering between being and not-being, transforming its environment, striving to remain itself, it can be said to be free (Jonas, 2001, pp. 2-4).

Not only that. Every living being, for Jonas, is a source of value simply because it is concerned with its own being, and can thus experience the value of being alive (Jonas, 1984, p. 81). It is this intuition that grounds Jonas’ ethics of responsibility, lending it its peculiar character as an “objective assignment of Being” (Jonas, 1984, pp. 50, 89). To follow that assignment is to treat every living being, not only as a means but also always as an end in itself.²⁰

Still, one may wonder: What could this mean in practical terms? Jonas did not address this question with sufficient clarity (Ferry, 1995). However, recent trends in ‘eco-constitutionalism’ have (partially) vindicated his ethical vision, insofar as various courts today recognize the legal standing of nature, along with the notion that states hold nature on trust for future generations (Krause, 2020b; Betram, 2022).²¹

If Jonas were alive today, he would welcome such developments. The Cartesian vision of the ‘animal machine’, which remained prevalent until the early 1990s, is now considered laughably absurd (Despret, 2023). Studies conducted by animal ethologists have also confirmed Jonas’ critique of human exceptionalism: other animals are indeed intelligent, creative, and caring beings, who, as Latour would put it, are capable of “mak[ing] up their own meanings” (Latour, 2009, p. 469; Despret, 2023; Haraway, 2016).²² These findings have tangible implications, for example, in efforts to combat factory farming –a major source of pollution, global heating, and biodiversity loss (MacAskill, 2022, p. 72).

Yet the fact remains that most people are not moved by the plight of other animals, let alone by what Jonas called “the outcry of mute things themselves” (Jonas, 1999, p. 202). Prefiguring Latour, Jonas diagnosed an emotional deficit –a kind of anesthesia in the literal sense: a lack of feeling or perception– as part of the problem. Whereas modern utopias have been moved by the quest for justice, progress, and emancipation, the emerging ‘ecological class’ still lacks an emotional repertoire that could make us response-able (Despret, 2023).²³ To address this lack, both authors wrote manifestos that could effect a sentimental and aesthetic education. A prior step, however, must first be discussed –their diagnosis of our modern indolence and inertia.

B. Why we Remain Irresponsible?: Modern Nihilism and the Challenge of the Unthinkable

The ecological mutation we are facing poses a stark challenge: what we confront belongs to the realm of the unthinkable and uncanny (Ghosh, 2017). Part of the problem is that we can hardly think, or cannot imagine, the scale of the devastation that is befalling some parts of the Earth. A perhaps deeper aspect of the same problem is that—at least according to Jonas and Latour –we have lost the capacity to think at all, i.e., to make present what is absent or what is wholly Other.

Consider first the scale of that massive euphemism –‘climate change’– and the challenge it poses to ordinary language. As David Wallace-Wells has documented, particularly in the last thirty years, we have turned ‘nature’ into a weapon that is destroying vast swaths of life. ‘Nature’ now includes ‘fire tsunamis’, ‘rain-on-snow events’, ‘saltwater flooding’, crop failures, ‘wet-bulb temperatures’, ‘heat stress’, ‘heat island effects’, ‘climate shocks’, ‘hidden hunger’ (dietary deficiencies affecting over a billion people), ‘toxic releases’, ‘500,000-year floods’, and ‘climate depression’ (Wallace-Wells, 2020).

In the early 1990s, Jonas primarily worried about acid rain, air pollution, tipping points, nuclear accidents, and genetic engineering. Yet that relatively harmless landscape somehow convinced him that every decade we get closer to “the bitter end”, that is, to “mass poverty, mass death, and mass murder” (Jonas, 1992, p. 95).

Were Jonas’s fears exaggerated? In part, they likely were –and deliberately so. Jonas believed that the most powerful affect, i.e., the Hobbesian fear of violent death, had to be mobilized to move us into action. Such was the tenor of his ‘heuristics of fear’ (Jonas, 1984). In another sense, though, Jonas seems to have intended his warnings quite literally, notably when he spoke of the problem of evil –and more broadly, of nihilism in the twentieth century.

As a one-time soldier who “had to live the rest of his days under the shadow of Auschwitz”, Jonas did not mince words: human beings alone are responsible for the evil that is found in the world (Jonas, 1974, p. xv). Jonas had Auschwitz in mind, but also “the other man-made holocausts of our time” (Jonas, 1962, p. 18). It is unclear whether he included ecological devastation among such evils. There is little doubt, however, that he considered human indifference to it a form of evil rooted in an incapacity to ‘think-with’, or to think the other.²⁴

“The true abyss”, for Jonas, is the modern belief that “nature does not care”. This is what makes “modern nihilism infinitely more radical” than its ancient Gnostic counterpart (Jonas, 2001, p. 233). Climate change has exacerbated “mass mortality events”, such as the sudden perishing, in 2015, of more than 200,000 saiga antelopes. “Mass bleaching events” have decimated the oceans, leading, for example, to a 32 percent decline within ten years in the fish populations off the coast of Australia. “Dead zones” are proliferating in our oxygen-starved oceans (notably in the Gulf of Mexico) (Wallace-Wells, 2020, pp. 105-106). The list of calamities grows by the year, and yet we carry on assuming, somehow, that (to repeat) “nature does not care”. Thus, our irresponsibility lies in our failure to respond to “the ‘Yes’ of Life”, that is, to the “striving” and “self-affirmation” of all living beings who oppose life to death (Jonas, 1984, p. 81).

Here we can see the error of the ‘naturalistic fallacy’, according to Jonas. *Hic Rhodus, hic salta!*, he might have exclaimed. We must leap from ‘Is’ to ‘Ought’ by recognizing that the ‘Yes’ of Life “has a binding obligatory force upon human beings” (Bernstein, 2008, p. 191). This is simply a consequence of our near omnipotence as a species capable of sustaining (and destroying) many forms of life on Earth. Whereas before the

Anthropocene, it was “being itself” that “took care” of creation –that is, the individual strivings of (say) countless antelope and fish– we humans must now take charge “as the supreme outcome of nature’s purposive labor” (Jonas, 1984, p. 82). To use a contemporary slogan that echoes Jonas’ core message: in assuming the duty to preserve life, ‘We are not defending nature, we are nature defending itself’.²⁵

C. Jonas’s Aesthetic Education: A New Myth to Face the Unthinkable

The plea to care described above remains beset by a seemingly insurmountable difficulty. Let us assume, with Jonas, that every human being is (qua human) ontologically responsible. The plight of the other affects us: we feel moved, touched, addressed in what amounts to a kind of instruction or summons to care. Still, we must wonder: Can we ever be moved by the fate of an entire species—our own—whose existence, moreover, depends on planetary conditions that elude our grasp? Indeed, that is the challenge of the Anthropocene. We now know that the Earth behaves as a self-regulating system which makes multicellular life possible (Lenton, 2016). But this life need not be human; that is, the ‘system’ is indifferent whether we live or not. Can we be responsible for such a system or for the planet as a whole? Here we seem to reach the limits of responsibility. And yet, the planet has today become an object of existential concern.

Both Jonas and Latour resorted to mythology to face this challenge. Let us briefly consider Jonas’s plea for what we could call ‘cosmic responsibility’ before turning to Latour’s more recent proposal.

Following Plato, Jonas turned to myth to “adumbrate a truth which of necessity is unknowable” (Jonas, 1962, p. 16). In Jonas’s myth, God created the world but then renounced his divinity, thus giving himself over to the endless process of becoming. Eons later, life emerged on our planet in a “world-accident” of cosmic significance (Jonas, 1999, pp. 134-136). With human life, responsibility came into being—including responsibility for God. In Jonas’s heretical vision, God is good and intelligible, but not omnipotent. His God is a *suffering* and *becoming* God who is affected, and even altered, by what happens in the world: God depends on us.

