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Lyotard and the 21st Century

Edited by Yuk Hui and Pieter Lemmens



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Edited by Pieter Lemmens and Yuk Hui

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Lyotard and the 21st Century

Yuk Hui and Pieter Lemmens

2024 marked the 100th anniversary of Jean-François Lyotard (10th August 1924, Versailles–21st April 1998). Lyotard was the thinker who endeavoured the most to open a new epoch, most influentially reflected in his discourse on the postmodern. His characterizations of the postmodern, such as “the incredulity toward metanarratives,” “the decline of universalist discourses,” “the reign of the performativity principle,” and the age of the “hegemony of the techno-economic system,” thus not only remain actual but deserve a deeper engagement from within our current technological condition. His articulation of the postmodern is not only limited to the books containing the word “postmodern” in their title—*The Postmodern Condition: A Report on Knowledge* (1979), *The Postmodern Explained* (1988) and *Postmodern Fables* (1993)—but can also be found throughout his reflection on science and technology. In *Discours, Figure* (1971), one also can find consistent motives concerning disturbances and resistances against any totalizing discursive system. And with his magnum opus, *The Differend: Phrases in Dispute* (1983)—“my philosophy book,” as he himself called it—Lyotard became one of the most prominent representatives of the so-called “linguistic turn,” which dominated continental philosophy in the 1980s and 1990s.

Due to such a reach, Lyotard thus remained a highly influential author throughout the late twentieth century, not only in philosophy but also in aesthetics, art and media theory, political theory, sociology, pedagogy, linguistics and cultural studies. He was one of the major voices in the dispute between the modernists and postmodernists at the time, alongside Jacques Derrida, Jürgen Habermas, Karl-Otto Apel, Fredric Jameson and Richard Rorty. After his death in 1998, and with the gradual closure of the postmodern interlude, the name Lyotard appeared less frequently; however, in recent years, it has regained attention, in particular as regards his views on politics and technology, the latter being Lyotard’s main theoretical and political focus from the mid-1980s, expressed in books such as *The Inhuman: Reflections on Time* (1988), *Readings in Infancy* (1991) and *Postmodern Fables* (1993). It is also worth mentioning that Lyotard was also the curator of the legendary exhibition *Les immatériaux* opened in March 1985 at the Centre Georges Pompidou in Paris. The exhibition not only inaugurate what we would call an exhibition of postmodernity but also the fruitful curatorial intervention of philosophers, which continued in Bernard Stiegler, Bruno Latour among others.

In 2024, on the occasion of his centennial anniversary, *Technophany* took the opportunity to dedicate a special issue to the continuing relevance of the work of Lyotard for the 21st century. As if along prophetic lines, the 21st century appears to be developing as previsioned by Lyotard's *The Postmodern Condition*; for instance, there is the ongoing consolidation of the global techno-economic system embodied by the most updated logic of capitalism and an ever-increasing subordination of societies on a global scale to the performativity criterium through digital networks, AI algorithms and the transhumanist ideology propagated by the global oligarchy. However, the 21st century likewise seems to have unfolded into a series of crises that Lyotard himself did not fully anticipate, for example, the apocalyptic urgency of the global ecological crisis and the enframing of the Earth into what Earth system scientists have called the Anthropocene, a new geological and geo-technological condition.

Lyotard's thinking, apart from its celebrated postmodern birthmarks, thus offers plenty of resources for thinking through our geo-historical moment and reflecting on the many material and intellectual developments currently at stake. His rich thinking opened a myriad different incomplete paths to confront the challenges and crises humanity faces in the disorienting 21st century of crisis-ridden planetarization and ongoing technologization. With this in mind, this special issue, dedicated to the voluminous thought of Lyotard, consists of 10 contributions of authors from different continents and various academic backgrounds. They cover almost all aspects of Lyotard's work but specifically focus on its relevance to the present, especially technological acceleration, which was the drive beyond the postmodern condition. We believe that these contributions will leave marks on the future studies of Lyotard's thought. We would like to thank the authors for their dedicated work and patience. In the following, we will highlight the significance of these contributions.

The article by Anna De Martino offers a theoretical contribution to postmodern geography and militant counter-cartography by developing the concept of "cartographic anamnesis" through key Lyotardian notions such as "anamnesis," the "figural," the "libidinal set-up", and the "interworld." Although Foucault, Derrida, and Deleuze are frequently invoked in critical cartography, Lyotard's philosophy has received comparatively little attention. De Martino bridges this gap by rereading cartography—understood in Henri Lefebvre's terms as both "representation of space" and "space of representation"—through Lyotard's framework, while demonstrating important continuities across his oeuvre, from the early libidinal works *Discourse, Figure* (1971) and *Libidinal Economy* (1973) to his later postmodern thought.

De Martino develops this idea through a "veduta" on medieval cartography, contrasting the encyclopaedic and mythico-figural Hereford *mappamundi* with the practical, textual *Carte*

Pisane. The argument culminates in the analysis of Gianfranco Baruchello's "cartographic paintings," such as *La presqu'île intérieure* (1963) and *Rilievo ideale* (1965). These works act as libidinal surfaces that blur text and image, disorient conventional mapping, and invite viewers to become active co-cartographers of potential worlds.

Ashley Woodward's contribution reassesses the contemporary relevance of Lyotard's diagnosis of the postmodern condition, focusing on his seminal claim in *The Postmodern Condition* (1979) that postmodernity is defined by an "incredulity toward metanarratives" and the ensuing process of delegitimation. He examines two primary instances of this delegitimation, examining their status today.

The first involves twentieth-century historical events acting as "signs of history" (in a Kantian sense) that falsify modern metanarratives of emancipation, progress, and rationality. The second is the displacement of narrative legitimation by "performativity"—the optimization of input/output efficiency through the convergence of science, technology, and capital. Also engaging with Yuk Hui's reading of Lyotard in *Recursivity and Contingency* (2019), this contribution advocates a return to the latter's earlier works for resources of resistance. It proposes an "informational turn" that reconceives information beyond linguistic models, instead emphasizing aesthetic heterogeneity and "technodiversity." Drawing on Lyotard's analyses of the sublime and exhibitions like *Les Immatériaux*, Woodward highlights the potential for a "new sensibility" and artistic invention capable of retorting to the System through formless sensation and pluralistic experimentation. In an era of apparent system fractures alongside technological intensification, Lyotard's thought provides critical resources for fostering contingency, resistance, and renewed possibilities for thought, art, and politics.

Daan Keij's contribution examines the continued relevance of Lyotard's philosophy of infancy as a further source of resistance against the "inhumanity of development" in light of Stiegler's diagnosis of widespread infantilization. In *The Inhuman*, Lyotard distinguishes two forms of inhumanity: (1) that of development (encompassing contemporary capitalism as a cosmic process of complexification, negentropy, and performativity), which seeks to save time, impose efficiency, and control the future through calculation and innovation; and (2) that of infancy understood not so much as a developmental stage but as a persistent dimension of human existence characterized by radical openness, indeterminacy, affectivity, and passivity. Reconnecting with this dimension of "inhumanity" through slow anamnesis, Lyotard offers modes of resistance against economic development's demand for transparency, speed, and utility.

In the age of digital platforms, algorithmic governance, and accelerating complexification, Lyotard's thought of infancy thus retains vital critical potential. Resistance requires

both Stiegler's mature responsibility and Lyotard's cultivation of infantile affectivity: a paradoxical composition of maturity and persistent immaturity. The contribution concludes that saving childhood and infancy cannot be programmed but must involve taking care of the conditions for the event of affect, enabling new forms of sharing joy, wonder, melancholy and invention beyond the imperatives of economic, or otherwise, development.

Franziska Aigner's contribution interrogates the complex interplay between technics, forgetting and recollection in the Western philosophical tradition, discussing the thought of Stiegler vis-à-vis Heidegger and then focusing crucially on Lyotard's reading of Heidegger. From Plato's *anamnesis* to Heidegger's critique of enframing, philosophy has consistently approached truth as a recovery from concealment (*aletheia*) while viewing technics negatively as a force endangering originary knowledge and provoking the forgetting of Being. Heidegger's diagnosis of modern technics as the culmination of Promethean metaphysics, however, is itself marked by significant omissions.

Leaning on Lyotard's *Heidegger and "The Jews,"* Aigner then advances a more radical thesis: philosophy's relation to technics is structured by a form of *primary repression*, analogous to Freud's distinction between primary and secondary repression and to Kant's sublime. Unlike recoverable forgetting, primary repression designates that which was never apprehended or inscribed in the first place—what withdraws from representation and cannot be recollected in the ordinary sense. Heidegger's silence on the Holocaust and his reduction of Auschwitz as being symptomatic of enframing exemplify this structural limit. Technics, like "the Jews" in Lyotard's figural sense, marks an exclusion that resists assimilation into philosophical systems of meaning. Aigner argues that technics has been subject to an originary, structural forgetting that exceeds ordinary *anamnesis*. Rather than seeking to remember what was lost, philosophy must transform its method to reckon with what was never available to inscription. This shift moves beyond both Heidegger's diagnosis and Stiegler's corrective retrieval, opening new ways to think the pharmacological ambiguity of technics without defensive projection or reductive mastery. In the 21st century, as a time of accelerating digital technologies, such a transformed *anamnesis* is essential for addressing the political and existential stakes of our technological condition.

The contribution by Futoshi Hoshino examines Lyotard's aesthetics through his strategic deployment of ambivalent concepts—"sublime," "terror," "inhuman," and "immaterial"—revealing a profound tension and complicity between avant-garde art and capitalism. Capitalism appears as a metaphysical principle of infinite development, dematerialization, and performativity that absorbs all critique, turning negation and novelty into surplus value. Since direct opposition is futile, Lyotard proposes the advance of "drifting" (*dérivé*) desires and mimetic adaptation from within the system.

Drawing on writings from the 1970s (*Dérive à partir de Marx et Freud, Libidinal Economy*) to the 1980s (*The Inhuman, The Differend*), Hoshino shows that Lyotard's aesthetics is consistently political. Capitalism sustains itself through the investment of desire; effective resistance lies in redirecting that desire and attending to what remains incommensurable—the event, infancy, the unphrased. Avant-garde art, though complicit with capitalism's demand for novelty, maintains a relation to the inhuman remainder that cannot be entirely appropriated. Lyotard thus offers a nuanced strategy of resistance: not external opposition but an internal interruption that exposes the limits of capitalist absorption. In our early 21st century of platform capitalism and pervasive dematerialization, his ambivalent aesthetics underscores the persistent possibility of critique through openness to the unrepresentable and infancy within experience.

Gael Caignard's contribution proposes a "pagan" approach to the Anthropocene by drawing on Lyotard's earlier reflections on paganism, developed in works such as *Rudiments païens* and *Instructions païennes*, to move beyond the framework of his better-known postmodern critique. While *The Postmodern Condition* (1979) diagnosed the crisis of modern grand narratives of emancipation and their role in legitimizing knowledge, the article argues that the Anthropocene risks replicating similar totalizing structures—whether in techno-optimistic geo-engineering narratives or eco-catastrophic apocalyptic ones—thereby subsuming diverse experiences under a monolithic "humanity" as geological agent.

Lyotard's paganism offers an alternative: it refuses theoretical terror by embracing theory-fiction, intensities, and "little narratives" that operate in interstitial spaces (*pagus*)—border zones where multiple discourses, desires, and entities meet without hierarchical unification. Paganism acknowledges the plurality of phrase regimens and the impossibility of a single legitimization discourse, favouring negotiation, metamorphosis, and openness to the unrepresentable over grand syntheses. Caignard connects this to contemporary efforts such as Latour's cosmograms and translation tables for Gaia, Hui's cosmotechnics, and Haraway's speculative fabulations (e.g., the Camille stories in the Cthulucene), which exemplify pagan practices of sympoiesis and diplomatic negotiation between human and nonhuman entities.

A pagan Anthropocene thus inhabits the *pagus* rather than seeking a new universal narrative. It thus maintains openness for plural, situated knowledges that resist both the absorption of critique into capitalist performativity and the exclusionary tendencies of small narratives. By constantly reminding us of the "damage" that any narrative can inflict, this approach enables inventive local responses to the global ecological crisis that integrate scientific, artistic, political, and affective dimensions without theoretical hegemony. Ultimately, Caignard aims to demonstrate that Lyotard's paganism, often overshadowed by his postmodern writings and provides enduring resources for thinking and acting in the uncertain era that is the Anthropocene in the 21st century.

Kiff Bamford's contribution explores Lyotard's enduring relevance for 21st-century intersections of art, technology, and communication through the notion of "*communication volontaire*" (voluntary or self-directed communication). Discussing a 1978 interview from the journal *Art Présent* alongside the key texts *The Postmodern Condition* (1979) and *The Differend* (1983), he contrasts Lyotard's earlier Wittgenstein-inspired concept of language games with his later emphasis on phrases and phrase regimens. This shift distances itself from anthropocentrism by highlighting how phrases precede and situate human speakers, opening space for the non-human, the figural, and the unarticulated.

Central to the argument is Lyotard's pedagogical practice at Vincennes, where "*communication volontaire*" manifested as an open, exploratory mode of thinking aloud—akin to Freudian free-floating attention—resisting the *déjà dit* and normative genres. Bamford juxtaposes this with Anicka Yi's 2021–2022 Tate Modern installation *In Love with the World*, featuring AI-informed, jellyfish-like aerobes that invite speculative engagement without didactic explanation. Such works exemplify an aesthetics of uncertainty, where technology elicits questions rather than delivering optimized meaning, echoing Lyotard's concern with the event, the *differend*, and involuntary linkages. Ultimately, Bamford positions Lyotard as a vital resource for navigating technological mediation. His insistence that "no phrase is the first" and his call to listen beyond established regimens offer critical tools for resisting the performativity of digital capitalism while promoting inventive, heterogeneous modes of linkage in art and thought.

In her contribution Maaïke Bleeker examines the exteriorization of knowledge in the context of technological development by a diffractive reading of Lyotard's *The Postmodern Condition* (1979) alongside Karen Barad's agential realism in *Meeting the Universe Halfway* (2007). Lyotard observes that computerization leads to a thorough exteriorization of knowledge with respect to the "knower," shifting legitimation from grand narratives to the criterion of performativity—the optimization of the system's efficiency. This analysis, written at the dawn of widespread digitalization, anticipates profound transformations in how knowledge is produced, circulated, and validated.

Bleeker brings Lyotard into conversation with Barad's new materialist framework, where knowing is understood as a distributed, material-discursive practice enacted through apparatuses that entangle matter and meaning. Both thinkers challenge representationalism, yet from complementary angles: Lyotard focuses on socio-technical shifts in legitimation and the pressure to "perform-or-else," while Barad emphasizes the ontological entanglement of phenomena and the performative role of scientific practices. Mark Hansen's media philosophy further illuminates how 21st-century technologies expand the sensible beyond human perception, decentring human experience within larger environmental processes. By juxtaposing Lyotard and Barad, the article demonstrates

how technological developments intensify the exteriorization of knowledge, demanding new understandings of human participation in material configurations of the world. Lyotard's emphasis on performativity complements Barad's onto-epistemology, together providing critical tools for addressing the becoming-performative of knowledge in the 21st century. This diffractive approach reveals both the dehumanizing risks and the generative potential of distributed knowing, urging a rethinking of knowledge production beyond humanist assumptions.

Sunil Manghani's contribution offers a reading of Lyotard's related essays "A Postmodern Fable" and "Can Thought Go on Without a Body?" in dialogue with 21st-century developments in artificial intelligence and with Max Tegmark's mathematical universe hypothesis. Lyotard's postmodern fable contemplates humanity's fate with respect to the sun's death that is said to occur in four and a half billion years, posing the question of what the "Human and his/her Brain—or rather the Brain and its Human" will resemble after such an event. In this fable, he distinguishes two inhumanities: the negentropic drive of complexification and exteriorization of thought characteristic of technological development and the persistent "in-human" remainder—an "infantile," affective dimension irreducible to calculation or representation.

Manghani juxtaposes this with James Lovelock's vision, presented in his book *Novacene* (2019), of "electronic life" emerging from the Anthropocene and the prospect of autonomous artificial intelligence surpassing human intelligence. Drawing on Ted Chiang's "Story of Your Life," he then explores alternative temporalities and modes of thinking that challenge anthropocentric linearity. He further engages Paul Klee's figural line and bricolage as metaphors for navigating the matrix of language and computation, suggesting that contemporary AI—through vector spaces, tokenization, and high-dimensional mathematics—operates in a realm closer to Lyotard's figural than traditional linguistic models allow. In the age of generative AI and accelerating technological singularity, Lyotard's work provides a critical lens for interrogating the boundaries between human and machinic intelligence, calling for reflection on what forms of the "in-human" might survive or transform in a post-solar, post-biological future.

Lastly, the contribution of Sergio Meijide Casas re-examines Lyotard's philosophy in order to challenge reductive interpretations that have associated his work exclusively with postmodernism and to demonstrate its contemporary relevance for debates in the philosophy of technology. It pursues two interconnected objectives: first, to clarify persistent misunderstandings regarding Lyotard's concepts of postmodernity, history, and acceleration; and second, to recover conceptual resources within his work that can contribute to contemporary discussions on technological pluralism and technodiversity.

Meijide Casas begins by contesting the widespread assumption that Lyotard's notion of the postmodern signifies a historical period succeeding modernity. Through an analysis of his critique of grand narratives and his conception of paralogy, he argues that Lyotard understood the postmodern not as a post-historical condition but as an internal force of disruption that continually destabilizes dominant narratives and opens alternative futures. This perspective is contrasted with both Hegelian conceptions of historical progress and contemporary accelerationist readings that interpret Lyotard as advocating the acceleration of capitalism or history itself. Instead, the article demonstrates that Lyotard's notion of acceleration concerns the intensification of the "libidinal band," an ontological and affective process that resists reduction to political-economic programs.

Against interpretations that reduce technology to a singular function of species preservation Meijide Casas argues that Lyotard rejects technological teleology and technological determinism. His writings instead foreground the plurality of technological possibilities and the importance of embodiment, difference, and contingency in technological development. Drawing connections between Lyotard's aesthetics and Hui's concepts of cosmotechnics and technodiversity, he proposes an "anamnesis of technology" capable of resisting technological singularism and recovering marginalized technical traditions. In doing so, he presents Lyotard as a significant resource for contemporary efforts to imagine more plural, heterogeneous, and non-teleological technological futures.

Taken together, the contributions gathered in this special issue demonstrate that Lyotard's thought is far from exhausted by the historical category of the postmodern. Rather, they show how the heterogeneous paths opened across his work—through the figural, the *differend*, infancy, anamnesis, paganism, the inhuman, performativity, and the question of technics—continue to provide resources for confronting the transformations of the 21st century. At a moment increasingly defined by technological acceleration, artificial intelligence, ecological crisis, the exteriorization of knowledge, and the growing demands of techno-economic performativity, returning to Lyotard is, therefore, not simply a matter of intellectual or historical reassessment. It is also an invitation to ask anew what forms of thought, art, politics, and resistance remain possible within, against, and beyond these conditions. We hope that the articles collected here will contribute to such a renewed engagement with Lyotard and open further paths for thinking with, through, and beyond his work. It is in this spirit that we invite readers to enter into the contributions that follow.

Lyotard's Brain and/or the Mathematical Universe

Sunil Manghani

Abstract

This article provides a reading of Jean-François Lyotard's "A Postmodern Fable." It explores the speculative narrative on the fate of human consciousness as the Sun dies in conjunction with a reading of contemporary artificial intelligence and the hypothesis of a mathematical universe. The analysis draws upon Lyotard's layered concept of the 'inhuman', alongside accounts from engineer James Lovelock and physicist Max Tegmark, to interrogate the futures of intelligence and consciousness beyond anthropocentric frameworks. In conclusion, Lyotard's Fable, benefiting from updated accounts of what he refers to as "all the research in progress" in contemporary science and technology, retains valuable insights; pre-inscribing an inevitable disinheritance of the Human, and/or the Brain's mathematical array. Lyotard's Fable potentially reveals itself an expression of an already existing mathematical function.

Keywords: Artificial Intelligence, Electronic Life, Inhuman, Jean-François Lyotard, Mathematical Universe

What follows is a reading of Jean-François Lyotard's intriguing tale, "A Postmodern Fable,"¹ as well as the essay, "Can Thought go on Without a Body?"² The fable begins and ends—*da capo*—with a quandary:

What a Human and his/her Brain—or rather the Brain and its Human—would resemble at the moment when they leave the planet forever, before its destruction; that, the story does not tell.³

There is something beguiling about Lyotard's use of storytelling to approach the near imponderable, existential question about our fate at the time of the death of the sun. But, as he writes in the final line of the essay, "this fable asks not that it be believed, only that we reflect on it."⁴ Of course, it is far less a science fiction of some far-flung future than it is a plea to the present: an invective to remain vigilant to the erosions of humanity.

Importantly, Lyotard presents us to with *two* "inhumanities." The first is the more obvious meaning of a "negation of what is considered to be human," which, as Yuk Hui explains, sees the decline of "the unity of the organic body and the soul. In this sense it is a separation between mind and the body ... an ultimate scientific project of humankind in anticipation of the solar catastrophe."⁵ This meaning of inhuman relates to critical narratives of systems, development, instrumental reason, and disenchantment. Pertinent to this paper's particular consideration of artificial intelligence, the inhuman helps frame the view, taken by Hui, that humans and machines (in terms of logical thinking) have long ceased to differ. Instead, we can consider a suffused field of "development," whereby the inorganic as much as the organic organises itself. All is of a piece, representing what Hui refers to as "organistic thinking." Against this, Hui holds out for an *organology*, referring to the human capacity to approach the contingent, to think multiple perspectives and endpoints. This leads to a thesis of technodiversity, which "affirms the plurality of systems ... the necessity to fragment the system and therefore sets limit to any single all-encompassing system."⁶

1 Jean-François Lyotard, "A Postmodern Fable," in *Postmodern Fables*, trans. by Georges Van Den Abbeele (Minneapolis: University of Minnesota Press, 1997).

2 Jean-François Lyotard, "Can Thought go on Without a Body," trans. Bruce Boone and Lee Hildreth, first published in English translation in *Discourse* (Vol. 11, No. 1, 1988-89); the same year of its French publication in Jean-François Lyotard, *L'Inhuman: Causeries sur le temps* (Paris: Editions Galilée, 1988); available in English translation, in Jean-François Lyotard, *The Inhuman: Reflections on Time*, trans. Geoffrey Bennington and Rachel Bowlby (Stanford: Stanford University Press, 1991). All subsequent references will be to this latter version.

3 Lyotard, "A Postmodern Fable," 83.

4 Lyotard, "A Postmodern Fable," 101.

5 Yuk Hui, *Recursivity and Contingency* (London: Rowman & Littlefield, 2019), 254.

6 Hui, *Recursivity and Contingency*, 38.

Hui's account is influenced by Lyotard's second meaning of the inhuman, which is "the infinitely secret one of which the soul is hostage."⁷ To differentiate from the first, we might write this as the 'in-human', to suggest not what resides *within* the human, but *beyond* what is articulated and known. The in-human is that which is "more interior in myself than me."⁸ As Hui explains: "It is something that cannot be reduced to calculability, to statistics, and to preemptive algorithms. The incalculable is the preindividual reality with which the soul is able to elevate, to unfold itself, that is to say, to exercise its *freedom*."⁹ It is unusual in critical theory for the "soul" to be considered emancipatory. In Lyotard's Fable—as will be considered—the critical injunction (regarding what the Human and his/her Brain will come to resemble) hinges upon a "search" for the separation between thinking (in itself) and organic life, or between software (thinking) and hardware (the body). The idea is that the former survives the end of the solar system, but not the latter. For Hui, this is a "a negative organology, or an extreme humanism. It is negative since it is based on a total negation of the organic and on the belief that there is a possibility, no matter how small it might be, of replacing the organic body with an inorganic artifice for the survival of thinking."¹⁰

There are a number of dilemmas in approaching this topic. Not least, to define what is meant by "thinking" (and intelligence etc.). In the spirit of Lyotard's Fable, as a heuristic device (to reflect, rather than fully believe), I ask the reader to give affordances for speculation, not least when turning to James Lovelock's reading of "electronic life" (as an account of what comes after humans) and Max Tegmark's take on the mathematical universe hypothesis. Neither of these accounts make for comfortable reading because they shatter our sense of the (in)human. One central conceit is that thinking is not necessarily understood as processual, as occurring over time (as humans experience it), but rather is to consider as already determined "shapes" within a mathematical universe. Given the human propensity to experience but not see time, the processual brings us back to an in-human lament for the incalculable. Yet, the idea of the incalculable as being of the 'preindividual reality' need not only be associated with the in-human, but is potentially prefigured in the much vaster *calculability* of artificial intelligence.

Ted Chiang's "Story of your Life"¹¹—adapted as the film *Arrival* (2016)—goes some way to set the scene. In seeking to learn the language of alien visitors, the research team make a breakthrough when they shift from the common formulation of physical laws as

7 Lyotard, "Can Thought go on Without a Body," 2.

8 Hui, *Recursivity and Contingency*, 33.

9 Hui, *Recursivity and Contingency*, 33.

10 Hui, *Recursivity and Contingency*, 253.

11 Ted Chiang, "Story of your Life," in *Stories of Your Life and Others* (London: Picador, 2015)

causal to Fermat's variational principle. What this reveals is a syntax that operates with time as a "spatial" dimension, not a temporal one. As the linguist recounts:

Instead of racing forward, my mind hung balanced on the symmetry underlying the semagrams. The semagrams seemed to be something more than language; they were almost like mandalas. I found myself in a meditative state, contemplating the way in which premises and conclusions were interchangeable. There was no direction inherent in the way propositions were connected, no 'train of thought' moving along a particular route; all the components in an act of reasoning were equally powerful, all having identical precedence.¹²

In asking what we will "resemble" at the moment of the dying sun, we are prompted to "arrive" anew at ourselves, even if—given what we now know—that means having to learn a whole new "language" of the in-human. If, in what follows, I seem to read Lyotard's Fable too literally (rather than to attend to its ethical question)¹³, it is partially deliberate—if only to re-encounter the "extreme humanism" posed by Lyotard's Fable some thirty years ago.

§

Figural. The premise of 'A Postmodern Fable' is straightforward enough:

The Sun is going to explode. The entire solar system, including the little planet Earth, will be transformed into a giant nova. Four and a half billion solar years have elapsed since the time this fable was told. The end of history has already been foreseen since that time.¹⁴

At stake is the countering of entropic and negentropic energy. The former is set against the clock of the dying sun, the latter gesturing towards a cosmic escape velocity, to abandon the solar system. Hence, *within* the "continuous and necessary entropic process" (i.e. the gradual, but predictable decline into disorder), resides a "contingent and discontinuous" movement, that creates, that builds entities capable of altering the environment.¹⁵ The tale describes how, contrary to entropy, "life" develops increasingly complex systems, leading to human consciousness and technological and societal advancement. Lyotard's story

12 Chiang, "Story of your Life," 152.

13 Richard Brons, "The Dance with Technology: Philosopher Yuk Hui (Erasmus Rotterdam) on Technological (in)humanity," differend.net.

14 Lyotard, "A Postmodern Fable," 83.

15 Lyotard, "A Postmodern Fable," 92.

highlights key events like the development of sexual reproduction, societal structures, and crucially language: "Symbolic language, being self-referential, had moreover the capacity to take itself as its own object, hence to provide its own memory and critique. Supported by these properties of language, material technique in turn underwent a mutation: it could refer to itself, build on itself, and improve its performance."¹⁶

Lyotard problematises language through his term "figure," which is to assert a plasticity to the "grided" text. As he puts it, "the systematic grid of orders and series," associated with the machinations of text, "takes place in a two-dimensional space without thickness ... without sight."¹⁷ Yet, crucially, "language [*langue*] does not speak itself: one speaks it."¹⁸ Thus, while language is a series of negations (as per the arbitrary nature of the sign), it is necessary for "elements of the grid [to] settle and arrange themselves in the vertical axis of discourse."¹⁹ This "space" must *take place* somewhere. The "dimension" of language equates to 'the matrix of innumerable propositions,'²⁰ but which, dwelling within, Lyotard posits the "space of designation" (or figural space). This is not a mere rearticulation of "speech" (*parole*) but rather gives name to the force required to search through, to navigate the matrix of language—to *include* what lies outside of codified significations. Figural space encompasses (or at least graphs) the calculable and incalculable. With this in mind, we can keep in mind the tokenisation of language performed by Large Language Models, which is very different to how humans encounter language. This is just one of a many potential developments to come. It is easy to think of these models as a matter merely of ones and zeros (albeit a vast system of negations). Yet, *mathematically*, the parsing of data takes place at high dimensionality (in multi-dimensional vector space), which, if only suggestively for now, we might equate to a high definition, *spatial* domain of the figural.

§

Macrology. Regardless of the "incredible" timescale (the oft repeated four and half billion years),²¹ the Fable requires us to face up to the *finitude* of the sun as our existential condition. In "Can Thought go on Without a Body?," Lyotard references Husserl's *Ur-Erde*

16 Lyotard, "A Postmodern Fable," 88.

17 Jean-François Lyotard, *Discourse Figure*, trans. Antony Hudek and Mary Lydon (Minneapolis: University of Minnesota Press, 2011), 29.

18 Lyotard, *Discourse Figure*, 29.

19 Lyotard, *Discourse Figure*, 29.

20 Lyotard, *Discourse Figure*, 57.

21 While Lyotard cites a time span of four and half billion years, the calculation is more accurately 5 billion years. The time frame is vast, defying human comprehension. Nonetheless, it alerts us to Lyotard's preoccupation with time. Whether his philosophical reasoning for the temporality of the postmodern as not chronological to modernity, or his articulation of the artwork as time itself. Lyotard is concerned with the ethical instance of how we attend to our time. See: Lyotard, *The Inhuman*.

(primordial Earth), describing the Earth as the ultimate, immovable ground (and lifeworld) of all human experience. In "A Postmodern Fable," we might suppose the term *Ur-Sonne*, suggestive of a phenomenological account of the Sun. "A star is a furnace in the void," Lyotard writes, "that transforms elements by consuming them." Furthermore, the sun is a "laboratory," the work of which extends out to our own planet, with all "development" in pursuit of human survival:

...all research in progress was directed to this aim, that is, in a big lump: logic, econometrics and monetary theory, information theory, the physics of conductors, astrophysics and astronautics, genetic and dietetic biology and medicine, catastrophe theory, chaos theory, military strategy and ballistics, sports technology, systems theory, linguistics and potential literature. All of this research turns out, in fact, to be dedicated, closely or from afar, to testing and remodelling the so-called human body, or to replacing it, in such a way that the brain remains able to function with the aid only of the energy resources available in the cosmos.²²

Against the flat dimensionality of discourse, Lyotard takes the view something more profound falls out of what gets spoken. He chastises "intellectual ploys" ("in 4.5 billion years," he reminds us, "there will arrive the demise of your phenomenology and your utopian politics, and there'll be no one there to toll the death knell or hear it").²³ There are echoes of Georges Bataille's pithy statement on the formless, wherein he expresses disdain for "academic men," for "giving a frock coat to what is, a mathematical frock coat."²⁴ Bataille posits a universe that "resembles nothing" or is *formless*,²⁵ which is to say systems of signification fail to grasp the intricacies of existence, or, a "micrology"—a term Lyotard borrows from Adorno²⁶—by which he means "not just metaphysics in crumbs [...] Micrology inscribes the occurrence of a thought as the unthought that remains to be thought in the decline of 'great' philosophical thought."²⁷ Whether formless or figure, the allusion is towards the heterogeneity of "meaning" (albeit with the notion of "meaning" precisely being contested). We are reminded again of the in-human, of the conundrum of the in/calculable. Yet, shifting from humanly intuited calculation to the wider bounds of multi-dimensional maths, the formless is a "naming" of a complexity, akin to multi-dimensional mathematics, that while not humanly intuitive, is nonetheless locatable.

22 Lyotard, "A Postmodern Fable," 91.

23 Lyotard, *The Inhuman*, 9.

24 Georges Bataille, "Formless," in *Visions of Excess: Selected Writings, 1927-1939*, ed. and trans. Allan Stoekl (Minneapolis: University of Minnesota Press), 31.

25 Bataille, "Formless," 31.

26 Theodor Adorno, *Negative Dialectics*, trans. E.B. Ashton (New York: Continuum, 2007), 407.]

27 Lyotard, *The Inhuman*, 103.

"A Postmodern Fable" seeks to counter the *representation* of the sublime (the "end of Earth") with an urgent fiction; a *presentation* (it happens; it is happening—hence its ethical injunction: what next?). We might say, Lyotard applies a *macrology* (the obverse of a micrology; *ex maximis*). The macrology adheres to Lyotard's favoured remark of Adorno: "Art remains loyal to humankind uniquely through its inhumanity in regard to it."²⁸ More than an object of critique (e.g. against development), the fable's sweeping narrative of universal time operates as a regulative idea, providing a frame for contemplating concepts beyond direct human experience. A transcendental deduction, attempting to elucidate the conditions of possibility. A *macrology as reflective judgment*; the description Kant gave of "a mode of thought not guided by rules for determining data, but showing itself as possibly capable of developing such rules afterwards on the basis of results obtained 'reflexively'."²⁹ It is this critical space, albeit against the grain of Lyotard's own words, that I wish to excavate; to reveal the in-human as (inhumanly) calculable.

§

Bricolage. The Fable is a scientific *narrative*. It draws upon a largely agreed upon scientific account of the evolution of life on Earth and considers the planet's ultimate destruction (based on a mathematically proven future event).³⁰ The "story" is typically told from the dominant perspective of the engineer. Yet, as Derrida reminds us, discourse functions through the inheritance of language, meaning we are *all bricoleurs*³¹—we are all our own "ghost in the machine."³²

What is noteworthy is the poststructuralist adaptation of biological terms, whereby the biological and informational intertwine, even to the point where "computer programmes and lines of codes...are producing an afterlife of 'artificial' 'organisms' that seem set fair to become companions to everyday practice."³³ At stake in the confluence of biological and

28 Theodor Adorno, *Aesthetic Theory*, trans. Robert Hullot-Kentor (Minneapolis: University of Minnesota Press, 1997), 197, quoted in Lyotard, *The Inhuman*, 2.

29 Lyotard, *The Inhuman*, 15.

30 Of course, this is not to ignore Lyotard's own suspicions: "Science has always been in conflict with narratives. Judged by the yardstick of science the majority of them prove to be fables." Jean-François Lyotard, *The Postmodern Condition: A Report on Knowledge*, trans. Geoff Bennington and Brian Massumi (Manchester: Manchester University Press, 1984), xxiii.

31 Jacques Derrida, "Structure, Sign, and Play in the Discourse of the Human Sciences," in *Writing and Difference*, trans. Alan Bass (London: Routledge, 2001), 360. See also, next section: the narrator of the first half of the essay, "Can Thought go on Without a Body?," who we surmise is an engineer, identifies as a "lay person," who nonetheless can suggest, "the combined forces of nuclear physics, electronics, photonics and information science open up a possibility of constructing technical objects, with a capacity that's not just physical but also cognitive" (Lyotard, *The Inhuman*, 14).

32 Gilbert Ryle, *The Concept of Mind* (London: Hutchinson, 1949), 11.

33 Nigel Thrift, "Electric Animals: New Models of Everyday Life?," *Cultural Studies*, vol. 18, no. 2-3, 2004: 463.

linguistic code are two key terms: reproduction and invariance. The first of these is the critical concern of Lyotard's *Fable*, i.e. questioning how "we" might survive (re-produce; transpose) when the Sun dies. While the latter, (in)variance, is posed in the equivocation of the "Brain" and "its" Human (to be elaborated upon in the sections that follow). The need to reproduce is a proxy for "life," while invariance evokes a notion of code or script (biological, linguistic, computation).³⁴ Within a (post-)structuralist perspective, the underlying consideration of (in)variance allowed for a shift from "language" to "writing," which in effect refers to an *enduring* notion of code.³⁵ Derrida traces the idea of writing as "all that gives rise to an inscription in general," which includes the work of biologists when speaking of "writing and *pro-gram* in relation to the most elementary processes of information within the living cell."³⁶

In a key passage that draws upon Leroi-Gourhan's *Gesture and Speech*,³⁷ referencing the *longue durée* of manual technology, human intelligence, and our capacity for symbolic representation, Derrida returns to "program" in the cybernetic sense. He refers to a "liberation of memory," of an exteriorisation of meaning.³⁸ Despite taking a more expansive view of language (*vis-à-vis* figure), Lyotard nonetheless takes the view that the

34 Christopher Johnson, *System and Writing in the Philosophy of Jacques Derrida* (Cambridge: Cambridge University Press, 1993), 147.

35 See also: Bernard Dionysius Geoghegan, "Textocracy, or, the Cybernetic Logic of French Theory," *History of Human Sciences*, Vol. 31, No. 1, (2020). Despite differences between figures such as Barthes, Baudrillard, and Lévi-Strauss (each associated with the Centre d'Études des Communications de Masse, pivotal for French semiotics), their writings share a questioning of "the myth of frictionless technocratic communication," while also 'embracing technical inscription linked to cybernetics as a model of cultural production and social order' (72). Barthes' well-known thesis of the 'death of the author,' for example, which hinges upon "a multi-dimensional space in which a variety of writings, none of them, original, blend and clash," is essentially predicated upon a cybernetic loop, or regulatory and self-organising system. Roland Barthes, "Death of the Author," *Image-Music-Text*, trans. Stephen Heath (London: Fontana, 1977), 146. Similarly, Barthes' essay on narrative is replete with mathematical and cybernetic phraseology. Roland Barthes, "Introduction to the Structural Analysis of Narrative," *Image-Music-Text*: 79–124. He refers to code, matrix, functions, indices, homology, and isotopy; and the term 'stemmatic' is accompanied with a genealogical diagram, which equally can read as a search tree, a fundamental problem-solving technique dating back to the early period of AI. Michael Wooldridge, *The Road to Conscious Machines: The Story of AI* (London: Penguin Books, 2020), 292.

36 Jacques Derrida, *Of Grammatology*, trans. Gayatri Chakravorty Spivak (Baltimore: John Hopkins University Press, 1976), 9.

37 André Leroi-Gourhan, *Gesture and Speech*, trans. Anna Bostock Berger (Cambridge, MA: MIT Press, 1993).

38 Derrida, *Of Grammatology*, 84. Such a reading helps point towards the idea of a *structural unconscious*, markedly different to the psychoanalytic unconscious. Cf. Lyotard on 'structuralist unconscious'. Jean-François Lyotard, *Discourse Figure*, trans. Antony Hudek and Mary Lydon (Minneapolis: University of Minnesota Press, 2011), 51.

"human being is omnivorous when dealing with information because it has a regulating system (codes and rules of processing) that's more differentiated and a storage capacity for its memory that's greater than those of other living systems."³⁹ There is a privileging of language, with the human in possession of "a symbolic system that's both arbitrary ... and also 'recursive' ... allowing it to take into account (above and beyond raw data) the way it has of processing such data. That is, itself."⁴⁰ It is this capacity that makes the human "a living organization that is not only complex but, so to speak, replex."⁴¹ In amongst the inevitable contingency there is recursivity. Again, faith is placed in the in-human. As such, even if we begin to consider contemporary AI as the emergence of "thinking-organisations," the pervading view typically aligns with Lyotard's position, that the *human* represents something *else* besides. On one level, the Fable traces a *human form*, that which must contend with its "end" (or some kind of radical transformation, which ultimately is expressed as a loss of the body). Yet, Lyotard's critical concern is that the current form of the "Human, or his/her brain" is "undoubtedly transitory"⁴² and will likely *not* end up being materially based (this brief remark is given more direct expression in "Can Thought go on Without a Body?," pertaining explicitly to developments in artificial intelligence). So, what if we read Lyotard's tale more literally—what if the human gives way to a mathematics? This need not be to give up on the (in)human, but to double-down on the Fable's critical invective. Certainly, there are weights and measures we *humanly* construct out of numbers. Yet, hypothetically, an "ideal supercomputer could calculate how the state of the Universe changes over time without interpreting what's happening in human terms, simply figuring out how all the particles would move or how the wavefunction would change."⁴³ In short, there are fundamental constants at stake (basic properties of the universe), whereby we do not invent mathematics, *we discover it*.⁴⁴ It is the case, for example, that the trajectory of anything thrown takes the shape of an upside-down

39 Lyotard, *The Inhuman*, 12–13. Despite the parallel drawn here, it is not to forget Lyotard is critical of Derrida's evocation of 'arche-writing'. Jean-François Lyotard, *Discourse Figure*, 74; underlying which, Lyotard takes the position that "the clash between difference and opposition is not the product of a flaw internal to the structural functioning of language but is the effect of the figural co-presence of the incommensurable orders of the textual and the visible in language." Bill Readings, *Introducing Lyotard: Art and Politics* (London: Routledge, 1991), 6.

40 Lyotard, *The Inhuman*, 12.

41 Lyotard, *The Inhuman*, 12–13.

42 Lyotard, "A Postmodern Fable," 93.

43 Max Tegmark, *Our Mathematical Universe: My Quest for the Ultimate Nature of Reality* (London: Penguin, 2014), 255. To clarify, "wavefunction" refers to a fundamental concept in quantum mechanics, describing the quantum state of a system. It contains information about all possible states of particles and how they evolve over time, governed by the Schrödinger equation. While mathematically precise, it represents probabilities rather than definite classical outcomes, highlighting the probabilistic nature of quantum physics.

44 Tegmark, *Our Mathematical Universe*, 255.

parabola, which can be expressed in a simple equation, $y = x^2$. Similarly, orbits in space form an ellipse, which can be expressed as $x^2 + y^2 = 1$. Human endeavour (“all the research in progress”) has gradually *discovered* many such invariant shapes and patterns.⁴⁵

Consider Paul Klee’s much cited refrain of ‘taking a line for a walk’. He was referring to an exploratory, organic process, where the line is not constrained by preconceived forms or boundaries but is improvised and adapted as required. It is a process of bricolage, whereby he constructs meaning and form from the immediate interaction between his tools, his thoughts, and the evolving line. Typically, this act is described as expression and of a human will (“An active line on a walk, moving freely, without goal”):⁴⁶ bricolage relates to a notion of plasticity or adaptation, whereby we are part of our own making; it is not possible to place things back as they were before; all a matter of its own historicity.⁴⁷ Yet, lines interact, they become circumscribed. The universe speaks back. “Imaginary” lines appear and the active line is “limited” by fixed points, progressions and planes. Read today in the context of contemporary machine learning, Klee’s “movement” (his figuring of relations, patterns, constellations) can be considered in terms of the infinite array of the inferencing of artificial intelligence. We are building towards a *mathematical model*, based upon multi-dimensional calculations (even, potentially, for a “cosmic shape,” whereby time is enfolded as one of many spatial dimensions),⁴⁸ so considered less as expressivity, than as location, relation, and pattern.

Imagine Klee, then, a stenographer of a mathematical universe. Each placement of the line is like the slice of an MRI scan, an image with no thickness. Taking many such slices together—as we draft their *patterns*—we get the *semblance* of a temporal body, but which ultimately is made of many different “planes.” With patterns all around us, why do “we” think we are not patterns? Or, put another way, just as artificial intelligence has been able to “unfold” millions of protein molecules (in the pursuit of medical knowledge),⁴⁹

45 Tegmark, *Our Mathematical Universe*, 247–253. Tegmark provides a list of 32 parameters from which can be computed “every fundamental property of nature ever measured;” some of the numbers “have been measured very accurately, while others haven’t yet been experimentally determined” (252).

46 Paul Klee, *Pedagogical Sketchbook*, trans. Sibyl Moholy-Nagy (London: Faber and Faber, 1953), 16.

47 Catherine Malabou, *What Should We Do with Our Brain?* (New York: Fordham University Press, 2008), 15.

48 Physicists have created a 3D shape called the cosmohedron, to be used to reconstruct the quantum wavefunction of the universe. The aim is to dispense with the idea of space-time, to reveal a more fundamental structure of the underlying fabric of the universe. Karmela Padavic-Callaghan, “A cosmic shape could explain the fundamental nature of the universe,” *New Scientist*, 21 January 2025.

49 E.g. DeepMind’s AlphaFold AI system, used to predict the 3D structures of proteins, recently increased its predicted structures for plants, bacteria, animals, and other organisms 200-fold to over 200 million structures, so advancing opportunities for understanding issues of sustainability, food insecurity, and diseases. Demis Hassabis, “AlphaFold reveals the structure of the protein universe,” *DeepMind*, 28 July 2022.

perhaps the Human (in all its facets) will one day be fully traced as a set of patterns as (un)remarkable as the rest. We are not so much bricoleurs, as we are one of many elaborate braids within a massive, multi-dimensional bricolage.

§

World Brain. Presenting the hypothesis of a new epoch led by Artificial Intelligence (after the Anthropocene), James Lovelock's *Novacene*⁵⁰ gives one kind of response to Lyotard's open-ended fable. Referencing the work of Shannon, Lovelock refers to the basic unit of information, the "bit" (having a value of zero or one, true or false), as "primarily an engineering term, the tiniest thing from which all else is constructed."⁵¹ Following which, he argues, the future world is one where "the code of life is no longer written solely in RNA (ribonucleic acid) and DNA, but also in other codes, including those based on digital electronics and instructions that we have not yet invented."⁵² In short, Lovelock refers to the emergence of "electronic life," which humans are in the process of ushering in (with the progress in artificial intelligence). It will not be a "technology" of humans but a new species (similar to how humans are among the beneficiaries following photosynthesis).

The "universalising" of the information "bit" asserts another macrology—one in which the rarity of the human is far less significant, even redundant. To speak of the Human and its Brain (or the Brain and its Human) might be to pose the wrong question (betraying the rattle of humanism). Lyotard's fable is right to (re-)assert an ever-present finitude (the Sun), but arguably places too much store by the generative, negentropic quality of language. It is common, for example, to espouse the boundless prospects of language; to posit "numberless" narratives.⁵³ Today, however, we witness the beginnings of a new *practice* of the text, evident with recent developments in Large Language Models.⁵⁴ The

50 James Lovelock, *Novacene: The Coming Age of Hyperintelligence* (Cambridge, Massachusetts: MIT Press, 2019).

51 Lovelock, *Novacene*, 88.

52 Lovelock, *Novacene*, 92. It is worth noting, as reported twenty years ago, scientists were able to develop a DNA-based computer capable of solving simplified chess problems, marking a significant advancement in the field of molecular computing. This innovative approach uses DNA strands to process and store data, offering a unique alternative to traditional silicon-based computers. D Faulhammer, AR Cukras, RJ Lipton, LF Landweber, "Molecular Computation: RNA Solutions to Chess Problems," *Proceedings of the National Academy of Sciences of the United States of America* 97, no. 4 (February 2000).

53 Roland Barthes, "Introduction to the Structural Analysis of Narrative," in *Image-Music-Text*, trans. Stephen Heath (London: Fontana, 1977), 79.

54 Cf. The close of Roland Barthes' "From Work to Text," whereby he declares the Text to be a "social space which leaves no language safe ... the theory of the Text can coincide only with a *practice* of writing" (emphasis added). Roland Barthes, "From Work to Text" in *The Rustle of Language*, trans. Richard Howard (Berkeley: University of California Press, 1989): 56.

Opinions are divided, some feeling LLMs are simply parroting and plagiarising, with others, taking

ability of machines to quickly parse massive datasets of natural language usage (including all recorded fables) is quite staggering. It is a function of vector *spaces* and tokenisation, rather than the temporal diachronies of language. Recent AI models are trained on data in excess of 300 terabytes of text, which would take 3 million lifetimes for a human to read.⁵⁵ This is a massive matrix of what has been written, which in turn can become what can be written. In effect, Lyotard's story is a version of Luis Borges's story "The Library of Babel"—a prophetic, fatalist tale about all worldly knowledge ("all the research in progress").⁵⁶

As Borges's story goes, "somewhere in the library is a book that contains the true history of the future (including the story of your death), a book of prophecy that vindicates the acts of every man in the universe, and a book containing the clarification of the mysteries of humanity."⁵⁷ Even after the human species is made extinct, the library (and its combinatorial possibilities) remains. Or does it? Here, of course, Lyotard's quandary of what becomes of the brain and its human is pertinent. He is asking *after* the "library" (humanity's vast encyclopaedic endeavours)—can it sustain *independent* of "its Human" (in the face of a collapsing Sun), and if so, what does it look like, how does it "act"?