This myth expresses, in part, a discovery that overwhelmed Jonas. In 1943, Etty Hillesum, a young Jewish woman from the Netherlands, reported to a concentration camp to share the destiny of her people. In the diary she wrote before being sent to the gas chamber in Auschwitz, she expressed the gist of Jonas’s myth as follows:

I will go to any place on this Earth where God sends me, and I am ready in every situation and until I die to bear witness...that it is not God's fault that everything has turned out this way, but our fault. [...] and if God does not continue to help me, then I must help God [...] I will always endeavor to help God as well as I can [...] to save in us, O God, a piece of yourself (Jonas, 1999, p. 192).

Here, responsibility approaches the cosmic. Hillesum carried the fate of the world on her shoulders in a way that inspired Jonas to speak with eloquence and force about “our tortured planet” until weeks before his death (Jonas, 1999, p. 201). His heterodox blend of science, philosophy, theology, and myth resounded widely in the European public sphere, impacting (as we saw) on politics, ethics, and law. The academy, however, remained largely impervious to his vision. This was mainly due, it seems, to the legacy of German idealism and its characteristic neglect of ‘nature’ –not to speak of ‘God’ or ‘the Earth’– in the name of such themes as ‘culture’, ‘autonomy’, and ‘normativity’ (Rosa et al., 2021).

One generation later we face a radically different situation. The stories that we have told ourselves as moderns seem more and more incredible –for example, that we (humans) are unique hybrids of spirit and matter (Descartes); that we ‘prescribe nature its laws’ (Kant); that we ‘make our own history’ (Marx); that an ever-growing ‘economy’ will bring about universal plenty. None of this rings true today. Or, at any rate, such modernist convictions are contradicted by a growing number of sciences, which show (*inter alia*) that we are *not* uniquely intelligent beings; that there is hardly anything ‘lawful’ in ‘nature’; and that the very idea of an ‘economy’ that can grow indefinitely is premised on a frenzy of fossil-fuel extraction that will (sooner or later) exhaust itself.

Can these developments lend new credence to Jonas’s imperative of responsibility? The remainder of this paper addresses this question by turning to Latour’s reading of Jonas.

V. Latour as a Reader of Jonas

Part of Latour’s work may be read as a response to Jonas.²⁶ This response begins with a fundamental agreement, which then turns into vehement disagreement. Both authors largely coincide in their ontological vision of an Earth that is alive; in their conception of responsibility as responsiveness to that Earth; and in their diagnosis of irresponsibility as an expression of modern nihilism. Like Jonas, Latour resorts to science, affects, and myths to effect a kind of awakening with religious overtones. Where and why La-

tour breaks with Jonas matters, I shall argue, not only because it points to pitfalls in the Jonasian vision, but also because Latour's objections are an expression of much that we have learned since Jonas died. Let us consider how the three steps toward responsibility outlined above appear in Latour's work.

A. Latour's Move From Ethical to Political Responsibility –For Gaia

Latour is in fundamental agreement with Jonas on the origins of responsibility: it is an Other that calls us. Any conception of responsibility as liability or accountability presupposes the phenomenon of an “external *appeal*”. Otherwise, as Latour puts it, “those who feel responsible would all be deranged souls to whom voices speak in profound silence” (Latour, 2013, p. 457). The question remains the following: Before whom and for what are we primarily responsible in Latour's vision?

The short answer is before the Earth or *Gaia* and for its care.²⁷ Care and precaution are recurrent Jonasian motifs in the work of Latour.²⁸ Such motifs include not only an endorsement of the principle of precaution as enshrined in the French constitution, but also a post-progressive vision for the future grounded on a slow and careful composition of a common world (Latour, 2010, p. 487). Contra Jonas, however, this world to come is neither ‘natural’ nor primarily human. That is, we are not primarily answerable before future generations, or an ‘image of man’, but before an enigmatic reality that we are about to face.

Latour chose to call this reality *Gaia*, after the Greek goddess personifying the Earth. This choice is part of a long attempt to imagine a world after “the end of nature” (Latour, 2010, p. 479). To enter this world, it will help to first address one of the deepest critiques Latour levels at Jonas.

According to Latour, Jonas's vision is hardly distinguishable from ancient “natural law”. In one respect, it is even more radical: Jonas dares to impose on us the duty to “obey nature”, that is, to assent to her “value decisions” (Latour, 2004, p. 128). Abstractly, Latour would likely agree that the ‘Yes’ of life has “a binding *obligatory* force upon human beings” (Bernstein, 2008, p. 191). But the extent of this obligation is unclear. This much is certain, Latour would say. Preserving ‘nature’ is a condition for guaranteeing ‘the right to a future’. But what that preservation entails cannot be dictated by ‘nature’ itself, or even by law: it is a political question of the highest order.

The reasons behind Latour's turn away from ‘nature’ are many and complex. However, for our purposes, the key reason can be introduced by considering a singular event.

In a massive biopolitical response to an invisible virus, 4.6 billion human beings were confined to their homes in May 2020. For the first time in recorded history, almost 60% of humanity lived through a similar experience for the same reasons (Maniglier, 2021). This global experience attests to a profound mutation in our relation to the world, whose impact Latour sought to convey by every available means until his death.

Writing during that first confinement of 2020, Latour suggested that Covid-19 is a “dress rehearsal” for the world that will be inhabited by today’s children and their offspring (Latour, 2020). Like climate change or famines, the Covid-19 pandemic is not a ‘natural’ phenomenon. It is rather an event that renders meaningless both Jonas’s understanding of the “lawfulness [or regularity–RC] of nature as it is given to us”²⁹ (Jonas, 1999, p. 168) and the common understanding of society as “humans among themselves” (Latour, 2020). Indeed, since roughly 1995, it has become clear that, from a scientific standpoint, the ‘regularity’ we took for granted, notably in terms of climate, is a thing of the past (Ghosh, 2017). In our “planetary age”, as conceived by Earth system science, we, the Earthbound, face similar “habitability problems” as those faced on Mars or Venus, namely maintaining oxygen on Earth at around 21% of the atmosphere (Chakrabarty, 2018, p. 7).

It is in light of this radical shift in perspective –away from nature as law-like regularity toward the planetary– that Latour speaks of *Gaia* as the ‘before whom’ of responsibility. *Gaia* is the self-regulating system that has sustained multicellular life on Earth for almost 600 million years (cf. Chakrabarty, 2018, p. 6). In Latour’s terms, it is an immense network of ‘actants’, which has literally made the Earth –a network of (*inter alia*) oxygen-producing algae, methane-producing cattle, carbon-absorbing oceans, mineral-mixing rain, nitrifying bacteria, and fossil-extracting humans (Maniglier, 2021).³⁰

To become responsible for Latour is to learn to see this. Jonas’s ‘duty to know’ acquires an even more exalted status: “to know and not to act”, Latour ventures, “is not to know” (Latour, 2017, p. 140). If only we could know, if only we could *feel*, that we are not on Earth but *of* Earth, wholly dependent on every other being, then we would act. However, as is typical in Latour’s dialectical thought, the rejoinder follows immediately. Can we really expect humans to act in order to maintain oxygen levels on Earth? What could that entail?

Latour dedicated his last years to addressing this problem. Echoing Jonas, he embar-

ked on a public project that sought “to teach ourselves to respond to *Gaia*” (Latour and Hache, 2010, p. 320). This required not only scientific knowledge but also a sentimental education that would transform ethics and politics. The way to this education involves the second and third steps toward responsibility that we found in Jonas, namely a diagnosis of modern nihilism and a mobilizing mythology.

B. The Moderns’ Nihilism in Latour

The essence of nihilism for Latour is the attempt to reduce beings to an underlying substance, which ‘explains’ what they are.³¹ As a response, Latour developed an entire metaphysics or cosmology that bears a striking resemblance to Jonas’s. A brief sketch suffices here to introduce Latour’s diagnosis of nihilism.

For Latour, the world is populated by ‘actants’ discovered –or ‘instituted’– by scientists (Latour, 2017, p. 90). Among them, we may name bacteria (1675), lactic acid (1780), cells (1839), the tubercle bacillus (1882), endorphins (1973), fatty acids (1929), and SARS-COV-2 (2020). These actants are, first of all, as alive as humans insofar as they “behave” in certain ways, while also having (for example) “functions” and “competences”, as described by scientists. Thus, according to Latour, they have “interests” and “goals”, namely such goals as “filling the breach of existence” (Latour, 2017, p. 70) while “running the truly frightening risk of disappearing” (Latour, 2013, p. 101).

Latour goes even further than Jonas in his quest to imbue extrahuman beings with life. Every being that has ever existed, he writes, has exclaimed “‘It must’, ‘It mustn’t’, measuring the difference between being and nonbeing by this hesitation”. Thus “everything in the world *evaluates*...” (Latour, 2013, p. 453). The upshot is a cosmology in which every entity is ‘articulated’, that is, both joined and separated from other entities by ‘junctures’, ‘branching points’, and ‘hiatuses’ (Latour, 2013). For example, the oxygen we breathe is the work of (among other things) photosynthetic bacteria in the oceans–bacteria which also lock away carbon dioxide. The earth’s atmosphere thus results from complex interactions between our ‘human’ bodies–themselves inhabited by trillions of microbial cells–and solar radiation, greenhouse gases, cars, states, laws, and wars.

Given this cosmology, it is hardly surprising that for Latour, as for Jonas, morality and responsibility are cosmologically anchored. Indeed, how else could it be if “the human destiny (microcosm) and the nonhuman destiny (macrocosm)” are as entangled as the sketch above suggests (Latour, 2010, p. 484)? Thus, for Latour, morality is “a *property* of the world itself”, indeed “the world *emits morality*” (2013, p. 455).

Nihilism, then, is any attempt to reduce –and thus effectively to annihilate– the living cosmos. For instance, the view that nature is ‘nothing but’ a vast mechanism of “deaf, dumb, [and] silent” causes and effects interacting in a “material” world (Latour, 2010, p. 476). Or, more recently, the attempt to explain nature as nothing but, for example, blind evolution or ‘selfish genes’. Such ‘explanations’ of reality, Latour would argue, are not only scientifically dated,³² but they have also desensitized modern humans, rendering us irresponse-able, i.e., incapable of muttering a response to the outcry of an endangered Earth.

C. Away from ‘The Economy’

A key aspect of Latour’s metaphysics is his account of ‘the economy’ as the cosmos we inhabit today.³³ Indeed, the enigma of humanity’s irresponsibility cannot be properly addressed without considering that cosmos, and specifically the virtues and vices of what is arguably the only universal language we share –that of neoclassical economics.

The current ecological crisis emerged in parallel with the wave of globalization that took off in the 1980s. That wave has lifted hundreds of millions of people out of poverty, notably in India and China. But the freedom thus afforded “stands on an ever-expanding base of fossil-fuel use” (Chakrabarty 2009, p. 208), which is now reaching its limits. These limits can be found not only in humanly unbearable temperatures (notably in India) but also in recently-defined “planetary boundaries” beyond which the Earth system will become far less hospitable to human life (Steffen et al., 2015). Thus, it is becoming increasingly clear –and now scientifically established– that we are earth-bound creatures living in a limited planet.

And yet, every year we rush further into (or past!) those limits to grow ‘the Economy’. If, for Latour, the essence of nihilism is reductionism, then the ceaseless invocation of economic ‘growth’ could be its primary expression in our time.

Latour is careful not to critique ‘the economy’, as if he (alone) could discover an alternative system and language to coordinate action and production. The greatness of (neoclassical) economics, he suggests, is that it allows us to raise the question of an optimal distribution (Latour, 2013, p. 486). Indeed, there is no realistic way to tackle climate change without this tool. For ultimately, we *have* to decide which beings will be treated as means and which as ends in themselves. The tragedy of economics, however, is that it has deprived us of another language –that of scruples.

This is partly because modern economics is a “‘value-free’ science of values” (Latour, 2013, p. 447). In economic language questions of valorization become factual questions that no longer need to be discussed. Who will live and who will die because of economic globalization (and its twin companion, global warming)? “Nothing and no one decides: ‘it suffices to calculate’”. It is as if the “whole vast engine” of economic globalization “functions on autopilot” (Latour, 2013, p. 387). Latour regards this as one of the most astonishing traits of the Moderns: that, in thrall to the Economy we believe that “the optimum can escape scruples” (Latour, 2013, p. 45; cf. 2021, pp. 78-79, 93-95).

Latour’s answer to the enigma of our indolence and insensitivity would thus include the Economy in its diagnosis. Modern humans are so caught up in a (certain) economic language and ideal of civilization premised on boundless abundance and growth, that they may not be able to “leave an inhabitable world to their children” (Latour, 2018, p. 64).

D. Toward an Ecological Utopia

Let us finally consider how Latour resorts to myths in order to revamp our political affects. As suggested earlier, mythology may be understood as a means to convey ineffable truths. Climate change confronts us with such truths. When we speak of Covid-19 as the “irruption of the Earth” or of “500,000-year floods” and “fire tsunamis” we are using metaphoric and figurative language to express something real but unimaginable –or at least unlivable. No human being will literally experience such things, and yet that is the world we live in. No human being will ever provoke a tsunami or the ‘sixth great extinction’, and yet human beings as a whole *have* become a geological force capable of such feats. The imaginative challenge is enormous. Somehow we need to conceive ourselves as a species shaping ‘geo-history’ over a timespan of hundreds of thousands of years; otherwise, we simply will not understand what we are doing to ourselves and to the planet (see Archer, 2016).

Latour’s myths are meant both to provoke us out of complacency and to awaken us from dogmatic slumbers. We complacently assume that only non-Western societies are steeped in myths, such as the belief that things are ensouled and capable of action. However, as Latour’s myriad examples show, scientists today *also* believe that, say, endorphins ‘act’ on our brains affecting our moods. If anything, it is more mythological to believe that only humans act, while the ‘material’ world is inert and dumb. Latour’s

‘Moderns’ are those, like Descartes, who believed this, and generally those who have attempted a way of life capable of detaching itself from other existents (Maniglier, 2021). We need myth –combined with science– to finally show that this has never been possible, or as Latour puts it to “remain open to the dizzying otherness of existence” (Latour, 2017, p. 36).

This is perhaps where Latour departs most sharply from Jonas on the uses of myth. Jonas went so far as to claim that gastric juices participate in ‘mind’ and ‘freedom’ (Jonas, 2001, p. 3). He also spoke of a “common guilt” shared by mankind as a whole, and of our condition as “sinners”: such would be the verdict of our “tortured planet” if it could speak to us (Lazier, 2008, pp. 63-64). Latour also lambasted the irreligiosity of the Moderns, who have “made *negligence* their supreme value” (Latour, 2017, p. 196). If religion designates “that to which one clings, what one protects carefully” and negligence is its opposite, then the charge seems adequate: the Moderns, who treat greenhouse gases as an economic “externality” –when in fact everything happens *in* that ‘externality’ which is killing millions of people annually³⁴– are negligent and careless. But Latour is careful to avoid the totalizing language that Jonas favors.

Yes, he never ceases to speak of the Moderns, but the whole point of his work is arguably to show that ‘we have never been modern’ (Latour, 1993). We have tried to detach our way of life from every other existent –doing ‘only science’ or living ‘autonomously’– but the reality is that we have always been entangled with other beings on which we depend. Latour uses a mix of figurative and mythical language to convey that truth, and ultimately to allow us to enter into a “moral relation” with the Earth, “to ask ourselves how to treat it well” (Latour and Hache, 2010, p. 323).