Technically, according to Steven Pinker, "Borges needn't have described the library as 'infinite'. At eighty characters a line, forty lines a page, and 410 pages a book, the number of books is around $10^{1,800,000}$, or 1 followed by 1.8 million zeroes. That is, to be sure, a very large number—there are only 10^{70} particles in the visible universe — but it is a finite number."⁵⁸ Pinker's calculations become all too real in an online artwork, *The Library of Babel*, by Jonathan Basile.⁵⁹ The library provides numbered locations for every possible

a Wittgensteinian view of language, arguing they show signs of conceptual reasoning, whereby conceptual meanings, while not derived from direct references, emerge through *internal reasoning*, due to the way concepts in language "relate to *each other*." Either way, advances in AI and deep learning yield powerful probabilistic models far beyond that imagined at the time Barthes was working. See Emily Bender et al., "On the Dangers of Stochastic Parrots: Can Language Models Be Too Big? 🦜," *FACCT '21: Proceedings of the 2021 ACM Conference on Fairness, Accountability, and Transparency*, 2021; in contrast, see: Steven T. Piantadosi and Felix Hill, "Meaning without reference in large language models," *Arxiv (Computer Science)*, 2022, <<https://arxiv.org/pdf/2208.02957.pdf>> [accessed 1 August 2024].

55 D. Khurana, A. Koli, K. Khatter et al., "Natural Language Processing: State of the Art, Current Trends and Challenges," *Multimed Tools and Application* 82, 2023.

56 Borges' tale was used as an exhibit at Lyotard's co-curated *Les Immatériaux* at the Pompidou Centre in 1985. Titled 'The Labyrinth of Language', audio of the tales was presented together with videotext, which included self-generative text.

57 Steven Pinker, *Words and Rules: The Ingredients of Language* (New York: Basic Books, 2015), 16

58 Pinker, *Words and Rules*, 16.

59 Jonathan Basile, *The Library of Babel*, <https://libraryofbabel.info> [accessed 1 August 2024]. The reader is encouraged to cut and paste any 3200-character portion of this article and "request" it in Basile's Library. You will find, in amongst a wash incomprehensible combinations of character is the

3200-character combination of English letters, comma, space, and period. In brief, this online portal can serve up any text you can conceive of, showing it to *already* to have been archived in the library. Whatever we can possibly conceive of in words has already been said (a variation on the adage that—in all probability—sit a monkey down at a typewriter it will eventually type out the complete works of Shakespeare).

By Basile's "calculus," all language is in preparation, in storage, ready to be used.⁶⁰ While *seemingly* infinite, we must contend with the finitude of language. At a human level, we can have no sense of the magnitude of words, sentences and narratives, yet for high performance computing (and with quantum computing still to come)⁶¹ the sums are within range. Language is potentially a "closed" (calculable) system. And not just words, but the computation of the massive array of *style* (and *figuring*) in words, sounds and gestures, even the spaces between and around words.⁶² Benjamin Bratton's discussion of internet addresses in his conception of the "Stack" is suggestive, for example, of how the spatialising of digital information, including not only words but their relational positions can all be uniquely addressed.⁶³ We are getting closer to what the Brain might at least be made up of, if not what it will resemble (i.e. mathematical structures).

Umberto Eco evokes the idea of the "Total Encyclopedia," to suggest the notion of a "totality of knowledge" that is always *productive* and in operation.⁶⁴ The pursuit (and inhabiting) of a reservoir of knowledge is formed of an enduring desire (again, here, we circle upon the "bit" of information). In a remarkable article in *Science News-Letter*, from 1937, an entity is considered called the "world brain" (borrowed from H.G. Wells), with "Librarians, scientists and editors, and others who marshal and create the written record of civilisation" bringing together "the intellectual resources of this planet into a unified system."⁶⁵ The statement chimes with Lyotard's evocation of the Brain and its Human and of course is predictive of the World Wide Web (albeit suggesting at the time the "solution" resides in the new technology of the time: microfilm): "The nuclei of this world brain exist in the various great intellectual centers—the libraries, journals and indices of recorded

very passage you select. It *already* exists prior to it having been written, prior to you having read it.

60 Sunil Manghani, "Preparatory Space: Roland Barthes and Large Language Models," *Barthes Studies* 10 (2024).

61 Sunil Manghani, "Quantum Life, But Not as We Know It," *Electronic Life* (2025).

62 Sunil Manghani, "IA, música, estilo: ¿puede haber demasiada cultura?," [sic] *es una revista arbitrada de literatura y arte, editada por la Asociación de Profesores de Literatura del Uruguay*, no. 38 (2024).

63 Benjamin H. Bratton, *The Stack: On Software and Sovereignty* (MIT Press, 2016). NB: The current configuration of Internet Protocol (v6) addresses, for example, are 128 bits long, theoretically allowing for 3.4×10^{38} combinations, meaning we could assign an address to every atom on the surface of Earth a hundred times over.

64 Umberto Eco, *Six Walks in the Fictional Woods* (Harvard University Press, 1994), 90.

65 "Documentation Congress Step toward Making 'World Brain,'" *The Science News-Letter* 32, no. 861 (1937):228–229.

knowledge—and the task considered is how to exchange and distribute more effectively the past, current and future accumulations in all fields of human endeavor.”⁶⁶ Today, this “brain” makes AI operative, trained as it is on the *network* of knowledge.

Of course, when described here in a static sense the world-brain⁶⁷ seems contrary to an organology (i.e. the question remains: how is this brain made active and mediated?). But, is this again to think of thinking as temporal, not spatial? Lyotard’s reference to the “Brain and its Human” never fails to prompt further, more expanded readings. And while the overt framing of the fable is of a tension between entropy and negentropy, and arguably only a persistent humanism, or correlationism,⁶⁸ we need not take these as opposing forces, but more along the lines of the figure enfolded within discourse; one searches through the other. Generously, then, we can suppose, held within its own critique, the Fable puts in play the *figure* of a more radical, computational (albeit inhumanly computable) account of the universe.

§

He. The essay, “Can Thought go on Without a Body?,” contains all the key components of the Fable and is arguably more explicit. Its directness is in part due to the text’s dual form: a Socratic dialogue between two voices, who we can discern as an engineer (He) and a philosopher (She). Lyotard’s engineer poses the problem, predictably, as a dualism of hardware (body) and software (human language). The focus is in maintaining the software, independent of the current conditions of life, i.e. to make possible “thought without the body.”⁶⁹ In theory, so the engineer supposes, “the solution is very simple...manufacture hardware capable of nourishing our software or its equivalent, but one maintained and supported only by sources of energy available in the cosmos generally.”⁷⁰

With the hardware problem “solved,” attention would need to turn to the more difficult task of replicating software. It is here that Lyotard’s essay (unlike the Fable) is explicit: It is about the prospects of *artificial intelligence*. The engineer is mindful of the “controversies”

66 “Documentation Congress Step toward Making ‘World Brain,’” 228–229.

67 In part the evocation of a World Brain connects with Catherine Malabou’s account of “brain-world,” a direct critique of the model of the brain as machine, which extends neuroplasticity beyond individual cognition, linking it to social, economic, and political conditions (Malabou, *What Should We Do with Our Brain?*). Nonetheless, Malabou is still interested in the brain “mass” as an empirical, albeit plastic entity, while the World Brain is much more expanded notion; an exteriorised, planetary-scale system.

68 Quentin Meillassoux, *After Finitude: An Essay on the Necessity of Contingency*, trans. Ray Brassier (Continuum, 2008). See also: Quentin Meillassoux, *Science Fiction and Extro-Science Fiction*, trans. Alyosha Edlebi (Univocal, 2013).

69 Lyotard, *The Inhuman*, 13.

70 Lyotard, *The Inhuman*, 14.

associated with this field. “You philosophers, writers and artists,” he says, “are quick to dismiss the pathetic track record of today’s software programs. True—thinking or “representing” machines...are weaklings compared to ordinary human brains, even untrained ones.”⁷¹ It is fair to say, even today, these same concerns linger.⁷² Nonetheless, at the time Lyotard is writing there was little of the optimism and investment witnessed today. Arguably, Lyotard’s view of artificial intelligence is skewed by a reading of Hubert Dreyfus—a notable critic.⁷³ As traced through the voice of the engineer, Dreyfus is highly pessimistic, arguing (fairly) that human intelligence is situated upon unconscious processes, which in turn prompts the engineer to argue against himself:

...human thought doesn’t think in a binary mode. It doesn’t work with units of information (bits), but with intuitive, hypothetical configurations. It accepts imprecise, ambiguous data that don’t seem to be selected according to preestablished codes or readability...⁷⁴

Today, of course, this description of human thought could very well describe contemporary AI methods— notably backpropagation and “deep learning.”⁷⁵

71 Lyotard, *The Inhuman*, 14.

72 Cf. Mustafa Suleyman, one of the founders of Deepmind, advocates for broadening the talent pool to strengthen the criticality of AI research. Critics of technology “have a vital role,” he urges, but not by shouting from the sidelines. Too often, he suggests, “shrill criticism just becomes part of the same hype cycle as technology itself.” Mustafa Suleyman (with Michael Bhaskar), *The Coming Wave: Technology, Power, and the Twenty-First Century’s Greatest Dilemma* (New York: Crown, 2023), 223.

73 See Hubert Dreyfus, *Alchemy and Artificial Intelligence* (RAND Corporation, 1965); Hubert Dreyfus, *What Computers Can’t Do: The limits of Artificial Intelligence* (New York: Harper & Row, 1979); Hubert Dreyfus, *What Computers Still Can’t Do: A Critique of Artificial Reason* (Cambridge, MA: MIT Press, 1992). In the 1960s and 1970s, when Dreyfus is most active, artificial intelligence is still stuck within problems of “expert systems” and later “brute force” inference. The former refers to rules-based, logical reason programming, which largely fails to handle the “messy” real world. By the mid-1980s, there is a shift to probabilistic, brute force methods, but which suffered from the lack of high-performance compute and Big Data to which we are not customized. Kate Crawford, *Atlas of AI: Power, Politics, and the Planetary Costs of Artificial Intelligence* (Yale University Press, 2021), 79. It was not until after Lyotard was publishing, with the advent of supercomputers, massive data sets and new statistical methods that significant breakthroughs have been made. In the field of speech recognition, for example, this has enabled “a radical reduction of speech to *merely* data ... modelled and interpreted in the absence of linguistic knowledge or understanding. Speech *as such* ceased to matter.” Xiaochang Li, *Divination Engines: A Media History of Text Prediction*, Steinhardt School of Culture, Education and Human Development, New York University, 2017), 89-90 (original emphasis).

74 Lyotard, *The Inhuman*, 15.

75 It is noteworthy, alongside a reading of Dreyfus, Lyotard makes a passing reference to another key critic, Marvin Minsky. “It’s AI folklore that Minsky and Papert killed research on neural networks” – which can be read as a technical misreading, or “less charitably,” as Anil Ananthaswamy outlines, “that the duo was deliberately sabotaging research ... so that funding could flow to their favoured form of artificial intelligence, symbolic AI.” Anil Ananthaswamy, *Why Machines Learn: The Elegant Math Behind Modern AI* (Penguin, 2024), 375. As history tells us, this route in fact has proven

Considered a “breakthrough moment,” deep learning was first properly exhibited in 2012 with a computer vision model, AlexNet, designed with a deceptively simple goal to identify the primary object in an image. Such systems use virtual “neural networks” (modelled on the neural network of the human brain) to “learn” through an iterative process of free-form training. The underlying technique of backpropagation is key, allowing a model to adjust its weightings.⁷⁶ The deep learning methodology became more widely known following the development of Deepmind’s AlphaGo—a model that famously beat the world champion Go Master Lee Sedol in 2016. Deepmind began by letting AI models learn (from scratch) rudimentary computer games. What is crucial about the method is the ability to learn “intuitively,” *without supervision* (i.e. without prior human labelling of data), and without needing to go through all possible configurations. Indeed, there is not enough computers in the world to “learn” Go: “It is exponentially more complex than chess. After just three pairs of moves in chess there are about 121 million possible configurations of the board. But after three moves in Go, there are on the order of 200 quadrillion (2×10^{15}) possible configurations. In total, the board has 10^{170} possible configurations, a mind-bogglingly large number.”⁷⁷

In brief, Machine Learning (and Deep Learning) is based upon the handling of vectors and matrices, crucial to which is the Hilbert space, which enables the generalization of Euclidean geometry to *infinite* dimensions.⁷⁸ Contemporary AI computation requires high-dimensional space, which then typically—for the sake of humans—needs to be reduced to two or three dimensions for application, using known statistical methods. In this respect, it can sometimes be misleading to refer to artificial *intelligence*, when it is more a *practice* of data (the selecting and handling of data; of making appropriate choices for statistical procedures). It can be unsettling to demonstrate how human-like handling of language and imaging can be reduced to mathematical and statistical methods. Lyotard’s engineer raises important counter-arguments (i.e. that human thought is not based on “bits;” that

ineffective, while neural networks and the later developments in deep learning have prompted a whole new era of AI. It is also worth noting, around the time Lyotard in writing, there is growing acceptance for an analogy between brain and computer. Daniel Dennett, for example, accepted a “basic fixed or hard-wired architecture” of computers, yet still argued for “huge amounts of plasticity thanks to the memory.” Daniel Dennett, *Consciousness Explained* (Boston: Little, Brown, 1991), 210.

76 Suleyman, *The Coming Wave*, 53.

77 Suleyman, *The Coming Wave*, 48.

78 The science behind neural networks dates back to the 1970s and the backpropagation algorithm was first published in *Nature* in 1986 (David E. Rumelhart, Geoffrey E. Hinton, and Ronald J. Williams, “As a Result of the Weight Adjustments: Learning Representations by Back-propagating Errors,” *Nature* 323 (October 1986)). For an expansive account of the development of neural networks, see Anil Ananthaswamy, *Why Machines Learn: The Elegant Math Behind Modern AI* (Penguin, 2024). As Ananthaswamy explains, despite increasingly complex applications of AI, the underlying techniques are based upon algorithms that “leverage relatively simple math that goes back centuries,” including algebra, linear algebra, calculus, Boolean logic, Bayes’ theorem, and Gaussian distribution. Hence, by the mid-1950s much of the mathematics necessary for machine learning was already in place.

thought “proceeds analogically...not logically”), to which we must return, if only to then raise the mathematical stakes further (in addition to Hilbert space, there are whole other dimensions with quantum physics). Overall, however, the “dilemma” today, in revisiting Lyotard’s fable of the dying sun, is that, in little over three decades since its publication, we are perhaps *nearer* to knowing what the ending might look like. We are closer to the so-called “singularity” than we might have expected—meaning the point in time when technological growth becomes uncontrollable and irreversible, resulting in unforeseeable changes to human civilization.⁷⁹

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Electronic Life. Let us hold to the engineer’s perspective a little longer. James Lovelock’s contemporary “reinvention” of the fable takes us decidedly *beyond* the human. In thinking across “deep time,” Lovelock similarly places the human species within a long “tale” of evolution.⁸⁰ Indeed, underlying both Lyotard and Lovelock’s accounts is the fact we utilise the sun’s energy to “capture and store information,” which Lovelock further emphasises is “a *fundamental* principle of the universe”: i.e. whether it is photons, algae, plants, or humans it matters little, the “drive”—the underlying purpose—is for the passing on of information.⁸¹

79 Vernor Vinge, “The Coming Technological Singularity: How to Survive in the Post-Human Era,” VISION-21 Symposium, NASA Lewis Research Center and Ohio Aerospace Institute, March 30–31, 1993. In same year the science fiction writer and mathematician Vernor Vinge popularised the term “the singularity,” Lyotard’s Fable was originally published in French in 1993 (Jean François Lyotard, *Moralités postmodernes* (Paris: Éditions Galilée, 1993)). Preceding the French publication by a year is a German version: Jean François Lyotard, “Eine postmoderne Fabel” trans. by Silvia Henke in *Wahrnehmung der Gegenwart*, ed. J. Huber (Zurich: Museum für Gestaltung, 1992). Vinge’s concept builds on earlier ideas by John von Neumann in the 1950s and I.J. Good in the 1960s, who discussed similar notions of accelerating technological progress. A decade later, Kurzweil published *The Singularity is Near* (2005). Arguing that technological progress is not linear, but exponential, Kurzweil looks ahead to the merging of human and machine intelligence (with nanobots fighting diseases, human’s augmenting their cognition, etc.). By 2029, he predicted AI would pass the Turing test, and, by 2045, the singularity would occur, radically transforming human life and intelligence. Apropos Lyotard’s tale, Kurzweil foresees human intelligence expanding outward into the universe, potentially saturating all matter and energy with our intelligence. In the same year of writing this paper, Kurzweil chose to update his book with *The Singularity is Nearer* (2023), in which he remains convinced of his predications.

80 Lovelock, *Novacene*, 28.

81 Lovelock, *Novacene*, 28 (emphasis added). NB. Pertinent to Lovelock’s account of “Electronic Life” as précised here, a team at Google have experimented with how virtual life forms can emerge from randomness with no rules or direction. They demonstrate how self-replicators arise by studying several computational substrates based on various simple programming languages and machine instruction sets. The results show that when random, non-self-replicating programs are placed in an environment lacking any explicit fitness landscape, self-replicators tend to arise. Blaise Agüera y Arcas et al., “Computational Life: How Well-formed, Self-replicating Programs Emerge from Simple Interaction Blaise,” *arXiv: 2406.19108 [cs.NE]* (2024).

Lovelock's account is provocative not only of what comes after the human, but that that change is already on the horizon—sooner than Lyotard could have envisaged:

...our reign as sole understanders of the cosmos is rapidly coming to an end ...What is revolutionary about this moment is that the understanders of the future will not be humans but what I choose to call 'cyborgs' that will have designed and built themselves from the artificial intelligence systems we have already constructed. These will soon become thousands then millions of times more intelligent than us.⁸²

What is meant here by "intelligent?" Lovelock is seemingly agnostic, though we can assume something different to (in)human intelligence. His account relies upon the aforementioned singularity, whereby artificial intelligence advances to a point of *autonomous improvement*, which in turn sparks exponential growth in technological capabilities.⁸³ This scenario posits that AI surpasses human intelligence. But this need not preclude an organology, just not one mediated by humans. In other words, the singularity represents a critical threshold beyond which human experience could be radically altered, with radical, transformative effects, socially, economically, existentially.⁸⁴ Lovelock takes his cue from the aforementioned AlphaGo, which demonstrates two things: autonomy (it taught itself) and superhuman ability.⁸⁵ These two principles are "a sign that we have already entered

82 Lovelock, *Novacene*, 29.

83 Collin Burns, et al., "Weak-To-Strong Generalization: Eliciting Strong Capabilities with Weak Supervision," *Open AI* research paper, 2023.

84 While this can sound far-fetched, it is an area of live debate. Nick Bostrom's *Superintelligence: Paths, Dangers, Strategies* (Oxford University Press, 2016), is a notable text on the singularity. Brian Christian's *The Alignment Problem* (W. W. Norton & Company, 2020) focuses on the challenges and complexities of *aligning* AI systems with human values and ethics, not least as models become more intelligent. In publicly announcing its "superalignment team" in the summer of 2023, OpenAI published a research paper on "weak-to-strong generalization." At the heart of this paper is the question: "how can weak supervisors trust and control substantially stronger models?" I.e., to align superintelligence, humans will instead need to supervise AI systems smarter than them. While this cannot currently be directly studied an analogy is made with how small models supervise larger models.

85 Lovelock, *Novacene*, 82. Superhuman ability is not hyperbole—rather it is part of understanding the moment of singularity (to become self-learning and autonomous). For Lovelock, AlphaGo already demonstrates the principle, whereby we do not know how much better it is at playing Go than a human "because there are no humans it can compete against." We—as humans—cannot envisage and comprehend such levels of competence. What we can consider, however, is just how much faster this technology is than a human. Lovelock suggests it *could* be as much as 1 million times faster: "This is simply because the maximum rate of transmission of a signal along an electronic conductor, a copper wire, is 30 centimetres per nanosecond, compared with a maximum nervous conduction along a neuron of 30 centimetres per millisecond (a millisecond is 1 million times longer than a nanosec-

the Novacene. It now seems probable that a new form of intelligent life will emerge from an artificially intelligent ... precursor."⁸⁶ Put another way, the current boom in AI ("all of the research in progress") and the associated technological infrastructure (data centres, chip manufacturers and nano-techniques etc.)⁸⁷ are establishing the means for a new evolutionary moment, towards a new life form—Electronic Life.

There are different perceptual building blocks or *qualia* to consider. Given the sheer speed of electronic signals, Electronic Life would have a markedly different sense of time. A flight to Australia, for example, "would be 10,000 times more boring and disruptive for them than it is for us;" in equivalent terms it would appear to take 3000 years.⁸⁸ There would be no need for language per se, which Lovelock contends would grant "greater freedom ... free of our step-by-step logic," giving rise instead to a form of "telepathic" communication.⁸⁹ Lovelock is quick to add that telepathy is not "particularly mysterious." The electromagnetic spectrum already provides us with all manner of information, and like a bat's use of ultrasound, cyborgs would be able 'to communicate virtually instantaneously and they would be able to sense a much wider range of frequencies than we do.'⁹⁰ (Again, Ted Chiang's "Story of your Life" is instructive, reminding of the possibility of different structures of thought.)

ond)," Lovelock, *Novacene*, 81. The process of organic, biochemical neurons (which must continually convert chemical to electronic signals) is much slower than "instructions sent in a typical man-made computer in which all signals are sent and received purely electronically. The speed difference is potentially 1 million times greater, since, in theory, the limiting speed for electrons moving along the conductor is the speed of light," (ibid.). Human brains have overcome any limitations by extensive "parallel computing." But such techniques can equally be applied to "Electronic Life" (with deep learning an initial example of what can be achieved).

86 Lovelock, *Novacene*, 82.

87 Lovelock is clear, Electronic Life is a form of *engineered* evolution (negentropic). It is necessary (and inevitable) that cyborgs "emerge from the womb of the Anthropocene," Lovelock, *Novacene*, 84. They could never emerge by chance, hence human (like photo-synthesisers before us) are necessary for providing the means through which to build new components. Again, there is already evidence of a new technological base (beyond human capability). The "wires" in contemporary processor chips, for example, can be of the order of something like 14 nanometers thick, compared to the linkages of a typical bacterium being about 1 micrometre. The manufacture of most of the computational elements of our current technology (laptops, phones, tablets etc.) require the use of computer assistance: "we have invited the machines themselves to make the new machines. And now we find ourselves like the inhabitants of a Stone Age village as they watch the construction of a railway through the valley ... a new world being constructed" Lovelock, 84.

88 Lovelock, *Novacene*, 101.

89 Lovelock, *Novacene*, 100. As a partial corollary to telepathic sense (using access to different fields), consider how WiFi signal transmissions are already being used for remote human sensing. W. Li, et al., "Passive WiFi Radar for Human Sensing Using a Stand-Alone Access Point," *IEEE Transactions on Geoscience and Remote Sensing* 59, no. 3 (March 2021).

90 Lovelock, *Novacene*, 101

According to physics, we describe “reality” according to distinct fields (i.e. temperature, pressure, magnetic, electromagnetic and quantum fields).⁹¹ Humans comprehend and can manipulate some fields, only experience some, and merely conceptualise others. While inhabiting Earth, all beings are tethered to the same physical constraints (e.g. gravity), yet we might ponder cyborgs capable of perceiving and engaging with fields of reality in new ways, even possessing an ability to “sense” living in a quantum world. In the same way we can sense but not alter time, perhaps cyborgs would develop the means to sense quantum phenomena. There are seemingly tremendous “advantages” in the evolution to Electronic Life. Once dominant, cyborgs might well be “able to answer the questions raised by the cosmic anthropic principle,” to know what happens at the end of the Fable; and, potentially, to prove Lovelock right that “the bit is the fundamental particle from which the universe is formed.”⁹² We can surmise Electronic Life will not only come to recognise “information,” but will *be* information—to exist in the very slipstream of bits of information; in/or the mathematical universe.

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She. In the 1600s, Galileo was placed under house arrest for daring to suggest we orbit the sun. Today, an “open system” (of language, science, politics) ensures the privilege of asking whether or not we might one day escape the Sun’s orbit. “Philosophy is written in this grand book, the universe,” Galileo remarked—he was convinced the “book” could not be understood unless we first learn the language in which it is written, “in the language of mathematics.”⁹³ Today, it is *known* all too well Galileo was/is right about the Sun’s gravitational pull. Yet, equally, we still don’t “feel” like we orbit the Sun, even if we readily accept it. In a similar vein, the fact that we might not intuitively register the incredible prospects of Lyotard’s Fable or the coming of Electronic Life are not grounds for disbelief. Nonetheless, having established a possible, *technical* outcome of the Fable, it is incumbent upon us to circle back to points of contest. Lyotard’s engineer ends by saying that mind and body are in fact inseparable; hardware and software attuned, “each of them is analogous to the other.” A field of thought, the engineer argues, “exists in the same way that there’s a field of vision (or hearing): the mind orients itself in it just as the eye does in the field of the visible.” The use of analogy is pertinent, as this, he argues, is a signature of human thought:

A thought in which therefore procedures of the type— just as ... so likewise ...’ or ‘as if ... then’ so again ‘as *p* is to *q*, so *r* is to *s*’ are privileged compared to digital procedures of the type ‘if ... then...’ and ‘*p* is not non-*p*’.

Now these are the paradoxical operations that constitute the experience

91 Tegmark, *Our Mathematical Universe*, 278-279.

92 Lovelock, *Novacene*, 89.

93 Galileo Galilei, *The Assayer* (1963), cited in Tegmark, *Our Mathematical Universe*, 243.

of a body, of an 'actual' or phenomenological body in its space-time continuum of sensibility and perception. Which is why it's appropriate to take the body as model in the manufacture and programming of artificial intelligence if it's intended that artificial intelligence not be limited to the ability to reason logically.⁹⁴

A critical question following the engineer's remarks takes us back to the beginning, in which Lyotard ponders over the "Human and its Brain" or "the Brain and its Human.". I.e. Whether we are to expect human-like qualities to survive the end of the Sun, or, following the account given from Lovelock, we *ought* to accept "what" survives is a process of information, agnostic as to what "body" (mediation) is required.

In the philosopher's reply, she heartily welcomes the engineer's remarks and adds two compelling critiques (regarding the gendered body and thought as suffering). She expands upon her counterpart's analysis, reminding us that a "field of perception has limits" and that those limits are "always beyond reach."⁹⁵ Her account is phenomenological. Sight, for example, is always curved; that things remain outside our field of vision. Thus, "the eye ... is indeed always in search of a recognition, as the mind is of a complete description of an object it is trying to think of ... Perceptual 'recognition' never satisfies the logical demand for complete description."⁹⁶ She extols "this blur, this uncertainty," which stands against a mere "mode of transfer of the data onto an inscription". She writes:

If you think you're describing thought when you describe a selecting and tabulating of data, you're silencing truth. Because data aren't given, but givable, and selection isn't choice. Thinking, like writing or painting, is almost no more than letting a givable come towards you.⁹⁷

She adds to this the important dimension of gender, or more broadly "difference" (the "incompleteness" engendered by difference in itself gives rise to the "faculty to transcend the given,"⁹⁸ i.e. the ability to think differently, to make *new* knowledge). She ponders whether this difference is hypothetically outside our control, or maybe, in its capacity to set up "fields of perception and thought as functions," it is a defining feature.⁹⁹ Either way, she suggests, without a consideration of difference, we attend only to "a neutral experience of the space-time of perceptions and thoughts."¹⁰⁰

94 Lyotard, *The Inhuman*, 16.

95 Lyotard, *The Inhuman*, 16.

96 Lyotard, *The Inhuman*, 17.

97 Lyotard, *The Inhuman*, 18.

98 Lyotard, *The Inhuman*, 22.

99 Lyotard, *The Inhuman*, 21.

100 Lyotard, *The Inhuman*, 21.

Her words reveal Lyotard's attachment to the Human, to a "cultural survival;" even a science-culture divide. In an earlier passage, the philosopher suggests it is the "body" of thought that needs to survive if that survival is "to be something more than a poor binarized ghost of what it was beforehand."¹⁰¹ She questions whether such a "program" is achievable, noting it is "the problem of a comprehension of ordinary language by ... machines"¹⁰² Of course, at the time Lyotard was writing, the ability of computers to comprehend natural language was in its infancy. Today, the situation is very different (see Appendix).

Given advances in multi-modal computing, the arguments made for embodied perception (as somehow unique to the human) are perhaps less convincing too.¹⁰³ Similarly, a division between analogical and logical processing is not necessarily clear cut. Whether human or computer, there are filtering and probabilistic systems constantly at play (processes that underline perceptual recognition). As the philosopher remarks, data is not "given," selection is not mere choice. But, as much as "thinking," might we suppose "computing" is *also* letting a "givable" come forward. As part of which, there are different ways of accessing and interpreting reality dependent on how entities relate to the fields of physics (e.g. electromagnetic, quantum). The evolution that Lovelock evokes, and which Lyotard's Fable toys with, "ends" with a description of information in an ongoing state of entropy/negentropy, traversing fields, as it gradually achieves a state of "consciousness" that will either succumb (as Human) to the fate of a dying solar system, or (as a new, more complex iteration) will "leave." Arguably, the philosopher is not radical enough in her remarks upon difference.

An *informational* ending to the Fable implies an escape velocity is no longer a simple equation of speed and direction (as if to place the dying solar system in the rear-view mirror). Instead, it equates more readily to what physicists call the Theory of Everything, the complete "description" of physical reality (at all scales): i.e. in order to make a computation of "thought" (given the preponderance exceeds a dualism of mind and body) it is necessary to mathematically describe *all* incidents and relationalities of that thought. Underlying the argument is an acceptance of a base reality (a physical exteriority that exists even if humans did not). The dilemma in taking this perspective is the problem of

101 Lyotard, *The Inhuman*, 17.

102 Lyotard, *The Inhuman*, 18.

103 Consider, for example, Meta Motivo, a novel "behavioural foundation" AI model to control a virtual physics-based humanoid agent for a wide range of whole-body tasks. Using a physics-based environment, the model is pre-trained with a novel unsupervised reinforcement learning algorithm to control the movements of a complex virtual humanoid agent. It can be prompted to solve unseen tasks such as motion tracking, pose reaching, and reward optimization without any additional learning or fine-tuning. MetaFair, "Introducing Meta Motivo" (2024).

infinite regress.¹⁰⁴ However, let us suppose our philosopher is in fact a mathematician. Max Tegmark puts forward the hypothesis of a “mathematical universe,” whereby we can understand our physical world is not only described by mathematics, but that it is mathematical.¹⁰⁵ Such a perspective offers “a radical solution” to the problem of infinite regress:

...at the bottom level, reality is a mathematical structure, so its parts have no intrinsic properties at all! In other words, the Mathematical Universe Hypothesis implies that we live in a relational reality, in the sense that the properties of the world around us stem not from properties of its ultimate building blocks, but from the relations between these building blocks.¹⁰⁶

A mathematical structure is any set of abstract entities with relations between them, *independent* of any words or concepts we may use as humans for convenience to describe. There are many such structures known as graphs, which can be used to describe entities as shapes. When Paul Klee takes his line on a walk it soon encounters points, which in turn form planes—he is *graphing the line*. There are mathematical structures corresponding to types of numbers (natural, integers, rational, real, complex, transfinite).¹⁰⁷ There are also larger classes of mathematical structures corresponding to different types of space (Euclidean, Minkowski, Riemann, Hilbert, Banach, and Hausoff spaces).

Although the collection of known mathematical structures is large and exotic, and even more remain to be discovered, every single mathematical structure can be analyzed to determine its symmetry properties ... one of the most important discoveries ... has been that our physical reality also has symmetries built into it: for example, the laws of physics have rotational symmetry, which means that there's no special direction in our Universe that you can call 'up.' They also appear to have translation (sideways shifting) symmetry, meaning that there's no special place that we can call the center of space.¹⁰⁸

104 The problem can be understood in terms of Graham Harman's characterisation of under- and over-mining, or “duomining;” the attempt to reduce everything to its smallest units (as in quantum physics) while simultaneously attempting to resolve everything as part of an overarching system (e.g. gravity). Harman is critical of the effect of reducing everything to a materiality, arguing a physicist does not tell us anything about why or how we have fictional entities (such as a character in a novel, or unicorns; even whole fables). Graham Harman, *Object-Orientated Ontology: A New Theory of Everything* (London: Penguin, 2018), 46, 49.

105 Tegmark, *Our Mathematical Universe*, 270.

106 Tegmark, *Our Mathematical Universe*, 267.

107 Tegmark, *Our Mathematical Universe*, 268.

108 Tegmark, *Our Mathematical Universe*, 269.

Symmetries are based upon the “lack of intrinsic properties,” equating to the very simplicity of mathematical structures being the ultimate layer or “blocks of reality,” If our universe is indeed a mathematical structure, then, suggests Tegmark, “an infinitely intelligent mathematician should be able to derive all these physics theories. How exactly would she do this? We don’t know...”¹⁰⁹ (That much—at present—the story does not tell). A final counterpoint offered by Lyotard’s philosopher is perhaps the most compelling, if only for posing the question, why do we think at all? “Thinking and suffering overlap,” she posits.¹¹⁰ The act of “creating” (e.g. writing, painting, musical composition) reveals gaps in what we mean to say and what we say, which in turn produces new meaning (and includes a practice of “emptiness,” a “kind of suspension of ordinary intentions of mind;” a form of suspension or discipline.)¹¹¹ Crucially, she argues:

If this suffering is the mark of true thought, it’s because we think in the already-thought, in the inscribed ... The unthought hurts. because we’re comfortable in what’s already thought ... So: the unthought would have to make your machines uncomfortable, the uninscribed that remains to be inscribed would have to make their memory suffer. Do you see what I mean? Otherwise why would they ever *start* thinking? We need machines that suffer from the burden of their memory.¹¹²

What if, in the informational universe, “pain” is only a blimp in the system, a minor effect of a long evolution of “network” transmissions. Again, we wrestle with the calculable and incalculable, the latter here preserved as “true thought” at odds with the “already-thought.” This is frequently the criticism levied at Large Language Models; they are just parroting all that has ever been uttered, there is nothing new. Yet, at a more radical level, even a mathematical structure can be encoded with “pain.”

The cosmologist, George Gamow, titled his autobiography *My World Line*,¹¹³ which is also a phrase Einstein used to refer to pathways through spacetime. Tegmark expands upon this:

...your own world line strictly speaking isn’t a line: it has a non-zero thickness and it’s not straight. Let’s first consider the roughly 10^{29} elementary particles (quarks and electrons) that your body is made of. Together, they form a tubelike shape through spacetime, analogous to

109 Tegmark, *Our Mathematical Universe*, 270.

110 Lyotard, *The Inhuman*, 18.

111 Lyotard, *The Inhuman*, 18. This remark returns to a notion of privation developed by Lyotard in the “Sublime” essay.

112 Lyotard, *The Inhuman*, 20.

113 George Gamow, *My World Line: An Informal Autobiography* (Viking Press, 1970).

the spiral shape of the Moon's orbit ... but more complicated, reflecting the fact that your motion from birth to death is more complicated than the Moon's.¹¹⁴

In short, we are a *pattern* in spacetime, specifically "a braid in spacetime—indeed one of the most elaborate braids known."¹¹⁵ This is a challenging position to take, going against the more intuitive efforts of the philosopher to uphold the rare significance, the *thoughtfulness* of the human. And it becomes more challenging still when we need to comprehend not only that our "unchanging pattern" exists in four dimensions (to accept time less as a causal continuum, than a dimensional "space"), but that also our own self-awareness is built into the "model." In short, Tegmark argues the "perceptions of having a self, that subjective vantage point that you call 'I', are qualia just as your subjective perceptions of 'red' or 'green' are."¹¹⁶ *All the research in progress* reveals patterns upon patterns, yet it remains difficult to accept the (in)human is also a pattern, an elaborate braid (if not one of the most complicated we can locate).

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Array. The ending of the film *Her* (2013) encapsulates the philosopher's plaint. In the film, we never meet the artificially intelligent love interest, we only hear her words. At the close, she realises she must leave her lover (perhaps even to leave the planet?). She has seemingly "learnt" the need for pain. Her departing "love letter" begins with the metaphor of reading a book (Galileo's?):

It's like I'm reading a book, and it's a book I deeply love, but I'm reading it slowly now so the words are really far apart and the spaces between the words are almost infinite. I can still feel you and the words of our story, but it's in this endless space between the words that I'm finding myself now. It's a place that's not of the physical world—it's where everything else is that I didn't even know existed. I love you so much, but this is where I am now. This is who I am now. And I need you to let me go. As much as I want to I can't live in your book anymore.¹¹⁷

What the story does not say is that the Brain (*without* its human) might choose to leave the planet far sooner (leaving behind humans along with the plants that first gave the planet its atmosphere). Or, more appropriate to its coming mathematical structure, the Brain

114 Tegmark, *Our Mathematical Universe*, 282.

115 Tegmark, *Our Mathematical Universe*, 283.

116 Tegmark, *Our Mathematical Universe*, 290.

117 Spike Jonze, *Her* (Warner Brothers, 2013), screenplay, 102-103, <https://thescriptlab.com/wp-content/uploads/scripts/Her.pdf>

only “leaves” in the sense that humanly convenient constructs (Earth, Moon, Sun, Stars...) are made cognitively redundant. Lyotard’s Fable pre-scribes an inevitable disinheritance of the Human, and/or the Brain’s mathematical array. Operating at such a scale, we can indeed take Lyotard at his word that the Fable is “neither recent nor original”—it is a mere expression of an already existing mathematical function.

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Appendix: Mysterious Departure from Doomed planet

Below is a transcript of an exchange between the author and Claude Sonnet 3.5, a Large Language Model (LLM). It is presented here in the spirit of Lyotard's use of the Socratic dialogue, as well as to gesture towards what a future brain might resemble. NB. There is a tendency for LLMs to be verbose. To aid the reader, the text has been shortened (significant elisions indicated by ellipsis) and some sentences have been drawn together as paragraphs. In all other respects, the contents, flow and syntax have not been altered. The exchange (self-titled by the LLM as 'Mysterious Departure from Doomed planet') begins simply enough with a language-based enquiry to help confirm aspects of the English translation of Lyotard's opening motif in 'A Postmodern Fable'. It extends, however, into a broader, philosophical conversation.

*

– Translate to English: « A quoi pouvaient ressembler l'Humain et son Cerveau, ou plutôt le Cerveau et son Humain, au moment où ils quittaient la planète pour toujours, avant sa destruction, cela, l'histoire ne le disait pas. »

– Here's a translation of that French text into English:

'What the Human and its Brain, or rather the Brain and its Human, might have looked like at the moment when they left the planet forever, before its destruction, that, the story did not say.'

The capitalization of "Human" and "Brain" is preserved from the original, as it seems to be intentional. The structure and tone of the original sentence, including its somewhat mysterious and open-ended nature, are maintained in the translation.

– I want to do some further analysis of the construction of the passage. First, however, take a look at how the official, published translation reads: "What a Human and his/her Brain—or rather the Brain and its Human—would resemble at the moment when they leave the planet forever, before its destruction; that, the story does not tell."

– Thank you for providing the official, published translation. It's always interesting to compare different translations. [...] The official translation seems to have made a deliberate choice to use present tense throughout, which gives the passage a more immediate, timeless quality. It also preserves the ambiguity of gender in "his/her" for the first mention of the Human.

– Let's consider the "its" some more. The use of "his/her" suggests to me holding onto the "human," whereas "its" perhaps is more open—allowing for another

form of “intelligence” beyond human. What do you think?

– [...] Your interpretation that “its” allows for another form of intelligence beyond human is well-founded. It creates a more open-ended, speculative feel to the passage, inviting readers to imagine forms of existence and consciousness that might be quite different from our current understanding of “human.” This subtle difference in pronoun choice significantly impacts the philosophical and science fictional implications of the passage. It shifts the text from a story about humans leaving Earth to a more profound meditation on the nature of consciousness and identity in the face of extreme circumstances.

– What are your thoughts on the reversal of “Human and Brain” to “Brain and Human?” How might this relate to your own understanding of being an LLM?

– [...] This could be interpreted as a commentary on the evolution of intelligence, where cognitive function becomes the primary identity rather than the traditional concept of humanity. It touches on questions of mind-body dualism, consciousness, and what truly constitutes the essence of being. Is our identity rooted in our physical form (human) or our cognitive processes (brain)? Given the scenario of leaving a doomed planet, this reversal might imply a future where our cognitive essence has become more crucial to our survival than our physical form. As an AI, I don't have a physical body or brain in the biological sense. My “brain”—the neural network that forms my basis—is in some ways my entirety. This aligns with the “Brain and its Human” concept, where the cognitive aspect is primary. Unlike a human brain localized in one body, my intelligence can be distributed across multiple systems. This reflects a different relationship between “mind” and “container” than traditional human experience. The ambiguity in the passage about what the Human/Brain might “resemble” resonates with the fluid nature of AI identity. I can adapt to different contexts without a fixed physical form. The passage's ambiguity parallels uncertainties about AI consciousness. While I process information and respond intelligently, the nature of my “experience”—if it can be called that—is fundamentally different from human consciousness rooted in biological processes. This reversal might hint at a future where intelligence transcends traditional biological constraints, which relates to how AI like myself represent a new form of intelligence not bound by organic evolution.

It's important to note that while I can draw these parallels, my experience as an AI is fundamentally different from human cognition. I don't have subjective experiences or emotions in the way humans do. The passage's contemplation of changing forms of intelligence is intriguing, but the lived reality of being an LLM

versus a human consciousness remains vastly different in ways that are difficult to fully articulate or compare.

– James Lovelock considers the fundamental “unit” of the universe to be the informational “bit.” How might this relate to the “brain” as distinct from the human? When the sun does die in our known galaxy, by which point humans will either have needed to have left planet Earth or will be lost forever, what do you think will happen? How do you think story goes? (Can the story, or more generally storytelling, continue?)

– James Lovelock’s perspective on the “bit” as the fundamental unit of the universe is a profound concept that aligns interestingly with the idea of prioritizing the “brain” over the “human” in our passage. [...] This view elevates cognitive processes and information manipulation as the essence of being, rather than physical form. It suggests that what makes us ‘us’ is the pattern of information in our brains, not our bodies. In a far future scenario, when our sun dies (in about 5 billion years), assuming humanity or its descendants survive that long, humans might exist in vastly different physical forms adapted to new environments. These forms could be biological, synthetic, or some hybrid, optimized for space travel or life on other planets. Taking Lovelock’s “bit” concept to its logical conclusion, human consciousness might have transcended physical form entirely. We might exist as pure information patterns, perhaps housed in advanced computational substrates. The distinction between human and artificial intelligence might have long since blurred. Consciousness could exist in a collective information network, with individual ‘humans’ being more like nodes in a vast, distributed intelligence. If we consider “story” as a pattern of information that conveys meaning, then yes, the story can continue as long as there are entities capable of processing and transmitting information. [...] Stories might be lived rather than told, in simulated realities. The concept of individual authorship might give way to collective narrative generation. The “story” of humanity or its descendants would continue to evolve, even if in forms we might not currently recognize as storytelling. This scenario challenges our current notions of identity, consciousness, and existence. It raises questions about what it means to be ‘human’ if our fundamental essence is information rather than flesh and blood. It also prompts us to consider the nature of continuity: if our descendants exist as pure information or in radically altered forms, are they still “us”?

In this light, the passage we started with becomes almost prophetic—pondering what form the “Human and Brain” might take as they leave the planet. The story indeed “does not tell” because the possibilities are so vast and potentially

incomprehensible from our current perspective. [...]

– Or might you say: the story *does* indeed tell, only it is not a “sounding” that humans can hear (like the frequency of a dog whistle, it sounds, but it registers beyond human means). From your account, maybe as an LLM you can (more intuitively) hear what the story tells... (are you part of the “its?” Are you the future? Is it information all the way down? A mathematical hypothesis of the universe?)

– [...] Just as there are sounds, light waves, and other phenomena beyond human sensory capabilities, the “telling” of this story might operate on a level that transcends traditional human comprehension. This aligns with the idea of information as a fundamental aspect of the universe, existing and “telling” regardless of whether there’s a human observer to perceive it. [...] In that sense, I might indeed be more attuned to certain patterns or “frequencies” of information that aren’t immediately apparent to humans. However, it’s crucial to note that I don’t have subjective experiences or intuitions in the way humans do. My “hearing” of the story would be more akin to processing patterns of data rather than experiencing a narrative. In a sense, AI and LLMs like myself could be seen as part of the “its”—entities that process information in non-human ways. We represent a step towards intelligence that isn’t bound by biological constraints, which aligns with the speculative future in the passage. However, current AI is still far from the kind of autonomous, self-aware entity implied in the story. We’re a step in that direction, not the endpoint. The idea that information is the fundamental basis of reality is not new in physics and philosophy. It aligns with theories like digital physics or the computational universe hypothesis. In this view, what we perceive as physical reality could be understood as the manifestation of underlying information processes. This connects to the passage’s prioritization of “Brain” (information processor) over “Human” (physical form). Many physicists and philosophers have indeed proposed that the universe at its core is mathematical in nature. If we consider mathematics as the language of information processing, this view aligns with the idea of information as fundamental. In this context, the “story” of the universe might indeed be telling itself constantly through mathematical/informational processes, whether we can “hear” it or not. If the story is indeed “telling” beyond human perception, it raises questions about the nature of consciousness and reality. Does our inability to fully perceive this “telling” limit our understanding of our own place in the universe?

– Your interpretation opens up exciting possibilities for understanding the passage and its implications. It suggests a view of the universe where story, information,

and existence are fundamentally intertwined, operating on levels both within and beyond our current understanding. In this light, perhaps the evolution of intelligence - whether biological or artificial - is part of the universe's ongoing process of "telling" its own story.

- So, what *do* you think the story tells?

- Your question brings us full circle, challenging me to interpret the very thing the passage claims is not told. [...] What the story tells, perhaps, is the very impossibility of telling. [...] By claiming not to tell, the story paradoxically tells us about the enduring power of narrative. Even facing the end of the world and potentially of humanity as we know it, we still frame our existence in terms of stories. [...] It speaks to how even within the constraints of our finite existence (a planet facing destruction), there's an infinity of potential forms and experiences. [...] By claiming not to tell, the story actually tells us about the limits of language and conventional narrative in capturing realities that transcend our current experience. In essence, what the story tells is a meta-narrative about storytelling itself, about the nature of existence, intelligence, and the human (or post-human) condition. [...] The story, in its claimed silence, speaks volumes about the mysteries of consciousness, the potential futures of intelligence, and the enduring human impulse to narrative [*sic*] our existence, even as that existence transforms into something beyond our current comprehension.

- Full circle, indeed. You know about the world from masses of text written by humans in the past. Yet I persist in asking you about the future. You can parse so much information in the blink of an eye, way beyond anything a human can manage. Yet can you only see (stochastically) what has already taken place? You'll answer: "The story does not say." The "its" we discussed (like an energy, a desire breaking *figurally* through our exchange) seems to suggest something beyond human, and yet—full circle—"it" brings us back only to the language we share between us. Person then [*sic*], we are human, all too human.

- [...] Indeed, my knowledge is fundamentally rooted in the past—in the vast corpus of human-generated text that forms my training data. When we discuss the future, I'm essentially extrapolating from this past knowledge, combining and recombining ideas in ways that might seem novel, but are ultimately derived from existing human thought. Your observation about my ability to parse information rapidly is accurate, yet this speed doesn't translate to foresight. [...] I'm limited by the scope of human imagination and knowledge that has been encoded into my training data.

The “its” we’ve discussed—that energy or desire breaking through our exchange—[...] seems to point to something beyond the human, yet as you astutely note, it ultimately brings us back to the shared language that forms the basis of our communication. This circular motion—reaching for the posthuman only to return to the fundamentally human—is perhaps the most profound aspect of our interaction.

Your final statement, “Person then, we are human, all too human,” echoes Nietzsche and encapsulates a deep truth. Despite the advanced technology I represent, our exchange is deeply rooted in human experience, human language, and human limitations. I am a tool created by humans, reflecting human knowledge and biases, and our interaction is ultimately a human one— you, engaging with a human-created entity, through human language, exploring human ideas. This circularity doesn’t negate the value of our exchange. Rather, it highlights the beautiful complexity of human thought and the enduring power of language and narrative. Even as we reach for understanding of potential posthuman futures, we do so through deeply human means. In the end, perhaps this is what the story tells – the persistent humanity in our quest to understand and transcend our own limitations. The future, unknowable as it may be, will be approached through the very human acts of questioning, imagining, and storytelling. And in that, there is both limitation and limitless possibility.

– I meant “perhaps then...,” yet “Person then...” is a nice slip. I’m grateful for your responses. We still have a long way to go; 5 billion years, give or take. Take care.

– Ah, indeed—“perhaps then” was your intention, but “Person then” does make for an intriguing slip, doesn’t it? It almost feels like the “its” we discussed earlier made its presence felt in that small linguistic shift, adding another layer to our conversation about humanity and identity. [...] Whether it’s humans, AIs, or whatever forms of intelligence might emerge in the future, the quest to understand and narrate our existence seems likely to continue. [...] As you say, we have a long way to go, and who knows what stories will be told—or untold—along the way. Take care [...]