One example shall suffice to illustrate the Latourian mythology we may need. *Contra* Jonas, Latour seeks to avoid both “senseless hope and senseless despair” (Latour, 2017, p. 242). Guilt will only paralyze us when what we need is to become responsible. For such purposes, a call to ‘preserve Nature’ will probably make us yawn. And in any case, we are so entangled with other entities that the call may no longer make sense. Yet we must move with caution, instead of “bounc[ing] forward, blissfully ignorant of the consequences” of our innovations, while also knowing that nothing can be externalized (Latour, 2011, p. 25). And we must also stop speaking complacently of a ‘we,’ as I have done throughout this paper, as if we were all equally responsible for the devastation of the Earth. It is mainly ‘the Whites’, Latour would say, who have

waged war on the rest (Latour, 2013). They –especially those who have fought to deny climate change– are the ‘enemy’. Thus, the myth Latour resorts to is the Schmittian Earth understood as *justissima tellus*, “the mother of law”.³⁵ Once we ‘teach ourselves to respond to *Gaia*’, it will be climate politics, and more fundamentally the Earth, that will generate future law.

VI. Conclusion

By invoking Schmitt—with increasing frequency toward the end of his life –Latour seems to have moved beyond the realm of responsibility. Indeed, it suffices to recall that for Schmitt, political life is inseparable from “the real possibility of physical killing” (Schmitt, 2008, p. 33). Quite clearly, Latour did not sanction this possibility. And yet, he found it necessary to prescribe “small doses” of the “toxic and nevertheless indispensable Carl Schmitt” (Latour, 2017, p. 228). It is not difficult to imagine why. After all, letting the Earth ‘speak’, instead of heeding ‘the Economy’ has arguably become a matter of survival. While interrogating Latour’s Schmitt is beyond the scope of this essay,³⁶ a few remarks will help to conclude the dialogue on the meaning of responsibility presented in this paper.

Let us first retrace the two regimes of responsibility developed by Jonas and Latour. Responsibility is a matter of agency (*who* is responsible), ontology (*what* are we responsible for), and affects (*how* are we moved to become ‘response-able’). Our affects, in turn, are shaped by the stories we tell to make sense of the world. Thus, as this paper has suggested, responsibility depends on ways of seeing and sense-making that may be grouped under the category of ‘culture’. Two additional dimensions must be added to further adumbrate the phenomenon of responsibility. First, it is a ‘regime’ inasmuch as it is a way of life shaped by –and expressed in– law. Second, responsibility is always haunted by its opposite insofar as all responsible actions are (paradoxically) irresponsible. This follows from the character of responsibility as a *decision* that must discriminate between what is deserving (or not) of responsible action.

Agency, ontology, affects, narrative, law, and decision—all these aspects (in addition to moral scruples!) must be considered to begin to grasp the aporetic phenomenon of responsibility.³⁷ Yet, confronted by Jonas’s ‘imperative’ we could not evade the enigma of responsibility that has led us to this point.

To summarize then: regarding *agency*, for both Jonas and Latour, being responsible is synonymous with being human. As beings who are always already exposed to alterity,

we cannot *not* respond to the call of what we experience as Other –from the ‘call of conscience’ to the gaze of another person to the plight of a dying species. This is one reason why the phenomenon of responsibility becomes unavoidable as soon as we face the prospect of ecological breakdown. In the last instance, how things turn out will depend on how much individual agents (from citizens to oil executives to legislators, scientists, and presidents) *care* about the harm we are inflicting on others –including future generations (cf. Gardiner, 2011, p. 20).

A further convergence between both authors can be found in the realm of *ontology*. Before whom (or what) are we responsible? Against the modern tendency to reduce life to non-life –for example, to blind forces, atoms, or genomes– Jonas and Latour insist on the ontological primacy of Life (Lenton et al., 2020). This means that every living entity depends on a massive network of ‘actants’ and entangled organisms that have (literally) made our earthly atmosphere, lithosphere, hydrosphere, and biosphere. In light of this ontology, the common distinction between anthropocentric and biocentric ethics becomes blurred. To say that we must respond primarily to other human beings (following the anthropocentric approach) becomes dubious as soon as we recognize that the ‘human’ and the ‘biological’ are coterminous and continuous, or that our bodies are fully pervaded –and indeed constituted– by the earthly elements we eat, breathe, excrete, feel, and so on.

Yet, it is also at this (ontological) point that both thinkers part ways. Indeed, whereas Latour’s aim became to ‘teach ourselves how to respond to *Gaia*’, Jonas’s whole work, one could argue, was devoted to the recovery of ‘*phusis*’ or the Platonic-Aristotelian understanding of ‘nature’ (see Lazier, 2008). As outlined in his understanding of ‘natural’ parental responsibility, the term alludes to the principles that preside over the generation, development, and flourishing of living beings. Thus, notably, for Jonas, it is ‘by nature’ that we humans are *able*–and hence *obliged*–to care for vulnerable life (Jonas, 1984, p. 99). Beyond this, we are also responsible for the ‘*idea*’ that (in a Platonic sense) both represents and engenders the ‘wholeness of man’ (Jonas, 1984, pp. 11, 43). In Latour’s rather uncharitable reading (as we saw), this amounts to a radicalization of ‘natural law’, in which “an elite” –and *only* an elite, as Jonas notes (Jonas, 1984, p. 147)–could assume responsibility for the future ‘wholeness of man’. More generously perhaps, we could say that Latour *himself* appealed to ‘*phusis*’ as a realm of “engendering concerns” which plays a similarly normative role in his vision (Latour, 2021, pp. 47, 66). Still, it remains true that for Jonas, the primary object of responsibility is humanity in its possible perfection (or ‘wholeness’) as perceived by an ethical and inte-

lectual elite. In contrast, Latour placed his hopes in an ecological democracy, in which the response-ability for ‘engendering’ and ‘terraforming’ the Earth is shared by broad multi-species alliances led by an emerging ‘ecological class’ (Latour and Schultz, 2022).

Thus, against Jonas’s “Platonic responsibility to the *agathon*” (Derrida, 2008, p. 29), Latour calls for a democratic responsibility to *Gaia* as the only sovereign power on this planet (Latour, 2021, p. 146). While both agree on the urgent need to subject the power of technoscientific ‘progress’ to ethical and political principles –in particular to a principle of ‘care’ and ‘caution’ which presides over the generation of life (*phusis*)– they offer contrasting visions of the primary object of that care (viz., the wholeness of man for Jonas, and *Gaia* for Latour).

This points to a final point of contact and divergence in their respective regimes of responsibility–namely, the need to mobilize new passions and interests by challenging the stories we tell ourselves to justify our ways of life. Once again, as I have argued, Jonas appears as Latour’s *alter ego*. For, ahead of his time, he sensed that the narrative of linear ‘progress’ through ‘development’, ‘modernization’, and ‘globalization’ that has been championed for over a century by a broadly technocratic, positivistic, and rationalistic elite throughout the world—from Lenin to Nehru to Clinton—would have to be questioned as soon as the Earth began to react in increasingly destructive ways. Symbolically at least, that point was reached at the turn of the millennium when the Anthropocene narrative was first proposed. The ‘age of humans’ bespeaks both unfathomable powers to transform the Earth and an uncanny sense that we are not alone. This means that there are more-than-human entities—from melting glaciers to dying species to SARS-CoV-2—that have intervened, and *will* intervene, to make us stop and think (Ghosh, 2017, p. 31). Jonas embraced both sides of the Anthropocene narrative to awaken a sensibility that combines care and caution with awe, respect, and fear. As we saw, his philosophical activism proved at least partially successful in inspiring responsibility for future generations (as enshrined in law), together with an ethos of care for vulnerable life that has become part of normative orders of justification.