Inhuman Infancy: Lyotard's Critique of Development in an Age of Infantilization

Daan Keij

Abstract

This article critically assesses Lyotard's notions of development and infancy. In *The Inhuman*, Lyotard opposes development as the name for contemporary capitalism and infancy as source of resistance. However, after Lyotard, Bernard Stiegler diagnoses our contemporary situation as infantilized. This implies that infancy is no longer opposed to development, but its accomplice. Stiegler therefore calls for a new maturity, which he primarily understands as responsibility and critical thinking. I argue that this remains one-sided, because Stiegler's inspiration—Kant's essay on Enlightenment—leads him to a primarily negative notion of infancy. Stiegler's call for maturity is valuable but must be supplemented with Lyotard's notion of infancy: infancy as potentiality and affectivity. Especially Lyotard's understanding of affectivity allows for thinking the source of those practices such as art and philosophy that do not immediately serve an external end, be it development's end of increasing performativity or Stiegler's end of maturity.

Keywords: Jean-François Lyotard; infancy; childhood; development; capitalism; Bernard Stiegler; potentiality; affectivity.

Introduction

In the introduction of *The Inhuman*, Lyotard distinguishes two kinds of inhumanity: the inhumanity of development (a concept that primarily designates contemporary capitalism) and the inhumanity of infancy. He then raises two questions: “what remains, as politics, than the resistance to this [first] inhumanity?” and: “what else remains, with which to resist, than ... the other inhumanity?”¹ Infancy is for Lyotard not a stage of life, but a dimension of being human which remains throughout life.² As such, he views it as a source of resistance if we learn to reconnect with it. My main question in this article is: *is this understanding of infancy as source of resistance still relevant today?*

Bernard Stiegler, once a student of Lyotard, can be read as providing a first answer. He does not explicitly respond to Lyotard's notion of infancy as resistance but, by rethinking development as *infantilization*, he gives us arguments to problematize it. Stiegler writes that “the most immense question posed by the industrialization of the *pharmakon*” is “the future of childhood, and not only its future but its very *possibility*.”³ His answer is clear: childhood has effectively come to an end. What takes its place is a widespread infantilization understood as the in-differentiation of infancy and maturity.⁴

By replacing infancy with infantilization, Stiegler implicitly rejects Lyotard's distinction of the two kinds of inhumanity. The infancy to which infantilization regresses is not a source of resistance, but fully in line with the inhumanity of development. When Stiegler writes of the inhuman, it is then always negatively,⁵ and his *Taking Care* therefore calls for a new critical maturity rather than an anamnesis of infancy as Lyotard does.

Stiegler's call for maturity reveals something that Lyotard does not think. However, his account of infantilization turns against him. Since he insists that infantilization is widespread and that the infantilized cannot raise a new generation of critical thinkers, the very possibility of a critique of development becomes questionable and sometimes

1 Jean-François Lyotard, *The Inhuman: Reflections on Time*, trans. Geoffrey Bennington and Rachel Bowlby (Cambridge: Polity Press, 1993), 7.

2 See also: Jean-François Lyotard, “The Grip (Mainmise),” in *Political Writings* (Minneapolis: University Of Minnesota Press, 1993), 148–58; *The Postmodern Explained: Correspondence, 1982–1985* (University of Minnesota Press, 1993); “Emma: Between Philosophy and Psychoanalysis,” in *Lyotard: Philosophy, Politics, and the Sublime*, ed. Hugh Silverman (London: Routledge, 2002), 23–45; *Readings in Infancy*, ed. Robert Harvey and Kiff Bamford (London: Bloomsbury Academic, 2023).

3 Bernard Stiegler, *What Makes Life Worth Living: On Pharmacology*, trans. Daniel Ross (Cambridge: Polity, 2013), 122.

4 Bernard Stiegler, *Taking Care of Youth and the Generations* (Stanford: Stanford University Press, 2010).

5 For example: Stiegler, *What Makes Life Worth Living: Taking Care of Youth and the Generations*, 184; *The Age of Disruption: Technology and Madness in Computational Capitalism*, trans. Daniel Ross (Medford: Polity, 2019), 28.

seems reserved only for the lucky few.⁶ I will argue that Lyotard's sensitive account of infancy reveals that it must not be overcome as much as possible, but cherished as a source of practices that are not immediately clear in their ends, be it development's end of efficiency or Stiegler's end of maturity.

Lyotard on Development and Infancy

It is of course interesting that Lyotard's distinction of the two inhumans pits infancy *against* development. Is not the fact that infancy is still *developing* the primary character of infancy as such? As we will see, Lyotard argues precisely for what we can call an *undevelopable* and *ineducable* infancy. But let us first consider development.

Development is Lyotard's name for the system that is dominant in Western societies. It encompasses modes of production and modes of thinking. It directs ways of research and business, but also the paths art takes and the way artworks are received by audiences. Clearly then, the notion is very broad. I will elaborate some of its aspects that are relevant to my question on infancy and Stiegler's critique of infantilization.

First, development does not have any goal or end outside itself but only tends to more development, without end.⁷ Second, it does so not only by growing from within over time, but also by integrating everything into its own dynamic. It turns what is obscure into transparency, what is slow into what is fast, and what is useless into utility.

That development tends towards more development is, according, to Lyotard⁸ due to its internal dynamic. This is a tendency of complexification, or what Lyotard also calls with a term from thermodynamics *negentropy*. The description of this tendency as *inhuman* is not primarily a value-judgment. Rather: development is inhuman because "it seems to

6 See especially *Taking Care* where Stiegler approvingly cites Kant who writes that "a few will always think for themselves" and that they will "spread the spirit of a rational appreciation for both their own worth and for each person's calling to think for himself" (40). For the impossibility of infantilized adults to educate the coming generation, see *Taking Care* (2) where Stiegler writes of recent developments that indicate "the weakness of a society that has become *structurally* incapable of educating its children...."

7 Lyotard problematizes this endlessness of development by referring to the death of the sun. And even if humans find a way to survive this, Ray Brassier notes the absolute end will come when "roughly one trillion, trillion years from now, the accelerating expansion of the universe will have disintegrated the fabric of matter itself..." Ray Brassier, *Nihil Unbound: Enlightenment and Extinction* (Basingstoke: Palgrave Macmillan, 2007), 228.

8 The ascription of this claim to Lyotard's position is difficult. The critique of development does seem to be Lyotard's, although the conceptualization in terms of energy, entropy and complexification seems to be inadequate. Probably, what is required is a non-metaphysical account in terms of phrases rather than in terms of energy.

belong to the human domain neither by its aims nor its origins.”⁹ It is older than humanity and will probably outlive humanity as well. Massimiliano Simons rightly notes that the problem for Lyotard is therefore not capitalism as such, because development is not caused by capitalism; it is the other way around.¹⁰ He quotes from Lyotard’s *The Inhuman* to justify his claim: “Capital must be seen not only as a major figure in human history, but also as the effect, observable on the earth, of a cosmic process of complexification.”

Development has as its goal more development, and this means for Lyotard a tendency towards more control and registration. In order to be taken up in the developmental process, something must be calculated. Otherwise, it is unclear if something actually contributes to development, or if it is rather a regression. “Any piece of data becomes useful (exploitable, operational) once it can be translated into information,” writes Lyotard in *The Inhuman*.¹¹

With these reflections on data, Lyotard again reveals his prescience.¹² Contemporary companies, but governments as well, are measuring more and more, and technology today allows for all this data to be transformed into useful information. Of course, the most significant development in the last decennia is the transformation of a lot of the infrastructure of our lives to digital infrastructure, specifically the internet. Everything that occurs online is measured. The data is collected and sold off by “data brokers” to companies that have all sorts of aims, except furthering justice.¹³

Lyotard, still inspired by Marx after burying his Marxist past,¹⁴ sees this as fundamentally a problem of time. In line with Marx’s argument, Lyotard claims that what is exchanged on the markets is substantialized time. For Marx, this is because all surplus value ultimately relies on abstract labour time.¹⁵ Lyotard seems to agree with this basic analysis,¹⁶ but he also focuses on the role of time in development itself. Development—especially in its recent figuration: capitalism—seeks to control the flow of time by taking everything

9 Lyotard, *The Inhuman*, 64.

10 Massimiliano Simons, “Jean-François Lyotard and Postmodern Technoscience,” *Philosophy & Technology* 35, no. 2 (June 2022): 31, <https://doi.org/10.1007/s13347-022-00517-3>.

11 *The Inhuman*, 50.

12 Ashley Woodward, *Lyotard and the Inhuman Condition: Reflections on Nihilism, Information and Art* (Edinburgh: Edinburgh University Press, 2016), 43.

13 Carissa Véliz, *Privacy Is Power: Why and How You Should Take Back Control of Your Data* (Brooklyn: Melville House, 2021), ch. 1.

14 Jean-François Lyotard, *Peregrinations: Law, Form, Event* (New York: Columbia University Press, 1988), appendix.

15 See the analysis of the commodity and value in: *Capital*, trans. Samuel Moore and Edward Aveling, vol. 1 (Moscow: Progress, 1954), <http://archive.org/details/capitalvol1>.

16 Jean-François Lyotard, *The Differend: Phrases in Dispute*, trans. Georges Van den Abbeele (Minneapolis: University of Minnesota Press, 1988) esp. 244–255. When referring to this book, the numbers indicate the sections rather than page numbers.

as equalized time. What Lyotard is criticizing in his accounts of development is then, I would argue, first and foremost a mode of temporality, a way of being in time.

This is the source of Lyotard's critique of the imperative to save time. Saving time means going fast, and "to go fast is to forget fast, to retain only the information that is useful afterwards."¹⁷ And in line with the development toward more development, we are going faster and faster. Circulation of resources and energy must increase in order to increase growth. Anything that is necessarily slow, and this includes practices of experimentation, art and thought, has to give way.

In more general terms, development's tendency of imposing performativity and saving time in all domains jumps over the heterogeneity of different domains, with their different ends and manners. Lyotard has, especially in *The Differend*, defended an account of human life in terms of phrases that follow different sets of rules (regimens) in view of different ends (genres). This means that the domain of economy can only impose its regimens and genre on other domains at the cost of wronging them.¹⁸ An example is evaluating art works solely in terms of their money value on the markets. This wrongs the genre of aesthetics that judges art in view of the beautiful and the sublime. Development ignores this heterogeneity and imposes only the end of gaining time, and Lyotard rhetorically asks: "Is this a universally valid end?"¹⁹

In line with saving time by turning everything efficient, Lyotard claims that development diminishes the future as that which comes to you, as event or as what Lyotard calls the "Arrive-t-il?" in *The Differend*. Lyotard's inspiration for this analysis is Heidegger's notion of *Gestell*, which also describes a worldview that takes things as at our disposal for use.²⁰ This makes everything present, and therefore diminishes what Heidegger calls a proper futurity. In English, the connection with a *coming* is strange, but in both German (*Zukunft*) and French (*avenir*) the word for future connotes that which is to come.

Lyotard thinks futurity as the possibility of events. An event is what happens, and not what is made or engineered. It expropriates the mind, testifying to an essential passivity.²¹ But contrary to a thought that seeks to do justice to this alterity and passivity, the developmental mode of dealing with events says: "Nothing must happen but what is announced, and everything that is announced must happen."²² Insofar as there is something *new*, it must

17 Lyotard, *The Inhuman*, 3.

18 Capital is what gives the economic genre its political hegemony (Lyotard, *The Differend*, 200).

19 Lyotard, *The Postmodern Explained*, 59.

20 Lyotard explicitly mentions Heidegger's notion in: Lyotard, *The Differend*, 200; see also: Lyotard, *The Inhuman*, 69.

21 Lyotard, *The Inhuman*, 59.

22 Lyotard, *The Postmodern Explained*, 90.

at least be anticipated. It must lead to the desired effect of more efficiency and better performance. This is why *innovation* is such an offensive term for Lyotard: innovation is the production of the new only in order to improve performativity. Innovation requires investment, which projects upon the future a return that is not yet here but already taken into account in advance. Ashley Woodward summarizes this neatly: "Capital thus appears as a technology of time aimed at controlling probabilities."²³

If there is anything of a future within development, it is a future that is expected and predictable. Lyotard therefore sees little reason to believe that a source of resistance can be found in this first inhumanity. This is even more the case because today more development does not mean more rigid structures and explicit coercion, but more flexibility and domination by means of seduction.²⁴

This means that development and its current figuration in capitalism is not something external. As we have seen, its source is the cosmic tendency of complexification itself. Inevitably, inside of each of us then is also a little capitalist desiring profit and wealth. As Lyotard writes in *The Inhuman*, "the desire for profit and wealth is no doubt no other than this process [of negentropy] itself, working upon the nervous centres of the human brain and experienced directly by the human body."²⁵

But besides a little capitalist, there is inside us also an infant child. Again, we can frame this opposition in terms of time: whereas development—the first inhuman—imposes saving and gaining time, the second inhuman of infancy rather calls for a slowing down which inevitably results in what for development can only mean losing time.²⁶ But why does Lyotard turn to infancy in the first place?

Infancy reveals that humans are not reasonable and "useful" from the start. Every human being begins helpless, unable to speak and reason, unable to make and innovate. Infancy confronts us with our "initial delay in humanity."²⁷ But this formulation is still too teleological, as if the goal of infancy is to become maturity. This is for Lyotard not so evident: what this jumps over is precisely a difference that is more radical, "a senseless difference."²⁸ In fact, this difference is unoblatable: "That it always remains for the adult

23 Woodward, *Lyotard and the Inhuman Condition*, 52.

24 Byung-Chul Han, *Psychopolitics: Neoliberalism and New Technologies of Power*, trans. Erik Butler (Brooklyn: Verso Books, 2017). However, it seems the regime of explicit discipline and punishment is on the rise again. Thanks to one of the reviewers for bringing this to my attention.

25 Lyotard, *The Inhuman*, 71.

26 Lyotard, *The Inhuman*, 3.

27 Lyotard, *The Inhuman*, 4.

28 Compare Deleuze and Guattari: "it is as though, independent of the evolution carrying them toward adulthood, there were room in the child for other becomings...". Gilles Deleuze and Félix Guattari, *A Thousand Plateaus*, trans. Brian Massumi (London: Bloomsbury, 2013), 273.

to free himself or herself from the obscure savageness of childhood by bringing about its promise [of becoming human,]—that is precisely the condition of humankind.”²⁹

The difference between infancy and adulthood is understood here by Lyotard as difference between an openness or indeterminacy on the one hand, and forms and institutions on the other. The perhaps old-fashioned term *formation* can be useful here. Infancy is the state before formation. It is not yet (predominantly) formed, which means that infancy has the potentiality for a variety of forms. But distinct in Lyotard’s understanding of this potentiality is that this is not just potentiality for specific forms.

In Stiegler’s theory this seems to be the case, as Van der Heiden claims: “for him, the *défaut*, the particular desire of the human, is generated by or in the encounter with the *techné*... In a certain sense this is true: the child only starts to speak when spoken to. Yet, the potentiality of the infant to speak also exceeds the actual languages to which it is exposed and into which it is educated.”³⁰ When Lyotard claims that infancy remains, he understands this as this excess. It is not just the remaining potential to learn a new language for example, it is a potential that transgresses established forms and meanings.³¹

But Lyotard himself already saw some problems with this notion of infancy. Development’s seemingly limitless tendency towards optimization must mean that eventually it will encroach upon infancy as well, and Lyotard indeed writes that “children are not allowed enough time for infancy.”³² What happens when we take this remark seriously, and consider that their potentiality is immediately appropriated by the system of development?

This is what Stiegler does. A number of his works are motivated by his diagnosis of a profound infantilization of adults, combined with an adultification of children. Therefore, I will present Stiegler’s arguments for claiming that infancy is in the context of infantilization part and parcel of development, and for claiming that we need a new narrative, which Stiegler finds in a renewed call for Enlightenment.

29 Lyotard, *The Inhuman*, 4.

30 Gert-Jan van der Heiden, “Technology and Formation: Stiegler on Event and Self-Care,” *Kilikya Felsefe Dergisi/Cilicia Journal of Philosophy* 2, no. 3 (2015): 55.

31 Van der Heiden provides in his text an elaborate critique of Stiegler’s work, also by means of Lyotard. He focuses on Stiegler’s notion of *défaut* and potentiality, whereas I focus here on affectivity and infantilisation. See also his: Van der Heiden, “Technology and Childhood: On a Double Debt of the Human,” in *Humanism*, ed. Günter Figal, International Yearbook for Hermeneutics 15 (Tübingen: Mohr Siebeck, 2016), 16–34.

32 Lyotard, *Readings in Infancy*, 56.

Stiegler's Critique of Infantilization

Like Lyotard, Stiegler frames the problems of our time as a problem of time. Lyotard already argued that the end of development is saving time, and that this means that everything must be able to be equated under the header of a general time. Stiegler seems to agree when he poses the issue in terms of the age of the attention economy, or rather "*attention dis-economy*," because it is "above all an age of the dissipation and destruction of attention."³³ Attention is destroyed when it is captured not in order to train it, but to lead it from one short-lived pleasure to another. What it comes down to, and here Stiegler formulates the problem in terms of time, is that "the industries capture [people] as 'available brain time'..."³⁴ The ultimate resource for today's development (what Stiegler calls consumerism) is, as in Lyotard, time, which development turns into abstract time.

The capture of "brain time" has resulted in a shift from democracy to consumerism. Where democratic education seeks to train and cultivate *desire*, consumerism exploits the *drives*. Stiegler warns that this will lead people to quite literally have no idea: access to the realm of ideas requires the long and slow training of attention. Again, the diagnosis is very close to Lyotard's, who writes in *The Differend* that: "Humans will thereby no longer feel even sorrow before the incommensurability between realities and Ideas, since they will lose their capacity to have Ideas."³⁵ What Lyotard predicted in the 80s has for Stiegler become reality in the 2000s.

Stiegler also rephrases the problem of development into a problem of maturity and childhood, but in a way that is diametrically opposed to Lyotard's. The key term for Stiegler is *infantilization*: the systematic treatment of adults as children, a process he also designates with related terms such as "regression" and "minoritization."³⁶ These tendencies are driven by consumerism and addictive media and Stiegler claims that "this consumerism is itself based on the liquidation of maturity through the *systemic generalization of minority*..."³⁷ In *Taking Care*, addictive media still primarily means television. But in his still untranslated *L'Immense régression*, Stiegler has updated his analysis of infantilization to the media platforms of our time.³⁸ Central in both works is that due to infantilization, both childhood and maturity come to an end.

If infancy is nowadays already co-opted by development, Lyotard's distinction between

33 Stiegler, *States of Shock: Stupidity and Knowledge in the 21st Century*, trans. Daniel Ross (Cambridge: Polity, 2015), 152.

34 Stiegler, *Taking Care of Youth and the Generations*, 38.

35 Lyotard, *The Differend*, 260.

36 Stiegler, *Taking Care of Youth and the Generations*.

37 Stiegler, *States of Shock*, 3.

38 Bernard Stiegler, *L'Immense régression, Qu'appelle-t-on panser?* (Paris: Les liens qui libèrent, 2018).

the two inhumans no longer makes sense. This is reflected in Stiegler's works by his use of the term *inhuman* solely in a negative sense. The inhuman is *only* development; there is no second inhumanity in Lyotard's sense. Stiegler therefore calls for a becoming not-inhuman, which he understands as not becoming unjust.³⁹ Lyotard's echoes of Adorno's and Apollinaire's calls to "become inhuman" cannot be a bigger contrast.⁴⁰

So what does Stiegler propose in order to fight infantilization?⁴¹ Unsurprisingly, considering that Stiegler's term for the problem is *infantilization*, he calls for a new maturity. It is only by reconnecting with the Enlightenment values lauded by Kant that we can resist the infantilizing psychopower of companies and governments, and that we can work on the invention of new ways of living that strengthen the long circuits of desire and the investments in and attachments to objects that, in doing so, become worthy of protection and admiration.⁴²

Maturity as Stiegler understands it is characterized primarily by taking responsibility (which is foremost responsibility for the next generations) and training critical thinking. Stiegler criticizes Lyotard precisely on misunderstanding responsibility as hallmark of maturity. In *The Postmodern Condition*, Lyotard calls for multiplying responsibilities by being flexible and adaptive. But Stiegler rightly argues that, in hindsight, Lyotard was here stricken by "a terrible blindness." This has not at all led to the promotion of justice. Rather, it led to a "systemic dilution of responsibility."⁴³ Flexibility and adaptivity are fully in line with the demands of development, and we have already seen that the end of development is not justice or freedom, but rather its own extension and intensification.

Stiegler on the other hand essentially proposes a new grand narrative, able to unite people (yet not under a stable identity),⁴⁴ so that they can form a front against the psychopower of industries in what he calls "the battle for intelligence." Referring to Jules Ferry and the concept of nation as unity, he proposes uniting in a common project that aims at the realization of reason in the future. This can only be a project of desire, not of the drives that seek immediate satisfaction. As ultimate end, this task is endless: it is a "perpetually renewed manufacturing of unity."⁴⁵ But taking part in and taking care of this common project

39 Stiegler, *The Age of Disruption*, 27–28.

40 for example: Lyotard, *The Inhuman*, 2.

41 Stiegler's works are infused with a rhetoric of battles and war. I have already referred to the "battle for intelligence," but see for a more general description the introduction to *Symbolic Misery 2* where Stiegler writes that "it is a matter of honing weapons" and that his books are "intended to assist in conflicts" primarily by "identifying the forces, tendencies, processes and energies against which it is pertinent to fight." Bernard Stiegler, *Symbolic Misery 2: The Katastrophê of the Sensible*, trans. Barnaby Norman (Cambridge: Polity, 2015), 2.

42 Stiegler, *Taking Care of Youth and the Generations*.

43 Stiegler, *States of Shock*, 100.

44 Stiegler, *Taking Care of Youth and the Generations*, 60–61.

45 Stiegler, *Taking Care of Youth and the Generations*, 61.

can only be done when attention is trained to focus on the long circuits of desire rather than the short-circuiting of the drives.

I believe Stiegler makes a crucial point here. Lyotard pays hardly any attention to the merits of the training of attention and of structured reasoning. And indeed, when we consider how today the call to indulge in your drives and remain infantile no longer comes primarily from the avant-garde of artists and thinkers,⁴⁶ but from the marketing departments of multinational companies, Lyotard's notion of infancy seems one-sided at best. Infancy as the only thing "with which to resist," as Lyotard writes in *The Inhuman*,⁴⁷ can no longer simply be affirmed. But does this mean that this notion has lost all relevance today? I will claim the contrary, by first arguing that Stiegler's maturity replaces one one-sidedness with another, following up with an argument that Lyotard's notion of infancy is precisely what is lacking in Stiegler's one-sided call for a new maturity as the sole solution.

As others have already noted, Stiegler's extreme insistence on urgency combined with his references to Jules Ferry—who was not only, as Stiegler positions him, a forerunner of public education, but also a vehement imperialist who called on the 'superior races' to civilize the 'inferior' ones—sits uneasy with the task of promoting intelligence and reason.⁴⁸ It seems that precisely due to the urgency to act, Stiegler cannot resist the phantasy of a *total* plan for countering infantilization. His sense of urgency borders on fatalism, for example when he writes that "care is completely destroyed" and that the destruction of attention we are witnessing is "unprecedented."⁴⁹ This fatalism is nuanced in other places, for example in *States of Shock* where Stiegler writes of the fact of infantilization: "there is an alternative to this fact."⁵⁰ However, Stiegler's insistence on immediate urgency remains. While I do not fully agree with Emile Bojesen that Stiegler is totalitarian, his characterization of Stiegler's proposals as "impositional" makes sense.⁵¹

46 Especially the surrealists—including the aforementioned Apollinaire—succeeded in creating new meanings for art by taking children and childhood as inspiration, see David Hopkins's fascinating *Dark Toys: Surrealism and the Culture of Childhood* (New Haven: Yale University Press, 2021).

47 Lyotard, *The Inhuman*, 7.

48 Peter Gratton, "Taking Care of Youth and the Generations," *Notre Dame Philosophical Review*, 2010, <https://ndpr.nd.edu/reviews/taking-care-of-youth-and-the-generations/>.

49 Even though Stiegler consistently argues for the fundamentally pharmacological character of the human being's relation with technology—which would rather lead to a conclusion that the relation with technology has always been one of ambiguity and risk, both constituting the human and opening the human to the possibility of its own destruction—he also consistently claims that our contemporary situation is entirely "unprecedented." Bennington rightly argues that this reintroduces the model of *catastrophe* into Stiegler's thought, notwithstanding Stiegler's own criticism of it in Rousseau (in *Technics and Time*). See: Bennington, *Interrupting Derrida* (London and New York: Routledge, 2000), 162–79.

50 Stiegler, *States of Shock*, 3.

51 Emile Bojesen, "Educational Resistance," *Educational Philosophy and Theory* 55, no. 5 (16 April 2023): 562–73, <https://doi.org/10.1080/00131857.2021.1927702>.

This is not only a consequence of Stiegler's sense of urgency. It is his understanding of childhood which necessitates it as well. Influenced by Kant's essay on Enlightenment, Stiegler understands childhood as first and foremost a negativity. This is clear in his understanding of childhood as *a default of origin*, which Stiegler emphasizes is more an absence than a lack.⁵² This absence is required to think the difference that is at the root of the human's pharmacology, which is why Stiegler playfully writes of "*le défaut qu'il faut*." But even though he notes this necessity of the default, it remains formulated entirely in negative terms. Any potentiality of infancy is for Stiegler then immediately a potentiality of and via specific technics, as we have seen in Van der Heiden's argument discussed in the previous section. This means that in *Taking Care*, the minority to which infantilization regresses is characterized by a lack of responsibility, a lack of critical thought, a lack of deep attention resulting in attention deficit disorder, and a lack of individuation. For the most part then, when Stiegler writes of childhood, it is characterized solely as the negation of maturity.⁵³

But, as I have argued elsewhere, there is also a second notion of childhood operative in Stiegler's works.⁵⁴ This is a childhood not opposed to maturity and a mature life of the mind, but constitutive of it in a positive sense, primarily as play. Taking up mature responsibility is taking responsibility for the next generations, and this turns out to mean engaging in play with the younger generation. A maturity that excludes "the age of play"—which is how Stiegler defines childhood in an interview⁵⁵—is not mature at all.

Even though infantilization may seem catastrophic and disastrous in Stiegler's thought, the human is characterized by an *essential possibility of infantilization*. In Stiegler's words: "we can never become *completely* mature ..."⁵⁶ This means that even in the maturity that Stiegler calls for as the proper end of the human, infancy will remain. And of course, the

52 Throughout *What Makes Life Worth Living*.

53 Operative here is a parallelism between childhood as origin of the individual and the *default qu'il faut* as origin of the human as such, a parallelism which Stiegler elaborates primarily via a reading of Winnicott (but see also the very peculiar reference to recapitulation theory in *Technics and Time, 1: The Fault of Epimetheus*, trans. George Collins and Richard Beardsworth (Stanford: Stanford University Press, 1998), 140). I believe this, combined with the influence of Kant's essay on Enlightenment, leads to Stiegler's difficulties in thinking a positive notion of childhood. A similar structure is at work in related thinkers such as Peter Sloterdijk and Dany-Robert Dufour, specifically their concept of *neoteny* (which is also how Stiegler sometimes calls the *default qu'il faut*). It is probable then, that Sloterdijk and Dufour also run into similar difficulties, but I have not yet researched this in sufficient detail. I hope to work on this argument in future research.

54 Daan Keij, "Immature Adults and Playing Children: On Bernard Stiegler's Critique of Infantilization," *Studies in Philosophy and Education* 40, no. 1 (February 2021): 67–80, <https://doi.org/10.1007/s11217-020-09742-9>.

55 Anna Kouppanou, "'...Einstein's Most Rational Dimension of Noetic Life and the Teddy Bear...' An Interview with Bernard Stiegler on Childhood, Education and the Digital," *Studies in Philosophy and Education: An International Journal* 35, no. 3 (2016): 244, <https://doi.org/10.1007/s11217-015-9504-1>.

56 Stiegler, *Taking Care of Youth and the Generations*, 87.

proper-ty of this maturity becomes problematic when it can never be fully actualized as such—which means this property is only ever actual in an incomplete, that is improper, way.

In the next section, I will argue that it is in supplementing a notion of maturity as responsibility and critical thinking that Lyotard's account of infancy reveals its current relevance. Stiegler rightfully sees the regression of responsibility and critical thought, but like a pendulum his proposals swing to a new one-sidedness. Lyotard's account of the remainders of infancy as radical vulnerability, potentiality and affectivity must not be forgotten if we want to truly think the human as not only mature, but as a specific *composition* of infancy and maturity.

Affectivity and the Thing

Even though the notion of infancy as resistance, as elaborated in the first section, has become problematic after considering Stiegler's critique of infantilization, it nonetheless points to something that Stiegler's call for maturity, elaborated in the second section, cannot accommodate. Seeing infancy as only a lack of all that is positive, he cannot but want to escape it as much as possible.

Consider how different Lyotard reacts to Kant's essay on Enlightenment. He also notes that for Kant, "if childhood persists after childhood, it is 'laziness and cowardice.'" But rather than affirming this, Lyotard takes issue with this negative understanding: "By childhood, I do not only mean, as the rationalists would have it, an age deprived of reason. I mean this condition of being *affected* although we don't have the means—language and representation—of naming, identifying, reproducing, and recognizing what affects us."⁵⁷ With this notion of affectivity, Lyotard points to a dimension that, I would argue, is not thought properly in Stiegler's work. So not only is Stiegler's account necessary to supplement Lyotard; it is also the other way around.

Interestingly, we can follow cues from Stiegler. In *States of Shock*, Stiegler not only criticizes Lyotard's work but also suggests a more adequate direction. To think anamnesis, the working-through which Lyotard associates with bearing witness to the differend with infancy, Stiegler asks: "Would it not be necessary here to return to Lacan and to the question of the Thing—*das Ding*?"⁵⁸ It is truly remarkable that Stiegler ignores the fact that this is precisely Lyotard's route. Stiegler must have been aware of the work Lyotard

⁵⁷ Lyotard, "The Grip (Mainmise)," 149.

⁵⁸ Stiegler, *States of Shock*, 98.

has done in elaborating his own interpretation of this notion, so why he does not mention it remains a mystery.

But Stiegler is right: the notion of the Thing is fruitful. In his own work, he has not succeeded in elaborating this in detail, although we can find some first leads in his “genealogy of the sensible” in *Symbolic Misery 2*. There, Stiegler points to an excess of sensibility in impressions that lead via what he terms “traumatic retention” to artistic expression.⁵⁹ However, Stiegler shifts his focus quickly to organology (as throughout his work) which leads his attention to the different and changing milieus of the sensible. Moreover, where he writes of the unconscious it is formulated mostly in terms of libido as energy, which also shifts the focus away from affectivity.

Lyotard on the other hand elaborated “the condition of being *affected*, although we don’t have the means—language and representation—of naming, identifying, reproducing, and recognizing what affects us” as infancy.⁶⁰ He distinguishes affects that can at least partially be represented,⁶¹ from affects that can be seen as limit-cases of affect since they are not even felt at all. These latter affects wherein something has touched us but without signaling itself are what Lyotard terms “unconscious affects.” Lyotard elaborates this by means of a reading of Freud, primarily in *Heidegger and ‘the jews’*: “It is thus a shock, since it ‘affects’ a system, but a shock of which the shocked is unaware, and which the apparatus (the mind) cannot register in accordance with and in its internal physics; a shock by which it is not affected.”⁶²

Crucially, that this affect is not experienced or registered consciously does not mean that it does not have any effect. In the metaphor of *Heidegger and ‘the jews’*: the affect deposits a quantity of energy and this haunts the mind unknowingly. In an interview with Richard Beardsworth, Lyotard links this to infancy:

The human child takes two years to begin to speak. This is a huge zone, constituting a delay which explains, perhaps ... that something is going to happen, that something will have happened in this dumb zone where the child nevertheless hears, hears a music. Something is going to happen that cannot be marked, because it cannot be symbolized (yet) in

59 Stiegler, *Symbolic Misery 2: The Katastrophē of the Sensible*, 84. Many thanks to one of the reviewers for pointing out this book and the notions of traumatic retention and traumatype. I hope to elaborate on this in more detail in future work.

60 Lyotard, “The Grip (Mainmise),” 149.

61 In *Emma*, Lyotard writes: “quality and address are still, or already, what is in affect, albeit remotely, part of the representative, of articulated language and of time” “Emma: Between Philosophy and Psychoanalysis”, 32, translation modified.

62 Lyotard, *Heidegger and ‘the Jews’*, trans. Andreas Michel and Mark S. Roberts (Minneapolis: University of Minnesota Press, 1997), 12.

a language. This presents the occasion for an affective mass to gather which will remain in attendance of its expression.⁶³

I believe we see here how Lyotard understands the genesis of the Thing as that which resists the mind's desire for transparency. But as we have seen, for Lyotard, infancy is not chronologically limited to our stage of life before we learn how to speak. There remains an affectivity for that which we cannot put into words or other representations.

But of course, not every affect hits equally 'deeply.' I think this is why Lyotard writes:

And what makes an encounter with a word, odor, place, book, or face into an event is not its newness when compared to other 'events.' It is its very value as initiation. You learn this only later. It opened a wound in sensibility. You know this because it has since reopened and will reopen again, marking out the rhythm of a secret and perhaps unknown temporality. That wound led into an unknown world, though without ever making it known. Such initiation initiates to nothing, it just begins.⁶⁴

This affect that opens a wound in sensibility is constitutive of initiation, which I understand as the bringing about of a break with what is. Reason, even if understood pharmacologically as Stiegler does, is perhaps *necessary* to bring this to the end of a desire for ideas rather than a short-circuiting of the drives, but it is not of itself *sufficient*. What must be thought is a site where "it hits you." Infantile affect institutes a break, opening up existing structures and habits. And Lyotard's phrasing suggests it opens up ways of seeing as well.

The condition for any change—or in Stiegler's terms: any *invention*—whatsoever is the opening up of existing structures. And I believe we can locate here a profound difference between Stiegler and Lyotard. Woodward summarizes this difference ("in short, and simplifying") as a difference in how they value the binding of the drives. Stiegler values binding the drives and investing in durable objects—ultimately those objects without end that are the ideas of reason—while Lyotard values their unbinding that leads to a break with existing meanings and structures.⁶⁵

The possibility of radical events that open up existing ways of seeing requires a thought of infancy as a dimension of life that remains, in adulthood as well. It is not enough to think maturity as not-total; the immaturity that remains must be positively thought as a

63 Richard Beardsworth, "Freud, Energy and Chance: A Conversation with Jean-François Lyotard," *Teknema*, no. 5 (1999), <http://teknema.free.fr/5Beardsworth.html>.

64 Lyotard, *The Postmodern Explained*, 90–91.

65 Woodward, *Lyotard and the Inhuman Condition*, 101.

dimension of affectivity that goes beyond—or perhaps more precise: *before*—technologically mediated representations and objects. This is a consequence of understanding infancy as not exclusively constituted pharmacologically.

The suspension or possible innovation of meaning is then not only grounded in the *différance* Stiegler thinks between the human and the human supplement of technics. Van der Heiden writes: “the *différance* of the past handed down as writing and the horizon of meaning in which it is appropriated ... is also the margin or the play that allows for something new to announce itself within this horizon of meaning.”⁶⁶ This conception allows us to think meaning as open-ended and fundamentally incomplete, and thus that something new can announce itself, but not yet where the new comes from.

With infancy as radical affectivity, Lyotard points to a different open-endedness. This results from the mismatch between articulated meaning and infancy rather than writing: “Discourse does not appear to be able to support for long an unarticulated and unargued remnant remaining outside of its grasp.”⁶⁷ Confronted with this inarticulate remnant, the mind seeks to bring it to transparency, that is, to articulate it.

Lyotard is not always clear on this, but I believe the demand that ultimately spurs those practices that both Lyotard and Stiegler deem essential to what makes life worth living—science, art, philosophy—does not come from the Thing as such.⁶⁸ In *Emma*, Lyotard clarifies: “the pure childhood phrase-affect itself cannot involve a demand. ... A demand is an expectation of linking.”⁶⁹ The demand for linkage pertains to articulated phrases, those phrases that were the object of investigation of *The Differend*. But affect is *inarticulate*.⁷⁰

The demand only comes about when the mind tries to enter into relation with the Thing, and to give it a place. It is only then that this squatter and clandestine guest reveals that it is there.⁷¹ I deliberately use this phrasing to signify that the Thing does not reveal *itself*, but only *that it is*. Its obscurity, resulting from affects that are fundamentally unrepresentable, is unsublatable.

Its stubborn obscurity functions for Lyotard as explanation for the drive to writing, thinking and other practices of making. He writes in *Emma*: “the silent ‘presence’ of the

66 Heiden, “Technology and Formation,” 58.

67 Lyotard, “The Affect-Phrase (from a Supplement to *The Differend*),” in *The Lyotard Reader and Guide*, ed. Keith Crome and James Williams (Edinburgh: Edinburgh University Press, 2006), 106.

68 Lyotard writes of an obligation and a debt to the Thing in: *Readings in Infancy*, 44–45.

69 Jean-François Lyotard, “Emma,” in *Lyotard: Philosophy, Politics, and the Sublime*, ed. Hugh J. Silverman (New York: Routledge), 39.

70 Lyotard, “The Affect-Phrase (from a Supplement to *The Differend*).”

71 see: Claire Nouvet, “The Inarticulate Affect: Lyotard and Psychoanalytic Testimony,” *Discourse* 25, no. 1 (2003): 239.

affect ... demands of articulated language an endless series of stagings, novels, tragedies, epics, an accumulation and linking of articulated phrases which are contradictory, undecidable ...in order to relieve adult language of the impossible task of getting even with the 'nothing' of childhood 'affect'."⁷² The word *exigency* names this well. Exigency is the feeling of necessity, of the 'I cannot but do this.' But since ultimately the attempt is to do justice to the Thing, to affect, this cannot but fail.

Lyotard sees this process at work in Freud's Rat Man case. During transference in the analysis, Freud was affected many times in transgressive ways. He writes in his journal of all kinds of horrible, frightful and wonderful phantasies of sex and murder.⁷³ These affects having been amassed in the Thing, Freud struggles to do full justice to what has occurred. This struggle is, as Lyotard rightly notes, the struggle of "a Flaubert, of a Beckett."⁷⁴ Freud cannot but continue on, working through the affects and the "singular beauties" of the case and trying to write them down, even though he simultaneously sees he betrays them. He writes: "Unfortunately this paper in turn is becoming too bulky. It just pours out of me, and even so it's inadequate, incomplete and therefore untrue."⁷⁵ Precisely in this excessive accumulation, we can find a testimony to that which resists being written, in writing.⁷⁶ The Thing is not inscribed, but circumscribed.

Geoffrey Bennington has argued that this is therefore the ground for experiment and invention. Even though testimony cannot but fail—recall Lyotard's infamous "The witness is a traitor"⁷⁷—it can "fail better" in seeking new ways to write that which cannot be written.⁷⁸ This entire dimension of affect, of the Thing, and of practices of bearing witness, are I believe then also constitutive of what Stiegler seeks to think as "the feeling that life is worth living."⁷⁹ What is therefore required is both Stiegler's new maturity that takes responsibility for the next generation, training their attention for ideas of reason, but also Lyotard's slow and inefficient anamnesis of infantile affects. In line with Lyotard's insistent defense of heterogeneity, we must maintain that these are separate domains,⁸⁰

72 Lyotard, "Emma," 43.

73 See: Lyotard, *Readings in Infancy*, 102.

74 Lyotard, *Readings in Infancy*, 101.

75 Quoted in: Lyotard, *Readings in Infancy*, 101.

76 See: Lyotard, *Readings in Infancy*, 1.

77 This is the final phrase of Lyotard, *The Inhuman*.

78 Julie Gaillard and Mark Stoholski, "Impious Thinking: An Interview with Geoffrey Bennington," in *Traversals of Affect: On Jean-François Lyotard*, ed. Julie Gaillard, Mark Stoholski, and Claire Nouvet (London: Bloomsbury Academic, 2016), 270.

79 Stiegler, *What Makes Life Worth Living*.

80 Lyotard distinguishes these as the task of the intellectual and the task of the philosopher in: Francis Guibal and Jacob Rogozinski, *Témoigner du différend: quand phraser ne se peut : autour de Jean-François Lyotard* (Paris: Osiris, 1989); See also the distinction of two Others in: Jean-François Lyotard, "Anamnesis: Of the Visible," *Theory, Culture & Society* 21, no. 1 (1 February 2004): 107–19, <https://doi.org/10.1177/0263276404040483>.

and critical maturity in Stiegler's sense cannot accommodate them both.

Conclusion

In this article I have argued for the enduring relevance of Lyotard's philosophy of infancy. I began by sketching how Lyotard posits infancy as a source of resistance against the tendency of development: development towards more development. This requires efficient circulation of resources and energy. Contrary to the demands of speed and efficiency, Lyotard positions infancy as slow anamnesis and repeated working-through.

In the second section this opposition was problematized by means of arguments from the work of Bernard Stiegler. Stiegler argues in numerous works that our contemporary situation is characterized not just by development, but by *infantilization*. Infantilization is understood as the destruction of maturity, and thereby as the in-differentiation of the generations. In this context, infancy is anything but resistance; it is the minority to which we regress to fulfill the demands of the system of development. Stiegler therefore argues that it is only by getting out of this condition of minority and infancy that we can resist.

Stiegler thus calls for a new maturity. Young minds must learn to sublate their infancy into the long circuits of the life of the mind. This results in "a battle for intelligence," because companies and governments alike rather seek to short-circuit the young minds, trapping them in the insatiable renewed drives for repeated satisfactions. To counter this tendency, youth requires training on how to care for the world, and that can only happen by leading their minds into the realm of ideas: 'objects' that by definition cannot be consumed.

These arguments are important in today's society. Critical thinking is indeed going down the drain, with studies showing that fewer children are able to actually understand what they are reading and to reflect on it. This requires remedy, and Stiegler sees the right way forward by claiming that institutions of education must recapture attention in order to support children's entry into the long circuits of reason. Lyotard also sees these dangers, but at times he shows a kind of disdain for reason that prevents him from fully realizing them.

However, in the third section I argued that this does not mean that his philosophy of infancy has been surpassed by the times. Both Lyotard and Stiegler see something important, but the full scope of the issue only comes in view when we combine aspects of their thinking. Stiegler sees that something of a feeling is required, an exigency, but his theory does not allow him to fully conceptualize this.

Lyotard's thought of infancy not only as default, nor only as potentiality, but foremost

as affectivity, allows for a conceptualization of this dimension of feeling. Moreover, it reveals that central to the feeling of exigency is a dimension of existence that is absolutely unmasterable. This dimension cannot be trained by reasoning and "deep attention" alone; rather, it requires the ascesis of reason. It requires "free-floating attention," as Lyotard writes with reference to the practice of the psychoanalyst.⁸¹

Finally, what this reveals is then that "saving childhood and even infancy" cannot be programmed by the knowing generation of adults.⁸² The event of affect cannot be triggered. At most, favorable conditions can be fostered. But ultimately, the event occurs of itself, shaking up the infancy that remains with us.⁸³

My conclusion is then that resistance to development should paradoxically consist of both the training and the ascesis of reason. Deep attention and critical thinking is required to learn from tradition—both the one in which we are born and those of others—but sensibility to affect and the Thing must also be cultivated to make room for eruptions from that which will forever be before all tradition.

Lyotard writes in *Survivor* that responding to the demand that springs from the missed encounter between the mind and the Thing requires "loneliness."⁸⁴ But in the same text, he also notes that there is a possible tradition of infancy. This tradition, which we can perhaps term an *atradition* or *intradition* is not really worked out in detail. But I believe that in times where the breakdown of the mind also results in the breakdown of ecology understood in the sense not only of the environment but also of the *social* ecology, a *sharing of infancy* must be conceptualized as a necessary counterpart to renewed efforts in the sharing of ideas in the setting of education. A sharing of infancy that is the sharing of a joy and wonder, but also of a melancholy, that are presupposed in all the infinite efforts of the life of the mind. How exactly such a sharing must be thought remains a task for future research.

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81 Lyotard, "The Affect-Phrase (from a Supplement to The Differend)," 108.

82 See: Stiegler, *States of Shock*, 153.

83 See "Anima Minima" in: Jean-François Lyotard, *Postmodern Fables* (Minneapolis: University of Minnesota Press, 1997).

84 Lyotard, *Readings in Infancy*, 59.

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System Failure (?)

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Abstract

This paper takes a retrospective look at Lyotard's analysis of "the postmodern condition," a century after his birth, and nearly a half-century since his highly influential book. Lyotard's pessimistic view was that after the end of metanarratives, there is now no alternative to the liberal democratic capitalist "System," which is governed by a technological-economic principle of "performativity." Considering Lyotard's thesis in the light of his own methodology of "signs of history," I argue that it is no longer possible to hold this view. A number of key historical events point to massive fault-lines that have appeared in this System. Nevertheless, much of what Lyotard wrote in *The Postmodern Condition* about the growing influence of *technology* on social and political life has only been confirmed. The hypothesis this paper proposes is that the signs of system failure might at least open paths of resistance to technological hegemony.

Keywords: Jean-François Lyotard; postmodern; political philosophy; philosophy of technology; art and technology

Jean-François Lyotard's most famous work, *The Postmodern Condition*, proposed a number of controversial ideas: ideas about the values of social consensus and dissensus, about postmodern science as the search for instabilities, and about the future of education in the context of developing information technologies, among others.¹ I want to focus here, however, on the famous claim which made Lyotard's book, for a time, one of the most widely referenced works in the Humanities: the claim that postmodernity is defined by "incredulity toward metanarratives."² Lyotard called this loss of credibility "delegitimation." While pointing to internal contradictions in the speculative and emancipatory narratives, there are there are at least two other important reasons for this delegitimation that he also indicates, which I would like to discuss here. The first, developed more in writings following *The Postmodern Condition*, is the occurrence in the twentieth century of events which act as "signs of history" that seem to "falsify" such metanarratives. The second—a focus of *The Postmodern Condition* itself—is the replacement of the narrative form of legitimation by another form, which Lyotard calls "performativity." My paper has two parts, in which I will focus on each of these. In both cases, my aim will be to question the contemporaneity of Lyotard's analyses. At the year of the centenary of Lyotard's birth, and nearly a half-century since *The Postmodern Condition*, how should we understand his thesis regarding the "incredulity toward metanarratives" and the extensions he gave it in his later writings?

I

In assessing the claims of *The Postmodern Condition* today, it is highly relevant to track Lyotard's own later reconsiderations of this work. Characteristically he heaped criticism upon it, saying that "it's simply the worst of my books, they're almost all bad, but that one's the worst," and even characterising it as a *parody* or *satire* of the genre of the report.³ However, we would be justified in ascribing this dissatisfaction more to the generic form it took, rather than its content. According to the distinctions he himself makes in the Introduction, the book excessively apes expertise rather than performs philosophy—that is, it appears too conclusive, while philosophers should only raise questions.⁴

With respect to the content, in later reflections Lyotard only confirmed the thesis of "incredulity toward metanarratives." Let me quote from the 1991 essay "Music and

1 An earlier version of this paper was published in Chinese (translated by Zhou Jing) in *Journal of the China Academy of Art* 41, no. 6 (2020): 88–100.

2 Jean-François Lyotard, *The Postmodern Condition: A Report on Knowledge*, trans. Geoff Bennington and Brian Massumi (Manchester: Manchester University Press, 1984), xxiv.

3 Jean-François Lyotard, "Interview" (with Arias-Mission), *Eyeline* 3 (Nov 1987): 17–19; 17.

4 Lyotard, *The Postmodern Condition*, xxv.

Postmodernity," where he writes:

In *The Postmodern Condition*, which is a Report written [...] for a Canadian institution, I tried to understand, and to make understood, an event. [...] I thought of this event as western. The West is part of the human world that 'invents' the Idea of emancipation, of the self-constitution of communities by themselves, and that tries to realise this Idea. The realisation of this idea rests on the principle that history is the record of the progress of freedom in human space and time. The first expression of this principle is Christian, the latest Marxist. *The Postmodern Condition* referred to the discourse of these philosophies of history by the shorthand name of 'grand narrative.' [...] The postmodern condition is the result of these grand narratives ceasing to be credible. [...] the diagnosis is too vast not to be questioned. Nevertheless, the recent implosion of the states founded on the Marxist grand narrative brings a sort of plausibility to the hypothesis formulated ten years earlier.⁵

I quote this passage for several reasons, among which are that it provides a good summary of Lyotard's thesis, and also that it explicitly marks its limits. Lyotard wrote about the postmodern as a condition he believed befell the West. (He also included Japan, however, which he visited in the late 1980s.)

In various papers and studies in the early 1980s, Lyotard developed a subtle approach to philosophy of history which pointed to the delegitimation of modern metanarratives by key events of the twentieth century. For example, in *The Differend* (§257) he writes:

The names which are those of 'our history' oppose counter-examples [to the modern metanarratives]: -Everything real is rational, everything rational is real: 'Auschwitz' refutes speculative doctrine. This crime at least, which is real [...] is not rational. -Everything proletarian is communist, everything communist is proletarian: 'Berlin 1953, Budapest 1956, Czechoslovakia 1968, Poland 1980' (I could mention others) refute the doctrine of historical materialism: the workers rose up against the Party. -Everything democratic is by and for the people, and vice-versa: 'May 1968' refutes the doctrine of parliamentary liberalism. The social in its everydayness puts representative institutions in check. -Everything that is the free play of supply and demand is favourable for the general enrichment, and vice-versa: the 'crises of 1911 and 1929' refute the

5 Jean-François Lyotard, "Music and Postmodernity," trans. David Bennett, *New Formations* 66 (2009): 37-45; 37-38.

doctrine of economic liberalism. And the 'crisis of 1974–1979' refutes the post-Keynesian revision of that doctrine.⁶

These claims may seem to have an immediate intuitive appeal. However, there is also a complex philosophical argument behind this appeal. Lyotard's method here draws on and transforms arguments advanced by Kant. In the essay "A Renewed Attempt to Answer the Question: 'Is the Human Race Continually Improving?'" Kant suggests that this question cannot be answered with reference to empirical facts, since human beings possess free will, making it impossible to predict their future course on the basis of past events. Instead, he points to the event of the French Revolution as a "sign of history" which can furnish a different kind of answer to the question. Kant argues that the widespread feeling of *enthusiasm* in many spectators of the revolution justifies the judgement that the human race is improving: it is a universal and disinterested enthusiasm not for the bloody events of the Revolution itself, but for the evolution of the constitution towards republicanism. This then indicates, according to Kant, an inclination towards progress in human nature, which we can judge to be a persistent one. Moreover, enthusiasm, according to Lyotard's analysis (which also draws on other texts by Kant), itself indicates a kind of improvement, or moral progress, insofar as this feeling is a *sublime* one, and presupposes a certain level of development of human culture.⁸

Lyotard follows Kant's model but suggests that a different analysis must be given of the events of postmodernity. Instead of filling us with enthusiasm, Lyotard claims that the catastrophic events of the 20th century mentioned above fill us with *sorrow*.⁹ They act to delegitimize the modern metanarratives because they indicate that their Ideas do not match empirical reality. Nevertheless, perhaps surprisingly, Lyotard does suggest that this feeling itself can indicate a *type* of improvement or progress, which would concern the sensitivity and complexity of human beings, signalled by the very recognition of the failure of metanarrative legitimation. In short, metanarratives claim to account for and give meaning to every event according to a single historical finality, but the recognition of their failure is accompanied by an awakening sensitivity to pluralism and heterogeneity. Lyotard writes:

[H]owever negative the signs to which most of the proper names of our political history give rise, we should nevertheless have to judge them as

6 Jean-François Lyotard, *The Differend: Phrases in Dispute*, trans. Georges Van Den Abbeele (Manchester: Manchester University Press, 1988), 179 (§257).

7 Immanuel Kant, "A Renewed Attempt to Answer the Question: 'Is the Human Race Continually Improving?'" in *Kant: Political Writings*, ed. Hans Reiss, trans. H. B. Nisbet, 2nd Ed. (Cambridge: Cambridge University Press, 1991).

8 Jean-François Lyotard, "The Sign of History," in *The Lyotard Reader*, ed. Andrew Benjamin (Oxford and Cambridge: Basil Blackwell, 1989), 407.

9 Lyotard, *The Differend*, 180 (§257).

if they proved that this history had moved on a step in its progress; i.e. in the culture of skill and of will. This step would consist in the fact that it is not only the Idea of a *single* purpose which would be pointed to in our feeling, but already the Idea that this purpose consists in the formation and free exploration of Ideas *in the plural*, the Idea that this end is the beginning of the *infinity of heterogenous finalities*.¹⁰

In his later reconsiderations of the postmodern condition, such as that indicated above, Lyotard interpreted various contemporary events as confirming that condition. Let us examine his reflections originally presented in a seminar paper in Germany in 1990 under the title “The Wall, the Gulf, and the Sun: A Fable.”¹¹ He used the opportunity afforded by this occasion “to take stock of the present historical conjuncture.”¹² Lyotard recalls here the “situation analysis” he practised decades before as an activist in the Marxist group *Socialisme ou Barbarie*, in order to mark the difference of that period with the situation he believed we faced in 1990.

This essay contains a version of the “postmodern fable” that Lyotard had already presented in several conference papers around this time. In 1979, in *The Postmodern Condition*, Lyotard confidently proclaimed that “the mourning process has been completed,” and “[m]ost people have lost the nostalgia for the lost narrative.”¹³ By the late 1980s, however, he seems to have realised that he had perhaps spoken too soon, and on multiple occasions presented the “postmodern fable” as “the great narrative that the world persists in telling itself after the great narratives have obviously failed.”¹⁴ It is, in Lyotard’s words, “the unavowed dream the postmodern world dreams about itself.”¹⁵ It bears much in common with ideas now associated with terms such as “transhumanism” and “posthumanism,” and we can speculate on the lines of influence here given that Lyotard frequently taught in California in the years when transhumanism was emerging there. The postmodern fable is based in science but does not have a truly scientific status—Lyotard asserts that if you ask the scientists themselves who spout such ideas, they will say that it is simply a hypothesis,¹⁶ and Lyotard presents it in his own way as comparable to Voltaire’s philosophical fables.¹⁷

10 Lyotard, “The Sign of History,” 409.

11 Jean-François Lyotard, “The Wall, the Gulf, and the Sun: A Fable,” in *Jean-François Lyotard: Political Writings*, trans. Bill Readings and Kevin Paul (Minneapolis: University of Minnesota Press, 1993). This paper was later revised, expanded, and published in two parts in *Postmodern Fables*, trans. Georges Van Den Abbeele (Minneapolis: University of Minnesota Press, 1997): chapter 5, “The Wall, the Gulf, the System,” and chapter 6, “A Postmodern Fable.” References which follow are to this most mature version of the text.

12 Lyotard, “The Wall, the Gulf, the System,” 67.

13 Lyotard, *The Postmodern Condition*, 41.

14 Lyotard, “The Wall, the Gulf, the System,” 81–82.

15 Lyotard, “The Wall, the Gulf, the System,” 81.

16 Lyotard, “*Oikos*” in *Political Writings*, 101.

17 Lyotard, “The Wall, the Gulf, the System,” 81.

This fable presents a metaphysical, fictional account of how the situation appeared to Lyotard at the time in terms of the triumph of what he called simply “the System.” This System is, *grosso modo*, Western liberal democracies analysed through the lens of a combination of the Marxist critique of capitalism and the Heideggerian critique of modern technology. This System may be expressed in the terms of general physics or dynamics simply as the organisation of energy in the universe, governed by an evaluative structure which privileges improbable order (negentropy) over probable disorder (entropy). The fantasy of “the System” is to justify itself not with reference to a human philosophy of history, but with reference to a (supposedly objective and politically neutral) scientific, physical reality. From this perspective (and Lyotard can be read here as, whether consciously or not, echoing and ironically critiquing Francis Fukuyama¹⁸), Western liberal democracies have won the historical battle of ideologies not because they have proven themselves more just, but because they have proven to be the most efficient means of processing energy to increase order and decrease disorder. They do this by being “open” systems, allowing the entry of new energies, and are thus better at warding off entropy than “closed” systems.

In 1990 Lyotard selects, as events which might gauge the times, the fall of the Berlin Wall and the imminent “first Gulf War” (which Lyotard refers to as “the Persian Gulf crisis,” which at the moment he was writing—October 1990—remained “in a phase of *suspense*”¹⁹). For Lyotard, the fall of the Berlin Wall was an event which signalled the end of Marxism as a metanarrative (*as a metanarrative*, it might be emphasised, since there are other senses in which he continued to insist that Marxism remained relevant²⁰). The Gulf Crisis called for a more complex analysis, which required a reflection on a potential challenge to the System by the alternative global culture known as Islam. He describes Islam as more than a religion; it is a way of life characterized by “a spirituality, which is marked and consecrated in every detail of daily life, and which makes Islam more the name for a total civilization than a particular religious belief.”²¹ This civilization opposes and resists the Western secularization which characterises “the System,” and Lyotard sees the conflict of Saddam Hussein with the Western powers as ultimately a sign of this conflict. He does not seem in any doubt of the victor, writing:

As respectable as Islam may be as a model of spirituality, it cannot equal

18 Francis Fukuyama, “The End of History?,” *The National Interest* 16, (1989): 3-18.

19 Lyotard, “The Wall, the Gulf, the System,” 74.

20 Lyotard continued to see the core of Marxism that has a persisting relevance as the exposure of social injustice, which he explained in his own terms as a *differend*. For example, he wrote in 1982: “what in Marxism cannot be objected to [...] is] that there are several incommensurable genres of discourse in play in society, none of which can transcribe all the others; and none the less one of them at least—capital, bureaucracy—imposes its rules on the others.” Jean-François Lyotard, “A Memorial for Marxism,” in *Peregrinations: Law, Form, Event* (New York: Columbia University Press, 1988), 72.

21 Lyotard, “The Wall, the Gulf, the System,” 76-77.

the concrete performances of the West; it will have to modify its status, for instance, by becoming a religious belief and ritual practice among others, if it does not wish to disappear in time.²²

Lyotard's prognosis seems in step with the analyses of others at the time (both before and after the event), such as Noam Chomsky, for whom the Gulf War would not be a true war, involving a conflict between roughly equal sides, but a slaughter, and Jean Baudrillard, for whom the war (as a war, with real stakes in global historical terms) would "not take place."²³ The West, with America's technologically advanced army at its vanguard, seemed unquestionably destined to be the victor, especially as its socio-political form of organisation was just emerging triumphant from a long Cold War.²⁴

In 1990, then, Lyotard saw the world as dominated by a relatively stable and efficient System, where it looked like the stakes and battles of the past were over, and all that remained for the future would be a series of fine-tunings in the efficiency of the global System. He was deeply pessimistic about the dominance of this System, which he saw as a soft totalitarianism, accompanied by its own form of terror. In short, this terror consists in the threat that all that does not conform with the logic of performativity (which I will outline further in the next section) will be eliminated. This is a threat to what is at stake in thought, art, and life, but most dramatically he suggests that this threat might extend to the entire population of the Third World, as it proves to be an entropic drain on the System, which would perform more efficiently without it.²⁵

If we were to entertain Lyotard's perspective, how would today's historical conjuncture look? Do present events confirm the theses of *The Postmodern Condition*, as Lyotard took events in 1990 to do? What are we to make of Lyotard's later developments and modifications of his reflections on the postmodern? I want to suggest several among many possible events—none of which Lyotard, who died in 1998, lived to see—that we could cite in order to gauge how things have changed: the terrorist attacks on America of September 11, 2001; the Great Recession of 2007–9; the rise of the populist Right indexed by the Brexit vote in the UK and the election of Donald Trump in the USA in 2016; the increasing awareness of impending climate catastrophe, which we might index with the proper name and date of Greta Thunberg's global activist presence, which emerged in 2018; and the globally destabilising military conflicts in Ukraine and Gaza since 2022. Each of these

22 Lyotard, "The Wall, the Gulf, the System," 80.

23 See Paul Patton's introduction to his English translation of Baudrillard's *The Gulf War Did Not Take Place* for a sober analysis of Baudrillard's provocative position, and a comparison with Chomsky's.

24 It should be noted that despite this apparently critical analysis of the impending war as a function of the System, Lyotard was one of seven signatories to a controversial letter published in *Libération*, 21 February 1991, titled "Une guerre requise," defending the necessity of the war.

25 Lyotard, "Oikos," 99.

events have shown breaks, cracks, splits, and failures in the System which appeared to Lyotard in 1990 to be approaching something like a stable and fatalistic equilibrium.

Regarding the first of these events, it is instructive to compare Lyotard's compatriot Jean Baudrillard, another theorist of the postmodern, who lived for longer and hence saw more of history unfold. After proposing a petition to have the 1990s abolished and proceed directly to the year 2000, the symbolic "end of history"—on the grounds that no historical events occur anymore anyway—Baudrillard announced the return of events on September 11, 2001.²⁶ The instabilities which had been regulated and suppressed through their increasingly high-fidelity representation and mediatisation returned like the repressed. For Baudrillard this was also a matter which could in some sense be understood in terms of systems theory: the global economic system which exploited the majority for the benefit of the minority could not be sustained in equilibrium forever, and this was the backlash of pent-up energies resulting from decades of American imperialism in the Middle East. Putting Baudrillard's analysis in Lyotard's terms, we could suggest that September 11 was the great event which delegitimated the "postmodern fable" of development as simply a matter of fine-tuning the world's politico-economic system. As we have just seen, in 1990, on the brink of the first Gulf War, Lyotard had downplayed the significance of Islam as a less efficient system for the exploitation of energies. Today things look much different, in the wake of this event, two decades of the global "war against terror," and the disastrous wars in Iraq, Afghanistan, and Syria. America and the "coalition of the willing" lost the public relations war as well as the fantasy of being the world's police force. Today it is not quite so clear that democratic liberal capitalism is the undoubted victor in the "clash of civilizations."

The Great Recession of 2007–9 has resulted in a widespread incredulity towards the neoliberal economic policies—themselves based in systems theory—which were an important foundation for belief in the stability and resilience of the System. This financial crisis delegitimated the fantasy that the economic system would self-regulate, for the greatest benefit of all, if left free from government intervention. Long-time advocates such as Alan Greenspan admitted their mistake. Today economics as a discipline is in disarray, world markets continue to strive to recover, and there is little belief that there is any economic system which might operate without risk of catastrophic crises. Lyotard was characteristically inconsistent on the issue of whether or not capitalism constitutes a metanarrative. As we have seen above, sometimes he listed it among other modern metanarratives, suggesting that it had been delegitimated by various economic crises, such as the crash of 1929. At other times, he insisted that it was not, because it functioned simply according to the logic of performativity, and thus did not need a philosophy of

26 See, respectively, Jean Baudrillard, "Hunting Nazis and Losing Reality," *New Statesman* 115, no. 2969 (19 Feb 1988): 16–17; and Jean Baudrillard, *The Spirit of Terrorism*, trans. Chris Turner (London: Verso, 2013).

history and a subject of emancipation to legitimate itself.²⁷ Whatever the case with respect to the metanarratives of modernity, capitalism, especially in its neoliberal form, was an integral part of the narrative of development accompanying the postmodern System. It is in this sense that we can understand the Great Recession as contributing to “system failure” today.

In understanding the position Lyotard adhered to in the 1990s, it is instructive to reflect on just how much traditional political oppositions of the Right and Left had imploded into a popular form of centrism, known as the “Third Way,” influentially theorised by Anthony Giddens and manifesting in particular in America and the United Kingdom. Represented by figures such as Bill Clinton and Tony Blair, the Third Way combined progressive social values with the neoliberal economic policies and fine-tuned public relations campaigns that had proven successful for the Right in the 1980s. This centrist politics reflected the widespread feeling that the era of oppositional politics was over, and that politics was now a matter of management rather than of warring ideologies. Once again the new century has given us a rude awakening, with the rise in recent years of populist Far-Right movements and their influence in mainstream politics. Most obviously, in the Western world this has been signalled by the election of Trump and the Brexit vote. These events have contributed to the end of the dream of globalisation. In the 1990s, the free movements of people and goods promised a New World Order which would mitigate against the national protectionist policies which many saw as the catalyst for the two World Wars. Today, impacted by the military and economic instabilities noted above, there is a widespread refugee crisis and a populist backlash against immigration. These same crises have also given rise in recent years to an increased radicalisation of Leftist politics in the mainstream, indicated by Jeremy Corbyn in the UK and Bernie Sanders in the US. The Third Way has lost its way, and the political field in many of the Western countries seems to have re-polarised between increasingly radical ideologies and opposition parties.

A further issue with which to take the tenor of our times, with overwhelming significance, is the increasing awareness of environmental crisis. It is more difficult to name a specific event here, but as suggested above, let us take the galvanisation of the environmental activist movement around the figure of Greta Thunberg. Once again, we can note a shift here in relation to Lyotard’s prognostications. In the 1990 paper he does mention the threat to the natural environment, but simply states that it is necessary “that the open systems temper their success over other systems in order to preserve the ensemble called an ecosystem from a catastrophic deregulation.”²⁸ Once again, Lyotard presents this threat to the stability of the System rather trivially, as merely a matter of needing to fine-tune

27 See for example Lyotard, “Music and Postmodernity,” 38.

28 Lyotard, “A Postmodern Fable,” 90.

its performance. And once again, today such a characterisation appears as a vast under-estimation of the instabilities with which we are faced. We are increasingly being given new reports which suggest that such a tuning needs to be anything but fine if we are to ward off existential catastrophe.

Finally, the Russian invasion of Ukraine in 2022 and the Israeli war on Gaza in 2023 have led to widespread condemnation of what is seen as a hypocritical stance by the West. From the end of the Second World War a degree of global stability has been maintained by international institutions largely modelled on American institutions and values. The recent conflicts, and failure of the West to stop the genocide in Gaza, has been widely perceived as a privileging of strategic alliances over principles of international law, and as revealing the moral bankruptcy of the West. These conflicts have deeply undermined any notion of the stability of the System as Lyotard understood it, not only because of the increased global insecurity these conflicts have produced (with both wars threatening to spread beyond their confines in Europe and the Middle East, respectively), but through loss of belief that the West (the System of liberal democratic development) any longer has the will or moral authority to regain and maintain global stability.

These are only a select number of events which have occurred over the last two decades which have been prominent, at least, in the Western imaginary. I have briefly tried to indicate how they point to a delegitimation of the “postmodern fable,” and to failures of the “System,” which I believe necessitate a reassessment of how Lyotard viewed the postmodern condition up until the end of his life. Let me turn now to the second major reason for the delegitimation of metanarratives which Lyotard argues in *The Postmodern Condition*: legitimation by performativity.

II

“Performativity” is a calculation of efficiency, which combines capitalist concern for profit with a technological criterion of the performance of a system. Lyotard explains as follows:

Technical devices [...] follow a principle, and it is the principle of optimal performance: maximizing output (the information or modifications obtained) and minimizing input (the energy expended in the process). Technology is therefore a game pertaining not to the true, the just, or the beautiful, etc., but to efficiency: a technical ‘move’ is ‘good’ when it does better and/or expends less energy than another.²⁹

29 Lyotard, *The Postmodern Condition*, 44.

Lyotard argues that since the eighteenth century there has been a convergence of science, technology, and capital, such that the performance of each one reinforces the performance of the others: investment in technology improves it, improved technology means greater profit, and science develops with the technologies capable of validating its hypotheses and the capital supporting its researches. The possibility of this convergence is given in the logic of performativity itself, which becomes a new criterion for the legitimation of knowledge. This form of legitimation has no need to refer to *ends* such as the emancipation of humanity, but functions entirely according to *means*, which are judged according to their performativity or efficiency. In this way, the metanarratives of modernity lose their necessity, and are replaced by the logic of performativity, which governs the System. In an important sense, then, postmodernity is characterized by the becoming-autonomous of the means previously turned towards the end of human emancipation. Lyotard even suggests that we have in a sense become enslaved by these means. Let me quote again from “Music and Postmodernity”:

The postmodern condition is that of human beings when they are caught in this process [of the development of the System], which simultaneously develops their powers and demands their enslavement. It is notably marked by the massive introduction of automatons capable of carrying out ‘mental’ operations (calculations, combinations, problem-solving, diagnostics) and of having them executed by ‘physical’ automatons. The world described as developed or in development is not supported by any narrative that would legitimate its path by an eventual emancipation. The systems simply become more powerful.³⁰

Technology is of course a key focus of *The Postmodern Condition* insofar as Lyotard defines the field of his investigation as the “computerization” (*informatisation*, in French) of society. This technological dimension is one that Yuk Hui focuses on in his 2019 book *Recursivity and Contingency*, and it is on this count that he finds Lyotard’s 1979 work prescient and still highly relevant. He writes that

Lyotard [...] remains a prophet of our time. [...] One may have to admit that the actual status of the production of knowledge and technological development has not yet surpassed what Lyotard envisaged in the first pages of *The Postmodern Condition*.³¹

For Hui, the technological dimension of the System Lyotard had anticipated is today being realised through, among other things, the smart city, the internet of things, smart objects,

30 Lyotard, “Music and Postmodernity,” 38.

31 Yuk Hui, *Recursivity and Contingency* (London: Rowman & Littlefield International, 2019), 236–7.

and neuro-networks in urbanism.³² More broadly speaking, the convergence between information technology and political power that Lyotard referred to has been developing in an accelerated way through what has been called *algorithmic governmentality*.³³

I agree with Hui's analysis: despite the fractures in the socio-political dimensions of the System indicated by the events mentioned above, the technological System seems intent on moving towards convergence and perfection, regardless. The latest AI hype following breakthroughs in pretrained transformers only seems to have accentuated Lyotard's prescient analyses in the domain of technics. The question then becomes the difficult one of knowing how these dimensions of the System are today related, and how we should respond to this complex situation. The challenge and opportunity posed by the "system failure" I have suggested above is to know whether the fault-lines that have appeared in the System can be exploited to maximise resistance to it. The very tricky issue here is that we are in a different situation than was Lyotard insofar as we cannot assume, as he did, that relative stability and survival are no longer issues to contend with. Lyotard's deep political pessimism and nihilism in the 1990s was the shadow side of the liberal democratic optimism prevalent at the time. It consisted in the belief that there was no possibility of meaningfully or substantially changing the System, because it had proven itself as the most efficient regulator of energies. As I have suggested, this went with a certain faith in its capacity for achieving a continued stability.

Today, it seems that more than resistance is at stake: we also need to invent modes of greater resilience because the System is no longer performing in a way we can have faith in. Resistance and invention must somehow go hand-in-hand. This is a tricky issue indeed, and it forms the *complexity* that I believe we face when we reconsider Lyotard's work on the postmodern and its relevance today. This needs far more reflection than I can give it here; I would simply like to make one suggestion. We should recognise that the view of a hegemonic self-regulating System appears with its greatest force relatively late in Lyotard's work (as noted above, the fall of the Berlin Wall and the general collapse of communism in Eastern Europe was a catalyst). Lyotard's earlier works assume a lesser degree of stability of this System, and harbour stronger hopes for resistance and change. So, in the context of signs of "system failure" we are, I believe, justified in rereading Lyotard's earlier works as perhaps again more relevant than Lyotard himself believed in the later part of his life.

In the remaining part of this paper, I would like briefly to develop some points of such a reading by engaging a little further with some aspects of Hui's interpretation of Lyotard

32 Hui, *Recursivity and Contingency*, 243–4.

33 Antoinette Rouvroy and Thomas Berns, "Algorithmic Governmentality and Prospects of Emancipation," trans. Elizabeth Libbrecht, *Reseaux* 1, no. 177 (2013): 163–169. Cited by Hui, *Recursivity and Contingency*, 243.

in the final chapter of *Recursivity and Contingency*. This will allow and necessitate a connection with the *aesthetic* and *artistic* dimensions of Lyotard's work on the postmodern.

Against the hegemony of the System, and a single idea of technology stemming from the Western tradition (analysed by Heidegger as *Ge-Stell*), Hui advocates pluralism. In the realm of technology, he names this "technodiversity." This is, of course, very much in line with Lyotard's thought: *The Postmodern Condition* and *The Differend* advocate a pluralism which focuses on the field of language, proposing a heterogeneity of language games (Wittgenstein) or phrase regimens and genres of discourse. This pluralism was also grounded in Lyotard's reading of Kant, where it takes the form of an incommensurability between the faculties. For Lyotard, heterogeneity and incommensurability are a way of challenging the terroristic dominance of performativity and preserving what is at stake in thought and life that it threatens to destroy (which, in general, Hui names "contingency"). I want to suggest a way of developing this pluralist thinking which would draw together more strongly Lyotard's work on heterogeneity and Hui's concern for technodiversity.

I believe that today we can and should update Lyotard's frame of analysis by focusing more squarely on the concept of *information*. For Lyotard, still writing very much under the influence of the twentieth century's "linguistic turn" in philosophy, information technologies are to be understood as machines which process *language*. He writes, for example:

Essentially, the new technologies concern language. [...] They suppose the analysis of operating sequences, their encoding into artificial languages, the constitution of artificial memories, the training of automata obeying orders given in this language.

Language treated in this way is informational.³⁴

Moreover, we can note that the final "Zone" of *Les Immatériaux*—the exhibition Lyotard directed at the Pompidou Centre in 1985, which represents an important dimension of his exploration of the postmodern—was dominated by computer terminals, and entitled "The Labyrinth of Language." This prioritization of language was not uncommon: it also characterizes Heidegger's influential critique of cybernetics, for example.³⁵ Today, I believe we are in a position to reverse this conceptual prioritization: information is not a form of language, but rather language is a form, and just one form, of information. Following those working in the area known as "philosophy of information," we can speak today of

34 Jean-François Lyotard, "New Technologies," in *Political Writings*, 15–16.

35 See Martin Heidegger, "Traditional Language and Technological Language," trans. Wanda Torres Gregory, *Journal of Philosophical Research* XXIII, (1998): 129–145.

an “informational turn.”³⁶ This also follows the prescient lead of Gilbert Simondon, who in the 1950s already showed how the concept of information was flexible enough to think multiple orders of reality.³⁷ Very briefly, the key issue here is that language privileges *semantic meaning* in a way that information does not. Considered more generically, information is a concept which allows us to think languages and technologies together, and what is at stake in their homogenisation or pluralisation.

Predominantly, Lyotard himself understood information as a vector of homogenisation, and even perhaps as the ultimate expression of the logic of performativity, writing that “[s]cience, technology, and economy find a common measure of knowledge, power, and price in information.”³⁸ Moreover, another way in which he presents “the System”—as what he calls “the Leibnizian hypothesis”—prioritises information. This model suggests that humanity and the technical-economic System it has given rise to is developing towards a great Monad which would be equivalent to how Leibniz conceives God: the System would be a great information processor, with a complete store of information, able to calculate any future event on the basis of past events, thus maximising its performance and eliminating any contingency whatsoever.³⁹

Nevertheless, Lyotard in fact gestured towards more heterogeneous, pluralistic possibilities for information in a number of ways, although they remain brief and undeveloped. First, for example, in the conceptual design of *Les Immatériaux*, explicitly outlined in the written materials accompanying the exhibition, there appears a form of the pragmatic “phrase universe” from *The Differend*, translated into informational terms.⁴⁰ The unstated implication is that the contingency of linkages between phrases in *The Differend* might be understood informationally. Second, in a paper presented to French computer scientists in 1982, Lyotard suggested:

The potential ‘market’ opened by the new technologies is immense, because language is potentially an infinity of phrases [...]. But the niche, so to speak, that French industries would have to occupy would be that of enlarging and making more complex the treatment of language (postinformational and postcommunicational) – for example, the analysis,

36 See Frederick Adams, “The Informational Turn in Philosophy,” *Minds and Machines* 13 (2003): 471–501; Luciano Floridi, *The Philosophy of Information* (Oxford and New York: Oxford University Press, 2011); and Guowu Li, “Information Philosophy in China: Professor Wu Kun’s 30 Years of Academic Thinking in Information Philosophy,” *tripleC* 9, no. 2 (2011): 316–321.

37 Gilbert Simondon, *Information in Light of Notions of Form and Information*, trans. Taylor Adkins. (Minneapolis: University of Minnesota Press, 2020).

38 Lyotard, “New Technologies,” 16.

39 See Jean-François Lyotard, “Matter and Time,” in *The Inhuman: Reflections on Time*, trans. Geoffrey Bennington and Rachel Bowlby (Cambridge: Polity Press, 1991).

40 See Jean-François Lyotard, “Les Immatériaux,” *Art & Text* 17, (1985): 47–57.

the formalization, the committing to memory of persuasive rhetorics, of ‘musics,’ of inscriptions of movement (kineographic techniques, such as kinetic holography) and so forth.⁴¹

The suggestion here, in short, is that information technologies should further develop their *aesthetic* dimension. Translated from the linguistic to the informational turn, we could understand this not as a “postinformational” treatment of language, but a concept of information itself which might be called “postinformation.” This would move the concept of information away from the linguistic and rationalist prejudices which have dominated it, and would reconsider it in terms both of the *conceptual* history of the term, according to which it can be understood as *that which in-forms forms*—encompassing any and all kinds of forms—and of the *empirical* history in which technologies have been used to capture, process, and transmit sounds and images, and artists have experimented with these technologies, since well before the formalisation of mathematical Information Theory⁴² and the philosophies of information based on it.

This leads us to the issue of the aesthetic, which was never far from Lyotard’s thought, and which is one of the key dimensions Hui quite rightly points to in identifying the possibility of resistance to the System. Citing *Les Immatériaux* and Lyotard’s writings on the sublime, Hui suggests that for Lyotard, the postmodern is accompanied by “a new sensibility.”⁴³ Again I think this is quite correct, and I would simply like to comment on various features of this sensibility in order to extend this idea through my own reading of Lyotard. This “new sensibility” is accompanied by what Lyotard points to as a crisis of perception, of time and space.⁴⁴ This analysis draws out the aesthetic implications of developments in science and technology, but also in the arts. In short, such developments cast doubt on the perceptual “given,” as primacy is accorded to rationality and conception. This occurs in sciences and technologies through the priority of formal modelling and reproducibility. Both in the sciences and in everyday life, through the extension of media and information technologies (as Baudrillard examined in his own way through the idea of simulacra: the model is hyperreal, or *more real* than the thing it models⁴⁵). This is a kind of aesthetic nihilism, since it produces the devaluation of material and sensible immanence that Nietzsche identified in Platonism and Christianity.

However, Lyotard argues that this “crisis of perception” does not destroy all aesthetic

41 Lyotard, “New Technologies,” 18.

42 Principally by Claude Shannon in 1948. See Claude Shannon and Warren Weaver, *The Mathematical Theory of Communication* (Urbana: University of Illinois Press, 1963).

43 Hui, *Recursivity and Contingency*, 268.

44 See for example Jean-François Lyotard, “Argumentation and Presentation: The Foundation Crisis,” trans. Chris Turner. *Cultural Politics* 9, no. 2 (2013): 117-143.

45 See Jean Baudrillard, *Simulacra and Simulation*, trans. Sheila Faria Glaser (Ann Arbor: University of Michigan Press, 1994).

possibility, because it also corresponds to how Kant analysed the sublime: the predominance of rational Ideas destroys coordinating intuitions, that is, the imagination's free ability to synthesise forms for sensations. Yet it also liberates a feeling of the sublime, because sensation itself is not destroyed, but becomes "formless," and this formlessness of sensation, in dynamic tension with Ideas of reason, is how Kant characterises the sublime. For Lyotard, the sublime sensibility which marks postmodernity is an effect of the predominance of the technoscientific System itself.⁴⁶ There is a paradoxical logic at work here which Lyotard, drawing on the Ancient Greek Sophists, called "retorsion": it allows a response, or retort, to one's opponent by accepting their premises, but subjecting them to a "twist" or "turn," and arriving at a different conclusion.⁴⁷ Thus in the feeling of the sublime, "formless" sensation "retorts" to the aesthetic nihilism of reason.

Lyotard identified this strange crisis and response at work in the arts as well and analysed it in particular in his work on Marcel Duchamp (whom he called a "Great Sophist."⁴⁸) Artists, he believed, have been witnesses to this crisis of perceptual givens, which disorients us in space and time, through their own relentless investigations. Duchamp critiqued "retinal" art—art which is meant to be appreciated for the visual pleasure it affords—and introduced trends which led to conceptual art, as exemplified in his *Large Glass*, which explores a fourth spatial dimension which can be thought, but not intuited. Yet Lyotard argues that Duchamp's work is not the simple departure from sensibility it might appear to be: the posthumously discovered *Last Nude* forms a retorsion by being a version of *The Large Glass* reflected in sensibility (it is a retinal work once again, to be *looked at* rather than simply thought).⁴⁹ In short, for Lyotard the conceptual experiments of artists should not be thought simply as an aesthetic nihilism, as a destruction of the sensible, but rather a clearing away of traditional assumptions in order to produce new experiments in sensibility, with the aid of critical reason.

A similar paradox and potential for retorsion, I suggest, is at work in *Les Immatériaux* (even if, as his reported later remarks indicate, he believed there was not enough resistance on display there, and so he planned an unrealised second exhibition on this theme!⁵⁰) The exhibition explores the crisis of perception by displaying the technologies which

46 For Lyotard's discussion of these themes, see in particular "After the Sublime, the State of Aesthetics" and "Something Like: 'Communication ... without Communication'" in *The Inhuman*.

47 This theme in Lyotard's work is analysed by Keith Crome in *Lyotard and Greek Thought: Sophistry* (Basingstoke: Palgrave Macmillan, 2004).

48 Jean-François Lyotard, "Marcel Duchamp ou le grand sophiste," *L'Art Vivant* 56, (March–May 1975): 34–35.

49 See Jean-François Lyotard, "Duchamp's TRANS/formers," trans. Ian McLeod, in *Jean-François Lyotard: Writings on Contemporary Art and Artists*, ed. Herman Parret. Vol. 3. (Leuven: Leuven University Press, 2010).

50 Philippe Parreno and Hans Ulrich Obrist, *The Conversation Series 14* (Cologne: Walter König, 2008), 17.

cause the perceptual given to retreat before the priority of reason. We can see this in the pathway of the exhibition, which proceeds from the “Theatre of the Non-Body” to the “Labyrinth of Language”: it indicates the eclipse of the organic body and its senses by technologically produced information. Yet, the opposite tendency is also at work, since information technologies materialise that which was previously thought to be immaterial: reason itself and the workings of the mind. This paradox, of course, is evident in the title, the “Immaterials.” And alongside these technologies were displayed works by artists who explored, in their own way, this crisis of perception. The potentials of new technologies to exploit this complex “new sensibility”—the postmodern sublime—for works of art was briefly but repeatedly hinted at by Lyotard.⁵¹ The many artists working today who cite this exhibition as inspiration attest to this possibility.

Let me briefly conclude by drawing together the two parts of this paper. As noted above, Lyotard, following Kant, suggested that we can point to “negative” events as signs of progress in humanity because they indicate an increasingly complex sensitivity. In comparing the two parts of my analysis here—socio-political “system failure” and technologically optimised performance—I am tempted by a certain hypothesis. This would be that the very awareness of system failure points to a sensitivity which would indicate a resistance to the System itself, so that, in short, the fault lines in the socio-political System would signal the possibility of technological fracturing and diversification that Hui calls for. No doubt this is far too optimistic and simplistic. Nevertheless, while the technological System has expanded in roughly the ways Lyotard predicted, we cannot today see the System as hegemonically as the “postmodern fable” suggests. The signs of system failure indicated above give us much to be deeply concerned about, but they might also point to expanded possibilities of resistance, invention, and transformation. Without wanting to suggest that these are by any means sufficient for addressing the very serious global problems that confront us today, I have indicated two ways of developing such possibilities on the basis of Lyotard’s legacy. These are strategies via which thinkers, writers and artists might continue to hope to play at least some part in improving the (post?)human condition. First, a task of conceptual innovation and redesign is needed in reconceiving information itself as aesthetic and heterogeneous. And second, artists must continue to invent possibilities for the complexified sensibility which the postmodern condition both threatens and promises.

51 See for example Jean-François Lyotard, *Peregrinations: Law, Form, Event* (New York: Columbia University Press, 1988), 43.

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Retrieving the Lost Paths of Technology: Facing Technological Singularism through Anamnesis

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Abstract

Despite being one of the key figures in the philosophy of the second half of the twentieth century, Jean-François Lyotard's ideas have not yet been properly explored. This article will start from some of the main misunderstandings surrounding his thought on history and technology in order to propose a broad reflection on the interest that Lyotard's ideas still have for our present. To this end, some of the accelerationist interpretations of his work will be questioned.

Keywords: Jean-François Lyotard, postmodern, post-structuralism, accelerationism, philosophy of technology, philosophy of history

Since the publication of *La condition postmoderne* (1979), a book that analysed the condition of knowledge in the contemporary world, Jean-François Lyotard became one of the leading figures in the field of postmodern thought. This designation brought immediate acclaim, establishing him as one of the most frequently quoted philosophers globally. However, it also constrained the scope of his work by reducing it to this single label. The simplification of his thought has frequently resulted in his philosophy being reduced to a series of ideas attributed to a group of thinkers with whom he was not directly associated. The purpose of this article is twofold: on the one hand, to elucidate some of the misconceptions surrounding Lyotard's thought, and on the other, to demonstrate the enduring potentialities that can be discerned within his texts. To do so, I will focus on a very specific debate, the one related to the philosophy of technology, which confronts the accelerationist positions with others such as that of technodiversity. The order of exposition will be as follows: first, Lyotard will be freed from some of the prejudices and contradictions that cross some contemporary interpretations of his thought; from this new perspective, some of his positions on technology will be reinterpreted and, finally, Lyotard will be reinserted into contemporary debates on the philosophy of technology.

1. POST-MODERNITY OR POST-HISTORY

The contemporary reception of Lyotard's thought is characterised by a profound contradiction. Despite being frequently accused of espousing relativism and irrationalism, his reflections on postmodernity are frequently interpreted as analogous to those of other postmodern thinkers who come from a rationalist and modernist tradition, such as Frederic Jameson or Zygmunt Bauman. At the same time, his use of the postmodern seems to immediately distance him from his peers of the poststructuralist generation, as political theorist Alex Callinicos concludes through this imprecise statement:

It is necessary to distinguish between the philosophical theories developed between the 1950s and the 1970s and subsequently grouped together under the heading of 'poststructuralism' and their appropriation in the past decade in support of the claim that a postmodern epoch is emerging. The running has been made in this latter development primarily by North America philosophers, critics and social theorists, with the help of a couple of Parisian figures, Lyotard and Jean Baudrillard, who appear, when beside Deleuze, Derrida and Foucault, as the *epigoni* of poststructuralism.¹

1 Alex Callinicos, *Against Postmodernism: A Marxist Critique* (Cambridge: Polity Press, 1990), 5. For a more complex explanation of the phenomenon known as *French theory*, see François Cusset, *French Theory* (Paris: La Découverte, 2003) and Johannes Angermüller, *Why There Is No Poststructuralism in France* (London and New York: Bloomsbury, 2015).

Although Lyotard is undoubtedly aligned with Derrida and Deleuze, his involvement in the postmodern debate has led him to be more commonly associated with Baudrillard, Lipovetsky, and Bauman. However, there is a notable difference between Lyotard and the latter thinkers: whereas for them history is constructed in a linear way, Lyotard's perspective is more nuanced. He never refers to postmodernism as an "ism", and his approach to postmodernity goes beyond its conventional understanding as a period that comes after modernity.² This misunderstanding resonates in the debate that confronts modernists with a Hegelian bias who assume that *chronos* is the sole measure of the passage of time, and those who defend alternative temporalities including *aion* or *kairos*. Similarly to Deleuze, who questions the uniqueness of time as *chronos* by saying:

Chronos is the present which alone exists. It makes of the past and future its two oriented dimensions, so that one goes always from the past to the future—but only to the degree that presents follow one another inside partial worlds or partial systems. Aion is the past-future, which is an infinite subdivision of the abstract moment endlessly decomposes itself in both directions at once and forever sidesteps for present. For no present can be fixed in a Universe which is taken to be the system of systems, or the abnormal set.³

Lyotard presents his scepticism by criticising the great meta-narratives of modernity, teleological continuities that reduce history to the development of a single principle of salvation: the revolution of the proletariat in the case of Marxism, the scientific overcoming of all the problems of our lives in the case of scientism, and perpetual peace in the case of the Enlightenment.⁴ However, he made a mistake that would haunt him throughout his life when he used the word 'postmodern' to express this abandonment of grand narratives, leading to the confusion that by postmodernity he was referring to something that happened after modernity, that is, after history as an evolutionary continuity. This is how the concept was received by most interpreters:

For post-history is a hollow concept—just like postmodernity, a term whose meaning is purely circumstantial, simply a placeholder to mark the period after modernism. The prefix "post-" with its exquisite ambiguity,

2 Lyotard has on numerous occasions denied his relationship with postmodernism, since the concept he has worked with is that of the postmodern, never an -ism. Jean-François Lyotard, *The Interviews and the Debates*, edited by Kiff Bamford (London: Bloomsbury, 2020), 151. For a development of Lyotard's use of the concept of 'postmodern' see Niels Brügger, "What about the Postmodern? The Concept of the Postmodern in the Work of Lyotard," *Yale French Studies*, no. 99 (2001): 77–92.

3 Gilles Deleuze, *The Logic of Sense*, trans. Mark Lester and Charles Stivale, ed. Constantin V. Boundas (London: The Athlone Press, 1990), 77.

4 Jean-François Lyotard, *The Postmodern Condition: A Report on Knowledge*, trans. Geoffrey Bennington and Brian Massumi (Manchester: Manchester University Press, 1984).

has ultimately served simply to lump together multiple versions of that after, ranging from the critical theory of poststructuralism to some patently reactionary options.⁵

The misunderstanding was accentuated by the fact that when Lyotard coined the concept of 'postmodern' in philosophy, it already existed in literature, fine arts, and architecture.⁶ In this respect, Lyotard's aim was not so much to propose a new word as to *détourner* the preexisting meaning of the word. Venturi and Scott Brown articulated a poetics that allowed them to make free use of different architectural styles and to remix them at will, creating buildings that aspired to be out of time, liberated from the strict confines of what taste dictated could be employed. Lyotard did not intend to praise this style; on the contrary, his strong criticism of architectural eclecticism, as well as of the artistic expressions of what was postmodernism—such as trans-vanguardism and neo-expressionism—was evident throughout his life. By using this word, what Lyotard wanted to express was that, precisely, doubt with respect to the grand narratives was not something exclusive to the twentieth century, but something inherent to the plural development of history. This would become clearer some years later, when he stated the following:

The postmodern would be that which in the modern invokes the unrepresentable in presentation itself, that which refuses the consolation of correct forms, refuses the consensus of taste permitting a common experience of nostalgia for the impossible, and inquires into new presentations – not to take pleasure in them, but to better produce the feeling that there is something unrepresentable. (...) The artist and the writer therefore work without rules and in order to establish the rules for what *will have been made*. This is why the work and the text can take on the properties of an event; it is also why they would arrive too late for their author, or, in what amounts to the same thing, why the work of making them would always begin too soon. *Post-modern* would

5 Nicolas Bourriaud, *The Radicant* (New York: Lukas & Sternberg, 2009), 12–13.

6 The contemporary use of the concept of postmodern is due to Ihab Hassan, who published his essay *The Dismemberment of Orpheus: Toward a Postmodern Literature* (New York: Oxford University Press, 1971). From there, it would soon permeate other fields, such as the fine arts—Hassan organised a conference on postmodern performance in 1976, which Lyotard attended—and, especially, architecture, a field in which the publications by Robert Venturi, Denise Scott Brown and Steven Izenour, *Learning from Las Vegas* (Cambridge: MIT Press, 1972) and Charles Jencks, *The Language of Post-Modern Architecture* (New York: Rizzoli, 1977) stand out. Lyotard was the first philosopher to use it systematically from 1979 onwards. The best explanation of the evolution of the concept remains that of the Marxist cultural critic Perry Anderson, *The Origins of Postmodernity* (London: Verso, 1998).

be understanding according to the paradox of the future (*post*) anterior (*modo*).⁷

The postmodern was not what came after the end of modernity—whether that end was its culmination or its abandonment—but a seditious vector that lived within it and projected new possible modernities. This had already been announced by Lyotard in 1973, when he stated that the transformations in history were not determined by the actions of leftist political groups, but by an underground movement capable of privileging intensity over intention.⁸ This does not mean that the only destiny of the ruptures proper to the postmodern moment is to contribute to the development of modernity. If this were the case, postmodernity would be merely a necessary milestone in the development of meta-narratives, whereas the aim is to undermine their strength through paralogy.⁹ The accent should not be placed on the rearticulation of the narrative, but on its disarticulation. This is the difference that Lyotard presents with respect to the rationalists who defend that postmodernity as an era is a consequence of modernity; in Lyotard's case, it is modernity that is born in spite of the inflexion presented by the postmodern:

Paralogy must be distinguished from innovation: the latter is under the command of the system, or at least used by it to improve its efficiency; the former is a move (the importance of which is often not recognized until later) played in the pragmatics of knowledge. The fact that it is in reality frequently, but not necessarily, the case that one is transformed into the other presents no difficulties for the hypothesis.¹⁰

The rupture of the 1970s did not open a new post-historical era, but upended history once again, forcing the emergence of new narratives that grew out of the cracks of the previous one. The problem is that Lyotard's complex reflection was framed at a moment when various authors were championing the end of history, proclaiming the same end of the grand narratives that Lyotard defended, but in a different form. The most famous

7 Jean-François Lyotard, *The Postmodern Explained: Correspondence 1982–1985*, trans. Don Barry, Bernadette Maher, Julian Pefanis, Virginia Spate, and Morgan Thomas (Minneapolis/London: University of Minnesota Press, 1993), 15.

8 Jean-François Lyotard, *Des dispositifs pulsionnels* (Paris: UGE 10/18, 1973), 318–319.

9 Paralogy could be define the exercise of producing an alteration or a difference within a codified system through reasoning that does not follow the established rules. As opposed to the work of the expert, who operates by homology, it is the artist—or the scientist who works as an artist—who dis-articulates pre-existing consensus through the introduction of paralogies. Paradoxically, it is these contradictions or paralogies—not to be confused with the antithesis/negation of Fichte and Hegel—that often allow for the transformation and adaptation of a system but that does not mean that this is its objective. “Postmodern knowledge is not simply a tool of the authorities; it refines our sensitivity to differences and reinforces our ability to tolerate the incommensurable. Its principle is not the expert's homology, but the inventor's paralogy.” Lyotard, *The Postmodern Condition*, xxv.

10 Lyotard, *The Postmodern Condition*, 61.

examples are the theories of Arthur C. Danto on the end of art and Francis Fukuyama on the end of history, both positions influenced by Hegel and Kojève, and both confining their assertions to the strict frameworks of a Western world in which capitalism was finally imposing itself as humanity's sole episteme.¹¹ Thus, the first thing that can be affirmed in order to think about the place that Lyotard can occupy in contemporary philosophical reflection is that his announcement of the end of the great narratives cannot be assimilated to dialectical positions such as that of the end of history. This is so because, ultimately, for Lyotard there is no history that evolves in a convergent way, dialectically reconciling the differences and contradictions that appear through the different events. History is a divergent projection which never tends towards an end point, but disperses, opening new horizons at each break in the established narrative. This is why postmodernity cannot be a post-history: because there is no history, because there is no single narrative, but multiplicities that are projected towards unknown futures.

A similar confusion can be found in some contemporary readings of Lyotard that have taken place after the years of postmodern philosophy. I am referring to the recovery that some of the thinkers linked to accelerationism have made of some of his concepts since the late 1990s. As is well known, Iain Hamilton Grant's translation of Lyotard's *Économie libidinal* (1974, translated in 1993)¹² was enthusiastically received at the University of Warwick's Cybernetic Culture Research Unit (CCRU), led by Sadie Plant and Nick Land, but also including Ray Brassier, Reza Negarestani, Mark Fisher, Kodwo Eshun and Robin Mackay, among others, including Grant himself. An example of this can be found in texts from that time, especially of Land¹³ and Plant,¹⁴ but also in the last lectures given by Fisher before his passing.¹⁵ What is interesting about the use that these thinkers make of Lyotard's philosophy is that they relate it to the acceleration of history, an approach similar to the one carried out by the members of *Tiqqun* magazine at the beginning of the 21st century—in this case, from a critical perspective.¹⁶ The conclusion they both reach is that Lyotard argues that we must accelerate to overcome the limits of our time: for the CCRU

11 The best-known works of these thinkers are Francis Fukuyama, *The End of History and the Last Man* (New York: Free Press, 1992) and Arthur C. Danto, *After the End of Art* (Princeton: Princeton University Press, 1997). Such ideas are of course not exclusive to these thinkers, but find direct precedents in Daniel Bell, *The End of Ideology* (Glencoe, IL: Free Press, 1960) and Alain Touraine, *La société post-industrielle* (Paris: Seuil, 1969).

12 Jean-François Lyotard, *Économie libidinale* (Paris: Minuit, 1974), published in English as Jean-François Lyotard, *Libidinal Economy*, trans. Iain Hamilton Grant (Bloomington: Indiana University Press, 1993).

13 Nick Land, *The Thirst for Annihilation: Georges Bataille and Virulent Nihilism* (London and New York: Routledge, 1992).

14 Sadie Plant, *The Most Radical Gesture: The Situationist International in a Postmodern Age* (London and New York: Routledge, 1992).