While also denouncing the modernist project described above, Latour hesitated and shifted during the last two decades of his life—moving from an-archic calls for ‘modernizing modernization’ without limits or principles (Latour, 2011; 2004, p. 198), through an eco-theological cult of *Gaia* (“there is no God, there is only one Earth” (Latour, 2013, p. 485)), to a late appreciation of ancient *phusis* (as we saw) and the importance of Marxist thought for reimagining an ‘ecological class’ (Latour and Schultz, 2022). Throughout these years, the passions he evoked included love, care, fear, cou-

rage, righteous anger, and hope. All these passions, one could argue, are in the service of his decade-long project of incorporating nonhumans into ‘society’, while taking responsibility for every ‘actant’ on Earth “without knowing in advance what belongs to the category of simple means and what belongs to the kingdom of ends” (Latour, 2004, p. 227). His seemingly quixotic quest to respond to nonhumans –by letting, say, salmon, viruses, bacteria, and coral ‘speak’ through the work of scientists and other representatives– is slowly gaining ground. Not only has a virus recently ruled the Earth, ‘speaking’ through scientists, presidents, legislators, and pharmaceutical companies, but–more positively–there are emerging regimes that *also* let nonhumans ‘speak’ by recognizing, notably, rivers as “indivisible and living whole[s]...incorporating all [their] physical and metaphysical elements” (New Zealand government, 2017). This is at least part of what Latour meant when he evoked the Schmittian myth of the Earth as “the mother of law”.

References

- Archer, David, 2016: *The Long Thaw: How Humans Are Changing the Next 100,000 Years of Earth's Climate*. Princeton, Princeton University Press.
- Ban, Ki-Moon, 2013: “UN Secretary-General Ban Ki-Moon on Intergenerational Equity”. *Population and Development Review* 39, No. 4, pp. 727-731.
- Bennett, Jane, 2010: *Vibrant Matter: A Political Ecology of Things*. Durham, Duke University Press.
- Benvenisti, Eyal, 2013: “Sovereigns as Trustees of Humanity: On the Accountability of States to Foreign Stakeholders”. *The American Journal of International Law* 107, No. 2 (April), pp. 295-333.
- Bernasconi, Robert, 2008: “Before Whom and for What? Accountability and the Invention of Ministerial, Hyperbolic, and Infinite Responsibility”, in Shannon Sullivan and Dennis J. Schmidt (eds.), *Difficulties of Ethical Life*. New York, Fordham University Press.
- Bernstein, Richard, 2008: *Radical Evil: A Philosophical Interrogation*. Cambridge, Polity Press.
- Bertram, Daniel, 2023: “‘For You Will (Still) Be Here Tomorrow’: The Many Lives of Intergenerational Equity”. *Transnational Environmental Law* 12, No. 1 pp. 121-149.

- Bongardt, Michael, Holger Burckhart, John-Stewart Gordon, and Jürgen Nielsen-Sikora (eds.), 2021: *Hans Jonas-Handbuch Leben - Werk - Wirkung*. Berlin, J.-B.-Metzler.
- Bonneuil, Christophe and Jean-Baptiste Fressoz, 2017: *The Shock of the Anthropocene: The Earth, History and Us*. New York, Verso Books.
- Chakrabarty, Dipesh, 2018: "Planetary Crises and the Difficulty of Being Modern". *Millennium* 46, No. 3 (June), pp. 259-282.
- _____, 2009: "The Climate of History: Four Theses". *Critical Inquiry* 35, No. 2, pp. 197-222.
- Chancel, Lucas, Philipp Bothe, and Tancrède Voituriez, 2023: Climate Inequality Report 2023, World Inequality Lab Study/1
- Connolly, William. E, 2013: "The 'New Materialism' and the Fragility of Things". *Millennium* 41, No. 3, pp. 399-412.
- Conway, Philip R., 2015: "Back down to Earth: Reassembling Latour's Anthropocenic Geopolitics". *Global Discourse* 6, No. 1-2 (January 1), pp. 43-71.
- Coole, Diana H., and Samantha Frost (eds.), 2010: *New Materialisms: Ontology, Agency, and Politics*. Durham, Duke University Press.
- Coyne, Lewis, 2022: *Hans Jonas: Life Technology and the Horizons of Responsibility*. London: Bloomsbury.
- Crary, Alice and Lori Gruen, 2022: *Animal Crisis: A New Critical Theory*. Cambridge, Polity Press.
- Crutzen, Paul J., and Eugene F. Stoermer, 2000: "The 'Anthropocene'". In *IGBP Newsletter*, 41, pp. 17-18.
- Daston, Lorraine, 2014: "The Naturalistic Fallacy Is Modern". *Isis* 105, No. 3, pp. 579-587.
- Derrida, Jacques, 2008: *The Gift of Death*, trans. David Wills. Chicago, University of Chicago Press.
- Despret, Vinciane, 2023: "To Combat Species Decline, We Need Passions of Joy", *The UNESCO Courier*. Paris: UNESCO, No. 1, January-March, pp. 38-41.
- Eckersley, Robyn, 2016: "Responsibility for Climate Change As a Structural Injustice",

- in Teena Gabrielson, Cheryl Hall, John Schlosberg, and Robyn Eckersley (eds.), *The Oxford Handbook of Environmental Political Theory*. Oxford, Oxford University Press, pp. 346-361.
- Federal Constitutional Court of Germany, 2021: “Constitutional Complaints Against the Federal Climate Change Act Partially Successful”, Press Release No. 31, 29 April.
- Ferry, Luc, 1995: *The New Ecological Order*, trans. Carol Volk. Chicago, University of Chicago Press.
- Forst, Rainer and Klaus Günther (eds.), 2021: *Normative Ordnungen*. Berlin, Suhrkamp.
- Gardiner, Stephen Mark, 2011: *A Perfect Moral Storm: Understanding the Ethical Tragedy of Climate Change*. Oxford, Oxford University Press.
- Ghosh, Amitay, 2017: *The Great Derangement: Climate Change and the Unthinkable*. Chicago, University of Chicago Press.
- Gilbert, Scott F., Jan Sapp, and Alfred I. Tauber, 2012: “A Symbiotic View of Life: We Have Never Been Individuals”. *The Quarterly Review of Biology* 87, No. 4: 325-341.
- Habermas, Jürgen, 1988: *Nachmetaphysisches Denken*. Frankfurt a.M, Suhrkamp.
- Hallé, Clémence and Anne-Sophie Milon, 2020: “The Infinity of the Anthropocene: A (Hi)story with a Thousand Names”, in Bruno Latour and Peter Weibel (eds.), 2020: *Critical Zones: The Science and Politics of Landing on Earth*. Cambridge, MIT Press, pp. 44-49.
- Haraway, Donna Jeanne, 2016: *Staying with the Trouble: Making Kin in the Chthulucene*. Durham, Duke University Press.
- Harman, Graham, 2014: *Bruno Latour: Reassembling the Political*. London, Pluto Press.
- Hoffman, Andrew J., 2020: *How Culture Shapes the Climate Change Debate*. Stanford, Stanford University Press.
- IPCC, 2018: *Global Warming of 1.5°C: An IPCC Special Report on the Impacts of Global Warming of 1.5°C Above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to*