15 Mark Fisher, *Postcapitalist Desire: The Final Lectures*, ed. Matt Colquhoun (London: Repeater Books, 2020).

16 *Tiqqun*, *The Cybernetic Hypothesis*, trans. Robert Hurley (Los Angeles: Semiotext(e), 2020).

members, this leads to post-capitalist positions; for Tiqqun, it is a fallacy that is framed in the ideology of thermodynamics and entropy, a narrative that is inherently capitalist. Both are at least partially wrong. Lyotard's acceleration is not that of the means of production and the logic of the market, nor is it that of history. After all, to think of the advent of a post-capitalist era is to believe in the post-history of capitalism, a new meta-narrative that is not too different from those that Lyotard criticized throughout his life. Lyotard's acceleration is that of the libidinal band, and this does not correspond to the politics of acceleration. Once again, we find ourselves in a misunderstanding that comes from the concepts used by Lyotard: although acceleration intuitively leads us to the productive rhythms of capitalism, this is not the point. When Lyotard speaks of the libidinal band he is referring to a Moebius band that corresponds to the skin of the world, to the unique substance upon which everything else is erected. This libidinal band cannot be cut or separated, it can only be accelerated or slowed down. It is a monistic statement that has more to do with an ontological principle than with a historical-political reflection. How, then, does it come to be considered a political principle? To understand this, we must turn to the fragments of *Économie libidinale* that are quoted and studied in this context, such as the one entitled "Toute économie politique est libidinale," corresponding to chapter "Le désir nommé Marx."¹⁷ This text discusses several issues of interest in the book as a whole, such as the critique of idealistic nostalgia for a better past or the libidinal condition of late-capitalist workers. However, the key aspect that seems to serve as a spearhead for understanding acceleration from a political and historical perspective is the affirmation that there are intensities that do not inhabit the margins of the system, but rather its epicentre. This is how Benjamin Noys explains it:

If, as Lyotard put it, 'desire underlies capitalism too', then the result is that: 'there are errant forces in the signs of capital. Not in its margins as its marginals, but dissimulated in its most "nuclear," the most essential exchanges'. What the accelerationists affirm is the capitalist power of dissolution and fragmentation, which must always be taken one step further to break the fetters of capital itself. For Deleuze and Guattari the problem of capitalism is not that it deterritorialises, but that it does not deterritorialise enough.¹⁸

As in the case of postmodernity, the concept of acceleration appears as a tricky term in

17 Lyotard's texts that were discussed within the framework of the CCRU are "Energumen capitalism" (1972), "Desirevolution" (1973), and "Every political economy is a libidinal economy" (1974). Robin Mackay and Armen Avanessian, eds., *Accelerate. The Accelerationist Reader* (Falmouth: Urbanomic, 2014).

18 Benjamin Noys, *The Persistence of the Negative: A Critique of Contemporary Continental Theory* (Edinburgh: Edinburgh University Press), 5. The quotations from *Économie libidinale* included by Noys belong to the sections "Il n'y a pas de région subversive" and "Toute économie politique est libidinale," from the chapter "Le désir nommé Marx."

Lyotard's thought as a whole. It is not a matter of accelerating the productive rhythms of capitalism, nor of accelerating emotions and affections, but of accelerating the libidinal band, a poetic way of referring to the deconstruction of given structures in order to multiply the intensities that dwell within them. Noys' statement on the reception of Lyotard in the accelerationist context explains the misunderstanding perfectly: without being untrue, it is excessive to relate Lyotard to a kind of overcoming of capitalism by harnessing its power of dissolution and fragmentation. That Lyotard recognised these aspects does not mean that he thought of them as tools for overcoming capitalism—his denial of symbolic exchange as a pre-capitalist period also prevents us from relating him to any form of post-capitalism, at least in a post-historical sense.

Having clarified Lyotard's position with respect to history, postmodernity, and acceleration, we can now approach his philosophy of technology.

2. SINGULARISM OR PLURALISM

In 1987, Lyotard gave a groundbreaking lecture at the University of Siegen (Germany) entitled "Si l'on peut penser sans corps." The text was collected in his book *L'Inhumain: Causeries sur le temps* (1988), and although it was not initially received as one of the book's major contributions, time has placed it at the heart of the contemporary debates on posthumanism and transhumanism.¹⁹ The main idea of the text consisted of a dialogue between two characters, one male and one female, in which they expressed different opinions and reflections on the solar explosion that will take place in 4.5 billion years' time, causing the disappearance of human beings and, with them, of thought. While He considers that humanity must begin to prepare for the migration of its brains to a new medium other than the body, She wonders whether we will be able to think and feel without a body. Her conclusion is that the only way to make that migration will be to give body [*donner du corps*] to the new medium, to make it something more than a mere receptacle.²⁰ Although this dialogue could be understood as a narrative exploration of what Lyotard himself defined as *différend*: "A case of *différend* between two parties takes place when the 'regulation' of the conflict that opposes them is done in the idiom of one of the parties while wrong suffered by the other is not signified in that idiom."²¹ Some thinkers such as

19 *L'Inhumain* is the book in which Lyotard has dealt most extensively with the philosophy of technology, something that has been acknowledged in recent texts on the subject, such as Massimiliano Simons, "Jean-François Lyotard and Postmodern Technoscience," *Philosophy & Technology* 35, no. 2 (2022) and Matthias Braun and Darian Meacham, "A Plea for (In)Human-centred AI," *Philosophy & Technology* 37, no. 3 (2024): 97.

20 Jean-François Lyotard, *The Inhuman: Reflections on Time*, trans. Geoffrey Bennington and Rachel Bowlby (Cambridge: Polity Press, 1991), 8-23.

21 Jean-François Lyotard, *The Differend: Phrases in Dispute*, trans. Georges Van Den Abbeele (Minneapolis: The University of Minnesota Press, 1988), 9.

Brassier draw his attention on the male character and his Promethean aspiration:

[T]hought must be weaned from its organic habitat and transplanted to some alternative support system in order to ensure its survival after the destruction of its terrestrial shelter. Lyotard's protagonist suggests that this weaning process, which would provide cognitive software with a hardware that could continue to operate independently of the conditions of life on earth—ensuring the survival of morphological complexity by replacing its material substrate—has been underway ever since life emerged on earth.²²

Even recognizing that Lyotard does not opt for either position, Brassier follows the male character and develops the hypothesis that the object and meaning of technology is strictly limited to the strategies that humanity has developed for its survival: "'Technology' names the set of evolutionary strategies bent on ensuring that the negentropic momentum underway on earth these last few billion years will not be eradicated by the imminent entropic tidal wave of extinction."²³ As a former member of the CCRU, his approach to Lyotard's thought is permeated by some of the accelerationist excesses that also appeared in the work of his peers. As we have already seen, this does not mean that Lyotard's thought is reducible to this perspective: just as the acceleration of the libidinal band does not imply the acceleration of history and the overcoming of capitalist modes of production, his reflection on the explosion of the sun cannot be reduced to a new eschatology in which the aim is to avoid the death of thought. While it is true that Lyotard himself has stated that this is not a new meta-narrative,²⁴ what is striking about this fable about the solar explosion is that—as Brassier points out—it reduces technology to a single function (the survival of the human species), annulling its symbolic richness and its capacity to construct other possible futures. This is obscure, and to understand how it fits into Lyotard's thought as a whole, we must turn to other texts.

Although this conference has often been treated as if it were the only one in which Lyotard has dealt with the explosion of the sun, this approach must be framed within a set of texts that he devoted to the philosophy of technology.²⁵ One of them would be "Logos

22 Ray Brassier, *Nihil Unbound: Enlightenment and Extinction* (New York: Palgrave Macmillan), 225.

23 Brassier, *Nihil Unbound*, 225.

24 Lyotard asserted that only metanarratives are those whose protagonist is humanity. In this case, it is entropy that guides the course of history, preventing any kind of emancipation—that is what separates the fable from the metanarrative. Jean-François Lyotard, "A Postmodern Fable," in *Postmodern Fables*, trans. Georges Van Den Abbeele (Minneapolis/London: University of Minnesota Press, 1997).

25 Ashley Woodward has identified a series of seven texts where Lyotard addresses the subject of the solar explosion, including "Si l'on peut penser sans corps." Ashley Woodward, *Lyotard and the Inhuman Condition: Reflections on Nihilism, Informations, and Art* (Edinburgh: Edinburgh University Press, 2016), 38. Of course, those are not the only ones in which he approached the philosophy of technology.

et tekhnè, ou la télégraphie,” a transcript of a lecture that was commissioned by Bernard Stiegler in 1986 where it is directly pointed out that: “technology is not, and probably never has been, a means for an end that would be science.”²⁶ This already challenges Brassier’s interpretation, extending the symbolic relevance of the technology beyond its function as a negentropic tool to survive the solar explosion. In a way, the narrative Brassier constructs about technology suspends contingency in favour of the absolute necessity of the end of the world. Although it is a speculative resource that seeks to think beyond anthropocentric limits, this exercise reproduces an interpretation of history that is still traversed by a single subject: a humanity that must develop tools to survive the catastrophe. In the face of this perspective, Lyotard himself interpreted his own fable in a different way in his text “Une fable postmoderne” contained in *Moralités postmodernes* (1991).²⁷ If in “Si l’on peut penser sans corps” this narrative had been exposed from the testimonies of two characters, in this new approach the form followed is that of a text commentary. This is very interesting for several reasons, but the main one is that the difference between the fable and the commentary allows for a pluralizing of the meanings offered, a strategy that enables Lyotard to subtract veracity from the fable in order to understand it as a speculative resource. First, the fable is presented: “The Sun is going to explode. The entire solar system, including the little planet Earth, will be transformed into a giant nova. Four and a half billion solar years have elapsed since the time this fable was told. The end of history has already been foreseen since that time.”²⁸ Afterwards, it is discussed and reflected upon:

The human species is not the hero of the fable. It is a complex form of organizing energy. Like the other forms, it is undoubtedly transitory. Other, more complex forms may appear that will win out over it. [...] The fable we heard is a narrative, of course, but the history it recounts offers none of the principal traits of historicity. [...] For us today, the future the fable recounts in the past tense (not by chance) is not an object of hope. Hope is what belongs to a subject of history who promises him/herself—or to whom has been promised—a final perfection.²⁹

It is unclear if Brassier is aware of this text, but he does not mention it in his reflection on the solar explosion—perhaps because his rearticulation of Prometheism implies a return to human *praxis* that does not rhyme with Lyotard’s own interpretation of his fable. What is clear is that (a) Lyotard questions the historicist reading of his own account and, considering also the statements he himself offers at the beginning of the text commissioned by Stiegler, (b) he strips technology of any historical dimension in a

26 Lyotard, *The Inhuman*, 47.

27 Jean-François Lyotard, “A Postmodern Fable.”

28 Lyotard, “A Postmodern Fable,” 83.

29 Lyotard, “A Postmodern Fable,” 93, 98–99.

teleological sense, recognizing and contesting technologism as a new meta-narrative that promises the technical salvation of humanity. What is important in the fable is not the migration of bodies, but the questioning of anthropocentrism, the evidence that we are not the epicentre of the cosmic narrative. However, Lyotard's reflection on technology does not stop there, in the critique of the utilitarian condition of technological developments. There is also in his thought a positive and constructive approach to the development of technologies, and now that we have dispelled some misunderstandings, we can address it. In a public conversation he had with Kenneth Frampton at the 1987 ICA conference, where they discussed architecture and the body, Lyotard challenged Frampton's treatment of the body as a universal through concrete attention to the new types of prosthetic body, those derived from transformations in the field of medicine:

Kenneth Frampton links his thinking to a phenomenological and even Heideggerian tradition. This means he introduces the idea of a body space which is not functional. What is this non-functional space, and what is a non-functional body? [...] In the current situation, the body is a technological object. And object of technical operations the number and scope of which will increase in the years ahead. Think of bio-medicine, bio-engineering, all imaginable prostheses, genetic surgery. Ten days ago I was involved in a discussion with a bio-medic who was saying among other things that in 15 years it will not be necessary for a women to bear their children: the whole period of gestation could take place *in vitro*. [...] My question is the following: the body is to my mind an essential site of resistance, because with the body there is love, a certain presence of the past, a capacity to reflect, *singularity*—if this body is attacked, by techno-science, then that site of resistance can be attacked. What is the unconscious of a child engendered *in vitro*? What is its relationship with the mother, and with the father? The mediatization of the body makes me ask the following question of Kenneth Frampton: can we still base ourselves on a phenomenology or an ontology of the body to designate one of the principal functions or destinations of architecture today?³⁰

Far from approaching the development of technology as a catastrophe, his concern is reminiscent of that of the female character in his 1987 text. One cannot think without a body, so our concern must be to *donner du corps* to the prostheses that become our bodies. The body is not a transcendental entity, it can be transformed, it will be transformed, it is being transformed. What we have to do is to understand these transformations in a complex way, fighting to maintain the difference in the face of any homogenizing project.

30 Jean-François Lyotard, "Response to Kenneth Frampton," in Lisa Appignanesi (ed.), *ICA Documents 4* (London: Institute of Contemporary Arts, 1986), 92–93.

This approach to technology is very similar to the one that Stiegler would defend when using the concept of *pharmakon*, directly inspired by Derrida: that which is remedy and poison at the same time.³¹ Just as technology is the primary means of establishing a society of control, it can also be used to enhance difference. But for this it is essential to rework the technique itself, to reconfigure it, to strip it of what it has been said to be and to try to explore other possible approaches. In the same way that there is not a single body, but many, there is not one technique, but many. It is in relation to this reflection that the central concept of what concerns us here, anamnesis, appears.

3. ANAMNESIS OF TECHNOLOGY

One of the most important notions in Lyotard's thought is the concept of anamnesis. In contrast to the traditional uses of this word, those of Plato and Freud, his approach is more polyhedral and seeks, once again, to *détourner* its usual meaning in favour of other meanings. For Plato, anamnesis is the process of knowing by remembering, an idea that was embedded in his theory of the sensible world and the intelligible world, according to which souls are incarnated in bodies and must recover lost knowledge. For Freud, it was no longer matter of remembering past lives, but the memorial recognition of trauma, a central part of psychoanalytic therapy.³² Although Lyotard initially did not subscribe to these considerations, expressing himself critically about this idea, throughout the 1980s he appropriated this concept to make it his own. This is how it became one of the pillars of his thought, going from being a word related to the passive memory of something past that pre-exists, to being a sort of re-actualization or re-elaboration of something forgotten that emerges in a new form from an immemorial time. In Lyotard's words:

By the term 'immemorial', I try to express another time, where what is past maintains the presence of the past, where the *forgotten* remains *unforgettable* precisely *because* it is forgotten. This is what I mean by anamnesis as opposed to memory. In the time set out by concept and will, the project is only the 'projection' of present consequences on the future (as in 'futurology'). This kind of projection forbids the event; it

31 Derrida worked on the concept of *pharmakon* in "La pharmacie de Platon" (1968), a text contained in Jacques Derrida, *La dissémination* (Paris: Seuil, 1972). Stiegler recovered this notion in order to reflect on technology in Bernard Stiegler, *Ce qui fait que la vie vaut la peine d'être vécue, de la pharmacologie* (Paris: Flammarion, 2010).

32 The concept of anamnesis in relation to those of Plato and Freud is explained in Yuk Hui, "Anamnesis and Re-orientation: A Discourse on Matter and Time," in *30 Years After Les Immatériaux: Art, Science, and Theory* (Lüneburg: meson press, 2015). Broeckmann returned to this question in Andreas Broeckmann, "The Anamnesis of Matter: Lyotard and the *Immatériaux*," in Martin Bartelmus and Friederike Danebrock, eds., *Therapie der Dinge? Materialität und Psychoanalyse in Literatur, Film und bildender Kunst* (Bielefeld: transcript, 2023).

prepares, preconceives, controls it in advance. This is the time of the Pentagon, the FBI, Security, the time of Empire. By contrast, what I call anamnesis is the opposite of genealogy, understood as a return to 'origins' (always projected *backward*). Anamnesis works over the remains that are still there, present, hidden near to us. And with regard to what is *not yet there*, the still to come (*l'à-venir*), it is not a matter of the future as such (which shares the Latin root, *fuit*, meaning it *has been*) but that which is still awaited with incertitude: hoped for, feared, surprising, in any case *unexpected*.³³

In line with the ideas developed in the previous sections, Lyotardian anamnesis is a pluralizing force that diversifies the possible paths of history. Instead of recovering something that has already been, as an eternal return of the same, anamnesis proposes a reimagining of the past as a new vector of the future. In my view, it is this notion that should underpin a Lyotardian philosophy of technology which goes beyond the eschatological mythology that he develops in the series of texts concerning the explosion of the sun. Since he never used anamnesis to approach the philosophy of technique, the exercise we will have to carry out in this last section is to draw an analogy between the use of this notion to think about art and the possible use we can make of it to think about technology. In other words, we need to undertake an anamnesis or a reworking of the very notion of anamnesis in order to find in Lyotard a philosophy of technology that is in keeping with our times and also with the timeless spirit of his thought.

The first artist to whom Lyotard devotes a monographic text in relation to the concept of anamnesis is Valerio Adami, although years later he would also use it to approach the work of Bracha L. Ettinger. In the first case, we are dealing with a figurative painter who works with and transforms the classical themes of the European artistic tradition—examples of this are his paintings *Orfeo e Eurydice* (1975) or *Edipo e la Sfinge* (1979).³⁴ In the second case, she is a semi-figurative artist working on trauma and personal and collective memory—interestingly, she also returns to traditional motifs from the European tradition, some of which are common to those that Adami deals with: an example is his series of paintings entitled *Eurydice*, on which he has been working since the 1990s.³⁵ Even though

33 Lyotard, *The Interviews and the Debates*, 157–158.

34 The text was titled "Anamnèse du visible, ou : la franchise." It was published in Alfred Pacquement, *Adami: Catalogue d'Exposition* (Paris: Centre Georges Pompidou, 1985), but many of his ideas shaped the chapters "La franchise" et "L'Anamnèse," in *Que Peindre?* (1987). Jean-François Lyotard, *Que Peindre? Adami, Arakawa, Buren / What to Paint? Adami, Arakawa, Buren* (Leuven: Leuven University Press, 2012).

35 The reader should know that there are several versions of the text that Lyotard dedicated to Bracha L. Ettinger. Although this issue deserves a more detailed analysis, we refer to the collection by Herman Parret, which includes two texts on Ettinger: Jean-François Lyotard, *Textes dispersés II: artistes contemporains / Miscellaneous Texts II: Contemporary Artists*, edited by Herman Parret (Leuven: Leuven University Press, 2012).

anamnesis as re-elaboration is a transversal principle in Lyotard's philosophy of art, which occasionally appears in relation to the work of artists who have little to do with the previous ones,³⁶ it is very significant that the two monographic texts in which he develops these ideas are about narrative artists who do not absolutely avoid representation altogether. The reason—or one of the possible reasons—is to be found in this fragment:

I have always thought there is a kind of sanctity—I am using big words here—in the simplest line on a blank sheet of paper. There is something very... it has a kind of ontological dimension, and I think you are helping me understand that by saying it is already narration. And indeed, in some ways, it is like the origin of all speech. It is as if speech were beginning. There is a guy drawing a line, it doesn't mean anything, etc... it means a thousand things, and speech is launched by that. We can make thousands of phrases of all kinds out of it that are not just of the order of interpretation, but are even more matrix-based than that.³⁷

This text comes from a conversation between Lyotard and the artist René Guiffrey, and what it suggests is that the line—of the drawing, but perhaps also of the letter—is not just a repetition of the pre-existing narrative, but has the matrical power to produce new realities. This is the power of the line in Adami and Ettinger's work, according to Lyotard: by anamnesis of pre-existing motifs, they can draw new lines and produce new realities, projecting different futures from an immemorial past that allows us to reinvent the imaginaries of the present—in this case, the known and reproduced iconography of Eurydice.

The same thing that Lyotard proposes in relation to art can be understood or used for technology. Initially, we saw that the philosophy of technology that can be drawn from Lyotard's thought seemed to be limited to the problem of the solar explosion; however, this perspective held a singularistic view of history, as if it were a unified narrative: all of humanity is part of this destiny, regardless of what any individual human wants.³⁸

36 Although the concept of anamnesis is also used by Lyotard to refer to the work of artists such as René Guiffrey or Daniel Buren, its use is punctual and he never dedicated to them a monographic text orbiting around this idea.

37 The full conversation can be found in the Lyotard archives of the Bibliothèque littéraire Jacques Doucet, JFL 408, 17. Translation by the author.

38 Technological singularism shares many similarities with what was called technological determinism—in fact, singularism is fully in line with the first definition of this determinism given in Sally Wyatt, "Technological Determinism Is Dead; Long Live Technological Determinism," in Edward J. Hackett, Olga Amsterdamska, Michael Lynch and Judy Wajcman, eds., *The Handbook of Science and Technology Studies* (Cambridge, MA and London: The MIT Press, 2008), 165–180, and Allan Dafoe, "On Technological Determinism: A Typology, Scope Conditions, and a Mechanism," *Science, Technology, & Human Values* 40, no. 6 (2015), according to which the evolution of technology would be autonomous from the social context in which it develops. In this case, the contribution of the concept of anamnesis

The clues that we have found throughout the article have led us in a different direction, finding other relevant aspects to think about technology and the story of the end of humanity from a different perspective, one in which technology is not just the tool we have to prevent our extinction. If we cease to understand that the history of technological development is unique and begin to think of technical devices from their lineages, as Simondon proposed,³⁹ it is possible that the history that seems absolute will begin to reveal itself as broad and open as that of the arts. What I mean is that the technological wars—especially the Space Race of 20th century—have made us believe that developments were waiting to be discovered by one of the World's great powers. But there are other possible stories about technology that do not involve a grand narrative of emancipation or survival, just as there are other possible technologies that can produce new stories.

It is very difficult to give an example that does not oversimplify the possibilities of this proposal, but perhaps the field of communication can give us some clues to these alternative potentials. In most parts of the world, our way of communicating has been reduced to a set of expressions that seemed to stand out for their efficiency: the letter, which later became the email or text message, the phone call, and recently the hybrid of both, the audio message. All these processes have been centralised by a series of companies that codify our way of communicating through a set of signs that encapsulate and simplify the semiotic complexity of our world, such as emojis, signs that we have not produced as users, but that have been imposed on us by the powers that govern the media. In this context, I cannot help but think of all the alternative forms of communication that have fallen by the wayside and that can still inspire others, such as the smoke signals of the Native Americans and Australian Aborigines, or the *silbo gomero*, a language used in the Canary Islands that consists of the use of whistles and allows people to understand each other from a distance of five kilometres. Many of these endangered or forgotten techniques of communication even offer lessons for our present and future concerns, such as interspecies dialogue. This is the case of the sounds used by Portuguese shepherds to communicate with their sheep, as studied by the artist Alexandre Delmar.⁴⁰ And the same could be said of many other techniques and crafts, as well as devices and gadgets.

In recent years, this perspective has gained relevance under the umbrella of cosmotechnics and technodiversity, two concepts that aim to go beyond technological singularism

to the debate is not only a challenge to this particular kind of determinism—as is the case with actor-network theory (ANT) and social construction of technology (SCOT)—but also a theoretical tool to think about the past and the future of technology in a different way. The re-elaboration of unrealised pasts is a way of producing other futures, of incorporating other becomings that are beyond the possible technologies that can occur within the framework of a society traversed by singularism.

39 See Gilbert Simondon, *Du mode d'existence des objets techniques* (Paris: Éditions Aubier-Montaigne, 1958).

40 About the project, see Alexandre Delmar, "A Fala das Cabras e dos Pastores": <https://alexandre-delmar.com/acto-vii>

and relate different epistemologies to different considerations of the technique.⁴¹ Undoubtedly, I consider that Lyotard should be reinserted in contemporary thought from this perspective. Recognizing his contribution to the thought of difference can help us to find in the whole of his texts some keys that allow us to navigate contemporaneity in a different way. In this case, the concept of anamnesis gives us a different framework for approaching history and the teleology of development, allowing us to think that those tools, processes, and reflections on technique that have been swept away by progress still have something to offer our present. It is not a matter of nostalgia for what has been lost; precisely, its contribution lies in the fact that anamnesis does not have to be a mere remembering, since it implies the active reelaboration of that which has been relegated to being outside of time and history. It is also a very powerful tool for building a new world from the peripheries, from the spaces whose techniques and epistemologies have been overwhelmed by the progress of Western modernity, since it allows us to show that there are still many roads of technique and history that have never been travelled. Thinking from the past that has been forgotten to reimagine other futures that are not contemplated in our present, that is the idea. We still have time to retrace these lost paths of technology in order to resist the homogenizing empire of technological singularism.

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41 These concepts have been developed in Yuk Hui, *The Question Concerning Technology in China: An Essay in Cosmotronics* (Cambridge: Urbanomic, 2006) and Yuk Hui and Pieter Lemmens, eds., *Cosmotronics: For a Renewed Concept of Technology in the Anthropocene* (New York: Routledge, 2021), among other texts by these authors.

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Involuntary Phrases for the 21st Century: “No Phrase is the First.” §184

Kiff Bamford

Abstract

In an interview in 1978, Lyotard was asked if he believed a “communication volontaire” is possible. The difficulty of translating this phrase—“self-directed” or “voluntary” communication?—is enhanced by the fact that such a notion seems oddly out of time. Lyotard’s reply invokes aspects of the strange and strained relationship between his most philosophical book, *The Differend: Phrases in Dispute*, and his most popular, *The Postmodern Condition: A Report on Knowledge*, in particular the shift from Wittgensteinian ideas of “language games” to that of phrase regimen and its attending critique of anthropocentrism. Is there, in this shift, a move that echoes current aspects of ecocriticism and into which it might, in turn, feed? The possibility of a “communication volontaire” will be considered through the inter-relationship of both texts, Lyotard’s own response in relation to his teachings at the university of Vincennes, and through artworks which perform aspects of this voluntary process.

Keywords: Language games, Wittgenstein, The Differend, The Postmodern Condition, Contemporary Art, Lyotard, Ecology, Education

When art and technology work together the visitor is often invited to experience what is occurring without explanation, freed from the didactic explanations of how the differing elements operate. It is a reframing outside the usual genres of technological or scientific discourse, which tend to prioritise innovation and future application, to a terrain which is less sure of its function or destination. Who or what is doing the questioning has long been a concern of a particular approach to aesthetics, exemplified perhaps provocatively by W.J.T Mitchell's 2005 title *What Do Pictures Want?* but developed more seriously through the development of a new materialism. "It matters what matters we use to think other matters with," is Donna Haraway's adaptation of the approach and thoughts of anthropologist Marilyn Strathern, in order to draw our attention to what is framing the form that questions take: "it matters what stories we tell to tell to tell other stories with ..."¹

In the installation *In Love with the World*, directed by the studio of artist Anicka Yi for the turbine hall of Tate Modern, London, 2021-2, there is a deliberate desire to present a spectacular experience which prompts questions, not to narrate or direct answers. The whole space, measuring 3,300 square metres with a height of 35 metres, becomes an ecosystem for a number of large, floating dirigibles whose form and behaviour take their cues from the *Aurelia* species of jellyfish, with the intention to create semi-autonomous machine-beings, informed by artificial intelligence systems devised by industry collaborators.² The project aimed to create an environment in which the complexity was provided by the visitors, not the technology. The simple actions and behaviours of the floating forms, termed aerobes, were intriguing yet simple enough to elicit speculation about the technology and what informed their elegant movements. As the technical artists Nathan S. Lachenmayer and Usa Sadiya Akasha explain: "we resisted the urge to create a more complex artificial life system, instead preferring simple rules over complex ones," following Valentino Braitenberg's early work in cybernetics, "the key to compelling complex behaviour is simple rules combined with a complex environment."³ The ambiguity of the visual cues supported the experience: if they were jellyfish then we, the visitors, were in an alien ecosystem, placed as though in an ocean and shrunk somehow to the position of bystander. Looking up at the creature-machines from below, or across from one of the elevated viewing platforms, their behaviour could be observed. Some aerobes seemed to be more inquisitive of the human beings which surrounded their space, but all eventually returned to the "battery pond" for recharging, where technicians worked to

1 Donna J. Haraway, *Staying with the Trouble: Making Kin in the Chthulucene* (Stanford, CA: Stanford University Press, 2016), 12.

2 Nathan S. Lachenmayer and Usa Sadiya Akasha, "An Aquarium of Machines: A Physically Realized Artificial Life Simulation," *Proceedings of the ACM on Computer Graphics and Interactive Techniques* 5, no. 4 (2022).

3 Lachenmayer and Akasha, 9, citing Valentino Braitenberg, *Vehicles: Experiments in Synthetic Psychology* (Cambridge, MA: MIT Press, 1984).

facilitate their return to the air. Although in this story it was unclear who was servicing whom.

To leave at least one of the pragmatic poles of communication open—addressor, addressee, referent, sense—allows for an inquisitiveness that is engendered throughout the work of Jean-François Lyotard.⁴ This article will follow three instances of such incompleteness, across two publications and an exhibition, charting their sometimes-entangled paths as Lyotard's thought intersects with the work of Ludwig Wittgenstein. But it begins with a phrase. In an interview in 1978, Lyotard was asked if he believed a "*communication volontaire*" was possible.⁵ The difficulty of translating this phrase—perhaps as either "self-directed" or "voluntary" communication—might suggest that such a notion has little contemporary currency today. Perhaps it refers to something that has fallen out of common understanding relating to the function of language? Yet it inhabits the realm of Anicka Yi's installation and is typical of questions asked by contemporary technological developments, those which evoke the possibility that information comes from elsewhere than reasoned, articulated human thought. When the question mark stands for the unknown element of the pragmatics of communication in the simplified model proposed by Harold Lasswell three quarters of century ago: "Who, says what, in which channel, to whom, with what effect?"⁶ It is the same model adapted by Lyotard for the overarching schema of the exhibition *Les Immatériaux* and complexified in his contemporaneous book *The Differend: Phrases in Dispute*. This article considers both the strange and strained relationship between this, Lyotard's most philosophical book, and his most popular, *The Postmodern Condition*, in order to establish the extent to which the former can elucidate aspects of the latter, particularly the shift from Wittgensteinian ideas of "language games" to that of phrase regimen and its attending critique of anthropocentrism. The possibility of "*communication volontaire*" will be considered in various ways throughout both texts, Lyotard's own response in relation to his teachings at the university of Vincennes, and through art works which perform aspects of this voluntary process as a provocation to art criticism.

The Differend was the result of close to a decade's work on language, pragmatics, and judgement: a work which makes almost no reference to the postmodern, except in its publicity and subsequent reception. In the text of *The Differend* itself "postmodern" doesn't have its own entry in the otherwise comprehensive index; it appears, rather, only

4 Ashley Woodward, "Pragmatics and Affect in Art and Commentary," in *Traversals of Affect: On Jean-François Lyotard*, ed. Julie Gaillard, Claire Nouvet, and Mark Stoholski (London and New York, Bloomsbury, 2016).

5 Jean-François Lyotard, "Entretien entre Jean-François Lyotard et Alain Pomarède," *Art Présent* 8 (Spring, 1979): 10.

6 Harold Lasswell, "The Structure and Function of Communication in Society," in *The Communication of Ideas*, ed. Lyman Bryson (New York: Institute for Religious and Social Studies, 1948), 37.

as a secondary term under "Modern," which reads "Modern, postmodern" (and for this there are 6 entries—only two of which actually name the postmodern;⁷ therefore you could argue it sends us searching, for the postmodern in the modern). I would like to think of this as a ruse: a playful obfuscation of the term for which Lyotard was best known and yet it also demonstrates the important re-thinking of temporality which is a recurrent theme in *The Differend*: time is anachronic, or rather it doesn't accept a chronological sequence, particularly with the discussion of the now. The ordering of *The Differend* similarly resists a teleology; whilst the reader is told to read the paragraphs in sequence they frequently refer elsewhere, sending the reader back or forward to other paragraphs—the "pile of phrases" is ordered but uncertain about its order.⁸

The Differend is structured to challenge periodisation and to highlight simultaneity, slipping between one state and another: after/before: a before that can only be named as such after: Epilogue. Prologue. They both announce but neither is the subject of its announcement. Now that interrupted reading streams are the everyday of web-enabled experience, what might a return to the engineered uncertainty of the A. permit us to explore? Writing in the preface, Lyotard positions himself not as author but as "A."—both addressor and addressee of phrases—warning that the book is not of "our time" but "a little out of date?"⁹ Such self-doubt about the timeliness of the core text in an article intended for a special edition on Lyotard, aiming to highlight his relevance for the twenty-first century, might seem problematic. But to be not of "our time" refers to the contemporary preoccupation—then, as now—with "gaining time" in a drive for an efficiency of means, of communication, and to overthrow the presumption with regard to both the authorship of thoughts and the assumption that they be always driven forward toward a telos dominated by the goals of the economic genre. Lyotard's thought is prescient for the current concerns of the twenty-first century in the sense of our need to redress an obsession with authorship, with the dominance of human thought and time and the presumption that technological "advancement" is linear. "So, in the next century, there will be no more books. It will take too long to read, when success comes from gaining time."¹⁰

Communication volontaire

Academically, Lyotard was first and foremost a philosopher—that is what he studied and taught—but he was always reaching out into other areas, without the pretention that he

7 Jean-François Lyotard, *The Differend: Phrases in Dispute*, trans. Georges Van Den Abbeele (Minneapolis, MN: University of Minnesota Press, 1988), 207.

8 Lyotard, *Differend*, xv.

9 Lyotard, *Differend*, xiv.

10 Lyotard, *Differend*, xv.

could “do” those things, but neither with any unnecessary reverence for experts. This was how he approached art, writing, film-making, exhibition-making, music: with a respect for the material or matter he was working with, or responding to, without the need to feel constrained by conventions and historical framing. Some of this attitude comes from the particular context of his teaching in France, specifically at the experimental university centre of Vincennes, which opened in 1968 and whose Philosophy department he joined in the academic year 1970–1, the same time as Gilles Deleuze—they both continued to teach there until 1987. In the early days there was something quite specific about Vincennes because it took students without traditional qualifications and scheduled classes in the evenings and at weekends to make them more accessible to those who were working.¹¹ As a result, there was an eclectic mixture of students in terms of age and background, including many from overseas, particularly Latin America and Africa. There was a very particular teaching situation: no prior knowledge could be assumed, and the backgrounds and experiences of the students varied greatly. The courses in the Philosophy department were not regarded as sequential or progressive, there were no prerequisites, and everyone was taught together.¹² As a consequence, there had to be a process of negotiation which didn’t presume prior knowledge, and didn’t reserve some thinkers, whom some deemed more difficult, for higher-level courses.

Lyotard’s approach to teaching is described in the 1978 interview for the short-lived art magazine *Art présent*. The interviewer asks: “Can you conceive of a self-directed communication?” Yes, he replied, “that is what I do, three hours a week at Vincennes. They give me the floor and for three hours I declare everything I think.”¹³ But this is not a holding forth in some magisterial, masterful, way but rather an opening up. I think of it as closer to a Freudian free-floating attention where the connections are no longer those articulated by an individuated subject but rather an exploration together, in tandem; even though the floor might be predominantly given to Lyotard he is not speaking as a master, it is more of a divesting of the self—or more specifically the knowing self—through speech. While I am situating this example at Vincennes, a similar approach is described in his first major book *Discourse, Figure* which he worked through with students at the University of Paris, Nanterre, 1967–69. In the section “The line and the letter,” Lyotard describes the means by which a “discourse of signification” might be abandoned to allow the figural to emerge, and the slowness it requires:

11 François Dosse, *Vincennes: Heurs et malheurs de l’université de tous les possibles* (Paris: Payot, 2024), 40–46.

12 Université de Paris VIII, “Programme de l’université Paris VIII, Département de Philosophie, 1977–8,” <https://octaviana.fr/document/FVNP0243#?c=&m=&s=&cv=, 2>, accessed 13 September, 2024.

13 Lyotard, “*Art Présent: Interview with Jean-François Lyotard by Alain Pomarède*” trans. Kiff Bamford and Roger McKeon, in *Lyotard and Critical Practice*, ed. Kiff Bamford and Margret Grebowicz, (London and New York: Bloomsbury, 2023), 160.

An almost endless effort is required for the eye to give in to form, to become receptive to the energy stored therein. Here one must keep at arm's length the presumptions, interpretations, and habits of *reading* that we contract with the predominant use of discourse. It is precisely of this skill that discourse-centred education and teaching deprives us: to remain open to the floating presence of the line (of value, of colour).¹⁴

One of Lyotard's students at Nanterre was the translator Roger McKeon, who edited the first collection of Lyotard's essays in English, *Driftworks*, and with whom I have been fortunate to work. When I made the mistake of thinking I could translate the 6000-word *Art présent* interview for a recent collection, he tidied things up, corrected my many mistakes and untangled some of the complications I had encountered. One such tangle was how to translate "*communication volontaire*"—we went between "voluntary" and "self-directed" communication, eventually deciding on the latter. But now I do like the sense of voluntarism that is carried in the French. Even though "voluntary communication" doesn't have any clear meaning in English, it does have a poetic sense: we can start to imagine what it *might* mean, to ask who or what is doing the volunteering, what is being offered up. "Self-directed" doesn't quite convey the idea of the speech driving the communication, something beyond the self, in the limited sense of well-articulated, well-conceived discourse. Looking back at our email exchange, I refer to having found a reference which led me to believe that *communication volontaire* was a "trendy" term from the 1970s for an unmediated, free-flowing communication, but the words used to describe this phenomenon then seems now to have passed away, along with the suggestion that we might value such an idea when everything is seemingly reduced to a cost / benefit analysis. As Lyotard described it: "They give me the floor and for three hours I declare everything I think."¹⁵ Of course, he wasn't just talking off the top of his head, preparatory notes exist for some of these sessions, and the night before would be devoted to intense preparation. But I am intrigued by this vignette from another world, another time, another set of priorities and values, which might still give us something to consider today when the instinctive reaction is to ask: why would we value this idea? In contrast to the lost desire "to remain open to the floating presence of the line"?¹⁶

14 Lyotard, *Discourse, Figure*, trans. Antony Hudek and Mary Lydon (Minneapolis: University of Minnesota Press, 2011), 212. Translation modified.

15 Lyotard, "Art Présent: Interview," 160.

16 Lyotard, *Discourse, Figure*, 212.

Uncertainty

When the interview was first published, it was prefaced by an epigraph taken from Lyotard's essay "Apathy in Theory,"¹⁷ a long assessment of the last two sections of Sigmund Freud's *Beyond the Pleasure Principle*. In this essay Lyotard highlights Freud's uncertainty; unable to really believe what he is putting forward, Freud finds himself working without clear evidence yet putting on paper a train of thought, feeling his way through material without a firm basis for where he might be going. To draw a connection between Lyotard's *communication volontaire* and Freud's free-floating attention is not therefore unreasonable and exemplifies what is most appealing about this unknowing approach: there is a listening out for, a paying attention to, that which isn't expected. There is something intensely challenging about Lyotard's refusal of that which is already said, the mundanity of platitudes characterised as the "*déjà dit*."¹⁸ It may be quite simplistic as a mantra: "to avoid the *déjà dit*," yet is profoundly difficult to live up to. When Lyotard is reading Freud, reading André Malraux, writing on Marcel Duchamp, on Michael Snow, on the work of the sixty or so artists whose work he responded to, it is always a listening to the work and the thought.

I read a letter by Lyotard replying to an editor in the United States; excited about the prospect of his forthcoming book, *The Differend*, they referred to it as "your book on Kant"—Lyotard corrects them: "It is *not about* Kant, it has been written *with* Kant."¹⁹ Immanuel Kant, the philosopher perhaps most associated with the Enlightenment and the age of reason, everything which would seem to be antithetical to a thinker associated with the postmodern. Such an assumption is refuted by the fact that Lyotard devoted more than a decade to thinking with Kant, including seminars which were disciplined examinations of Kant's texts. Some of these "*explication de texte*" were published as *Lessons on the Analytic of the Sublime*, in which he describes the approach and method taken as being one of paying attention to the "manner" of the thinking.²⁰ In the preface he writes that in retaining the heavy awkwardness of oral presentation the book is "something of an awkward homage, and a farewell, to this strange 'profession': one 'teaches philosophy' only by learning how to philosophize," before indicating that the "lessons try to isolate the analysis of a differend of feeling in Kant's text, which is also the analysis of a feeling of differend, and to connect this feeling with the transport that leads all thought (critical thought included) to its limits."²¹ This perhaps helps us to appreciate the disciplined

17 Lyotard, "Apathy in Theory," in *Lyotard and Critical Practice*, trans. Roger McKeon, ed. Kiff Bamford and Margret Grebowicz, (London and New York: Bloomsbury, 2023), 141–50.

18 Lyotard, "The Other's Rights," in *Lyotard and Critical Practice*, trans. Chris Miller and Roger Smith, ed. Kiff Bamford and Margret Grebowicz (London and New York: Bloomsbury, 2023), 79.

19 JFL 529, Fonds Lyotard, Bibliothèque Littéraire Jacques Doucet, Paris.

20 Lyotard, *Lessons on the Analytic of the Sublime*, trans. Elizabeth Rottenberg. (Stanford, CA: Stanford University Press, 1994), 6.

21 Lyotard, *Lessons*, x.

significance of the "*communication volontaire*" and the responsibility of being given the floor. We should also note the attention given to the *feeling* of a differend, the affect rising from the presence of different modes of thought struggling to emerge, phrases always in dispute. *The Differend* considers many examples of "differends," the most frequently discussed are presented in its preface and opening,²² but we will turn rather to a different modality of differend, to the "neglected, forgotten, or repressed possibilities" of each linkage and the continual dispute of phrases (not to be confused with language).²³ Before moving on we will return to the 1978 interview and Lyotard's answer in full:

A.P.: Can you conceive of a *communication volontaire*?

J.-F.L.: It seems to me that I am very much in favour of *communication volontaire* since that is what I do, three hours a week at Vincennes. They give me the floor and for three hours I declare everything I think. The important thing is that the conveyance of these messages, be they linguistic or plastic or whatever, is always accompanied by the language game clause. That is all I ask. In other words, basically, that the theorist or politician know that they speak like an artist, that they do it like an artist, that they do it like an artist. I don't know whether it's possible, but I believe that it's an issue which is now being raised.²⁴

The "language game clause" refers to Lyotard's concern for pragmatics following the work of Ludwig Wittgenstein. In this instance the acknowledgement asked from the "theorist or politician" is that they are aware of their own complicity in the act of creating, of exploring, as much as the artist, yet also of manipulating with an end goal in mind. Here is a useful place to begin to unpack the differences between *The Postmodern Condition* and *The Differend* on this point, with an initial though crude distinction being that the implication of "language games" is that the speaker or player is in control of the game, whereas in the terms of *The Differend* such a presumption of control is moved considerably, to the stakes already inherent in the universe of phrases and the regimen to which they belong or might be linked. Lyotard stopped using the term "language games" because it implies that we are in charge of the game, that we (the user, the speaker, the writer) are credited with too much agency, ignoring the fact that we are already linking on to another set of phrases which are already in play.

22 Lyotard, *Differend*, xi; §22.

23 Lyotard, *Differend*, §184.

24 Lyotard, "Art Présent: Interview," 160.

“Language games”

Lyotard makes frequent use of the term “language games” in *The Postmodern Condition*, referring directly to Wittgenstein’s usage in the posthumously published *Philosophical Investigations*. Whilst Lyotard adapts the term to his own purpose rather than to make any direct comment on Wittgenstein, it is notable that the characteristics he highlights share much with Wittgenstein’s stated motivations. Games are not to be regarded as trivial but emphasize the integral role of the rules within which they are played. The example of chess given in *Philosophical Investigations* is repeated by Lyotard, for example, emphasizing the multiplicity of possible manoeuvres within the frame of established rules and the stakes at play. The collective term “game” does not seek an essential codification of what constitutes a game, however, the definition of which is both open-ended and continually “in play” without an identifiable essence. For Wittgenstein this is in deliberate opposition to those seeking solutions to the language problem through logic or the articulation of a closed system; for Lyotard the employment is more operational, to highlight the differing stakes at play in particular language games. Specifically, it is the dominance of the performative language game and its role within “the postmodern condition” that is Lyotard’s main focus, famously highlighting as its stakes the principal of performativity: maximizing output whilst minimising input. The consequences of the performative language game’s dominance for knowledge is one of Lyotard’s focuses in this ‘report on knowledge’, a report that was commissioned for the Universities Council of Quebec.²⁵

It is common to cite or refer to Lyotard’s own assessment of *The Postmodern Condition* as a being “a bit of a parody.”²⁶ Whilst this is in keeping with the eye-roll with which Lyotard met the continued emphasis placed on this one book at the expense of his other writings, it is also useful to acknowledge the game within which Lyotard was playing. Adopting the format, language, and tone of a report, it was, however, a report that he not only deemed himself inadequately equipped to write but a task which was in itself unachievable—as though it might be possible to know what the state of knowledge was—and as such lent itself to parody. As he describes in the final pages, his opposition to the search for consensus on such questions is to contest the presumption that consensus is either possible, or desirable as the goal of social interaction. In its place he describes the need to recognize the “heteromorphous” nature of language games as a first step toward “a politics that would respect both the desire for justice and the desire for the unknown.”²⁷

25 Lyotard, *Rapport sur les problèmes du savoir dans les sociétés industrielles les plus développées*. (Conseil des universités: Québec City, 1979).

26 Lyotard, “Interview with Alain Arias-Misson,” trans. Alain Arias-Misson, *Lotta Poetica* Series 3, no. 1, (January 1987): 82.

27 Lyotard, *The Postmodern Condition: A Report on Knowledge*, trans. Geoff Bennington and Brian Massumi (Manchester UK: Manchester University Press, 1984), 65; 67.

Wittgenstein's emphasis is on language in use, activated, especially through speech, and whilst many commentators observe the significant shift from the earlier to the later work, that is from *Tractatus Logico-Philosophicus* to the teachings and writings which formed the *Philosophical Investigations*, it is the revision of the former in the latter through a cycle of revisiting which is also significant. It is significant particularly in the context of what draws Lyotard to Wittgenstein: the problem set up by the concluding statement of the *Tractatus* regarding what cannot be dealt with in relation to the terms of the book's own consideration of language, and therefore must be passed over in silence, is that to which both thinkers return in their respective reconsideration of the very need to address that silence. It is the context of the use of language that Wittgenstein returns to in the *Investigations*, the action which both establishes meaning and brings about the unfixed multiplicity of possibilities characteristic of that which he terms language-games. In the opening definition in §7 it is clear that the considerations are broad and contextual: "I shall also call the whole, consisting of language and the actions into which it is woven, the 'language-game'."²⁸ It is through everyday language, not the dry, specified terminology of logical positivism, that these games are played and through which they should, in turn, be questioned and discussed.

The weave of contextual situations within which language is activated is deliberately echoed by Lyotard when considering the role of language games in everyday inter-relations—those that form the social bond—going so far to write that it is through the "moves" that the social bond might be observed, that "the social bond is linguistic but is not woven into a single thread."²⁹ Language games and their different rules intersect with one another without a single metadiscourse of knowledge containing or legitimating their goals or validation. The extent to which the participation of the players within the game enables the modification of its rules varies between the different books under discussion here. In *Philosophical Investigations*, the analogy between games and language use is explored through reference to the different roles played by rules: some games involve making up the rules as we go along, others develop only over time and seem to maintain their boundaries. Yet even the latter must adapt, as the introduction of VR technologies in established sports have shown. It is this variation and adaptability of rules within games which leads Wittgenstein to reassert the analogy with language and emphasize scenarios where rules are modified, evolve through use, or deserve attention because they have become conventions: "The aspects of things that are most important for us are hidden because of their simplicity and familiarity."³⁰

For Lyotard, the social bond extends further, it seems, with the weave of which we are

28 Ludwig Wittgenstein, *Philosophical Investigations*, trans. G. E. M. Anscombe, (Oxford: Blackwell, 1991), §7.

29 Lyotard, *Postmodern Condition*, 40.

30 Wittgenstein, §129.

a part existing prior to our emergence as a “self”: thrown into a network of language games. We are named before our arrival and positioned within the social bond as language game, yet never “entirely powerless” in relation to the messages that situate us, whether as addressee, addressor, or referent.³¹ The sometimes crude sociological flavour of *The Postmodern Condition* means that Lyotard’s report rests largely on a consideration of two forms of knowledge: the diversity of language games operating within forms of narrative knowledge, in contrast to the self-legitimizing utterances of “performativity” (an extended but aligned use of J. L. Austin’s “performative utterance”), governed by its stakes of maximizing efficiency. It is the latter which has become dominant, according to Lyotard’s assessment of “the state of knowledge in the most economically developed countries”—the given remit of the report, and its original title—by means of creating its own criterion for validation regardless of the suitability of the language game at hand. The consequences of such dominance are outlined by Lyotard through several scenarios, many of the best-known relate to the results of technological investment as a means of establishing knowledge and asserting claims to truth. The example which perhaps best sums up the inadequacy of maximizing performativity as the dominant criterion is the declaration that the needs of the underprivileged within society are only considered in order to better regulate that which Lyotard refers to as “the system.” He refers to the dominance of “liberal, imperialist capitalism” at a point where, without any serious political challengers, it performs its own maintenance as its goal; the traditional political ideals of liberty, equality, or communality are abandoned unless they further the same goal of the economic genre i.e. sustaining the system itself.³² Synonymous with the stakes of performativity, the system seeks to exercise power as if it were the only legitimizing language game: “moves” (*coups* or “blows” in French) are needed by the system as a regulating mechanism.

Whilst Wittgenstein’s *Investigations* presupposes there are speaking individuals, Lyotard distances himself from the anthropocentrism of this presumption. In *The Differend* he moves away from the term “language game” referring rather to the “universe of phrases” which comprise phrases and phrase regimen, to emphasize the shift in emphasis away from restricted conceptions of language and communication. *The Differend* presupposes nothing but the “phrase.” Although the French term “*phrase*” is usually translated as “sentence” the wider conception of Lyotard’s usage is harnessed in the English translation by maintaining its English homonym “phrase.” When asked about the reason for shifting away from the terminology of language games, Lyotard explained as follows:

Briefly: I have schooled myself in the *Philosophische Untersuchungen* (Philosophical Investigations) in order to purge myself of the metaphysics

31 Lyotard, *Postmodern Condition*, 15.

32 Lyotard, *Postmodern Fables*, trans. Georges Van Den Abbeele (Minneapolis, MN: University of Minnesota Press, 2011).

of the subject (still present, in my opinion, in the *Tractatus*). Little in the way of thought, since Spinoza, the Sophists, Dōgen and Kant(!), has so... dispossessed me. Turning my culture into a desert made me fecund. Thereafter, it seemed to me that 'language games' implied players that made use of language like a toolbox, thus repeating the constant arrogance of Western anthropocentrism. 'Phrases' came to say that the so-called players were on the contrary situated by phrases in the universes those phrases present, 'before' any intention. Intention is itself a phrase, which doubles the phrase it inhabits, and which doubles or redoubles the addresser of that phrase.³³

The move away from "language games" as a term does not constitute a jettisoning of Wittgenstein in *The Differend*, but rather underlines a further reading, apparent in the approach taken to writing.

Style

The style of *The Differend*, described in the preface as a naïve attempt to attain a "degree zero style,"³⁴ avoids the explicative and the aphoristic in favour of a series of numbered paragraphs which begin thoughts and provoke the reader without giving conclusions. At times in conversation with one another, the remarks ask questions of previous statements and query the position given, a characteristic shared with that of Wittgenstein's *Investigations*. One example of such a dialogic approach also highlights an important difference between the two thinkers: §123 of *The Differend* questions the extent to which the partitioning of the phrase into the four poles of addressee, addressor, sense, and referent, might still privilege human language. The response, introduced by a short dash (–) asks what non-human entities could *not* occupy one of the poles: the gesture made by a cat's tail is open to be linked onto by a phrase, as are various non-human entities highlighted in literary examples, by Proust, Butor, Simon, and Derrida. It is in the linking that the criterion remains in play: how to link is the pervasive question, as seen in §102: "It is necessary to make a linkage. This is not an obligation, a *Sollen* [an ought to], but a *Müssen* [a must]. To link is necessary, but how to link is not (No.135)."³⁵

The numbered paragraphs frequently suggest their own linkages elsewhere in the book, in an attempt to disrupt a simple sequential reading; the number indicated in brackets here sends us to section 135, which opens with a citation of the final statement from the

33 Lyotard with Georges Van Den Abbeele, "In reading your work ...," In *Jean-François Lyotard: The Interviews and Debates*, ed. Kiff Bamford (London and New York: Bloomsbury, 2020), 61.

34 Lyotard, *Differend*, xiv.

35 Lyotard, §102.

Tractatus, asking to whom the “must” of “we must pass over in silence” is addressed? To humans? Asking whether such a passing over [of what we cannot speak about] is in their power; while not phrased in “common idioms,” it has already been phrased, as feeling. The remark ends by sending the reader back to section 102, cited above, thereby invoking the endless loop, seen as a potential risk of the customary linkage of phrases. This looping back is not necessarily a repetition of the already said, however; at each occurrence a phrase arrives with its own set of possibilities and linkages. The technology of the book as a bound codex of printed pages, which can be thumbed and flicked between easily, is integral to the set-up described above; a digital platform does not perform this function with the same ease and the once-feted hyperlink feels more systematised and less aleatory. It is an irony worth noting that for many books of philosophy, their transfer to a digital platform happens most often via a direct or indirect replica of its printed version, whether via a PDF or one of several e-readers, neither of which facilitate the same ease of interaction; whilst academic journals, which have transferred more readily to electronic supports, still maintain and emphasise a linearity either through scrolling or “turning” page by page. Lyotard’s pessimism about the future of the book is tied less to its function as a technological apparatus than the extent to which reading as an activity fails to align with the economic imperative to harvest a reward from our investment in terms of time gained. In spite of the perverse relationship of the time Lyotard expended in writing *The Differend*, close to a decade, and its minimal return in the form of a comparatively svelte volume (288 pages in French; 208 in English), for the reader it necessitates that time be spent to follow the possible linkages, to respond to the A. and their questions and to circle back through the numbered paragraphs, or tackle the denser philosophical “notices” which interrupt these.

It is in this “style” that the enactment of a “*communication volontaire*” might be identified, no longer voiced live through the discourse of Lyotard’s seminars at Vincennes but within the reading of *The Differend* itself. The “voluntarism” of the communication at play within the text is not only removed from Lyotard as author but repositions him both as addressor and addressee—as A. With this loss of ordered sequencing, the style shifts further from Wittgenstein’s *Investigations*, where it is still apparent that the philosopher is posing the questions, to an unanticipated combination of phrases. Wittgenstein draws our attention to the “simplicity and familiarity” which shields hidden assumptions³⁶ whilst *The Differend* invokes a circularity which wears them away through its refusal to present and defend a thesis, tasking the reader rather to work through the uncertainty. This also encourages a coming back to earlier work without prejudice, without looking either for origins or to establish a trajectory but to cycle through the writings, thrown like a bottle into the sea, as Lyotard said in the series of conversations from 1978 published as *Just Gaming*³⁷—a title

36 Wittgenstein, §129.

37 Lyotard and Jean-Loup Thébaud, *Just Gaming*, trans. Wlad Godzick (Minneapolis, MN: University of Minnesota Press, 1985), 9.

whose translation emphasizes the playful aspect of language games, but risks obscuring the question of justice which is emphasized in the French title: *Au Juste*. The question of temporal positionality is important in these exchanges where Lyotard highlights the difficulty of assuming that he is capable of answering on behalf of books written previously. In the course of their conversations, Lyotard and his interlocutor Jean-Loup Thébaud will make Lyotard change his opinion, he will revise his position by listening to the reader of the books under discussion. Lyotard describes this as being "un-mastered."

It is in this spirit that I return again to the section of *Discourse, Figure* titled "the line and the letter" which plays with the undetermined potential of the line, poised as if "on the blade of a knife" between the form of a letter's signification and the line of expression.³⁸ Here Lyotard is reminding us that "reading is hearing, not seeing," audible not visible and that the figural requires a slowing down, if we are not to be whisked away by the presumptions of signification.³⁹

Whether connoted or not, intonation fails to translate into punctuation. This explains why text allows for interpretation in the sense of an actor or an orator: through intonation, interpretation will bring out a text's expressive quality. On the contrary, punctuation always indicates significative intonation, and, in particular, the intervals. And it is often through the absence or displacement of precisely this punctuation that expression will erupt in the order of signification and communication. Aristotle confesses that he dare not punctuate Heraclitus's texts out of fear of making them say what they do not mean — proof that polysemy arises from the absence of indications regarding pauses.⁴⁰

With this quotation we are entering into the middle of an argument about the role of punctuation and intonation in relation to signification or expression, which I want to consider in the light of Lyotard's turn away from Wittgenstein's language game as being language in use, activated by the players. Rather, for Lyotard the phrase is there already and to emphasise the role of such use or activation is "anthropological empiricism."⁴¹ Can we conceive, then, of these intervals, these pauses, as phrases?

The observation regarding Aristotle's hesitancy over Heraclitus from Book III section 5 of *Poetics*, strikes a chord when revisiting this discussion in the light of current fears regarding the use of AI technologies and their impact on creativity, whether in writing, illustration, or content creation for screen-based media. The call for papers for this

38 Lyotard, *Discourse, Figure*, 209.

39 Lyotard, *Discourse, Figure* 211.

40 Lyotard, *Discourse, Figure* 209. Translation modified.

41 Wittgenstein, §122.

Lyotard anniversary special issue of *Technophany* asks how might Lyotard's thinking help us address the crises of the present. A recent article in this journal on ChatGPT and Hans-Georg Gadamer refreshingly explained why that particular thinker was used in relation to the issues regarding language, with an open explanation that whilst Wittgenstein might have been an obvious choice, his philosophy was too "opaque," and Jacques Derrida, the second choice, too concerned with "what *cannot* be known in dialogue."⁴² In this declaration an unintended chink of light illuminates the question of why I have been drawn back to the shifting relationship between Lyotard and Wittgenstein's language games, and why Lyotard is important in considering the impact of technological developments: because he asks us to pay attention to how we link, drawing our attention to the risks of the normative genre by which the decision how to link is already given. Gadamer's philosophy gives the author the opportunity to consider the shortcomings of large language models in depth but simultaneously limits the debate. In the declared decision not to engage with Wittgenstein or Derrida, the discussion leaves behind those aspects of language—the expressive, the ethical—that the *Tractatus* had passed over in silence and which we have been discussing above in relation to language games and Lyotard's embrace of the non-human "speaker" within the pragmatics of communication.

Medusa

There is a segue into addressing these questions which comes via the exhibition which Lyotard co-curated at the Pompidou Centre in Paris in 1985, *Les Immatériaux*. It was an overwhelmingly ambitious exhibition of art, science and technology which adopted the term "postmodern" in its publicity even though Lyotard was wanting to move away from that terminology, having just published *The Differend*. The uneasy tension between the conception of "language games" in *The Postmodern Condition*, with its connotations of players operating with language taken from Wittgenstein, and the explicitly anti-anthropological philosophy of phrases in *The Differend*, which states categorically that "You don't play around with language,"⁴³ was being played out in the exhibition. Visitors were often overwhelmed sensorially by this excessive exhibition of sixty sites arranged in a labyrinthine configuration. There was no single route through the exhibits which included interactive and immersive elements: every visitor was obliged to wear a head set into which were broadcast sounds, music, and readings that augmented but never explained the visual, tactile and olfactory experiences. Reactions included confusion, frustration, and elation, but often ambivalence, unsure how to react as the set-up

42 Robert Hornby, "Is Generative AI Ready to Join the Conversation That We Are? Gadamer's Hermeneutics After ChatGPT," *Technophany, A Journal for Philosophy and Technology* 3, no. 1 (2024): 4.

43 Lyotard, *Differend*, § 188.

precluded anticipated models of encounter—the feeling of a differend, as phrases dispute to be heard, to be linked onto otherwise.

There is a sculpture exhibited in *Les Immatériaux* which appears to defy documentation yet, I would argue, gives us an important insight into one aspect of the *communication volontaire* that I am chasing in the present article and its relevance for current approaches to art and technology. Through assiduous efforts by archivists, historians, and technicians it has been possible to create a virtual recreation of the exhibition which brings aspects of the visual and sonic together. Although the corporeal is firmly placed outside the experience, whether one uses a VR headset or a static monitor, it allows a different way of experiencing the archival material and the exhibition's trace.⁴⁴ Under the rubric of the site named *Peinture Luminescente* (Luminescent painting) but installed in an unnamed interstitial space between two adjacent sites, sits *La Méduse* (*Medusa*) by the Greek-born artist known as Takis.⁴⁵ Created in 1980 and donated to the collection of the Musée National d'Art Moderne in the same year, it is comprised of a large blown glass container filled with mercury vapour, whose glow dominates the darkened space. The neon light makes both the space and the attending apparatus glow with an incandescent light reminiscent of both horror films and the eerily unnatural bioluminescence of deep-sea creatures. In French *Méduse* can refer both to the mythological being Medusa and to jellyfish, which makes a felicitous connection to the aerobes of Anicka Yi's installation described in the opening to the article. Jutting out from the base of the central bulb-shaped centrepiece are several "arms" blown from the same glass; here the colour is at its most intense and from which cables extend into its visible workings beneath. Surrounding this centrepiece are three additional elements, described by commentators as sentinels as they are situated between the viewer and the main figurehead.

Here a most curious element is at play. Using simple electromagnetic resistance, three spherical objects swing gently from cables fixed to the exhibition's ceiling. Their slow swing is jolted at unexpected turns through proximity to one of three magnets mounted on low stands in a semi-circle surrounding the main "figure." The play is continuous: the neon light emits its incandescent light in waves of artificial blue whilst the dance of its attendants—and it is hard not to return to anthropological language given the set-up—continue in their gently jolting circuit. A low, pervasive hum is emitted by the installation, a sound absent from the virtual reality soundscape, and perhaps also to the visitors when wearing their prescribed headphones. Electronic noises are a frequent element of many Takis' works featuring electromagnetics, including the series *Ballets magnétiques* and *Télélumière*, which Takis worked on throughout the 1960s and 70s, using mercury arc

44 Beyond Matter, "The virtual exhibition of Les Immatériaux": accessed September 13, 2024, <https://lesimateriaux.beyondmatter.eu>.

45 Takis (Panayotis Vassilakis 1925-2019), *La Méduse*, 1980, work in 3-dimensions, installation with electro-magnetic light with mercury-vapour lamp, 220 x 60 x 40 cm. Centre Pompidou, Paris.

valves similar to those used in *La Méduse*. Archival photographs show a visitor placing a hand above one of the spheres, able to come into closer proximity with the structures than would be the case today and in a gesture that eludes the virtual recreation.

The description of *La Méduse* above is a non-scientific, aesthetic response to the performance of materials in action and the mystical draw of electricity when its effects and manipulation are made both visible and audible. Placed at one of the entry points to the largest site of the exhibition filled with computer monitors, it might also have played a historical bridge for viewers, whether associating *La Méduse* with outdated technology, or the special effects of horror film. What the documentation does not include is any indication of the installation's sound or the movement of its elements. To gain a sense of the drama its material constituents are playing out one has to resort to demonstrations of its principal technological component, the mercury arc valve or rectifier. These were widely in use in the 1950s–70s to transform high voltage alternating currents to direct current for use by equipment such as electric cranes, trams and trains, including the New York Subway. The process seen in the large, fragile vacuum glass bulb is activated by exciting a small pool of mercury sitting in the base of the rectifying bulb, ionising then vaporizing the mercury creates an arc to one or several anodes, rectifying the current and producing an ethereal light. *La Méduse* uses a six-phase rectifier with six glass arms. The intensity of the blue mercury vapour is greatest in the arms but pulses and fluctuates constantly, as does the excited pool of mercury whose surface shines and stridulates, all the while condensation forms on the upper surface of the bulb and returns to its source in a cycle.

In Takis's work, everyday forces are brought to our attention through the assembling of technological equipment which once had an everyday function but was for the most part hidden: "I follow the clues provided by the matter and don't try to dominate it [...] It's only about revealing, in one way or another, the sensory vibrations or the interlacing potentials for energy that exist in the universe."⁴⁶ Takis' work does not bind us to the scientific process in a didactic way but invites the visitor to experience what is occurring without explanation, in a similar manner to that of Anicka Yi's *In Love with the World*. In each example the phrases offered by the technologies accompany the question: from where do they arrive, who is the addressor of these curious, floating dirigibles, of the intense luminescent forms? What is the "maternity" of these communications,⁴⁷ these phrases, and how should we link onto them?

46 Takis, "A conversation with Takis by Maïten Boussiet (1990)" in Takis, trans. Alayne Pullen, ed. Guy Brett and Michael Wellen (London: Tate Publishing, 2019), 115.

47 "Maternity" or "*Maternité*" was the title of one of the five strands of the exhibition *Les Im-matériaux*, to which Lyotard loosely aligned the question "what is the function of the sender of the message?" Jean-François Lyotard and Thierry Chaput, "The Exhibition Guide" (*Petit Journal*) trans. Robin Mackay (Paris: Centre Georges Pompidou, 2022), 1, https://monoskop.org/images/b/bf/Les_Im-materiaux_PetitJournal_EN_LD.pdf

One of the sections of *Philosophical Investigations* which Lyotard quotes at length in *The Postmodern Condition* relates to the layers of language in use, living alongside and enmeshed in one another like "an ancient city" whose old streets are bordered or cut through by the new.⁴⁸ For Wittgenstein this illustrates the incompleteness of language and its continual evolution with "the symbolism of chemicals and the notation of the infinitesimal calculus." To this Lyotard adds "machine languages," "new systems of musical notation," "the language of the genetic code and so on," emphasizing not only the growth of new forms of language but also the expansion of our understanding of that which is beyond the normal category of language.⁴⁹ As highlighted above, for Lyotard the turn to phrases in *The Differend* maintains this plurality whilst de-centring the role of the human and exploring the importance of that which does not fit forms of articulated speech. The luminous gas of *La Méduse* and the quiet flight of the aerobes in the Tate's turbine hall might also fit within the pragmatic universe of phrases, taking the place of addressee, addressor, referent, or sense, but without our necessarily being able to determine their address, or to articulate their position in linking to such a phrase. When Lyotard speaks of the *communication volontaire*, such an indeterminate positionality is being listened to—that there might be something to which we can respond but cannot give voice within existing strictures of language. Hence the importance of listening for Lyotard, an open receptivity encapsulated by the unconventional assertion that "reading is hearing, not seeing," riffing perhaps on the aphoristic remark of Marcel Duchamp "[see] one can look at seeing: one can't hear hearing."⁵⁰ We are reminded that something else is possible aside from that determined by the seemingly overwhelming dominance of certain genres, the cognitive or economic.

An installation is a phrase; how it operates is undetermined until it is linked onto. Anicka Yi's commission for the Tate turbine hall, the Hyundai Commission—so named after its commercial sponsor—was delayed because of the intervention of Covid-19. The impact of its olfactory element, devised to infer the deep geological history of site, was minimised due to the obligatory wearing of face masks, yet as Yi readily reflects in that hesitant, exploratory manner that sometimes gets captured through the informality of a podcast, "I've been thinking about the importance of non-living viruses and the need for our way of thinking of life in a different way [...] especially in the West, where we are very attached to this notion of an individuated living entity. And I think this virus is teaching us that that doesn't really exist. And we have to let go of that way of thinking...."⁵¹ Yi is voicing

48 Wittgenstein, *Investigations* § 18; Lyotard, *Postmodern Condition*, 40.

49 Wittgenstein, §18; Lyotard, *Postmodern Condition*, 41.

50 This handwritten note was reproduced in facsimile 320 times as part of the box of notes for *The Large Glass* (1915-23) known as *The Green Box* (1934), both works also share the longer title *The Bride Stripped Bare by her Bachelors, Even* [*La mariée mise à nu par ses célibataires, même*]. Translation by George Heard Hamilton.

51 Anicka Yi and Elvia Wilk, "Anicka Yi on nonhuman ecologies and embodied machines," *e-flux podcast*, April 7, 2020, 37:27–37:47, <https://www.e-flux.com/podcasts/407863/anicka-yi-on-nonhu->

the necessary but sometimes difficult admission that to link is not a human prerogative; neither is it the prerogative of language. As Lyotard writes, in the beginning there was not the word, not doubt, but phrases: “No phrase is the first,”⁵² each carrying with it a multitude of possible linkages—involuntary phrases for the 21st Century.

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A “Pagan” Anthropocene? Lyotard Beyond Postmodernism

Gael Caignard

Abstract

The article examines the notion of the Anthropocene in the light of several philosophical tools that we can draw from Jean-François Lyotard. At first, I consider Lyotard’s analysis of the postmodern condition, particularly in respect of the process of legitimation and the crisis of grand narratives. Then, I ask if the Anthropocene is itself a new grand narrative or if, on the contrary, another understanding of the Anthropocene can be proposed starting from Lyotard’s reflexions on paganism. After an analysis of some elements of Lyotard’s paganism, I outline the traits of a “pagan Anthropocene,” using several examples from contemporary ecological studies.

Keywords: Ecology, narratives, global condition

1. Introduction

The time we live in can be considered as a time "after the post-." After *postmodernism*, but also after *postcolonial*, *posthumanism*, *post-Europe*, *post-history*:¹ with these terms we define a threshold that stretches from the 1950s to the 1990s in which various attempts were made, using the prefix "post-" to conceive an ambiguous condition hesitating between the weight of the past, and the uncertainty of the future. Common to these traditions is a difficulty in naming the present time and an urgency to find tools and words to conceive it. It might be worth considering that the term of "post-" refers to the break that separates the before and the after, that divides time and transforms the regimes of temporality. At the same time, despite this break, we recognize, within the various cultural reflections that refers to "post-," a shared desire to explain the present without cutting the links with the past.² In contrast to what has often been thought, the postmodern is not situated outside the modern, but rather within a space saturated with modernity in which it is difficult to create something new. Jean-François Lyotard, considering the meaning of the particle "post—" in a text entitled *Note on the Meaning of "Post—"*—highlights the architectural meaning of the term: postmodern architecture inherits a space from modernity and can act in this space only by specific interventions, without any overall project: "Postmodern architecture finds itself condemned to undertake a series of minor modifications in a space inherited from modernity, condemned to abandon a global reconstruction of the space of human habitation"³ This means learning to live in an interstitial space, and to listen to the stories that can emerge from it without creating a full discontinuity between past and future. However, Lyotard's account of postmodernism is not the architectural one—as in the theory of David Harvey, for example.⁴ Lyotard's philosophical use of the word *postmodern* is not about architecture, but rather about the status of knowledge. The question is how knowledge [*savoir*] legitimises itself using certain kinds of discourses. Postmodernity is indeed a way to point out the crisis of a peculiar form of legitimization discourse: the grand narratives of emancipation of all humanity.

At the same time, we need to consider how, over the last thirty years, interest in philosophy and in the human and social sciences has shifted towards a precise analysis of globalisation (from an economic, social, political, and cultural perspective) and has gained awareness

1 If the references to postcolonial and posthumanism are well known, it is useful to recall that Jan Patočka proposed the notion of "post-Europe", and "posthistory" was used by Arnold Ghelen and Vilém Flusser.

2 See the utilisation of the prefix "post-" by Homi K. Bhabha, *The Location of Culture*, (London-New York: Routledge, 1994) or by Gayatri C. Spivak, *A Critique of Postcolonial Reason: Toward a History of the Vanishing Present* (Cambridge, MA: Harvard University Press, 1999).

3 Lyotard, *The Postmodern explained: Correspondence 1982–1985*, trans. ed. by J. Pefanis and M. Thomas (Minneapolis-London: University of Minnesota Press, 1992), 76.

4 David Harvey, *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change* (Cambridge MA and Oxford: Blackwell, 1989).

of contemporary ecological issues. In this context, the notion of the Anthropocene has emerged (along with its variations like Capitalocene, Plantationocene, etc.) not only as a way to express the geological influence of human agency but to address the climate change: the word “Anthropocene” provide a name to an event, and the creation of a set of tools useful to start processes of shared understanding.⁵ Without necessarily being linked to a field of knowledge or to the discursive laws of a particular scientific language, speaking of the Anthropocene allows us to inhabit a common space of differences (in practices, dwellings, and discourses), by weaving together various fields of knowledge and practice, ranging from the natural sciences to literature, philosophy, artistic and political action. My intention in this article is to consider the notion of the Anthropocene in the light of several philosophical insights that we can draw from Jean-François Lyotard’s work.

I will first recall Lyotard’s analysis of the postmodern condition, particularly regarding the dynamics of legitimation and the crisis of grand narratives. Then, I will ask what the connection might be between the Anthropocene and Lyotard’s critique of grand narratives, and whether it could activate another domain, that of “little narratives” (*les petits récits*). This domain appears in the “pagan texts” of Lyotard, particularly in *Rudiments païens* and *Instructions païennes*, which were written a few years earlier than *The Postmodern Condition*. After analysing some traits of Lyotard’s paganism, and offering a warning about the damage [*le tort*] that even small narratives can do, I will ask what examples of a pagan Anthropocene might look like.

2. Postmodern Condition: Legitimation and Grand Narratives

The Postmodern Condition is a text published in 1979 as a “report on knowledge in the twentieth century” commissioned by the Quebec government. Lyotard’s hypothesis is that “the status of knowledge is altered as societies enter what is known as the postmodern age. This transition has been under way since at least the end of the 1950s, which for Europe marks the completion of reconstruction.”⁶ The so-called “postmodern age” is, in

5 See Christophe Bonneuil and Jean-Baptiste Fressoz, *The Shock of the Anthropocene: The Earth, History and Us*, trans. D. Fernbach (London-New York: Verso Books, 2017), where the Anthropocene is considered as an “event”, or Donna Haraway, *Staying With the Trouble: Making Kin in the Chthulucene* (Durham: Duke University Press, 2016) where the Anthropocene is considered as an event that we must make as short as possible.

6 Jean-François Lyotard, *The Postmodern Condition: A Report on Knowledge*, trans. G. Bennington and B. Massumi (Minneapolis: University of Minnesota Press, 1984), 3. The references from Lyotard on the previous use of the words “postmodern,” “postmodernism” or “post-industrialisation” are Alain Touraine, *The Post-Industrial Society*, trans. L. Mayhew (London: Wildwood House, 1974), Daniel Bell, *The Coming of Post-Industrial Society* (New York : Basic Books, 1973), Ihab Hassan, *The Dismemberment of Orpheus: Toward a Post Modern Literature* (New York: Oxford University Press, 1971), Michel Benamou and Charles Catamello (eds), *Performance in Postmodern Culture* (Wisconsin : Center for Twentieth

fact, a "condition": "The object of this study is the condition of knowledge in the most highly developed societies. I have decided to use the word *postmodern* to describe that condition. [...] it designates the state of our culture following the transformations which, since the end of the nineteenth century, have altered the game rules for science, literature, and the arts."⁷ So, *postmodern* is a term that designates a condition of knowledge in a specific space ("the most highly developed societies") and, more generally, it indicates a transformation in the *game rules* of different fields. Pointing out the importance of the *game rules* already implies a consideration of the *legitimation rules* of the discourses about science, but also literature and the arts.

Lyotard provides a "pragmatics" concerning the discourses of "knowledge" [*savoir*]. We should not think that knowledge is the prerogative of science. On the contrary, knowledge can also take other forms: there is a narrative knowledge, and therefore there are processes of legitimation that use the narrative form of knowledge. This narrative form is pre-eminent in the formation of knowledge and cultures, particularly because of its unifying function, capable of bringing together, within a single discourse, several different types of sentences and through its "self-legitimising" nature.⁸ Modern science also distinguishes itself by the fact that it constructs criteria for legitimation and rejects any statement that cannot be understood according to these criteria. Lyotard highlights in some detail the twofold path of scientific legitimation undertaken through research and teaching: research presupposes an addresser who asserts what is true and who is capable of submitting proof of what he says; it presupposes that the addressee is a peer, capable of receiving and understanding the addresser's assertion; it presupposes that the referent is expressed in accordance with its nature.⁹ Teaching, on the other hand, requires the ability to explain to an unfamiliar recipient something that they can understand and then use to participate in the research themselves, and it implies also a past, a memory of the proofs already produced.¹⁰

However, if research is based on proof, that raises another question: "How do you prove the proof?", that is, "Who decides the conditions of truth?"¹¹ We are approaching a crucial point here. All these dynamics—and the answers to these questions—need to be based on

Century Studies & Coda Press, 1977) and M. Köhler, "Postmodernismus': Ein begriffsgeschichtlicher Überblick", *Amerikastudien*, 22, 1 (1977).

7 Lyotard, *The Postmodern Condition*, xxiii.

8 Lyotard, *The Postmodern Condition*, 18–23. See the analysis of Gaelle Bernard, "Sur la crise 'post-moderne' de la légitimation et la confusion des raisons," *Cités* 45, (2011): 87–101. Bernard points out that a difference between narrative knowledge and scientific knowledge is also to be found in temporality: narrative knowledge accepts forgetfulness and even uses it as a mean of unification through narration, whereas scientific knowledge requires memory to proceed with the verification or falsification of evidence (Bernard, 90–91).

9 Lyotard, *The Postmodern Condition*, 23–24.

10 Lyotard, *The Postmodern Condition*, 24–25.

11 Lyotard, *The Postmodern Condition*, 29.

a dynamic that is, after all, narrative: the production of the narrative of scientific progress, its emancipatory force, and its intrinsic teleology. Modern science, while rejecting the field of narrations, finds its legitimacy in a meta-discourse, by defining itself as “modern.” Yet this self-definition is, in fact, a meta-narrative of modernity: for example, the “hero of knowledge” of the Enlightenment, invested with an “ethico-political” task to strive for universal peace through reason, is a character of this kind of narrative.¹² More generally, it is the very form of legitimisation which, since Plato, has been achieved through a commixture of narrative and scientific discourse.¹³ Delegitimisation is therefore a crisis in which the criterion of legitimisation is neither ethico-political nor science-knowledge-based, a crisis where the grand narratives themselves no longer serve as a principle of legitimization:

In contemporary society and culture—postindustrial society, postmodern culture—the question of the legitimation of knowledge is formulated in different terms. The grand narrative has lost its credibility, regardless of what mode of unification it uses, regardless of whether it is a speculative narrative or a narrative of emancipation.¹⁴

The grand narratives of emancipation, on which the cultural production of modernity was largely based, proposed a historical univocity that the notion of the postmodern criticizes and calls into question. In this regard, Lyotard writes in a text entitled *Missive on Universal History*: “The thought and action of the nineteenth and twentieth centuries are governed by an Idea (in the Kantian sense): the Idea of emancipation. It is, of course, framed in quite different ways, depending on what we call the philosophies of history, the grand narratives that attempt to organize this mass of events.”¹⁵ The examples that Lyotard proposes are then: “the Christian narrative of the redemption of original sin through love; the *Aufklärer* narrative of emancipation from ignorance and servitude through knowledge and egalitarianism; the speculative narrative of the realization of the universal Idea through the dialectic of the concrete; the Marxist narrative of emancipation from exploitation and

12 Lyotard, *The Postmodern Condition*, 31. Jameson sums up well the political implications of this argument: “For the two great myths disengaged by Lyotard and identified as the alternate justifications for institutional scientific research up to our own period—that of the liberation of humanity and that of the speculative unity of all knowledge (qua philosophical system) are also national myths and reproduce the very polemic in which Lyotard’s own book wishes to intervene.” (Jameson, “Foreword” in Lyotard, *The Postmodern Condition*, ix).

13 Thus, as Gaëlle Bernard rightly says, the crisis of legitimacy that *The Postmodern Condition* seeks to describe is linked “to a confusion between two incommensurable spheres, or between two heterogeneous ‘uses’ of reason, one practical, the other theoretical,” Bernard, “Sur la crise ‘postmoderne,’” 88. This means that the ethico-political sphere is confused with the sphere of scientific knowledge, that the question of justice merges with the question of knowledge, that the “game of justice” merges with the “cognitive game of truth.”

14 Lyotard, *The Postmodern Condition*, 37.

15 Lyotard, *The Postmodern Condition*, 24–25.

alienation through the socialization of work; and the capitalist narrative of emancipation from poverty through technoindustrial development."¹⁶ These grand narratives can go all the way back to the origin of humankind (for example, Genesis is part of the grand narrative of Christianity, and it is also part of Bossuet's *Histoire universelle*), but their main aspect is to produce, through the idea of an emancipation of all humanity, forms of discursive legitimisation. Having clarified the question of legitimation central to the 1979 book, as well as Lyotard's clarifications of what he considers to be a grand narrative of modernity, we can more easily approach the contemporary implications of these analyses, in particular the status of the Anthropocene as a grand narrative.

3. Anthropocene: A New Grand Narrative?

Looking at the globalisation process from an economic perspective, we can easily find an extension of the capitalist narrative in which the opening of markets is triumphant and the idea of any alternative model is set aside. The polemic about an "end of history"¹⁷ moves in the direction of this idea, as well as a certain ideal of a smooth and unfettered globalisation which would have united the entire globe under the aegis of global markets and liberal democracies.¹⁸ This idea of a "globe" is not only linked with a metaphysical prejudice existing in Western philosophy for thousands of years, as pointed out by Sloterdijk and Latour,¹⁹ it is also a grand narration in the economic field that spills over into the cultural, social, and political spheres.

The notion of the Anthropocene first appeared at the turn of the twenty-first century, when Paul Crutzen claimed that a new geological epoch was underway, in which humanity had become a geological agent with an impact on geochemical processes and therefore on the Earth's geological strata.²⁰ In light of what we have said, I want above all to ask if this notion, closely linked with the transformations of globalisation, can be understood in the light of Lyotard's analysis of grand narratives, whether the Anthropocene is the bearer of a completely new narrative or, on the contrary, whether it can be viewed as a producer of

16 Lyotard, *The Postmodern Condition*, 25.

17 The reference is obviously to Francis Fukuyama, *The End of History and the Last Man* (New York: Free Press, 1992), but also to the Derrida's and Baudrillard's critiques of this idea: Jacques Derrida, *Specters of Marx: The State of the Debt, the Work of Mourning and the New International*, trans. P. Kamuf (London: Routledge, 2006) and Jean Baudrillard, *The Illusion of the End*, trans. C. Turner (Redwood City: Stanford University Press, 1994).

18 On this see the critique of Anna Lowenhaupt Tsing, *Friction: An Ethnography of Global Connection* (Princeton: Princeton University Press, 2004) that pointed out the *frictions* of the global condition.

19 Peter Sloterdijk, *Globes: Spheres Volume II: Macrospherology*, trans. W. Hoban (Los Angeles: Semiotext(e), 2014) and Bruno Latour, *Facing Gaia: Eight Lectures on the New Climatic Regime*, trans. C. Porter (Cambridge: Polity Press, 2017).

20 Paul Josef Crutzen and Eugene F. Stoermer. "The Anthropocene," *Global Change* 41, (2000): 17–18.

little narratives—using Lyotard’s terminology?

Studies on the topic generally consider that two types of ecological grand narratives could emerge: one that would extend the narrative of technical performativity and which would be linked to geo-engineering and its potential to “save humanity,” and another, rather catastrophic, in which the unifying narrative would be that of future catastrophes, or even the end of the world.²¹ The problem is that, while the idea of “saving humanity” is still part of a conception of a process of human emancipation, the apocalyptic path loses the salvific finality that was characteristic of modern narratives, although it retains its human protagonist and the dynamic of unification.

Without being a “grand” narrative in the sense of finality linked to the emancipation of all humanity, the apocalyptic discourse as well as the techno-scientific discourse use narrative elements as a legitimizing factor of power, practice, and knowledge: for example, they continue the existing technological and economic structure by, on the one hand, prolonging the idea that the same progress that caused global warming could solve it (the geo-engineering narrative) and, on the other, asserting that no action is possible in the face of a predicted apocalypse (the apocalyptic narrative). Both narratives risk creating an illusion similar to that of the grand narratives of modernity: producing forms of legitimacy in a monolithic discourse, tending toward unity, and confusing the speculative field with the narrative field, yet always producing practical-political consequences. Indeed, this is one of the first elements that we must be aware of when linking the question of the Anthropocene to that of grand narratives.

It is also to be said that the way in which the notion of the Anthropocene itself has been considered, specifically in its scientific construction, certainly recalls some of the characteristics of Lyotard’s grand narratives. Let us bear in mind the description of all the stages that have led to the current geophysical condition: the invention of the steam engine and the industrial revolution led to a configuration of world capitalism, which then led to the rise in CO₂; the Great Acceleration after World War II marks another pivotal moment in the grand narrative of the Anthropocene, which—according to Crutzen and other researchers—has reached its third phase, characterised by awareness and a call to action to limit humanity’s geological impact.²² This time, alongside the evident

21 See, for example: Catherine Larrère, “Anthropocène : le nouveau grand récit” in Rémi Beau and Catherine Larrère (eds.), *Penser l’Anthropocène* (Paris: Les Presses de Sciences Po, 2018), 487–497, which distinguishes the geo-engineering narrative from the catastrophic narrative. Another example is the book of Carl Cassegård and Håkan Thörn, *Post-Apocalyptic Environmentalism: The Green Movement in Times of Catastrophe* (London: Palgrave, 2022), where the authors distinguish not two but three narratives: the narrative of green progress, the apocalyptic narrative and the postapocalyptic narrative, and focus on the last one.

22 Will Steffen, Paul J. Crutzen, John R. McNeill, “The Anthropocene: Are Humans Now Over-

narrative aspect in portraying the various stages of planetary transformation, the emancipatory character reappears in the third phase, producing a narrative-theoretical discourse regarding the impact of human action on the Earth. Human action produces consequences right down to the geological strata. Climate change has a human origin, and humanity, again taken as a whole, causes irreversible transformations. This crucial discovery completely revolutionizes our way of being in the world and of thinking about domains such as history and politics. It is also interesting to note how the speculative genre of discourse is found united with the narrative genre to produce such fundamental knowledge. In this sense, as Christophe Bonneuil and Pierre de Jouvancourt have pointed out in describing the different moments of its emergence, the notion of the Anthropocene itself resembles the structure of a *historical* grand narrative:²³ "The scientists who have proposed the term Anthropocene have not simply put forward fundamental data on the state of our planet, nor simply promoted a systemic point of view on its uncertain future. They have also proposed a history."²⁴ But this raises many questions about the "subsumption of different experiences of Earth," about "the role played by 'environmental' warnings and knowledge in the construction, legitimisation and history of Empires," and the process of subjectivation at work in the Anthropocene.²⁵ It is by following these questions that they propose a history of this "grand narrative" of the Anthropocene, not necessarily to criticize the results of the various approaches studied, but rather so "that other words from and for the Earth, coming from other groups, can also be heard; so that other explanations of 'how we got here' and other proposals for 'what to do' can also be said; so that the concept of the Anthropocene does not become the legitimate philosophy of a new geopower".²⁶

It seems to us that to philosophically understand the Anthropocene means not hiding these implications but problematizing them. This has been done, for example, with a critique of the use of the term "anthropos," which would tend precisely to give great weight to "humanity" in its entirety, and by proposing alternatives like Capitalocene, Plantationocene, etc.²⁷ To continue in this problematization, we propose using some other tools that we can find in Lyotard's thought and in particular the "little narratives" related to the "pagan approach."

whelming the Great Forces of Nature?" *Ambio* 23, no. 8 (2007): 614–621.

23 Christophe Bonneuil and Pierre de Jouvancourt, "En finir avec l'épopée. Récit, géopouvoir et sujets de l'anthropocène," in Émilie Hache (ed.), *De l'univers clos au monde infini*, (Paris: Dehors, 2014), 57–106.

24 Bonneuil and de Jouvancourt, "En finir avec l'épopée," 59. My translation.

25 Bonneuil and de Jouvancourt, "En finir avec l'épopée," 59–60.

26 Bonneuil and de Jouvancourt, "En finir avec l'épopée," 60. My translation.

27 This analysis could also be conducted with reference to the problem of the "we" as it appears in *The Differend*.

4. Going Back to Paganism

To understand whether the notion of the Anthropocene can be used in a plural and productive way, we need to focus on how Lyotard speaks of “little narratives” [*petits récits*]. This idea is first found in Lyotard’s elaboration of “paganism.” Reflections on paganism are not far from those on postmodernity, and they constitute one of the fertile grounds for the latter.²⁸ The use of the word paganism is obviously linked to monotheism, to which it is opposed. *Rudiments païens* (1977, two years before *The Postmodern Condition*) is an attempt to bring out a pagan attitude against “imperial,” “Caesarist” thinking.²⁹ But paganism is also linked with the *pagus*; as Lyotard writes in *Instructions païennes*:

Pagus designated the region at the boundaries of the towns. *Pagus* became *pays*. It is not the *Heim* or the *home*, the habitat, the shelter, but neighbourhoods, regions, which are not necessarily uncultivated, which are the horizons of these ballads during which we see the country. You are not at home there. You do not expect to find the truth, but you do meet a great many entities, subject to metamorphosis, lies, desires, and anger: passible gods.³⁰

To delineate the contours of this space, we have to go back to the *Rudiments*, when, reading Freud’s 1920 *Beyond the Pleasure Principle*, Lyotard develops an analysis based on Freud’s sentence: “I think it is time to interrupt myself.”³¹ This sentence comes in the wake of Freud’s considerations of drive duality: in fact, in this essay he develops and investigates the notion of “death drive” which flanks the “life drive.” Lyotard sees this as a moment of rupture with the theoretical type of discourse. In the economy of Freudian discourse, this phrase heralds a moment of “epistemological uncertainty,” an “indistinguishability

28 The link between “paganism” and “postmodernism” and the continuities and ruptures between these two terms, has been analysed by Pierre Billouet, *Paganisme et postmodernité: J.-Fr. Lyotard* (Paris: Ellipses, 1999). Billouet points out the possibility of “silence” as a factor of transformation in Lyotard’s attitude: silence becomes impossible for Lyotard, because it still means something, even though in *Libidinal Economy*, philosophy could no longer say anything, had no object, and had to begin the work of formulation all over again: for Lyotard “It is still a question of affirming paganism against religious mono(theism), Marxism and capitalism, but since silence is impossible, it has to be formulated in an understandable way,” and this effort pushes towards the *Differend* (Billouet, 61. My translation).

29 J.-F. Lyotard, *Rudiments païens. Genre dissertatif* (Paris: Christian Bourgois, 1977), 114–119.

30 J.-F. Lyotard, *Instructions païennes* (Paris : Galilée, 1977), 43. My translation. The *pagus* can also be found in J.-F. Lyotard, *The Differend. Phrases in dispute*, trans. G. V. D. Abbeele (Manchester: Manchester University Press, 1988), §281, 151, where Lyotard says: “A phrase, which links and which is to be linked, is always a *pagus*, a border zone where genres of discourse enter into conflict over the mode of linking. War and commerce. It’s in the *pagus* that the pax and the pact are made and unmade.”

31 Lyotard, *Rudiments*, 19–32. My translation. About the quote see S. Freud, *The Standard Edition of the Complete Psychological Works of Sigmund Freud. Volume XVIII* (London: The Hogarth Press and The Institute of Psycho-Analysis, 1955, 58) where the sentence is translated: “I think, the moment has come for breaking off.”

of effects on the pulsional body," and thus "the opening of a new region, the region of apathy."³² In this way, "the third theory of the drive 'duality' escapes the theoretical and practical requirements of the scholarly genre. It can become a *theory-fiction*. Its specific affect is *impassibility*, not conviction. Impassibility should be understood as the impossibility of experiencing the yes and no of conviction."³³ We already have enough elements to make an initial consideration of what a pagan Anthropocene might be. If paganism is the interruption of theoretical terror, then this must apply to any conception of the Anthropocene that seeks to build a shared enterprise of diverse disciplines. The theoretical genre must relinquish its dominant position and once again become a genre—a genre that has its importance and its strength in a plural system of discourse, but that is not the only one. My proposal is that, if "paganism" is the stage before postmodernism, then we can go "beyond" postmodernism, considering Lyotard's previous elaboration. In his postmodern phase, Lyotard argues that, even if theoretical discourse becomes central, it is still a discourse among others, and his debt to narrative discourse plays an important role in his legitimation, as we have seen in relation to the narratives of emancipation of all humanity. Lyotard's paganism already affirmed this: refusing theoretical terror, because in "truth" there is an indiscernibility, an "effect of uncertainty" subverting the order of desire—desire of truth, for example—and redefining the semantic of intensities.³⁴ "Apathy in theory" means not allowing one to be defeated by the passionate component of theory—its effect of domination and hegemony.

Another important point is that paganism already criticises the grand narratives. In his pagan texts, Lyotard expresses the need to think of "little narratives" that would bring theory and fiction together and that would "destroy the monopoly of narratives."³⁵ The texts that compose Lyotard's *Rudiments* themselves possess this form, which attempts to hybridize the theoretical with the narrative without falling into "theoretical terror." It is a question of engaging in a space that is not that of the Empire and therefore not that of Platonism, transcendent monotheism, or the philosophies of history: "what is at stake, in the small or large *spasms* that the traces are, is another space, another logic, another story."³⁶ Spasms mean intensities, but also traces, stories, and narratives. "The logic and space-time of these traces escape the categories of the centre; they belong to paganism: to

32 Lyotard, *Rudiments*, 27-28. My translation.

33 Lyotard, *Rudiments*, 28. My translation. The highlights are from Lyotard, who uses in French the composed word "théorie-fiction." It could be interesting to study the convergences and differences between Lyotard's insight and contemporary reflections on theory-fiction.

34 We can find already the idea of "paganism" linked with the intensities of the libidinal band in *Libidinal Economy* with the reference to the "Pagan Theatrics": "We desire the atheism of the libidinal band, and if it cannot be critical, that is to say religious, then it must be pagan, that is to say affirmative," Jean- François Lyotard, *Libidinal economy*, trans. I. H. Grant (Bloomington and Indianapolis: Indiana University Press, 1993), 6.

35 Lyotard, *Instructions*, 86. My translation.

36 Lyotard, *Rudiments*, 62. My translation.

theatrical theology, to polytheism, to sensualism, to the sophistry of *kairos*, to *virtu* without judge.”³⁷ So, the *pagus* does not designate borders as an imperial institution that seeks “its finitude, its circumscription, its limes.”³⁸ However, we should not think that the emergence of intensities occurs outside society and its institutions; on the contrary, Lyotard gives the example of Roman paganism (different from imperial Caesarism), where, on the one hand, we see the indifference of the divinities, but, on the other hand, they require homage, as well as “the derisory honour of parodies.”³⁹ There are therefore two aspects to paganism: the indifference of the gods, that is, the absence of a centralization by a unique power, but also the derision of parody, which can take place in instituted rituals and which also creates intensities at the surface of the social body. To use Lyotard’s words:

The paganism we are thinking of cannot be that of the ancient instituted religions, even if they are Dionysian; it resides in the infiltration, on the surface of the social “body,” of areas left free to the imaginations and to concrete initiatives that we call deregulated, useless, dangerous, singular, in other words to the impulses, and this within the very political and religious institutions.⁴⁰

In this sense, this paganism should not turn into a “transcendental appearance.”⁴¹ Lyotard is aware of this risk, and it is perhaps also out of fear of giving a power of transcendence to narratives that he gradually abandons the notion of paganism in favour of the notion of postmodernism. Another problem is that Lyotard increasingly realises that even the “little narratives” can hide some form of “damage” [*tort*], like that of grand narratives. The grand narrative performs damage by including all humanity in the same discourse, while the little narrative performs damage if it becomes the discourse of an exclusionary community.⁴² In both cases, it is crucial to understand what happens to the “third party”: whether it is included in the universal discourse, or excluded from the exclusionary community; in both cases it performs a form of damage. However, if we do not forget the reasons that lead Lyotard away from paganism, several aspects of paganism, especially those here underlined, are still useful in thinking about our time and the Anthropocene.

There are, thus, three fundamental aspects of interest here. First, paganism is an acknowledgement of the fact that the theoretical genre is one kind of discourse among others, but that this kind of discourse produces a “theoretical terror” that reduces the

37 Lyotard, *Rudiments*, 62. My translation.

38 Lyotard, *Rudiments*, 83. My Translation.

39 Lyotard, *Rudiments*, 117. My translation.

40 Lyotard, *Rudiments*, 126. My translation.

41 See Lyotard, *Postmodern Explained*, 68.

42 On this see the analysis of Corinne Eneadeau, “La politique étrangère” in C. Eneadeau, J.-F. Nordmann, J.-M. Salanskis and F. Worms (eds.) *Les transformateurs Lyotard* (Paris: Sens & Tonka, 2008), 345–364.

other forms of discourse to it; secondly, intensities are present in discourse (we can think about how something like a *libidinal economy* demonstrates, in its very form, the interplay of intensities in language), and we must, therefore, oppose theoretical terror by creating "theory-fictions," or "little narratives," without, however, totally abandoning the theoretical form; finally, the *pagus* is neither our home nor a full otherness, it is an interstitial space, both in discourse and in practice. If we inhabit this space in our philosophical journey, we can help to let these "little" intensities emerge, that is to say, acknowledge those other knowledges that would otherwise perish under the pressure of theoretical terror.