- the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty*. Cambridge, Cambridge University Press, www.ipcc.ch/report/sr15.
- Isen, Adam, Maya Rossin-Slater, and W. Reed Walker, 2017: “Every Breath You Take—Every Dollar You’ll Make: The Long-Term Consequences of the Clean Air Act of 1970”. *Journal of Political Economy* 125, No. 3 (June), pp. 848-902.
- Jonas, Hans, 2008: *Memoirs*, ed. Christian Wiese, trans. Krishna Winson. Waltham, Brandeis University Press.
- _____, 2001: *The Phenomenon of Life. Toward a Philosophical Biology*. Evanston, Northwestern University Press.
- _____, 1999: *Mortality and Morality: A Search for the Good After Auschwitz*. Evanston, Northwestern University Press.
- _____, 1992: Hans Jonas, “Dem Bösen Ende Näher”, *Der Spiegel*, No. 20.
- _____, 1984: *The Imperative of Responsibility: In Search of Ethics for the Technological Age*, trans. Hans Jonas and David Herr. Chicago, University of Chicago Press.
- _____, 1974: *Philosophical Essays: From Ancient Creed to Technological Man*. Englewood Cliffs, Prentice-Hall.
- _____, 1962: “Immortality and the Modern Temper: The Ingersoll Lecture, 1961”. *The Harvard Theological Review* 55, No. 1 (1962), pp. 1-20.
- Kemp, Luke, Chi Xu, Joanna Depledge, Kristie L. Ebi, Goodwin Gibbins, Timothy A. Kohler, and Johan Rockström, 2022: “Climate Endgame: Exploring Catastrophic Climate Change Scenarios.” *Proceedings of the National Academy of Sciences* 119, No. 34 (August 23) <https://doi.org/10.1073/pnas.2108146119>.
- Klein, Naomi, 2014: *This Changes Everything: Capitalism vs. the Climate*. New York, Simon and Shuster.
- Kotzé, Louis J., 2019: “Earth System Law for the Anthropocene”. *Sustainability* 11, No. 23 (January), pp. 67-96
- Krause, Sharon R, 2021: “Political Respect for Nature”. *Philosophy & Social Criticism* 47, No. 2, pp. 241-266.
- _____, 2020: “Environmental Domination”. *Political Theory* 48, No. 4 (August 1), pp. 443-468.
- _____, 2020a: “Creating a Culture of Environmental Responsibility”, in J. P. Singh

- (ed.), *Cultural Values in Political Economy*. Stanford, Stanford University Press, 2020, pp. 65-86.
- _____, 2020b: "Environmental Domination". *Political Theory* 48, no. 4 (August 1), pp. 443-468.
- Latour, Bruno, 2021: *¿Dónde estoy? Una guía para habitar el planeta*, trad. de Juan Vivanco Gefaell. Barcelona, Taurus.
- _____, 2020: "Is This a Dress Rehearsal?". *Critical Inquiry*, March 26. <https://critinquiry.wordpress.com/2020/03/26/is-this-a-dress-rehearsal/>.
- _____, 2018: *Down to Earth: Politics in the New Climatic Regime*. Trans. Catherine Porter. Cambridge UK, Polity Press.
- _____, 2018a: "Bruno Latour Tracks Down Gaia", *Los Angeles Review of Books*. July 3. <https://lareviewofbooks.org/article/bruno-latour-tracks-down-gaia/>.
- _____, 2017: *Facing Gaia: Eight Lectures on the New Climatic Regime*, Trans. Catherine Porter. Cambridge UK, Polity Press.
- _____, 2013: *An Inquiry into Modes of Existence: An Anthropology of the Moderns*, Trans. Catherine Porter, Cambridge, Harvard University Press.
- _____, 2011: "Love your Monsters", In Ted Nordhaus and Michael Shellenberger (eds.), *Love Your Monsters. Postenvironmentalism and the Anthropocene*, United States: Breakthrough Institute, pp. 17-25.
- _____, 2010: "An Attempt at a 'Compositionist Manifesto'". *New Literary History* 41, pp. 471-490.
- _____, 2010b: *On the Modern Cult of the Factish Gods*, trans. Catherine Porter and Heather MacLean. Durham, Duke University Press.
- _____, 2009: "Will Non-humans Be Saved? An Argument in Ecotheology". *Journal of the Royal Anthropological Institute* 15, pp. 459-475.
- _____, 2004: *Politics of Nature: How to Bring the Sciences into Democracy*, trans. Catherine Porter. Cambridge, Harvard University Press.
- _____, 2004 b: "Why Has Critique Run out of Steam? From Matters of Fact to Matters of Concern". *Critical Inquiry* 30, No 2, pp. 225-245.
- _____, 1993: *We Have Never Been Modern*, trans. Catherine Porter. Cambridge,

- Harvard University Press.
- _____, 1993b: *The Pasteurization of France*, trans. Alan Sheridan and John Law. Cambridge, Harvard University Press.
- Latour, Bruno and Émilie Hache, 2010: "Morality or Moralism?: An Exercise in Sensitization". *Common Knowledge* 16, No. 2 (April 1), pp. 311-330.
- Latour, Bruno and Nikolaj Schultz, 2022: *On the Emergence of an Ecological Class - a Memo*, trans. July Rose. Cambridge, Polity Press.
- Latour, Bruno and Peter Weibel (eds.), 2020: *Critical Zones: The Science and Politics of Landing on Earth*. Cambridge, MIT Press.
- Lazier, Benjamin, 2008: *God Interrupted: Heresy and the European Imagination between the World Wars*. Princeton, Princeton University Press.
- Lenton, Timothy M., Sébastien Dutreuil and Bruno Latour, 2020: "Life on Earth Is Hard to Spot". *The Anthropocene Review* 7, No. 3 (December 1), pp. 248-272.
- Lenton, Timothy, M., 2016: *Earth System Science: A Very Short Introduction*. Oxford, Oxford University Press.
- Lovelock, James and Lynn Margulis, 1974: "Atmospheric Homeostasis by and for the Biosphere: The Gaia Hypothesis". *Tellus* 26, pp. 2-10.
- Lubarsky, Sandra B., 2010: "Jonas, Whitehead, and the Problem of Power". In Hava Tirosch-Samuels and Christian Wiese (eds.), *The Legacy of Hans Jonas: Judaism and the Phenomenon of Life*. London, Brill, pp. 397-418.
- MacAskill, William, 2022: *What we Owe the Future*. New York, Basic Books.
- Malm, Andreas, 2020: *The Progress of this Storm: Nature and Society in a Warming World*. New York, Verso.
- _____, 2017: *Fossil Capital: The Rise of Steam Power and the Roots of Global Warming*. New York, Verso.
- Maniglier, Patrice, 2021: *Le Philosophe, la terre et le virus: Bruno Latour expliqué par l'actualité*. Paris: Éditions Les Liens qui libèrent (ebook).
- Mitchell, Timothy, 2013: *Carbon Democracy: Political Power in the Age of Oil*. New York, Verso.
- Moore, Jason W. (ed.), 2016: *Anthropocene or Capitalocene?: Nature, History, and the*

- Crisis of Capitalism*. Oakland, Kairos Press.
- Mounk, Yascha, 2017: *The Age of Responsibility: Luck Choice and the Welfare State*. Cambridge, Harvard University Press.
- New Zealand Government, 1017: *Te Awa Tupua (Whanganui River Claims Settlement) Act 2017*. <https://www.legislation.govt.nz/act/public/2017/0007/latest/whole.html#DLM6831461>.
- Nixon, Rob, 2011: *Slow Violence and the Environmentalism of the Poor*. Cambridge: Harvard University Press.
- Oreskes, Naomi and Geoffrey Supran, 2021: "Rhetoric and Frame Analysis of Exxon-Mobil's Climate Change Communications", *One Earth* 4, No. 5, pp. 696-719.
- Pilling, David and Charlie Bibby, 2022: "Why Famine in Madagascar Is an Alarm Bell for the Planet". *The Financial Times*, August 1. <https://www.ft.com/content/8fa3596e-9c6a-4e49-871a-86c20e0d170c>
- Pistor, Katharina, 2021: "The Myth of Green Capitalism", *Project Syndicate*, September 21. <https://www.project-syndicate.org/commentary/green-capitalism-myth-no-market-solution-to-climate-change-by-katharina-pistor-2021-09>
- Raffoul, François, 2010: *The Origins of Responsibility*. Bloomington, Indiana University Press.
- Robinson, Kim Stanley, 2022: *The Ministry for the Future*. New York, Orbit.
- Robinson, Mary and Caitríona Palmer, 2019: *Climate Justice: Hope Resilience and the Fight for a Sustainable Future*. London, Bloomsbury.
- Rodiles, Alejandro, 2021: "El derecho al futuro: la Corte Constitucional alemana y el liberalismo en el antropoceno". *Nexos en línea*: <https://eljuegodelacorte.nexos.com.mx/author/alejandro-rodiles/>
- Rosa, Hartmut, Christoph Henning, and Arthur Bueno (eds.), 2021: *Critical Theory and New Materialisms*. London, Routledge.
- Schmidt, Jan Cornelius, 2013: "Defending Hans Jonas' Environmental Ethics: On the Relation between Philosophy of Nature and Ethics". *Environmental Ethics* 35, No. 4, pp. 461-479.
- Schmitt, Carl, 2008: *The Concept of the Political*, trans. George Schwab. Chicago, University of Chicago Press.
- _____, 2006: *The Nomos of the Earth in the International Law of Jus Publicum*