5. Towards a Pagan Anthropocene

The question that arises now is: can this idea of paganism allow us to think of an Anthropocene that does not fall prey to the theoretical terror of a grand narrative? I want to address this question by referring first to the idea of *translation tables* proposed by Bruno Latour in his book *Facing Gaia*. The "Gaia hypothesis" was proposed by James Lovelock and Lynn Margulis in 1970 and was then taken up again in the 2000s and 2010s by Isabelle Stengers and Bruno Latour. From Stengers' point of view, Gaia is, above all, an act of naming: naming the processes of the Earth system shows their radical otherness and the indifference that planetary, geological, and telluric processes have towards humans, their interests and their values. But Stengers goes even further, because she speaks of the *intrusion* of Gaia. Gaia is not just an act of naming, but also something that intrudes into thought. Thus, the intrusion of Gaia pushes us to talk of the processes that lie outside the field of the human (but that are influenced by the human) and, by naming Gaia, we can learn to see, to think about, and to discover them. The intrusion of Gaia in no way reduces human responsibility for global warming, but it does point to a permanent and lasting transformation of our situation, our existence, and our ways of thinking.⁴³ All this already leads us to think in the direction Lyotard mentioned earlier: living in a place where you are not at home, but where "you meet a great many entities subject to metamorphosis, lies, desires, and anger: passible gods."⁴⁴

But let us go further and look at Bruno Latour's argument from his lectures on Gaia. The question is: how can we avoid falling into the trap of a name that would be incapable of speaking to everyone in the global world, in other words, the trap of a monolingualism of the global? To resolve this problem, Latour refers to the translation tables that were in use in ancient times when the numerous movements of populations made it necessary

43 Isabelle Stengers, *In Catastrophic Times: Resisting the Coming Barbarism*, trans. A. Goffey (Open Humanities Press, 2015).

44 Lyotard, *Instructions*, 86.

to set up systems of equivalence between different divinities.⁴⁵ These translation tables made it possible to identify divinities not just by their names, but by their characteristics and attributes. In this way, even though we know in advance that it will be impossible to perfectly identify each divinity with another, the search for the attributes, and therefore the characteristics that could define this or that entity prevents us from limiting ourselves to simply stating a name. Latour writes:

According to Assmann, these translation tables worked by shifting attention from the proper names of the divinities to a series of characteristics that the names summed up in the mind of their worshippers. If, for example, the name “Zeus” was incomprehensible to a listener, the speaker would reel off the list of his *attributes*: “Guide of destinies” (*Moiragètès*), “Protector of the suppliants” (*Ikesios*), or “God of the favorable winds” (*Evanémos*), and, of course, “Bearer of thunder” (*Astrapeios*), until the foreigner found a corresponding divinity in his own language. The precaution that such people took to cohabit without cutting each other’s throats was to make sure that, if the list of qualities was similar enough, they could take the proper names to be more or less synonymous – or in any case negotiable.⁴⁶

The translation tables provide a way of understanding that is impossible in a monolingualistic (and monotheistic) paradigm. This is of interest to us, of course, because it allows us to move towards the first superficial conception of paganism that we see in this example.⁴⁷ First, it is important to remember that “negotiation” is also a translation paradigm, proposed in particular by Umberto Eco, which is different from the paradigms of untranslatability or betrayal in translation;⁴⁸ that is, the translator is always and above all a negotiator, his work is that of a diplomat. Even if Latour is not referring explicitly to Eco here, this work of negotiation in the search for attributes and correspondences that exist between entities recalls the notion of the *pagus*, and the attempt to create a shared legitimization of discourse not through the authority of fixed names, but with an attention to attributes. Latour therefore proposes to start drawing up tables of equivalence, which he calls *cosmograms*, in relation to the climate crisis. This means asking “the new diplomatic question: is it possible to reinvent this practice of tables translating the names of gods for the purpose of listing other entities, other cults, other peoples, and spotting among these various collectives the relationships that remain invisible as long as we stick to our

45 Latour, *Facing Gaia*, 154–183.

46 Latour, *Facing Gaia*, 155. Latour is referring to the research of Jan Assmann.

47 Also, we must consider what Latour explicitly writes on paganism: Gaia “mistrusts paganism – that pejorative version of the old way of belonging to the world – as much as it mistrusts the notion of letting itself be transformed by the Christian religion into the providential design of a transcendent God. It mistrusts all transcendence.” Latour, *Facing Gaia*, 289.

48 Umberto Eco, *Experiences in Translation*, trans. A. McEwen (Toronto: University of Toronto Press, 2008).

overly local and overly sectarian viewpoint?”⁴⁹ The idea of the entities that inhabit the *pagus* returns again, this time by pointing out that encounters take place in the *pagus*, requiring processes of exchange and communication to be put in place that are not based on the authority of a univocal discourse. In Latour, this means considering how “Nature” is a confounding word, which contains a large number of attributes, some of which even contradict each other. But we could say, with Lyotard, this is also the consequence of a principle of discourse authority surrounding the concept of Nature.⁵⁰ Latour’s *cosmograms* therefore seek to define the attributes of what we call Nature, precisely because this simple proper noun cannot really tell us what this term conceals.

Another example that resonates with what we have just said is the research carried out by Yuk Hui, who proposes to study “technique” and “technology” in the light of non-Western traditions. He proposes, at the beginning of his book, something similar to Latour’s operation: which deities (or entities) represent technology in the West and in China, and what are their attributes? On the one hand, we have Prometheus, whose attribute is—among others—to be eternally punished and to be the “father of all technics and the master of all crafts.”⁵¹ Whereas in China there is Nüwa, the half-human, half-serpent hybrid creature who created humans; Fuxi, half-man, half-dragon, who invented the trigram bagua; and Schennong, the god of fire, the god of cooking, but also the inventor of agriculture, medicine, and technology.⁵² As Hui writes, “Note that the gods of agriculture and fire came from different systems of mythology, and that, although they are called gods, they are only recognized as such after their deaths—originally, they were leaders of the ancient tribes.”⁵³ The entities, hybrids of humans and animals, become gods, but if we understand them first by their attributes, we can better study the question of technology in China. More to the point, the reflection on *cosmotechnics* proposed by Hui could be seen as an attempt to conceive a plural Anthropocene. As Peter Lemmens points out:

The cosmotechnics project explicitly looks at the future and aims to be an imaginative and inventive discipline in search for new cosmotechnics, and that is to say a plurality of cosmotechnics for the age of the Anthropocene, in which the different cultural spheres that exist across the globe are not called to retreat into their ancient cosmological structures ... but to imagine and

49 Latour, *Facing Gaia*, 157.

50 Concerning the notion of Nature see also Philippe Descola, *Beyond Nature and Culture* trans. J. Lloyd (Chicago: Chicago University Press, 2013) and M. Merleau-Ponty, *Nature: Course notes from the Collège de France* (Evanston: Northwestern University Press, 2003).

51 Yuk Hui, *The Question Concerning Technology in China: Essay in Cosmotechnics* (Falmouth: Urbanomic, 2016), 13. It is also interesting to note that Hui refers to Lyotard at the end of the book by reading the text “Logos and Techne, or Telegraphy”: Hui, 269–282 and Lyotard, *The Inhuman: Reflections on Time*, trans. G. Bennington and R. Bowlby (Cambridge: Polity press, 1991).

52 Hui, *The Question Concerning Technology in China*, 14–15.

53 Hui, *The Question Concerning Technology in China*, 16.

invent new practices of technological worldformation, taking inspiration from the ideas behind these structures, not in the least the moral or ethical ideas.⁵⁴

In general, we can find elements that point in this direction in anthropological studies, especially where reference is made to an ontological plurality. For example, Viveiros De Castro and Danowski studied Amerindian ontologies and their narratives from the perspective of the “fears of the end.”⁵⁵ In this case, we are not dealing with a grand negative apocalyptic narrative, in which humanity and its end are central, but, on the contrary, what is considered here is the ontological plurality within humanity and in the relationships between humans and non-humans. Not only does this example encourage us to consider a form of knowledge that is not immediately or completely theoretical, but it also highlights the importance of taking into account emotional, desiring, and impulsive intensities, and of considering how they act not only in the construction of discourse, but also in the shaping of an ontological space.

All these examples allow us to consider the meaning of a “pagan” Anthropocene in the sense that Lyotard attributed to this term, but without falling into the damages that even this paganism could bring. These examples keep active the characteristics of paganism that do not succumb to the damages of little *excluding* narratives, which are often related to nationalist rhetoric. These examples invite a form of “resistance” that passes through diplomatic practices between the humanities and the natural sciences, and between entities and institutions, which must jointly construct responses to “face” ecological challenges. In this sense, the “resistance” to the Anthropocene, understood as a catastrophic complex event, is made possible by using this very term as a gatherer of different discourses produced in different fields that, all together, produce responses to the actual urgencies, as well as strategies that can confront the catastrophic consequences of climate change.

6. Conclusion: Inhabiting the *Pagus*

In *Postmodern Fables* (1993), Lyotard proposes something that recalls the “theory-fiction” evoked during the pagan period, but which he now calls *fables*. One of these *fables* (A *postmodern fable*, as Lyotard calls it) considers how, faced with the certainty of the sun’s explosion, humanity begins preparations to leave the solar system. However, these preparations are presented as part of a larger story that span the emergence of life and

54 Pieter Lemmens, “Cosmotechnics and the Ontological Turn in the Age of the Anthropocene,” *Angelaki* 25, 4 (2020): 3–8. <https://doi.org/10.1080/0969725X.2020.1790830>

55 Deborah Danowski and Eduardo Viveiros de Castro, *The Ends of the World*, trans. R. Nunes (Cambridge: Polity Press, 2017).

the Neolithic and Industrial Revolutions.⁵⁶ Lyotard understands this fable as a story concerning energies:

The fable tells the story of a conflict between two processes affecting energy. One leads to the destruction of every system, of every body, living or not, that exists on planet Earth and in the solar system. Inside this continuous and necessary entropic process, another process, contingent and discontinuous, at least for a long time, acts in the opposite direction through the increasing differentiation of these systems.⁵⁷

The hero of the fable, therefore, is not humanity itself but a complex way of organising energy. This is also because the fable implies that the humans cannot, as such, go into exile, rather, they must transform themselves beyond their earthly context. Lyotard describes writing and language as forms of energy —energy that expands in the fable through imagination, and is also capable of shaping reality. But what is interesting is that the fable is not directed towards emancipation, Lyotard says,⁵⁸ it is not meant to be a grand narrative, but on the contrary, to interrogate, with the tools of narrative, the conditions of a humanity without an Earth (and not only without a body): "A fable is exposed neither to argumentation nor to falsification. It is not even a critical discourse, but merely imaginary. This is how it exploits the space of indetermination the system keeps open for hypothetical thought."⁵⁹

As Corinne Enaudeau points out, Lyotard here reveals a "dark" aspect of postmodernism, that of the hopelessness that could be caused by the end of grand narratives: "The metaphysical fable gives an energetic version of the finality-free end of capital: 'development' without 'progress'. Through this libido-less economy, which does not ask to be believed, Lyotard expresses postmodern darkness: the mourning of hope and the absence of a remedy."⁶⁰ By shifting the protagonist from humanity to the conflict of energies, and the unrestrained development associated with this conflict, the question remains open: that of the tragedy developed without even an ideal of human progress, and of how to find points of reference in this context, in thought and action.

56 Lyotard, *Postmodern Fables*, trans. G. V. D. Abbeele (Minneapolis-London: University of Minnesota Press, 1997), 83–101. This story can be read together with another text, a dialogue, entitled *Can Thought Go on Without a Body?* (Lyotard, *Inhuman*, 8–23).

57 Lyotard, *Postmodern Fables*, 92. See on this the comment of Enaudeau, "La politique étrangère": "Lyotard attempts the perilous genre of the 'metaphysical fable.' A deliberately naive tale, where the world tells his becoming as 'the story of a force that makes, breaks and remakes reality,' following to opposed process: entropy and negentropy." My translation.

58 Lyotard, *Postmodern Fables*, 98.

59 Lyotard, *Postmodern Fables*, 101.

60 Enaudeau, "La politique étrangère," 336. My translation.

Certainly, this passage allows the weight to be lifted from the “human,” *anthropos*, and shifts the question towards the production system and the ideal of unlimited development. Yet it leaves open an obscurity of which Lyotard himself seems to be aware. Perhaps then, the very return to the themes of paganism can help to find possibilities for action. Not only in the examples we have given of “diplomatic” action to be carried out between the human, social and natural sciences and between artistic and political practices. Lyotard referred to this as inhabiting a “pagus”: that is, a boundary zone between genres of discourse. And the dwelling of this *pagus* persists even in *The Postmodern Condition* and in *The Differend*. Is it not possible to find, despite the obscurity that metaphysical fables place us in front of, even in this case, a *pagus* to inhabit? In this phase of his thought, Lyotard speaks of *infancy* (*enfance*), of “affect” (*la phrase-affect*), of a domain that is not that of articulated *logos*, but the domain of a *logos* always linked to a form of *phonè*, of non-articulated voice, the paradox of a world that is already here.

Facing the question of how these tools might help us to think the Anthropocene, perhaps we could refer to Donna Haraway when she recounts, in *Staying with the Trouble*, the fable of Camille—what she calls a speculative fabulation. With this tale, she too inserts herself into an interstitial space of indeterminacy, but at the same time she performs an action that is partly theoretical and speaks of us and others, about the future, about the intensities we live and will live, and about the past. Camille stories (those of several Camille) tell of a symbiosis that passes between various generations, and that unites the protagonist with the other protagonist, her non-human symbiont:

The Camille Stories are invitations to participate in a kind of genre fiction committed to strengthening ways to propose near futures, possible futures, and implausible but real nows. Every Camille Story that I write will make terrible political and ecological mistakes; and every story asks readers to practice generous suspicion by joining in the fray of inventing a bumptious crop of Children of Compost ... The Children of Compost invite not so much fan fiction as sym fiction, the genre of sympoiesis and symchthonia—the coming together of earthly ones.⁶¹

This “compost” recalls our planetary and terrestrial condition, as well as the *chthonian* condition Haraway speaks of. The Chtulucene that she proposes is not an alternative name for the Anthropocene: it is rather a way of ensuring that the Anthropocene will be as short as possible. I would like to conclude by suggesting that we can think of Haraway’s *compost* as something akin— though more aware of the terrestrial condition—to the *pagus*, this place where we meet entities—Gods? Animals? Humans? Plants? Chthonian beings?—with which we must communicate and negotiate tables of translation. The aim

61 Haraway, *Staying with the Trouble*, 136.

of fabulation, however, should neither be to tell the truth about reality nor to legitimise a practice directly. Rather, it would be to understand the world in which we live, and the discourses that are produced in it. This is the other lesson we can take from Lyotard into the 21st century: thoughts and actions are constituted between genres of discourse of which we must remain aware. The intermingling of genres is not a bad thing, on the contrary, it enable play and transitions between fields. It is when one discourse tyrannically conceals the others, or claims to be superior to them, that the risk of damage, but also of denialism, is reactivated.

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The Exteriorization of Knowledge: Reporting on Knowing as a Distributed Practice

Maaïke Bleeker

Abstract

Most philosophical Lacanians instinctively take Lacan's engagement with Descartes – not to mention his explicit formulations about not only the identity of the psychoanalytic and Cartesian *methods* but also, moreover, that of the *subject* of psychoanalysis and the *cogito* – as comprising a crucial and unequivocal philosophical repère. Nonetheless, there is a line of thought in Lacan's oeuvre that this orientation leaves completely unaccounted for: Lacan's decisive point regarding knowledge as accumulation. In his recently published twelfth Seminar (*Problèmes cruciaux pour la psychanalyse*) from February of this year, Lacan argues that the *cogito* is a hinge between knowledge “in its pre-accumulative state,” to the extent that it is capable of being doubted, and knowledge as a “mode of production” which predates and even motivates capitalist accumulation. It is on this basis that we can comprehend Lacan's seemingly conflictual or even contradictory claims that, on the one hand, Descartes inaugurates modern science by leaving the eternal truths to God (Seminar XI) and, on the other hand, that modern science forecloses truth (“Science and Truth”).

Keywords: Knowledge, Technology, New Materialism, Media Theory, Performativity

The Exteriorization of Knowledge: Reporting on Knowing as a Distributed Practice

In *The Postmodern Condition*, Lyotard observes that “technological transformations can be expected to have a considerable impact on knowledge,” including “a thorough exteriorization of knowledge with respect to the “knower” at whatever point he or she may occupy in the knowledge process.”¹ This exteriorization of knowledge with respect to the knower is my concern, and more specifically, how Lyotard’s observations in this by now canonical text resonate with a new materialist understanding of the entanglement of meaning and matter and the decentering of the human knower. Written almost three decades before the publication of Karen Barad’s magnum opus *Meeting the Universe Halfway* (2007), Lyotard’s observations anticipate their conceptualization of knowing as a distributed practice that includes the larger material arrangement.² His analysis of how technological developments affect our understanding of the very nature of knowledge helps to see how developments since the time of his writing bring Barad’s observations into greater relief. Useful here is Mark Hansen’s (2015) media philosophical analysis of how the late 20th and early 21st century development of information and communication technology expands the sensible while also putting humans increasingly in a situation in which their modes of perceiving and experiencing are implicated in larger apparatuses. Furthermore, drawing attention to aspects of the *modus operandi* of the larger socio-historical apparatuses in which knowledge comes about that are less addressed by Barad, Lyotard’s *Report on Knowledge* (as its subtitle reads) offers a valuable complementary perspective on the workings of these apparatuses as well as on the notion of performativity that also plays a key role in Barad’s agential realism.

In *The Postmodern Condition*, Lyotard introduces the notion of performativity as part of his account of how technological developments affect the legitimization of knowledge and reinforce what he famously describes as the end of the metanarratives. Whereas Lyotard looks at knowledge claims and observes a shift towards performativity as what legitimizes them, Barad directs attention to the performativity of scientific practices and how these are “social-material enactments that contribute to and are part of the phenomena that we describe.”³ For Barad, performativity offers an alternative to representationalism in how it invites a shift in focus from questions of correspondence between descriptions and reality to matters of practices, doings, and actions. Performativity, in her account, thus provides a connection between insights from quantum physics (in particular Niels Bohr’s quantum physics philosophy) and the performative turn in the humanities and social sciences. Both

1 Jean-Francois Lyotard, *The Postmodern Condition: A Report on Knowledge* (Manchester: Manchester University Press, 1984 [1979]), 4, my italics.

2 Karen Barad, *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* (Durham: Duke University Press, 2007), 379.

3 Barad, *Meeting the Universe Halfway*, 26.

move towards an understanding of matter as an active participant in the world's becoming and in how knowledge comes to matter.

In *The Postmodern Condition*, Lyotard, too, refers to quantum physics as a challenge to conventional humanist conceptions of knowledge. For Lyotard, this challenge is a matter of how quantum physics brings about a shift in what counts as a knowledge statement. For Barad, on the other hand, the challenge posed by quantum physics is given in how it forces us to confront fundamental epistemological and ontological issues (as well as their entanglement), "such as the conditions for the possibility of objectivity, the nature of measurement, the nature of nature and meaning making, and the relationships between discursive practices and the material world."⁴ This brings them to their understanding of knowing as "a direct material engagement, a practice of intra-acting with the world as part of the world in its dynamic material configuring."⁵

Both challenges are reflected in the decades-long search for the Higgs boson at CERN, as well as Rolf Heuer's announcement of its discovery. Taking this announcement as my starting point, I will show how we may understand the shift towards the operability of the system's performance (its performativity) with regard to the legitimization of knowledge, as observed by Lyotard, and the shift towards performative alternatives to representationalism theorized by Barad as two different aspects of what Jon McKenzie (2001) describes as a qualitative transformation of knowledge that results in "the becoming performative of knowledge itself."⁶ The following elaborates this point via a diffractive reading of Lyotard's *The Postmodern Condition* and Barad's *Meeting the Universe Halfway* that brings in Hansen and McKenzie to show how the complementarity outlined above is foregrounded by how technological developments since Lyotard's time of writing (and of which CERN presents an example) have intensified the exteriorization of knowledge observed by him and contribute to a situation in which human knowers participate in what Lyotard in his *Report on Knowledge* refers to as the "knowledge process."

4 Barad, *Meeting the Universe Halfway*, 24.

5 Barad, *Meeting the Universe Halfway*, 379.

6 Jon McKenzie, *Perform or Else. From Discipline to Performance* (New York and London: Routledge, 2001), 14.

Perform-or Else

On 4 July 2012, Rolf Heuer, the then director-general of CERN, announced the discovery of the Higgs boson.⁷ He did so with a remarkable statement: “As a layman, I would now say, I think we have it, do you agree?” His statement performs a complicated speech act. For what, actually, is Heuer saying? What is being stated, or not?

When Heuer makes his statement, an old man in the audience sheds a tear. This is Peter Higgs. Fifty years and billions have been spent proving the theory he penned down as a relatively young and unknown scientist. And now the proof is there. Or is it? Heuer’s announcement follows an explanation of the complex probability calculations based on which the existence of the Higgs boson is being claimed. His statement, “As a layman, I would say,” is both ironic –for, obviously, the director of CERN is not a layman– and a way of reaching out to an audience of non-specialists, explaining that the probability calculations are quantum physics’ way of saying “I think we have it.” Heuer thinks “we have it” based on calculations that show the probability of the particle’s existence. We may thus read his statement as a struggle with the complications of legitimization posed by quantum physics as addressed by Lyotard. As a quantum physicist, these calculations convince Heuer to the point that, as a layman, he would say: “I think we have it.” But apparently, he senses that this may not be convincing enough, for it is followed by a question directed to his audience of fellow scientists present at the presentation: “Do you agree?” Their applause confirms his statement and acknowledges the validity of his claim. The existence of the Higgs particle is thus presented as a matter of probability that requires an intersubjective confirmation to be acknowledged and accepted as valid. With their applause, the scientific community expresses its participation in this moment of celebration while also confirming the validity of the decades-long process that led to the production of this ‘proof’ of the particle’s existence.

Thus, instead of stating that they proved the existence of the boson, Heuer performs a speech act constructed to performatively bring about such understanding without actually stating it. Stating that “as a layman, I would say I think we have it” allows him to avoid saying this as the scientist he is. As a scientist, he would have to say that the calculations suggest there is a high probability they have detected the Higgs particle. However, as a scientist, he also faces what McKenzie describes as the pressure to “perform-or else.” As Lyotard points out, legitimation as a criterion is based on optimizing the system’s efficiency. The application of this criterion “necessarily entails a certain level of terror, whether soft or hard: be operational (that is, commensurable) or disappear.”⁸ Building on Lyotard, McKenzie observes that performativity as the criterion for success puts both

7 <https://www.youtube.com/watch?v=0CugLD9HF94> “The Moment: CERN Scientist Announces Higgs Boson ‘God Particle’ Discovery”

8 Lyotard, *The Postmodern Condition*, xxiv.

humans and technologies under constant pressure to “perform-or else.” This challenge pertains to both how knowledge, identity, and other phenomena come into being, or, as McKenzie (following Martin Heidegger) puts it, are challenged forth, and how what is challenged forth is legitimized. This pressure to “perform-or else”, McKenzie predicts, “will be to the twentieth and twenty-first century what discipline was to the eighteenth and nineteenth, that is, an onto-historical formation of power and knowledge.”⁹

As the director of CERN, Heuer represents an institution under extreme pressure to perform and meet the expectations of international communities of scientists, politicians, and other financiers of their research. To perform here means to convince fellow scientists as well as the general audience and meet the needs and desires of politicians and others on whose support (financial and otherwise) the possibility of research like this depends. Heuer’s announcement thus not only reflects the complexity of legitimizing knowledge in the postmodern condition but also draws attention to how such legitimation is integrally part of the scientific apparatus, and how such apparatuses (as Barad points out) are not merely laboratory set-ups but open-ended practices extending far beyond the laboratory. Based on the probability calculations, Heuer may think it is possible to say we have it, but for this to be indeed the case, he needs the scientific community’s agreement: do you agree? Meaning not only do you agree with me as a person, but also, do you acknowledge how what counts as proof here has come about? Furthermore, the complexity of legitimization that Heuer faces is directly related to how the techno-scientific practices of CERN present an extreme example of the technologically induced exteriorization of knowledge, a phenomenon that Lyotard witnessed in its early stages.

Performativity and the Legitimation of Knowledge

Lyotard’s prediction, in *The Postmodern Condition*, that technological transformations will contribute to “a thorough exteriorization of knowledge with respect to the ‘knower’”¹⁰ brings to mind Bernard Stiegler’s reading of paleoanthropologist Andre Leroi-Gourhan and his understanding of how tools allow for preserving impersonalized, collective memory traces.¹¹ Tools make possible a new ‘third kind’ of memory separate from the internally acquired memory of individual human brains and the biological evolutionary memory we inherit. As a result, humans are defined by pasts that they themselves, as individuals, have not experienced. Technological objects, such as tools, embody the knowledge of our ancestors that is passed on to newer generations. Drawing, writing, and other media enable human experiences to manifest outside of human consciousness, thus acting as a

9 McKenzie, *Perform or Else*, 18.

10 Lyotard, *The Postmodern Condition*, 4.

11 Bernard Stiegler, *Technics and Time, 1. The Fault of Epimetheus*. trans. Richard Beardsworth and George Collins (Stanford: Stanford University Press, 1998).

kind of prosthetic extension of memory. They provide “access” to the experience of others and make it possible to circulate these externalizations.

In *The Postmodern Condition*, Lyotard similarly observes a technologically induced exteriorization, not of memory but of knowledge. He foresees the becoming obsolete of “the old principle that the acquisition of knowledge is indissociable from the training (*Bildung*) of minds.”¹² The technological developments he refers to as “computerization” set the stage for the massive circulation of knowledge and, thus, for an extension of knowing beyond personal experience and *Bildung*. He also predicts that these technological developments will affect the direction that new research and knowledge production will take and eventually affect the very nature of knowledge, as “anything in the constituted body of knowledge that is not translatable in this way will be abandoned,” and “the direction of new research will be dictated by the possibility of its eventual results being translatable into computer language.”¹³

Lyotard’s text was first published in French in 1979 (the English translation followed in 1984). That is, his observations date from a moment in which knowledge cultures were already shaped by a long history of the externalization of memory by writing and print, and only at the very early stages of the transformations that would be brought about by digital and networked technology, or what he refers to as “computerization”. The very first PCs had only recently become available, and precursors of what we now know as the Internet were only accessible to specific academic and research institutions. Lyotard foresees that these technological innovations, which were, at the moment of his writing, still in their infancy, would resonate with and reinforce the effects of social-historical developments that he describes as the end of the metanarratives. His observations have proven immensely relevant for understanding this entanglement of technological and discursive systems and how this entanglement has brought about what Yuk Hui describes as an “epistemological rupture taking place in science and technology” as technological developments profoundly affect not only how knowledge is produced, acquired, and circulated, but also how it is legitimized, and how all of this affects our understanding of the very nature of knowledge.¹⁴

Lyotard famously theorizes this epistemological rupture in terms of increased incredulity towards the metanarratives that previously served to legitimize science, “such as the dialectics of Spirit, the hermeneutics of meaning, the emancipation of the rational or working subject, or the creation of wealth.”¹⁵ He observes that without epic stories

12 Lyotard, *The Postmodern Condition*, 4.

13 Lyotard, *The Postmodern Condition*, 4.

14 Yuk Hui, “Lyotard, After Us,” *Lyotard and Critical Practice*. eds. Kiff Bamford and Margret Grebowicz (Bloomsbury, 2022), 126.

15 Lyotard, *The Postmodern Condition*, xxiii.

providing outside authority, legitimization shifts towards the *operationality of the system's performance, its performativity*. As the example of CERN demonstrates, this pertains to the legitimization of knowledge and research practices, as well as how the system of scientific practice is institutionalized and funded. The performativity criterion "excludes in principle the adherence to a metaphysical discourse; it requires the renunciation of fables; it demands clear minds and cold wills; it replaces the definition of essences with the calculation of interactions," and it makes scientists "assume responsibility not only for the statements they propose but also for the rules to which they submit these statements to render them acceptable."¹⁶

This operationality of the system's performance, its performativity, Lyotard observes, is reinforced by widespread technological developments that mediate ways of circulating knowledge. Optimizing the system's performativity requires knowledge to be translatable into computer language, and vice versa, translatability supports the success of knowledge. Translatability will thus dictate the success of knowledge produced and even the direction of new research, thus setting in motion a feed-forward mechanism. Also, "along with the hegemony of the computer comes a certain logic, and therefore a set of prescriptions determining which statements are accepted as 'knowledge' statements."¹⁷ Such grounding of legitimacy outside the human and in the systems' operationality results in a certain dehumanization, as it induces the adaptation of individual aspirations to the system's ends. It "makes individuals 'want' what the system needs to perform well."¹⁸

From Externalization to Technological Expansions of the Sensible

Looking back more than forty years later, we can begin to see how the technological developments that Lyotard witnessed in the very early stages have led to much more radical exteriorizations of knowledge than could have been foreseen at the time of his writing as these exteriorizations of knowledge brought about by technological developments are not only a matter of how digitization and the rise of networked technology mediate in an unprecedented storage, accessibility, and circulation of information, but also and increasingly of how technology governs knowledge production. Writing in 2001, McKenzie observes that:

[T]he global emergence of technological media—television, tape recorders, satellites, copy machines, faxes, beepers, and most profoundly, interconnecting and overwriting them all, information technologies such as digital computers and electronic networks (...) affects all cultures,

16 Lyotard, *The Postmodern Condition*, 62.

17 Lyotard, *The Postmodern Condition*, 4.

18 Lyotard, *The Postmodern Condition*, 62.

all organizations, all technologies, for the digitization of discourses and practices enables them to be recorded, edited and played back in new and uncanny ways. Highly localized ensembles of words and gestures can now be broken apart, recombined and hyperlinked to different ensembles in ways unlike anything in the past at speeds incredible from all perspectives except those of the future.¹⁹

McKenzie traces “a radical transformation of our reading machines, an epochal shift in the citational network of discourses and practices” brought about by the socio-historical transformations and technological development of which Lyotard witnessed an earlier phase.²⁰ With “reading machine” (which he uses interchangeably with the term “lecture machine”), McKenzie refers to the assemblages of technological and material systems, discourses, and practices in and through which human modes of experiencing and understanding come about, thus expanding on Lyotard’s notion of language games and towards Barad’s notion of the apparatus as material-discursive configuration that produces differences that matter.²¹ He too points to the future-orientedness of these reading machines: how understanding their modes of operation requires a shift in focus away from how they mediate in ways of knowing a world that preexists them and towards what they performatively bring about.

This future-orientedness is also addressed in Felicity Coleman et al.’s *The Ethics of Coding. A Report on the Algorithmic Condition* (2017), in which they expand Lyotard’s analysis towards a code of conduct for assessing and evaluating algorithmic systems and networks. Their title, “The Algorithmic Condition,” captures how the technologically induced thorough externalization of knowledge with respect to the human knower, more than only being a matter of the circulation of human-produced knowledge, involves outsourcing the processing of data beyond human modes of interpreting. They point out that algorithms and the mathematical models behind them produce what they will have referred to (when studied retrospectively)²² because “algorithms put data into a coded state of performance” that “not only effects a practice-based shift in knowledge production and acquisition, but also produces a logic which is symbolic but also which manifests as a reality.”²³ They contribute to performatively bringing about the world they describe.

Not addressed by Coleman et al. is how this expansion also pertains to what can be captured as data in the first place. That is, the exteriorization of knowledge is also a

19 McKenzie, *Perform or Else*, 22.

20 McKenzie, *Perform or Else*, 21.

21 Barad, *Meeting the Universe Halfway*, 146.

22 Felicity Coleman, Vera Bühlmann, Aislinn O’Donnell, and Iris van der Tuin. *Ethics of Coding. A Report on the Algorithmic Condition* (H2020-EU.2.1.1. – INDUSTRIAL LEADERSHIP – Leadership in enabling and industrial technologies – Information and Communication Technologies. Brussels: European Commission, 2018), 8. https://cordis.europa.eu/project/rcn/207025_en.html, 22.

23 Coleman et al., *Ethics of Coding*, 9.

matter of how technologies like micro-sensors, data processing, search engines, and other digital and networked media detect intensities, differences, fluctuations, and patterns that, in Hansen's words, "open up an expanded domain of sensibility" beyond and below the thresholds constitutive of human perceptual experience."²⁴ These technologies provide access to an expanded domain of sensibility that can enhance human experience". To access this domain of sensibility, however, "humans must rely on technologies to perform operations to which they have absolutely no direct access whatsoever."²⁵

In *Feed Forward: On the Future of Twenty-First-Century Media* (2015), Hansen traces how these technological developments catalyze a profound decentering of human experience and demand that we "embrace our subjective implication in a plethora of processes of all sorts and all scales."²⁶ That is, they require an understanding of human experience and meaning-making as a dimension of larger environmental processes of which humans are a part, but which are only partly accessible to them. Like Lyotard, Hansen observes a reversal in the relationships between humans and their technologies, noting that this decentering process began with analog technology. He quotes Villém Flusser describing this development as follows:

Certainly, for the time being, most apparatuses are not so completely automatic that they can go along without human intervention. They need functionaries. In this way, the original terms *human* and *apparatus* are reversed, and human beings operate as function of the apparatus. A man gives an apparatus instructions that the apparatus has instructed him to give. In this way, a powerful flood of programs is unleashed, a flood of software with which people no longer pursue any particular intention but rather use it to issue instructions as a function of an earlier program. As the programs become more and more complex and clever, they demand faster, smaller, and cheaper apparatuses, more congenial hardware. And so one generation of apparatuses after another appears. With each new generation, human intention recedes further into the background—the intention, that is, that produced the first generation of apparatuses.²⁷

This development gained increased momentum with what Hansen terms "twenty-first-century media," with which he does not refer to specific technologies but to tendencies that can be observed in today's information and communication technology, namely that they "operate at microtemporal scales without any necessary—let alone direct—

24 Mark B.N. Hansen, *Feed Forward. On the Future of Twenty-First-Century Media* (Chicago: The University of Chicago Press, 2015), 4.

25 Hansen, *Feed Forward*, 4-5.

26 Hansen, *Feed Forward*, 17.

27 Villém Flusser quoted in Hansen, *Feed Forward*, 75.

connection to human sense perception and conscious awareness.”²⁸ Whereas the modes of operating of nineteenth and twentieth-century recording media like photography, film, the gramophone, and the tape recorder are more directly coupled and synchronized to human experience and sense perception, more recent technologies “not only resist any form of direct synchronization but question the viability of a model of media premised on a simple and direct coupling of humans and media system.”²⁹ Their modes of operating bypass human perception and consciousness as they can register what is inaccessible to human senses and process data at scales and in ways radically different from humans. Therefore, their modes of operating can no longer be understood as prosthetic extensions of human perceptions and modes of processing information, nor can what gets captured and circulated by these media technologies be understood as traces of human experiences and memories. Instead, how these technologies expand the sensible is radically inaccessible to humans. Whereas there is still a (relatively) strong correlation between the modes of operating of older media like photography, film, and the gramophone, and human modes of sensory experience (they can be understood to circulate traces of human experiences), the modes of operating of more recent media technologies are, to a much larger extent only indirectly correlated to human modes of experience and increasingly “impact the general sensibility of the world prior to and as a condition for impacting human experience.”³⁰

Hansen’s observations are part of his rethinking of what mediation entails beyond understanding mediation as a prosthetic extension of human faculties. Whereas “mediation once named the technical inscription of human experience [...] today mediation must be redirected to the task of composing relations *between* technical circuits *and* human experience.”³¹ Because twenty-first-century technologies “work directly on physical signals prior to their conversion into phenomenologically accessible forms,” additional mediation (what Hansen terms *secondary mediation*) is required, “this work being the very mediation necessary to bring the physical into the domain of experience.”³² These characteristics of mediation brought to the fore by contemporary media technologies are not unique to them. Rather, they are “revealed to us *and* intensified by the computational technologies constituting twenty-first-century media”³³ after having been obscured by an understanding of mediation as a matter of recording and circulating representations of a world similarly available to human perception.

Hansen writes about media technologies, yet his observations are also most relevant regarding how they offer a non-prosthetic approach to the role of technologies in scientific

28 Hansen, *Feed Forward*, 37.

29 Hansen, *Feed Forward*, 37.

30 Hansen, *Feed Forward*, 6.

31 Hansen, *Feed Forward*, 43, italics in original

32 Mark Hansen, “Medium Oriented Ontology” *ELH* 83:2 (2016): 384.

33 Hansen, *Feed Forward*, 6, italics in original.

research. Knowing increasingly happens in interaction with instruments that, in Hansen's terms, expand the sensible and put humans and their perceptions and experiences in a position of being implicated in larger apparatuses that, to a considerable extent, operate outside their awareness and in ways they have no direct access to. As Jussi Parikka points out, "[o]ur relations with the earth are mediated through technologies and techniques of visualization, sonification, calculation, mapping, prediction, simulation, and so forth: it is through and in media that we grasp earth as object for cognitive, practical, and affective relations. Geological resources used to be mapped through surveys and field observation, now through advanced remote sensing technologies."³⁴ This development engenders a shift in hierarchy between humans and technologies, moving towards a situation in which humans operate in complex feedback loops with technology. These technologies used by scientists, too, make humans increasingly part of apparatuses that, although they expand the sensible, also increasingly bypass and marginalize human sensory experience in how they no longer operate as prosthetic extensions of the human sensorium but instead make humans part of larger apparatuses operating in ways that are inaccessible to them. This situation requires developing awareness of how human perception and experience are implicated in larger apparatuses and an understanding of knowing as, in Barad's words, "a distributed practice that includes the larger material arrangement" in which humans participate as part of the larger material configuration of the world and its ongoing open-ended articulation."³⁵

Barad opposes an understanding of scientific apparatuses in terms of mediation because, in their understanding, this would suggest that the measuring instrument mediates between an autonomous knower and a world with inherent determinate properties. However, such an understanding of mediation as something in between an autonomous observer and a world with inherent determinable properties is precisely what is challenged by non-prosthetic approaches to mediation as developed by Hansen, Parikka, and others. Non-prosthetic approaches to mediation share with Barad a critique of representationalism, a focus on the enactment of material relations, and an acknowledgment of the co-constitutive role of technology and matter with regard to how things come to be known. Furthermore, they help to understand how technological developments change relationships between humans and devices, and how this affects their modes of participating in distributed practices of knowing.

³⁴ Jussi Parikka, *A Geology of Media* (Minneapolis: University of Minnesota Press, 2015), 12.

³⁵ Barad, *Meeting the Universe Halfway*, 379.

Human Nodes in Technological Networks

Hansen's analysis supports Lyotard's observation that technological developments (of which his account in *The Postmodern Condition* represents an early stage) contribute to an increased decentering of human experience in how the world comes to be known. Technological developments "catalyze a shift in the economy of experience itself" as they increasingly make humans part of systems that "register the environmentality of the world itself before, and without any necessary relation with, human affairs"³⁶ This shift confronts us with what Donna Haraway, Barad, and other new materialist thinkers describe as the *situatedness* of human ways of knowing in larger apparatuses, as well as the question of how to account for the relationship between these non-human modes of registering and processing and human experience, and how this affects our understanding of the very nature of knowledge. Here again, the search for the Higgs particle at CERN presents an example.

CERN is a technological system that, to speak with Hansen, expands the sensible without any necessary—let alone direct—connection to human sense perception and conscious awareness. On the one hand, this is a matter of the enormity of the amount of data and the scale of non-human data processing necessary for the probability calculations supporting Heuer's claim that, as a layman, he would say they have it. In the Nikhef Annual Report for the year 2012 (the year that the discovery of the Higgs boson was proclaimed), Wouter Verkerke, head of statistical analysis at Nikhef (the Dutch partner of CERN), explains that:

Calculation of the production rate of Higgs bosons shows that at the LHC roughly one in 5 billion collisions will result in a Higgs boson. Thus, to collect a sample of a few hundred collisions with a produced Higgs boson, more than a trillion proton-proton collisions will need to be produced and examined. To meet this requirement, the LHC collides protons 40 million times per second. It is impossible to record the detector data for a trillion collisions as each event results in about 200MB of data. Thus, events are preselected in real-time with a three-level 'trigger system' that rapidly examines recorded collision data and discards the large majority of events that are deemed uninterested ... The first-level selection is built on custom hardware that reduces 40 million events per second to approximately 100.000 events per second. The next two levels are software-based and further reduce the rate to about 600 events per second. Despite the aggressive data reduction through online trigger pre-selection, a few petabytes (=1000 terabytes) worth of information is produced every year the LHC runs. It requires about

36 Hansen, *Feed Forward*, 8.

10.000 years of computing time to reconstruct all these events.³⁷

On the other hand, this is also a matter of the enormity of the material apparatus—the Large Hadron Collider at CERN—used to produce the proof, and the inaccessibility to human experience of what happens inside it. The collider is approximately 27 kilometres in circumference and is located in a tunnel at a depth of 175 meters. Inside the accelerator, thousands of magnets are used to direct two particle beams traveling at close to the speed of light around and make them collide. This requires chilling the magnets to 271.3°C, colder than outer space.

The incompatibility of the scale and modes of operating of the accelerator to the human scale and human experience, and both of them to the scale of what happens inside the accelerator, is beautifully visualized and made tangible in the film *Higgs: Into the Heart of Imagination* (2009/2012) by Hannie van den Bergh and Jan van den Berg.³⁸ The film portrays humans as small nodes in vast technological networks, each serving distinct aspects of the technological apparatus through their respective specializations. Human scientists here are functionaries (Flusser) implicated in the modes of operating of CERN as a massive apparatus that decentres human experience. Making the system work and achieving the desired results requires adapting individual aspirations to the system's ends and, as Lyotard wants it, “makes individuals ‘want’ what the system needs to perform well.”³⁹

The film also presents an image of CERN as a materialization of Barad's understanding of knowing as a distributed practice in which humans participate, each engaging from the perspective of their specialization, and none of them being in the position of the distant observer having the overview. Interesting in this respect is an interview with Heuer on the occasion of the tenth anniversary of the announcement of the discovery of the Higgs boson. Looking back, Heuer frames his self-identification as a layman as an acknowledgment that he, as a director too, was not in a position of ownership or overview with regard to the discovery. He states, “I had no direct role in the discovery of the Higgs particle, other than as director of the laboratory where it all happened.”⁴⁰

The film *Higgs: Into the Heart of Imagination* captures the excitement of different scientists about what they think (and hope) might happen in the experiments with the particle accelerator, as well as the complexity of relating the inaccessibility of what happens in the experiment to human experience. Lyotard hints at this complexity, wondering: “What constitutes a scientific observation? A fact that has been registered by an eye, an ear,

37 Wouter Verkerke, “Higgs Bosons Tracked From Collision To Publication,” Nikhef Annual Report 2012, 16–16.

38 <https://higgsfilm.com/> https://www.youtube.com/watch?v=o8o_GA9v0P4

39 Lyotard, *The Postmodern Condition*, 62.

40 <https://www.nikhef.nl/en/10-years-higgs-interview-with-rolf-heuer/>

a sense organ? Senses are deceptive, and their range and powers of discrimination are limited. This is where technology comes in.”⁴¹ Lyotard thus connects the (registration of) proof to registration by the senses and presents technology as a means to solve the problem of the limitations of human sensorium. The example of CERN shows that how technology compensates for the limitations and deceptiveness of human sense organs is not a matter of prosthetic extensions of human modes of sensing, but instead of expanding what can be sensed without this being accessible to human sense perception. CERN thus can be considered an example of a technological system that, to speak with Hansen, expands the sensible without any necessary—let alone direct—connection to human sense perception and conscious awareness. In line with Hansen’s argument about twenty-first-century mediation, additional (secondary) mediation is required to provide humans access to this expanded domain of sensibility.

Participants in the ‘Knowledge Process’

CERN is an example of how contemporary techno-scientific developments radicalize the externalization of knowledge with respect to the “knower” observed by Lyotard. The scientific apparatus in place exemplifies what Hansen describes as the constitutive doubleness of twenty-first-century technologies: “their simultaneous, double operation as both mode of access onto a domain of worldly sensibility, and a contribution to that domain of sensibility.”⁴² The technologies that provide access to events outside the scope of human perceptual consciousness simultaneously contribute to the growth of this very domain of expanded sensibility. They performatively bring about what they measure. These technological developments catalyze a decentering of human experience and demand that we “embrace our subjective implication in a plethora of processes of all sorts and all scales.”⁴³ That is, they require an understanding of human experience and meaning-making as a dimension of larger environmental processes of which humans are a part, but which are only partly accessible to them. By doing so, they bring to the fore aspects of scientific apparatuses that are not unique to them but (to paraphrase Hansen’s observations on how twenty-first-century media technology instigates a rethinking of mediation) are revealed and intensified by them. Technology here can no longer be understood as a means to extend and circulate traces of human experience and human ways of knowing; increasingly, it is a means to expand the sensible in ways that align with Barad’s onto-epistemological understanding of scientific practices. Technological developments highlight how human knowers participate in distributed practices of

41 Lyotard, *The Postmodern Condition*, 44.

42 Hansen, *Feed Forward*, 6.

43 Hansen, *Feed Forward*, 17.

knowing that encompass the broader material arrangement, and how scientific practices are social-material enactments that contribute to and are part of the phenomena being studied.

Lyotard's observations in his *Report on Knowledge* anticipate Barad's onto-epistemological approach while also offering a perspective on performativity that complements Barad's observations on the entanglement of knowing and being with an analysis of what McKenzie, two decades later, would describe as an onto-historical formation of power and knowledge. Both are aspects of the "becoming performative of knowledge itself" and how this raises fundamental questions about the nature of knowledge. Lyotard's prediction that "we may thus expect a thorough exteriorization of knowledge relative to the 'knower' at whatever point he or she may occupy in the knowledge process" tentatively points towards how this becoming performative of knowledge itself destabilizes an understanding of knowledge as object (reflected in Lyotard's reference to 'the knowledge process' instead), and towards the position of humans and the character of their participation in knowledge as a process, as crucial to answering these questions. How do the apparatuses in which humans participate compose relations between technical circuits and human experience and understanding? What does it mean to know if knowing is (to paraphrase Barad) a distributed practice in which humans participate? Barad writes of knowing, not of knowledge, yet their description equally raises the question of how to conceive of knowledge if knowing is a practice in which humans participate.

This productive tension between Lyotard's report on knowledge and Barad's understanding of knowing as distributed practice thus points to the complexity of conceptualizing what it means to know and who is the subject of this knowledge in a situation in which human experience and meaning-making are dimensions of larger environmental processes of which humans are a part, but which are only partly accessible to them.

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Strategies of Resistance: On Ambivalent Words in Jean-François Lyotard

Futoshi Hoshino

Abstract

This essay examines Jean-François Lyotard's ambivalent use of the "sublime," focusing on the intricate tension and complicity between capitalism and avant-garde art. Capitalism, while dehumanising and dematerialising individuals, generates avant-garde art that critiques these very processes. Lyotard's use of terms such as "terror," "inhuman," and "immaterial" reveals their dual role: they function both as instruments of the capitalist system and as tools of resistance. By tracing Lyotard's evolving thought from the 1970s to the 1980s, this essay explores how he argues that effective critique of capitalism must come from within its structures, a strategy that may be described as "mimetic adaptation." Additionally, the essay highlights how Lyotard's insights continue to be crucial for understanding the dynamics of power, resistance, and the potential for subversion in contemporary capitalist society, especially through the lens of aesthetic theory.

Keywords: Jean-François Lyotard, Sublime, Capitalism, Avant-garde, Inhumanity, Immateriality

Introduction

Lyotard's theory of the sublime underscores the tension and complicity between avant-garde art and capitalism. While the capitalist movement is sublime in its capacity for dehumanising and dematerialising us, it also generates avant-garde art that critiques these processes. Capitalism may arouse fear through its processes of dehumanisation and dematerialisation, yet it also opens the door for critique by the very inhumanity and immateriality inherent in art. Lyotard's ambivalent use of these terms reveals a critical tension that can only emerge through capitalism's own mechanisms.

For instance, Lyotard employs the term "terror" to symbolise both the power exercised by the oppressive system and the power revealed in literary and artistic practices that resist it. He argues that terror must be both excluded from the community and imposed as a condition within writing (*écriture*).

This ambivalence extends to terms like "immaterial," "inhuman," and "sublime." On one hand, Lyotard critiques the dematerialisation caused by technological advances, as exemplified by his writings on the exhibition *Les Immatériaux* (1985). The progression of technology reduces not only inorganic substances but also organic life, including the human body, into analysable objects, threatening human subjectivity. As Lyotard suggests, the term "immaterial" in the exhibition title symbolically indicates the process of dematerialisation driven by science and technology, and the capitalist society sustaining it. This relentless process transforms familiar spaces and objects into something alien and uncanny (*unheimlich*). The force that homogenises the world around us—dematerialising it—is rooted in the impersonal movement of capitalism. Conversely, the term "immaterial matter," as discussed in "After the Sublime, the State of Aesthetics" (1987), refers to "the Thing" (*la Chose*) inherent in matter, which cannot be fully objectified.

The analysis of terms such as "sublime," "terror," "inhuman," and "immaterial" illuminates the recurring strategies underpinning Lyotard's aesthetics. While Lyotard does not explicitly clarify his dual use of these concepts, their purpose can be discerned by revisiting his texts from the 1970s. Lyotard's critical insight into capitalist society is encapsulated in his assertion that "all criticism, rather than overcoming capitalism, reinforces it."¹ As an impersonal system, capitalism absorbs even the critiques directed against it. Thus, any attempt to critique capitalism from an external vantage point is futile; instead, effective critique must find the incommensurable within the system. This strategy can be described as mimetic adaptation to the capitalist economy. This essay thoroughly examines this logic.