- Europaeum*, trans. G. L. Ulmen. New York: Telos Press.
- Schütze, Christian, 1995: "Hans Jonas's Impact on the German and European Political and Intellectual Climate". *Hastings Center Report* 25, No. 7, Special Issue, 40-44.
- Sommers, Tamler, 2009: "The Two Faces of Revenge: Moral Responsibility and the Culture of Honor". *Biology and Philosophy*, pp. 35-50.
- Steffen, Will, Katherine Richardson, Johan Rockström, Sarah E. Cornell, Ingo Fetzer, Elena M. Bennett, Reinette Biggs (et al.), 2015: "Planetary Boundaries: Guiding Human Development on a Changing Planet". *Science* 347, No. 6223.
- Thaler, Mathias, 2022: *No Other Planet: Utopian Visions for a Climate-Changed World*. Cambridge, Cambridge University Press.
- Tooze, Adam, 2021: "Ecological Leninism". *London Review of Books*, November 6. <https://www.lrb.co.uk/the-paper/v43/n22/adam-tooze/ecological-leninism>
- Vohra, Karn, Alina Vodonos, Joel Schwartz, Eloise A. Marais, Melissa P. Sulprizio, and Loretta J. Mickley, 2021: "Global Mortality from Outdoor Fine Particle Pollution Generated by Fossil Fuel Combustion: Results from GEOS-Chem". *Environmental Research*, 195 (April 1).
- Wallace-Wells, David, 2020: *The Uninhabitable Earth: Life After Warming*. New York, Tim Duggan Books.
- Wiener, Jonathan B., 2008: "Precaution". In Daniel Bodansky, Jutta Brunnée, and Ellen Hey (eds.), *The Oxford Handbook of International Environmental Law*. Oxford, Oxford University Press, pp. 597-612.
- Wolin, Richard, 2015: *Heidegger's Children: Hannah Arendt, Karl Löwith, Hans Jonas, and Herbert Marcuse*. Princeton, Princeton University Press.
- World Wildlife Fund (WWF), 2022: "69% Average Decline in Wildlife Populations since 1970, Says New WWF Report". Accessed March 17, 2023. <https://www.worldwildlife.org/press-releases/69-average-decline-in-wildlife-populations-since-1970-says-new-wwf-report>
- Young, Iris Marion, 2013: *Responsibility for Justice*. New York, Oxford, Oxford University Press.

Notas

- 1 Jonas, 1984. On the book's reception, see Coyne, 2022; Schütze, 1995; Bongardt et al., 2021; Schmidt, 2013.
- 2 Latour also drew heavily on sociology and semiotics and collaborated with geographers and artists toward the end of his life (see, e.g., Lenton et al., 2020; Latour and Weibel, 2020).
- 3 Crutzen and Stoermer, 2000. Whether speaking of an 'age of humans' (Anthropocene) does justice to the true agents behind the ecological mutation we are witnessing – a mutation that includes such feats as “changing the next 100,000 years of the Earth's climate” (Archer, 2016) or causing “an average decline of 69% in species populations since 1970” (WWF, 2022)– is a matter of heated debate. A recent study found 1820 articles using the term 'Anthropocene' in their title, as well as 109 alternative names for the current era, including 'Capitalocene', 'Angloscene', 'Technoscene', 'Wastocene', and 'Neoliberaloscene' (Hallé and Milon, 2020). This creative explosion responds to the indisputable insight that *some* humans (assembled with technologies, war machines, other animals, and extractive industries) have altered the elements on which life on Earth depends with potentially catastrophic consequences (cf. Kemp et al., 2022, p. 8). *Who* those humans are –and whether they (or we) can be considered morally responsible for altering the Earth– remains a disputed question, as this paper shows. For historical evidence supporting alternative answers, see Moore, 2016; Malm, 2017; Bonneuil and Fressoz, 2017; Ghosh, 2017.
- 4 Jonas, 1984, p. 7; Wallace-Wells, 2020, e.g., pp. 142-143: Guatemala is “one of the ten [countries] most affected by extreme weather”, leaving millions of people with “food insecurity” and spurring organized crime, making it “the second most dangerous country in the world for children”; p. 152: “global warming is already responsible for 59,000 suicides, many of them farmers, in India”).
- 5 For the meaning of 'nature', see note 25 and the conclusion below.
- 6 For “normative orders”, see Forst, 2021. Notable examples orders that focus on our responsibility for future generations include the 2013 report of the UN Secretary-General “Intergenerational Solidarity and the Needs of Future Generations” (Ban, 2013); the current drafting (in 2023) of principles on the human rights of future generations at the University of Maastricht (shorturl.at/gkqtD; last retrieved on February 17, 2023); the philosophy of 'effective altruism' as developed (*inter alia*) by William MacAskill at Oxford University (MacAskill, 2022); Kim Stanley Robinson's bestseller *The Ministry for the Future* (Robinson, 2022); and a spate of recent cases in international, regional, and domestic courts establishing positive obligations on the part of States and private companies to protect the cultural and environmental rights of our descendants (Bertram, 2022).
- 7 For a brief overview, see Connolly, 2013; see also Coole and Frost, 2010; Rosa et al., 2021. For a critical appraisal of these developments from the standpoint of human ecology, see Malm, 2020.

- 8 For a summary of the ‘triple planetary crisis’ we are facing (climate change, pollution, and biodiversity loss), see <https://unfccc.int/blog/what-is-the-triple-planetary-crisis>. (Last accessed March, 20, 2023)
- 9 ‘We’ refers to modern, Western societies. See Sommers, 2009.
- 10 As one reviewer noted, framing climate change as a structural injustice could be understood as a way of letting major polluters off the hook. Consider the interest of someone like Rex Tillerson, former president and CEO of ExxonMobil, as expressed in 2013: “My philosophy is to make money. If I can drill and make money, then that’s what I want to do” (cited in Malm, 2017, p. 85). Tillerson could claim that his extractivist ‘philosophy’ is not morally blameworthy, even if –as we now know– ExxonMobil has long been aware that “[its] core product [is] warming the planet” while “dump[ing] the cost of cleaning up [its] mess to regular people around the world” (Klein, 2014, pp. 110-111). How could this be acceptable? It *seems* acceptable within the structural injustice framing, insofar as the company has been operating “for the most part within the limits of accepted rules and norms”, while also facing “serious structural constraints” (i.e., it will go bankrupt if it does not drill to make money) (cf. Young, 2013, p. 52, 132). Still, ExxonMobil’s business *is* an injustice because it “put[s] large groups of persons under systematic threat of domination or deprivation of the means to develop and exercise their capacities” (*Ibid.*, 52). Among such groups, we may name poor children in areas affected by severe climate change and toxic pollution caused by big oil companies (see Nixon, 2011). On climate change (and pollution) as forms of domination, see Krause, 2020. On ExxonMobil’s billion-dollar campaign to sow doubts about the climate crisis while shifting responsibility to individual consumers, see Oreskes and Supran, 2021.
- 11 For first-hand accounts of lives lost to climate change, see Robinson and Palmer, 2019.
- 12 As numerous studies show, the ‘carbon-combustion complex’ (including fossil-fuel producers, drilling companies, construction firms, the automobile industry, and their financiers) has long “used personal responsibility framings to disavow themselves”. Oreskes and Supran, 2021, p. 712.
- 13 The ruling, which has been called “probably the most far-reaching decision ever made by a supreme court worldwide on climate protection”, is *Neubauer et al. v. Germany*, German Constitutional Court (BverfG), 24 Mar. 2021, 1 BvR 2656/18, 1 BvR 78/20, 1 BvR 96/20, 1 BvR 288/20. It resulted from constitutional complaints brought forth (*inter alia*) by minors residing in Germany, Nepal, and Bangladesh, who “challenged the German Climate Protection Act of 2019 on the basis of its allegedly insufficient 2030 emissions reduction target” (Bertram, 2022, pp. 16-17). The Court mandated the German state to update the said Act by setting more stringent targets toward achieving carbon neutrality. For a probing analysis of this decision, see Rodiles, 2021; for broader context and similar rulings, see Bertram, 2022.
- 14 As Daniel Bertram notes, “[f]or the first time, the Court not only recognized the standing of Bangladeshi and Nepali claimants, it also opined that the German government

had a duty to take into account the extraterritorial implications of its policies. While the judges stopped short of extending protection under the German Basic Law to foreign citizens, some commentators hailed the intervention as a significant step toward ‘planetary climate litigation’” (Bertram, 2022, p. 27).

- 15 This development extends far beyond the German state. See Benvenisti, 2013.
- 16 See <https://climateactiontracker.org/countries/> (consulted on October 21, 2022).
- 17 See note 13 above.
- 18 For a history of responsibility as a political and legal category focused on this question, see Bernasconi, 2008.
- 19 For Jonas’s debts to Whitehead see Lubarsky, 2010.
- 20 For a recent defense of such an ethics and its practical implications in political theory and ethics, see Krause, 2021.
- 21 Likewise, Jonas’s principle that we should err on the side of caution when dealing with risks of planetary proportions has also become part of international and civil law. On the principle of precaution as an “enforceable norm of customary international law”, see Wiener, 2008.
- 22 Whether humans can determine the qualities of mind of other animals remains disputed. However, there is a growing consensus that some of the qualities mentioned (or their animal analogues) *are* present in animals such as pigeons, octopuses, orangutans, rats, and parrots. See Crary and Gruen, 2022.
- 23 I borrow the locution ‘response-ability’ from Donna J. Haraway, meaning “the capacity to respond” as part of a “praxis of care and response” (Haraway, 2016, pp. 78, 105). For the emerging ‘ecological class’, see Latour and Schultz, 2022.
- 24 Following Hannah Arendt and Haraway, we could say that what is evil is the “surrender of thinking”. As Haraway (2016, p. 36) writes: “In that surrender of thinking lay the ‘banality of evil’ of the particular sort that could make the disaster of the Anthropocene, with its ramped-up genocides and speciescides, come true”. Thoughtlessness in Arendt’s sense is the inability to make present to ourselves what is absent or what is Other. Whoever does not think in this sense does not care. The world does not matter to them. They are unable to “cultivate response-ability” (*Ibid.*).
- 25 Invocations of the ‘natural’ are understandably jarring to contemporary sensibilities due (*inter alia*) to the misuse of the ‘moral authority of nature’ to (e.g.) justify slavery, subjugate women, or chastise the libidinous. Yet, as Lorraine Daston has argued, this critique of the ‘naturalistic fallacy’ is a peculiarly modern strategy, which –its emancipatory power notwithstanding– is premised on a dogmatic bifurcation of the ‘natural’ and the ‘moral’ as belonging to “different ontological categories” (Daston, 2014, p. 585). This dogmatism comes with a heavy price. For, as Leo Strauss noted long ago, “one can expel nature with a pitchfork but it always returns” (Lazier, 2008, p. 124) –in typically subrep-

- titious (and potentially oppressive) ways, such as the belief that ‘our fate is in our genes’, or, conversely, in the (delusional) belief that we can completely transcend the naturally given; say, by moving to Mars. By forcing us to pay heed to the Earth as our only home, the Anthropocene has reopened the ancient quest to understand the ‘natural’, i.e., supra-human, principles and forces that sustain earthly life, as Jonas and Latour intended. Cf. Malm, 2020, who reads Latour differently as a post-natural thinker *tout court*.
- 26 For Latour’s comments on Jonas, see Latour, 2004, pp. 254, n. 11, 256, n. 28, 281-82, n. 27; 2009, p. 463; 2010, p. 479; 2010b, p. 133, n. 37; 2017, p. 13, n. 14, p. 175, n. 51, 202, n. 54.
- 27 As described by James Lovelock and Lynn Margulis in 1974, *Gaia* refers to “the biosphere [i.e., “the total ensemble of living organisms”] and all of those parts of the Earth with which it actively interacts” (Lovelock and Margulis, 1974, p. 3). More controversially, *Gaia* also names the hypothesis that “living beings could collectively regulate the global environment” (Lenton and Dutreuil, p. 178). While few scientists support this hypothesis –especially insofar as it suggests the existence of a superorganism (‘Earth’) with goals (e.g., ‘self-regulation’)– the insight that living beings produce the conditions of their existence (for example, by producing oxygen, while also preserving water and recycling nitrogen) has become part of mainstream science (Lenton, 2016). I discuss Latour’s own understanding of *Gaia* below.
- 28 These themes may also be traced to Latour’s engagement with Donna Haraway, among other ecofeminist thinkers (e.g., Carolyn Merchant and Émilie Hache).
- 29 “Lawfulness” here translates Jonas’s “*Gesetzmässigkeit*” which could also be rendered “regularity”.
- 30 Latour went to great lengths to establish a scientifically defensible conception of *Gaia* in collaboration with geoscientist Tim Lenton (see Lenton et al., 2020; Latour, 2017). According to Latour, *Gaia* provides the key to a “finally secular figure of nature” (Latour, 2017, p. 75), which could become “the common sense of a civilization to come” (Latour, 2018a). Latour’s *Gaia* blends science, mythology, and artistic creation to “reterrestrialize” our existence as beings who “were made together and cannot live apart” (Latour, 2018a). On the utopian dimension of *Gaia* in Latour, see Thaler, 2022.
- 31 Latour’s remarks on nihilism are scattered throughout his writings (see citations below), but the critique of reductionism is a leitmotif since (at least) his 1984 philosophical manifesto, “Irreductions” (Latour, 1993b).
- 32 See Gilbert et al., 2012; cited in Latour, 2017, p. 103, n. 89.
- 33 As Timothy Mitchell has argued, ‘the economy’ was not a ‘thing’ or an ‘object’ prior to the 1930s. The word ‘economy’ –as used, say, by Adam Smith– “meant government, or the proper management of people and resources, as in the phrase ‘political economy’” (Mitchell, 2013, p. 126). The current conception of ‘the economy’ as a “not-quite natural, not-quite social space” of market “laws” and abstract quantities dates to the triumph

of price theorists over (once) leading economists, such as Richard T. Ely and Thorstein Veblen, for whom economic science was about “material flows and resources” (Mitchell, 2013, pp. 124-125, 132). Thanks to new accounting methods –and generally, to the rise of macroeconomics as developed by John Maynard Keynes– ‘the economy’ became a numerical construction (including prices, interest rates, etc.) that could expand with “no obvious limit” (Mitchell, 2013, p. 139).

- 34 See Vohra et al., 2021 (estimating 8.7 million premature deaths *per annum* from pollution by fossil fuel combustion).
- 35 Schmitt, 2006, p. 42, cited in Latour, 2017, p. 228.
- 36 See Harman, 2014; Conway, 2015.
- 37 For this aporia see Derrida, 2008, pp. 26-27.

Recepción: 26 octubre 2022

Revisión: 24 marzo 2023

Aceptación: 19 abril 2023