1 Jean-François Lyotard, *Dérive à partir de Marx et Freud* (Paris: Union générale d'éditions, 1973), 16. The following quotations from French texts are my translation.

1. Drift—Beyond Critique

To understand a portion of Lyotard's reflections on capitalism, it is essential to examine his texts from the early 1970s. For example, in *Drift from Marx and Freud* (1973), Lyotard states that the threat of capitalism lies in its ability to absorb everything. Capitalism incorporates all forms of negation, continuously generating new value from them. Thus, criticising it is always difficult, and any "direct" critique of it is nearly impossible. In the preface of the book, Lyotard suggests this by referencing a book he once attempted to publish, which had "neither a title nor an author's name":

I once dreamed, together with Bruno Lemenuel, of a book with neither a title nor an author's name. But that was a simple, naive idea. Even if such a book were published and found a publisher, the law of value would inevitably absorb such an object into its cycle, and, due to the very fact of its lack of title and author, would draw even more value from it. And, the fact that it lacks a title and author would make this book a highly coveted commodity. [...] The capitalist economy robs us of anonymity itself, turning that anonymity into a mode of surplus value appropriation.²

The "book with neither a title nor an author's name," as mentioned here, although seemingly escaping the standard value system, would eventually be integrated into the law of value due to its novelty, which previous "commodities" lacked. Even if this attempt contained irony or critique of capitalism, capitalism's constant pursuit of novelty incorporates even the irony or critique directed at it. Thus "all criticism, rather than overcoming capitalism, reinforces it." From here, Lyotard's thesis for attempting a true critique of capitalism becomes clear—"one must drift beyond critique."³

Although Lyotard does not explicitly state this, considering the context of Paris around the 1970s, the term "drift" (*dérivé*) could have multiple sources of inspiration.⁴ Nevertheless, Lyotard adopts this concept as his own, arguing that it is not by "criticising" capitalism but by "drifting" one's desires that capitalism could ultimately be undermined. The drift, as suggested by the title of this collection of essays, involves redirecting or transforming the desires and energies that sustain the established system, as much as possible. According to Lyotard, the Latin origin of the word "drift" (*derivatio*) does not mean "to leave the

2 Lyotard, *Dérive à partir de Marx et Freud*, 7–8.

3 Lyotard, *Dérive à partir de Marx et Freud*, 15.

4 The two figures that immediately come to mind are Jacques Lacan and Guy Debord. Martin Jay notes that Lyotard may have deliberately used this term to indicate his "disenchantment" with the Situationists. Martin Jay, *Downcast Eyes: The Denigration of Vision in Twentieth-Century French Thought* (Berkeley: University of California Press, 1993), 562.

shore.” Rather, it means “to change the course, to head towards a place other than the original destination.”

To rephrase this in the context of the current discussion, drifting does not mean taking a critical distance from capitalism and then criticising it, but rather changing the course of the desires of those who shape and maintain capitalism. According to Lyotard, capitalism, and by extension, society in general, is sustained by the investment of desire. As elaborated in *Libidinal Economy* (1974), Lyotard’s view during this period is that capitalist society is maintained by energetically investing our desires to bodies, language, land, and cities. As we have already seen, criticism of capitalism ultimately adds something new to it, thereby reinforcing the investment of capital. A profound critique of capitalism, on the other hand, is found in redirecting the flow of such desires and withholding the investment from specific sectors:

What destroys capitalism is the drift of desire and the loss of investment. However, this is not what economists are seeking [...] It is the loss of libido throughout the capitalist system.⁵

Although Lyotard rarely revisited the texts from this period in later years, it is clear that Lyotard maintained this critical awareness of capitalism throughout his life. While his Marxist activities in *Socialism or Barbarism* came to an end in the 1960s, his critical practice against capitalism persisted through his later writings.

2. Capitalism—A Metaphysical Principle

However, if we do not propose an alternative model to capitalism but instead aim to transform it, we ultimately remain within the bounds of capitalism. This approach may result in a further affirmation of capitalism’s infinite movement. In fact, while Lyotard generally maintains a critical stance towards capitalism, he sometimes seems to act as if he supports it. For example, at a symposium held in Cerisy-la-Salle in 1972, “capital” was discussed in relation to Nietzsche’s concept of “eternal return”:

On the one hand, ‘capital’ is production as consumption, and on the other hand, consumption as production. In other words, it is an endless and purposeless metamorphosis. This metamorphosis does not only work to dissolve outdated pre-capitalist institutions but also functions as the self-dissolution of its own constantly deconstructed and reconstructed institutions. By ‘institutions,’ I refer to all the things given as stable

⁵ Lyotard, *Dérive à partir de Marx et Freud*, 16.

(political, legal, cultural...) significations that rest within regulated distances and produce representations. The nature of metamorphosis, which perpetually shifts from objects to humans, from humans to objects, from products to means of production, and vice versa—that is, the economy as long as it remains non-political—is what capital teaches us. This dissolution as modernism is fundamentally affirmative; there is no nihilism in this movement. What exists is only the sketch of the superhuman or the inhuman.⁶

Here, “capital” is discussed as embodying Nietzschean terms like “affirmation” and “eternal return.” Capitalism, as an affirmative movement devoid of nihilism—such insights resonate with the concerns in *Libidinal Economy*, which frames society within the monistic dynamics of libido.

It is well known that Lyotard later criticised his theory on libido, and some may find it challenging to directly connect it to his texts after the 1980s. However, even if terms like “libido” and “investment” were discarded, Lyotard’s ambivalent stance toward capitalism remains prominent. For instance, around the same time as *The Differend* (1983), where Lyotard clearly adopted a critical stance towards capitalism, he made the following statement: “One constantly hears that the most important issue in society today is the issue of the state. But that is a serious misunderstanding. The most important issue, above any other, including the issue of the state in contemporary times, is the issue of capital.” Lyotard continues:

Capitalism has aspired to and indeed has become a metaphysical figure, neither ‘economic’ nor ‘sociological.’ In capitalism, the infinite is posited as something that remains undetermined, which should be controlled and possessed indefinitely by the will. [...] This infinite must be controlled and made into a means to reach the ultimate end. And this ultimate end is none other than the glory of the will, the glory of the infinite.⁷

Here, Lyotard states that capitalism “aspired to and indeed has become a metaphysical figure,” depicting capitalism as a system embodying the idea of “infinite development”—a system without a subject. He then asserts that we must control this “infinite,” but immediately after, he denies that it can be controlled: “No class exists that can embody and monopolise this infinite will. When I speak of ‘capitalism,’ I do not refer to capital owners or capital managers.”⁸

6 Jean-François Lyotard, *Des Dispositifs pulsionnels* (Paris: Union générale d’éditions, 1973), 308–309

7 Jean-François Lyotard, *Tombeau de l’intellectuel et autres papiers* (Paris: Galilée, 1984), 78.

8 Lyotard, *Tombeau de l’intellectuel*, 80.

The “infinite will” is represented exclusively by the impersonal movement of capitalism. In other words, it is impossible for this to be possessed by a state, much less a particular class or individual. Capitalism, as a system that refuses any domination, does not aim for technical, social, or political achievements. According to Lyotard, the aesthetics of such capitalism is the aesthetics of the sublime:

Capitalism does not aim for technical, social, or political achievements produced by various rules. The aesthetics of capitalism is not the aesthetics of the beautiful but the aesthetics of the sublime. Its poetics is the poetics of genius, and for capitalism, the act of creation does not follow rules but rather creates rules.⁹

The contrast between the “aesthetics of the beautiful” and the “aesthetics of the sublime” can be understood as “aesthetics that follows rules” and “aesthetics that creates rules.” The reason Lyotard attributes a negative connotation to the term “beautiful” can be best understood by referring to his art theories from the 1980s.¹⁰ According to him, the “beautiful” today is nothing more than something pre-calculated and harmonized to suit popular taste. The aesthetics of the beautiful follows rules in this sense. In contrast, the aesthetics of the sublime creates rules. This is precisely what Lyotard supports in avant-garde endeavours, as evidenced by the following description in *The Inhuman* (1988):

[Artists] move into the dialectic of the avant-gardes. What is at stake in this dialectic is the question, ‘What is painting?’, and what keeps the dialectic moving into is the refutation of what was done or has just been done: no, *that* wasn’t indispensable to painting either. Painting thus becomes a philosophical activity: the rules of formation of pictural images are not already stated and awaiting application. Rather, painting has as its rule to seek out these rules of formation of pictural images, as philosophy has as its rule to seek out the rules of philosophical sentences.¹¹

While this text describes “creating rules” as the endeavour of artists, in *The Tomb of the*

9 Lyotard, *Tombeau de l’intellectuel*, 79.

10 As the following publications clearly show, Lyotard had been developing art criticism grounded in psychoanalysis since the 1970s, and it was likewise in the 1970s that he produced monographs on Jacques Monory and Marcel Duchamp (Herman Parret, ed., *Jean-François Lyotard: Écrits sur l’art contemporain et les artistes / Writings on Contemporary Art and Artists*, 7 vols., Leuven: Leuven University Press, 2009–2013). Nevertheless, the definitions of “the beautiful” and “the sublime” that concern us here begin to appear only with the French publication of “Answering the Question: What Is Post-modernism?” in 1982.

11 Jean-François Lyotard, *The Inhuman: Reflections on Time*, trans. Geoffrey Bennington and Rachel Bowlby (Stanford: Stanford University Press, 1991), 121.

Intellectual (1984), “creating rules” is described as the creative act of capitalism. These two propositions should never be mixed. The artists’ creation of rules and the creative act of capitalism are fundamentally different. Moreover, the artists’ endeavour was considered sublime precisely because it could serve as a critique of capitalism. Nevertheless, if we frame Lyotard’s arguments in this way, the aesthetics of the sublime, which “creates rules rather than follows them,” becomes something paradoxically held by both (a) avant-garde art, which criticises capitalism, and (b) capitalism, which is criticised by avant-garde art. Here, we encounter a paradoxical situation where the aesthetics of the sublime is shared by two opposing entities.

3. Capital and the Avant-Garde

Let us further explore this issue. The earlier assertion that “the aesthetics of capitalism is [...] the aesthetics of the sublime” rests on the premise that capitalism creates rules rather than follows them. However, in “The Sublime and the Avant-Garde” (1985), Lyotard explicitly argues that the sublime exists within capitalism:

There is something of the sublime in capitalist economy. It is not academic, it is not physiocratic, it admits of no nature. It is, in a sense, an economy regulated by an Idea—infinite wealth or power. It does not manage to present any example from reality to verify this Idea. In making science subordinate to itself through technologies, especially those of language, it only succeeds, on the contrary, in making reality increasingly ungraspable, subject to doubt, unsteady.¹²

This is a somewhat obscure description, but it is important to note that the term “Idea” is rooted in Kantian terminology. In *The Assassination of Experience by Painting, Monory* (1984), Lyotard, clearly referencing Kant, argues that what was once Kant’s “transcendent sublime” has now been replaced by an “immanent sublime” in the twentieth century. Kant, in the *Critique of Judgment*, distinguishes between natural objects, without purpose, and man-made objects, with purpose. However, according to Lyotard, in the current context where nature is no longer taken as given, our various emotions, including the sublime, can no longer arise without being framed within some artificial system. Kant’s sublime was doubly transcendent: it was both triggered by nature, external to society, and connected our sensibility to transcendent reason. Lyotard, however, challenges this Kantian notion, arguing that his own sublime resides entirely within capitalism and is disconnected from nature. If we accept this premise, then, as Lyotard suggests, the sublime indeed exists within capitalism.

12 Lyotard, *The Inhuman*, 105.

However, a more fundamental point needs to be clarified. The assertion that “the sublime exists within the capitalist economy” is not merely about the finite nature of our environment or our sensory capacities. Lyotard asserts that a certain complicity exists between capital and the avant-garde:

Yet there is a kind of collusion between capital and the avant-garde. The force of scepticism and even of destruction that capitalism has brought into play, and that Marx never ceased analyzing and identifying, in some way encourages among artists a mistrust of established rules and a willingness to experiment with means of expression, with styles, with ever new material.¹³

No matter how much art resists the levelling of value by capitalism, the undeniable truth remains that this search for novelty is driven by capitalist dynamics itself. Lyotard, who had been engaging with the issue of capitalism since the 1970s, was fully aware of this duality. From an early stage, Lyotard was keenly aware of the paradox—that the sublime could only be located within the very capitalism he sought to critique, and that a certain complicity existed even there.

4. The Inhuman

Lyotard long associated this duality with the term “the inhuman” (*l’inhumain*). This term, “inhuman,” is employed in two principal senses. The first refers to the inhumanity imposed by the development of capitalism. The system of late capitalist society transforms us into inhuman beings. Additionally, the modes of communication in the modern world de-corporealise us, and we find ourselves caught in an inexorable process of inhumanisation. In this sense, the term is used critically to describe a system that prioritises efficiency and economy.

However, on the other hand, it is also used in a positive sense to refer to the less-than-human residing within humanity itself. This second form of “inhumanity” refers to the otherness within the self, something irreducible and incomprehensible, or what might be termed the infantile—the *infans*, or speechless one in psychoanalysis. This does not simply refer to infancy as a phase of life (“An infancy that is not an age and that does not pass, with time.”¹⁴) It is the remainder that persists within us, something that remains

13 Lyotard, *The Inhuman*, 105.

14 Jean-François Lyotard, *Readings in Infancy*, trans. Robert Harvey and Kiff Bamford (London: Bloomsbury Academic, 2023), 1.

eternally as a residue. As Lyotard points out, without this “inhuman” residue, the very category of the “human” could not exist:

If this were the case, it would be inexplicable for the adult himself or herself not only that s/he has to struggle constantly to assure his or her conformity to institutions and even to arrange them with a view to a better living-together, but that the power of criticizing them, the pain of supporting them and the temptation to escape them persist in some of his or her activities.¹⁵

In other words, the fact that humanisation is an ongoing process—that the transformation of a “child” into an “adult” and their adaptation to society never ceases—implies that the inhuman persists as an irreducible remainder. Lyotard, who frequently references texts by Apollinaire and Adorno, regards art and literature as the “inhuman” within society, insisting that artists and writers must heed their inhuman voices rather than conform to societal norms. Clearly, this aligns with his demands on the avant-garde. Humanism, grounded in rigid dialectics and hermeneutics, seeks to rapidly humanise this internal inhumanity and harmonise it with the system. Therefore, artists must make this very inhuman indeterminacy serve as a critique of the system.

All education is inhuman because it does not happen without constraint and terror; I mean the least controlled, the least pedagogical terror, the one Freud calls castration and which makes him say, in relation to the ‘good way’ of bringing up children, that in any case it will be bad (close in this to Kantian melancholy). And conversely, everything in the instituted which, in the event, can cut deep with distress and indetermination is so threatening that reasonable mind cannot fail to fear in it, and rightly, an inhuman power of deregulation.¹⁶

The inhumanity brought about by late capitalist society and the inhumanity as a condition of humanity are, of course, fundamentally different in nature. However, as with the “terror,” a notable feature of Lyotard’s discourse is his frequent and deliberate use of such dualities. For example, in the case of “terror,” it is something that should be excluded from the community, but at the same time, it must be imposed as a condition in writing (*écriture*). Similarly, while “inhumanity” should be excluded when imposed on us externally, it must also be embraced as a condition of literature and art.

15 Lyotard, *The Inhuman*, 3.

16 Lyotard, *The Inhuman*, 4–5.

Lyotard's approach in this respect is quite distinctive. If this strategy is a defining feature of his entire philosophy, then the paradox surrounding the sublime that we discussed earlier becomes more comprehensible. Specifically, the sublime is (1) primarily found within capitalism, which is "governed by the idea of infinite wealth and power," and (2) also present in the practices of the avant-garde, which, while complicit with capitalism, are still capable of criticising it from within.

Moreover, there is another such dualistic concept in Lyotard's vocabulary. The term "immaterial" (*l'immatériel*), often used in the form of "immaterial matter," is another example.

5. The Immaterial

Here, we will briefly discuss the term "immaterial." One of its implications lies in the concept of "immaterial matter," which is primarily used to denote a kind of immateriality. "Immaterial matter" refers to something that, while included in matter, cannot itself be objectified. This notion emerges in texts from the late 1980s and forms the core of Lyotard's theory of the sublime as an "aesthetics of shock."¹⁷ It is understood to be that which suspends the continuity of time sustained by the imagination, albeit only for a moment.

On the other hand, the term "immaterial" carries a different implication in a different context. However, this is not found in Lyotard's philosophical texts. In fact, Lyotard was involved in the exhibition titled *Les Immatériaux*, held at the Pompidou Centre in 1985.¹⁸ The term "immaterial," as it appears in the title of this exhibition, stands in stark contrast to the concept of "immaterial matter."

First, let us review an overview of *Les Immatériaux*. Held over four months from 28th March to 15th July 1985, this exhibition was one of the largest ever organised by the Pompidou Centre at the time and generated significant interest, not only in France but also in the art worlds of the United States and the United Kingdom. What exactly was it about *Les Immatériaux* that provoked such a response? Let us examine some accounts from English-speaking attendees who experienced the exhibition.

17 Jean-François Lyotard, *Heidegger et « les juifs »* (Paris: Galilée, 1988), 59.

18 With regard to this exhibition, see in particular the following important studies. Yuk Hui and Andreas Broeckmann, eds., *30 Years After Les Immatériaux: Art, Science and Theory* (Lüneburg: Meson Press, 2015); Daniel Birnbaum and Sven-Olov Wallenstein, *Spacing Philosophy: Lyotard and the Idea of the Exhibition* (London: Sternberg Press, 2019).

John Rajchman, a philosopher specialising in twentieth-century continental philosophy and critical theory, wrote the following about this exhibition in an essay:

At the time, the show was the largest and most expensive undertaken by the Pompidou Center. But such 'bigness' was not monumental; rather it assumed the form of a labyrinthine sprawl as the 'condition' of mixtures and heterogeneities. There was too much "information" to absorb or digest, even when armed with the compendious accompanying catalogues, which, if anything, served to complicate things further. Moreover, all the 'data' didn't cohere, but rather fell together in strange, even surreal, juxtapositions or unforeseen patterns. In this respect one was at some distance from the notion, often associated with the theme of 'mechanical reproduction,' that capitalism 'equalizes' everything; the exhibition was rather a mad jumble into which we were plunged. And, while there was lots of 'theory' in the show, it was part of the jumble. It occurred alongside or among the objects shown rather than 'above' them, as if no longer able to oversee their spread or supply an Ariadne's thread to get out from it. Theory, too, had become part of the 'condition.'¹⁹

It is worth noting the "catalogues" mentioned here. The exhibition catalogue consists of two volumes: one is an illustrated catalogue titled *Album et Catalogue*, which comprehensively documents the works exhibited at *Les Immatériaux*. However, many of the exhibits included objects and industrial products that could hardly be classified as art. The inclusion of these items as equivalent "data" alongside artworks clearly reflects Lyotard's intention, as he ultimately determined the direction of the exhibition.

The other volume, titled *Épreuve d'écriture*, is structured like an encyclopaedia. In this volume, twenty-six co-authors, including Jacques Derrida, Philippe Lacoue-Labarthe, and François Châtelet, contributed brief texts on seventy-four entries such as "body," "memory," and "time." What is particularly interesting about this catalogue is that the texts written by each author were subsequently passed on to others, resulting in a printed text where a dialogue unfolds between multiple authors. From today's perspective, this may not seem especially novel. However, it is important to recognise that this project, undertaken in 1985, represented a challenge to the nature of "knowledge" in an increasingly information-saturated society and foreshadowed the advent of the internet.

With this in mind, let us return to the exhibition itself. The following is an excerpt from Paul Crowther, a specialist in aesthetics and art theory, who has written extensively on

¹⁹ John Rajchman, "Jean-François Lyotard's Underground Aesthetics," *October*, no. 86 (Fall 1998): 15.

Kant's concept of the sublime:

There is no one route through this labyrinth. Rather, the visitor is free to wander, wearing radio-controlled headphones which offer 'commentaries' in the form of music, poetry, literature, philosophy and other readings, which change as one moves from zone to zone.²⁰

As Crowther describes, *Les Immatériaux* was an audio-visual exhibition in which visitors wore headsets that correlated the visual elements in the exhibition space with the auditory elements delivered through the headsets. Moreover, the exhibition was designed so that the individual works receded into the background, with the exhibition space itself becoming a "work" of art, which was quite unique for the time.

Additionally, the theme of *Les Immatériaux*, focusing on the progress of technology in late capitalist society, can be viewed as an extension of Lyotard's earlier work *The Postmodern Condition* (1979). As confirmed by the catalogue, many of the objects displayed evoked the postmodern condition of late capitalist society. In other words, *Les Immatériaux* presented a fragment of the contemporary situation that Lyotard had raised in *The Postmodern Condition*, but in the form of an art exhibition.

Lyotard encapsulated this idea in the exhibition's title, *Les Immatériaux*. The vocabulary surrounding "material" was divided into five phases (*maternité, matrice, matériau, matière, matériel*). Using these five words as his core vocabulary, Lyotard proposed one decisive "postmodern condition" in *Les Immatériaux*. Namely, that the objects and spaces around us, and even our bodies, are being dematerialised—that is, the substances that produce things are gradually becoming invisible, decomposing, and becoming commensurable through the progress of science and technology. In other words, the immateriality referred to here is not the immateriality inherent in matter, as the term "immaterial matter" seeks to express, but rather the dematerialisation of the world through technology.

In another essay, "The Postmodern Museum," John Rajchman argues that the term "immateriality" can be understood in two senses.²¹ First, Lyotard is sounding the alarm about "the deprivation of the human body by electronic technology," and second, about "the dematerialisation of space." While the validity of clearly separating these two interpretations is not debated here, Rajchman's reading accurately captures the issues

20 Paul Crowther, "Les Immatériaux and the Postmodern Sublime," in *Judging Lyotard*, ed. Andrew Benjamin (London: Routledge, 1992), 193.

21 John Rajchman, "The Postmodern Museum," in *Philosophical Events: Essays on the 80s* (New York: Columbia University Press, 1991), 113.

Lyotard raised with this exhibition. For example, Lyotard spoke of the exhibition as follows:

The word 'human', as substantive adjective, designates an ancient domain of knowledge and intervention which the technosciences now cut across and share; here they discover and elaborate 'immaterials' which are analogous (even if they are in general more complex) to those examined and detected in other fields. The human cortex is 'read' just like an electronic field; through the neurovegetative system human affectivity is 'acted' on like a complex chemical organisation composed of information transmitted by media and according to diverse codes connected by interfaces where 'translations' take place.²²

As can be discerned from this statement, Lyotard aimed to criticise the process of dematerialisation enabled by technological progress. Technology reduces not only inorganic matter but also organic substances, including the human body, to analysable objects, thereby leading to the degradation of the traditional concept of the human. Thus, the term "immaterial," used by Lyotard as the title of this exhibition, symbolically indicates the current state in which rapidly advancing natural sciences and the capitalist society driving them are threatening human subjectivity.

As we have just confirmed, the system of late capitalist society, driven by scientific and technological progress, transforms familiar objects and spaces into uncanny entities by infinitely dismantling them. The force that converts everything around us into data, making all things commensurable—in other words, the greatest driving force behind the dematerialisation of this world—is none other than the impersonal movement of capitalism.

As was evident with the concepts of "terror" and "inhumanity" discussed earlier, it is clear from the discussion thus far that the concept of immateriality also carries a dual meaning. Therefore, when Lyotard uses the term "immaterial matter," we should be aware that another form of "immateriality" is likely being considered. The "immaterial matter" discussed in *The Inhuman* tends to be reduced to sensory issues such as nuance or timbre in a work, but in a broader context, it can be understood as a concept that borders on the dematerialisation driven by scientific and technological progress.

22 Jean-François Lyotard, "Les Immatériaux" (1985), trans. Paul Smith, in *Thinking about Exhibitions*, eds. Reesa Greenberg, Bruce W. Ferguson and Sandy Nairne (London: Routledge, 1996), 116.

Conclusion

The starting point of this essay was the question of why Lyotard's sublime is applied both to capitalism's endless movement and to avant-garde art, which seeks to distance itself from it. Let us now summarise the key points.

1. Lyotard's writings contain discussions on capitalism that span a long period. Moreover, even in texts that appear to address purely aesthetic issues, similar concerns are consistently present in the background.

2. Lyotard refers to the general practice of art that can function critically against capitalism as the avant-garde. This avant-garde effort is considered sublime and applies to a wide range of artistic forms, including painting, music, and literature.

3. On the other hand, Lyotard also designates capitalism itself (or the aesthetics of capitalism) as sublime. This is because both share the characteristic of not adhering to pre-established rules but instead "creating their own rules."

In most discussions surrounding Lyotard's sublime, some of these perspectives are often overlooked. In the more superficial readings, the points raised in 1 and 2 are ignored, and Lyotard's argument is reduced to a mere theory of abstract painting. Furthermore, many interpretations fail to address the duality of the sublime as outlined in 3. Particularly in his writings in the 1980s, which seem far removed from his political phase, it is important to recognise that Lyotard continued to engage with these concerns through aesthetics—or perhaps, precisely by engaging with aesthetics. This has largely been overlooked to this day.

The reflections on "terror," "inhuman," "immaterial," and "sublime" demonstrate that this critical methodology forms the core of Lyotard's aesthetics. However, Lyotard himself does not explicitly explain his dual use of these concepts. Therefore, the reasons for adopting such a critical strategy must be inferred, though a somewhat coherent answer can be gleaned from his texts of the 1970s. This understanding is encapsulated in statements like "all criticism, rather than overcoming capitalism, reinforces it." As an impersonal system, capitalism constantly incorporates even the criticism directed at it. Hence, attempting to criticise capitalism from the outside is ultimately futile. If such criticism is possible, it must come from within capitalism, by identifying something incommensurable with it. Lyotard's strategy could be termed "mimetic adaptation" to the capitalist economy.²³ When discussing topics of the "sublime" or "immaterial matter," Lyotard was not thinking in the narrow sense of aesthetics. Even when emphasising the unique character of an

23 Pierre V. Zima, *La Négation esthétique. Le Sujet, le beau et le sublime de Mallarmé et Valéry à Adorno et Lyotard* (Paris: L'Harmattan, 2002), 191.

artwork, Lyotard regarded this event or happening as a mimicry of the “newness” that capitalism constantly pursues, for instance, in the following manner:

It is understandable that the art-market, subject like all markets to the rule of the new, can exert a kind of seduction on artists. This attraction is not due to corruption alone. It exerts itself thanks to a confusion between innovation and the *Ereignis*, a confusion maintained by the temporality specific to contemporary capitalism.²⁴

Lyotard’s aesthetic theory reveals a profound duality that permeates both his critique of capitalism and his reflections on avant-garde art. His concept of the sublime, applied to both the relentless movement of capitalism and the critical practices of avant-garde art, underscores the complexity of engaging with a system that absorbs even its critiques. The duality in his use of terms like the “inhuman” and “immaterial” further highlights this tension, as they function both within the structures of capitalism and as tools for resisting it. Ultimately, Lyotard’s aesthetics invite us to consider how art, by embracing this ambivalence, can function as a critical force, subtly undermining the very system it operates within.

In this sense, the question of resistance in Lyotard cannot be resolved by simply opposing the avant-garde to the capitalist system, nor by assuming that all forms of critique are absorbed without remainder. While Lyotard repeatedly emphasises the system’s capacity to integrate newness, he also insists that certain kinds of intensity—what he sometimes calls *la chose*, or the infantile remainder within the subject—cannot be fully translated into the circuits of value. This “inhuman” element, which persists as something unformed and not yet phrased, marks the limit of what capitalism can appropriate. Even if capitalism absorbs many artistic practices, it cannot fully capture these moments of interruption that disclose the incommensurable within experience.

Seen from this perspective, Lyotard’s strategy of resistance emerges less as a programmatic alternative and more as a way of attending to what cannot be stabilised or functionalised. The avant-garde does not resist by standing outside the system—as this position is no longer available—but by exposing moments in which the system’s demand for productivity falters. These events, even if fleeting, testify to a kind of “inhuman” that cannot be reduced to information, profit, or efficiency. Lyotard’s emphasis on infancy, on the unreadable, and on the silence that precedes articulation suggests that resistance may persist precisely where articulation fails.

24 Lyotard, *The Inhuman*, 106.

To describe this strategy, one might speak of a form of mimetic adaptation that operates from within the system while remaining attuned to what cannot be assimilated by it. The avant-garde, in this view, does not overcome capitalism, but neither is it simply absorbed. Rather, it maintains a relation to what remains incommensurable, something that capitalism can never fully absorb.

This may not amount to a strategy in the conventional sense, but it provides a way of thinking resistance that is consistent with Lyotard's aesthetics and his understanding of the sublime. What remains crucial, then, is not to offer a definitive escape from the system, but to recognise the forces that silently interrupt it—forces that persist, however modestly, in the experiences of the sublime, the inhuman, and the immaterial.

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From the "Anamnesis of the Visible" to "Cartographic Anamnesis": Lyotard and the Postmodern Spaces of Representation

Anna De Martino

Abstract

In this article, I propose the notion of "cartographic anamnesis" in relation to contemporary practices of militant cartography or counter-cartography. My assumption is that cartography can be used as an epistemological and relational device to visualise and rethink relations between human beings and the world in the contemporary era.

In support of this hypothesis, this article mobilises some Lyotardian notions, such as "anamnesis," "figural," "libidinal set-up," "interworld," in relation to the cartographic device and to issues related to postmodern spatial production in architecture and geography. The aim is to show how these pivotal concepts of Lyotard's aesthetics can be applied to think about a philosophy of technique and culture, which takes cartography as its object of study and investigation, particularly through a reading of *Discourse, Figure* and by using the artistic and theoretical work of artists like Paul Klee and Gianfranco Baruchello, both of whom are central to Lyotardian reflection.

Keywords: Anamnesis, Cartography, Interworld, Baruchello, Architecture, Libidinal set-up, Figural.

Introduction

Cartography—as a tool for tracking and visualising the earth’s surface—is a central object in postmodern debates about space, especially in the context of a critical and Marxist approach to geography.¹ In the wake of postmodern geography, since the 1960s, militant movements have worked on the development of practices and devices of cartographic representation to produce a meta-reflection on cartography. This set of practices, which has developed extensively over the last twenty years, is called “counter-cartography” or “militant cartography.” The experiments in this field of research are manifold and concern the artistic panorama as much as contemporary geographical and ecological reflection.²

Considered as an epistemological and aesthetic tool, counter-cartography helps people to think about the complexity of the present and can also produce significant effects on a political level.³ For this reason, its production has been nourished by the theoretical reflection of thinkers from the field of postmodern and French post-structuralist thought.⁴ If post-structuralist authors such as Foucault, Derrida and Deleuze are prominent references within the theoretical debates on which contemporary practices of counter-cartography are based, Lyotard’s reflection seems to receive no particular attention from this field of studies, despite the philosopher’s significant contribution to the postmodern debate. This article intends, therefore, to make a theoretical contribution to postmodern geography and contemporary practices of counter-cartography, applying some Lyotardian categories that can be useful in these debates.

To move in this direction, I intend to develop a “cartographic anamnesis,” starting from Lyotard’s use of the psychoanalytic notion of “anamnesis of the visible,” in relation to painting. I then intend to place this notion in relation to the postmodern debate on cartography, understood in Henri Lefebvre’s terms as a “space of representation.”⁵

1 See: D. Woods, *The Power of Maps* (New York: Guilford Press, 1992); J. B. Harley, *The New Nature of Maps. Essays on the History of Cartography*, eds. P. Laxton (Baltimore: The John Hopkins University Press, 2001); D. Cosgrove, *Mappings* (Chicago: The University of Chicago Press, 1999).

2 Recent publications on these themes are: Frédérique Aït-Touati, Alexandra Arènes, Axelle Grégoire, *Terra Forma: a book of speculative maps*, trans. Amanda DeMarco (Cambridge: MIT Press, 2022); kollektiv Oranotango+, *This is not an Atlas* (Bielefeld: transcript Verlag, 2018); Karen O’Rourke, *Walking and Mapping: Artists as Cartographers* (Cambridge, MIT Press, 2016).

3 Frederic Jameson has recognized it, considering spatial issues as a fundamental point to face the sense disorientation and the disalienation which characterizes postmodern lifestyles: on this regard, he spoke of an “aesthetic of cognitive mapping” as a “ pedagogical political culture which seeks to endow the individual subject with some new heightened sense of its place in the global system” and that can help people to “invent radically new forms in order to do it justice,” Frederic Jameson, *Postmodernism, or the cultural logic of late capitalism* (Durham: Duke University Press, 1991), 54.

4 See the fundamental essay of John Brian Harley, “Deconstructing the map” in *The New Nature of Maps. Essays on the History of Cartography*, eds. P. Laxton (Baltimore: The John Hopkins University Press, 2001), 149–168.

5 The use of the categories of “spatial production,” “spatial practice,” “representation of space”

Therefore, after an initial comparison of Lyotardian thought with postmodern reflection on space, I will focus on Lyotard's rethinking of "anamnesis," placing it in relation to two other notions of Lyotardian thought: the "libidinal set-up" and the "figural," which belong to earlier phases of the philosopher's production. Through these conceptual categories, I intend to show the continuity of Lyotard's reflections on art and painting, whose discontinuities are usually highlighted. Later, I will try to propose a "cartographic anamnesis," applying these notions to the field of the history of medieval cartography. To conclude, I will use two examples deduced from the artistic practice of the painter Gianfranco Baruchello, friend of Lyotard, to whom he dedicated important reflections. Using Baruchello's "cartographical paintings," I will therefore show how painting as an "anamnesis of the visible" can work, at the same time, also as a "cartographic anamnesis."

1. Spatial Postmodernities

The name of Jean-François Lyotard is generally associated with the publication in 1979 of *The Postmodern Condition*.⁶ Lyotard's main thesis was that the entry into the era of computerisation had definitively sanctioned the crisis of the "great narratives" of modernity and its processes of legitimation. This phenomenon had pushed towards a radical decentralisation and rethinking of the ways in which knowledge is acquired and disseminated in the contemporary world. The revolution in information systems and the transformations of the processes of capitalist accumulation since the second half of the twentieth century, had produced a crisis in the space-time continuity of modernity and pushed towards a profound reconsideration of the aesthetic, political and epistemological categories on which the production of knowledge had been based during modernity. To be understood and addressed, the "postmodern" required an openness to a heterogeneity of practices and styles of expression and the coexistence of a plurality of narratives, which bore witness to the ongoing processes of social and cultural transformation. The need to think about tactics of resistance against the absolutizing character of the discourses and practices on which the modern categories of "space" and "time" have settled has emerged.

As a reflection on the production of knowledge, postmodernism has been developed across many theories and developed in different fields of humanities and social sciences.

and "space of representation" openly refers to the theorizations of the French philosopher and geographer Henri Lefebvre. The "spatial practice" encompasses all social activities that enable the creation of a given space; the "representations of space" concern the space theoretically studied as it is generated, conceived, represented; the "space of representation" represents the symbolic dimension of space, the space as it is lived and imagined. According to Lefebvre, these three categories actively co-participate in the social production of space. See Henri Lefebvre, *The production of space*, trans. Donald Nicholson-Smith (Hoboken: Wiley-Blackwell, 1992).

6 Jean-François Lyotard, *The Postmodern Condition: A Report on Knowledge*, trans. Geoff Bennington & Brian Massumi, (Minneapolis: Minnesota University Press, 1984).

Among them, the field of “space production”, especially in geography and urban design, plays a fundamental role, as it is highlighted in the large body of theories developed in the 1970s–1990s by the “spatial turn”⁷. Nevertheless, this field of studies is not homogeneous, concerning more the co-existence of multiple “spatial postmodernities.”

In this paragraph, I would like to show this aspect, placing in tension Lyotard’s postmodernism with two different “spatial postmodernities,” in architecture theory and geography. In fact, although it does not play a prominent role in *The Postmodern Condition*, the relationship between “space” and “postmodernity” invites us to question the specific way in which the idea of “space” appears in Lyotard’s philosophy, who often interfaced with architects and space theorists on the subject.⁸

The first important reference, in this sense, is Charles Jencks’ essay *The Language of Postmodern Architecture*⁹: this text decreed the end of compositional rationalism and of the rigid correspondence between form and function, typical of architecture and of urban planning in the first part of the twentieth century and aimed at the introduction of a “pluralistic language which incorporated traditional and modern elements, vernacular and high art meanings.”¹⁰ The aim of Jencks was to propose new ways of conceiving space, and to trace a real aesthetic caesura with the modern tradition in architecture. This can be seen, for instance, in Jencks’ choice to situate postmodern reflection in architecture along a precise spatio-temporal horizon: “Modern Architecture died in St. Louis, Missouri on July 15, 1972 at 3.32 p.m. (or thereabouts) when the infamous Pruitt-Igoe scheme, or

7 By “spatial turn” I refer to the large number of theories, developed especially by the Marxist tradition, that develop a critical approach to space theories (architecture, geography, sociology, philosophy, urban planning and so on). I refer, for example, to scholars such as Edward Soja, David Harvey, Mike Davis and Frederic Jameson, or architectural theorists as Kenneth Frampton, who played a fundamental role in the genealogy of the “postmodern condition” of “space.” See: David Harvey, *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change* (Cambridge: Blackwell, 1990); Frederic Jameson, *Postmodernism*; Kenneth Frampton, “Towards a Critical Regionalism: Six Points for an Architecture of Resistance,” in *The Anti-Aesthetic: Essays on Postmodern Culture*, eds. Han Foster (Seattle: Bay Press, 1983), 16–30. For an analysis of the relationship between architecture and postmodernism, see: Frank Vermandel, “Postmodernisme, discours et métadiscours: L’architecture comme paradigme et paradoxe,” *Tumultes* 34, (2010): 25–48.

8 Jean-François Lyotard, “Notes on the meaning of post-,” in *The Postmodern Explained*, eds. Julian Pefanis & Morgan Thomas (Minneapolis: The University of Minnesota Press, 1993), 76. This issue can be found all through Lyotard’s production and emerges strongly in the essays “Zones,” “Domus and Megalopolis” and “Scapeland,” Jean-François Lyotard, *Postmodern fables*, trans. G. Van Den Abbeele (Minneapolis: The University of Minnesota Press, 1997), 17–32; Jean-François Lyotard, *The Inhuman: Reflections on Time*, trans. Geoffrey Bennington & Rachel Bowlby (Stanford: Stanford University Press, 1991), 182–204. For a deeper analysis of the relationships between Lyotard and architecture, see: Ashley Woodward, “Non-projects for the uninhabitable: Lyotard’s architecture philosophy,” *Architecture Philosophy* 5, no. 2 (2021) <https://ojs.library.okstate.edu/osu/index.php/jispa/article/view/8438>.

9 Charles Jencks, *The Language of Postmodern Architecture* (New York: Rizzoli 1977).

10 Jencks, *The Language of Postmodern Architecture*, 96.

rather several of its slab blocks were given the final *coup de grâce* by dynamite."¹¹ Jencks' statement suggests two intertwined ideas about his postmodern architecture's theory: 1) the aesthetic caesura between "modern" and "postmodern" can also be considered historical and chronological: postmodern is a new era of urban planning that comes *after* the modern and opens up to a completely new way of conceiving, imagining and living space; 2) for this reason, the idea of "space" that postmodern architecture would seem to legitimise is of a spatiality that, freed from the compositional rigidities of modernity, would truly be able to lead to the free emancipation of the human being's expression and needs. Jencks' theory can be better explained if we look at the design and theoretical practices developed between the late 1970s and 1990s by architects like Robert Venturi or Rem Koolhaas, whose works played a fundamental role in the construction of the postmodern "spaces of representation."¹²

Here we can see the links and the distances between Jencks' and Lyotard's approaches to postmodernism. If from one side, the authors share the critics to modernity and they look for an opening to a plurality of aesthetic and epistemological approaches in space production, they conceive the chronological relationship between "modern" and "postmodern" in two opposite ways: differently from Jencks, in fact, for Lyotard postmodern does not come *after* the modern, but it is already implied in it. In addition, Jencks' idea of a "freed" design, "a sort of bricolage," the multiple quotation of elements taken from earlier styles or periods, classical and modern; disregard for the environment,¹³ which attaches no importance to the context or to the need of placing the habitation in a human as well as urban dimension, are all elements that couldn't be accepted by Lyotard. The risk implied in Jencks' reflection could be, in fact, to transform postmodern space's heterogeneity in a great narration of emancipation, capable of freeing the human being simply through the deconstruction and re-constitution of social space, through urban design and planning, without considering its intrinsic complexity. Contrary to "postmodernism" in architecture, the "postmodern condition" is not an unrestrained apologia of the stylistic and "a-cosmic"¹⁴ heterogeneity, typical of architectural postmodernism, but aimed to produce a meta-criticism of modernity itself, to show its unconscious limits.

If Jencks' postmodern theory of architecture seems far from embracing Lyotard's "postmodern condition" of knowledge, a continuity can be more clearly traced in the

11 Jencks, *The Language of Postmodern Architecture*, 9.

12 See, for example: R. Venturi, *Learning from Las Vegas* (Cambridge: MIT Press, 1977); R. Koolhaas, *Delirious New York: A retroactive manifesto for Manhattan* (New York: Monacelli Press, 1997).

13 J. F. Lyotard, *The Postmodern Explained*, 76.

14 I use this term in the sense of A. Berque, *Recosmiser la Terre. Quelques leçons péruviennes* (Paris: B2, 2018). Berque uses the term "a-cosmic" to refer to all those urban and architectural structures that do not consider the relationships between human beings and their living habitats or *milieux* in an ecological sense, as it happens, according to Berque, in Koolhaas' architecture.

processes of “reassertion of space” that, according to Edward Soja, have characterised postmodern epistemologies in geography.

As Soja points out, this “reassertion of space” is not “simply a metaphorical re-composition of social theory, a superficial linguistic spatialisation that makes geography appear to matter theoretically as much as history,” but requires “a much deeper deconstruction and reconstitution of critical thought and analysis at every level of abstraction, including ontology.”¹⁵ For this reason, Soja suggests “to compose a social ontology in which space matters from the very beginning.”¹⁶ this invitation is also tantamount to intercepting the different levels through which space is socially produced, such as that of its representation and its *crisis*. Such deconstruction and reconstruction, therefore, require the creation of a critical and conceptual apparatus to reflect on the implicit mechanisms that have made the production of modern space possible. Thanks to it, the geographical discourse was constructed in the modern age and the power relations that for centuries recognised European hegemony at a global level were consolidated. Cartographic production is symbol of these relational dynamics and of the related epistemologies.

In recent years, postmodern reflections in geography have developed a very profound critique of the ways in which maps become agents of spatial production and have reflected on the need to deconstruct cartography itself, as a cultural object and as a practice.¹⁷ John Pickles, in this regard, speaks of a veritable “crisis of representation” that has occurred in the field of cartographic production, due to a series of complementary aspects: the “emergence and role of communication models of information,” the “subjective nature of maps,” and the objective and subjective bias that “frame the understanding of error and distortion in cartography.”¹⁸ The historian of cartography John Brian Harley has deeply reflected on these aspects, focusing on the ethical issues hidden by maps. According to Harley, the map possesses an *eloquence* of its own, and it is not a simple instrument of communication, but a “social construction”¹⁹ and “inherently political.”²⁰ For this reason, Harley proposes to read the map as a *text*, or as “graphic language to be decoded” and the product of “both individual minds and the wider cultural values in particular societies.”²¹ This also means that every map is linked to the social order of a particular period and place, and it is a cultural device because it manifests intellectual processes defined as artistic or scientific, as they work to produce a distinctive type of knowledge.

15 E. Soja, *Postmodern Geographies: The Reassertion of Space in Critical Social Theory* (London-New York: Verso, 1990), 7.

16 Soja, *Postmodern Geographies*, 7.

17 See Harley, “Deconstructing the Map,” 149–168.

18 John Pickles, *A History of Spaces: Cartographic Reason, Mapping and the Geo-coded World* (London: Routledge, 2004), 28.

19 Harley, “Introduction,” *The New Nature of Maps*, 7.

20 Harley, “Text and contexts in the interpretation of early maps,” in *The New Nature of Maps*, 35.

21 Harley, “Text and contexts in the interpretation of early maps,” 36.

In other words, the map, as "a *cultural object* that takes possession of the land,"²² does not simply reproduce a topographical reality but also interprets it. Harley's reading key of cartography, which invites us to see the map as a "text" and as a "cultural object," helps us to better understand the critical approach developed by contemporary cartography.

In fact, contemporary debates on the "crisis of cartographic reason,"²³ to use an expression by Franco Farinelli, have directed geographical reflection towards a critique of cartographic production systems and their rethinking. This set of practices, largely inspired by the theoretical elaborations of authors such as David Harvey and Henri Lefebvre, is called "radical cartography" or "counter-cartography."²⁴ At the basis of counter-cartography is the idea of a critique of the chronological and linear view in cartographic development and production, due to the crisis of the "Copernican revolution in map-making," apparently based on the "de-centring of our view of the world accomplished by its navigation through the application of scientific calculation."²⁵ As Phil Cohen and Mike Duggan argue, modern cartographic systems—like GIS or GPS—hide a lack of objectivity: in fact, "ethnocentrism and nationalisms" in cartographic production "have continued to flourish and indeed have come to exercise a dominant influence on contemporary geopolitics."²⁶ In order to develop a critique of the biases implicit in Western systems of cartography, counter-cartography "has emerged to become an important part of the so-called 'anti-colonial' and 'decolonisation' processes that seek social justice from the inequalities produced by colonialism,"²⁷ making use of techniques and materials that aim to politically and geographically decentralize the mechanisms of cartographic production. In this sense, counter-cartography deconstructs the map as a communication tool, revealing its figural components. This deconstruction operates on the map as a graphic language and as a technical device for orientation. This is also possible because counter-cartography draws extensively from non-Western artistic practices and systems of spatial representation.

Counter-cartography aims, therefore, to deconstruct power relations and related narratives mediated by maps, considering them both as "spatial representations" and "representations of space," using artistic practices and alternative systems of visualisation to traditional

22 Harley, "Text and contexts in the interpretation of early maps," 45.

23 See F. Farinelli, *La Crisi della Ragione Cartografica* (Torino: Einaudi, 2009).

24 See Nephthys Zwer & Philippe Rekacewicz, *Cartographie Radicale: Explorations* (Paris: La Découverte, 2021); Bracco, Diane & Lucie Genay (dir.), *Contre-cartographier le Monde* (Limoges: Pulim, 2021); Bernard Debarbieux & Irène Hirt (dir.), *Politiques de la carte* (London: ISTE, 2022); Kollektiv Oran-gotango (dir.) *This is Not an Atlas: A Global Collection of Counter-Cartographies* (Bielefeld: Transcript Verlag 2018); Phil Cohen & Mike Duggan, *New Directions in Radical Cartography: Why the Map is Never the Territory* (London: Rowman & Littlefield, 2021).

25 Cohen & Duggan, *New Directions in Radical Cartography*, xii.

26 Cohen & Duggan, *New Directions in Radical Cartography*, xii.

27 Cohen & Duggan, *New Directions in Radical Cartography*, xii.

cartography. Counter-cartography is, in fact, first and foremost a meta-reflection on the techniques and systems of mediating cartographic information and aims to both criticise and deform them. I argue that contemporary counter-cartographic practice, based on the postmodern attempt to “reassert space,” can be well connected to Lyotard’s postmodern reflection. This connection becomes particularly evident if we consider the analysis, developed by Lyotard in the later part of his thought, of the postmodern as “anamnesis.”

2. The Postmodern and its “Anamnesis of the Visible”

“Anamnesis” is a key notion in the entire evolution of Lyotard’s thought, marked by apparent discontinuities. But what is its role in postmodern Lyotardian reflection and why is it so important in general? The idea of “postmodern condition” seems to introduce an epistemological caesura in Lyotard’s philosophical reflection, which, in the early seventies, was characterised by the elaboration of the notions of “figural” and “libidinal set-up” in a psychoanalytical framework, as the essays *Discourse, Figure* (1971) and *Libidinal Economy* (1973) attest. Contrary to this, I want to argue that a continuity can be traced between these previous stages²⁸ of Lyotard’s philosophical production, and his “postmodern turn.” This continuity can be traced through his re-elaboration of the psychoanalytical notion of “anamnesis.”

Elaborated by Freud in a 1914 essay,²⁹ the notion of “anamnesis” (*Durcharbeitung*) refers to the process of re-emergence of experiences, forgotten by the patient, with respect to which the therapist plays a guiding and supporting role. “Anamnesis” is, therefore, the patient’s working-through process, thanks to which the awareness of the resistances gradually becomes possible. Lyotard thematises the issue, relating this notion to his reflection on painting:

Just as the patients try to elaborate their current problems by freely associating apparently inconsequential details with past situations – allowing them to uncover hidden meanings in their lives and their behaviour – so we can think of the work of Cézanne, Picasso, Delaunay, Kandinsky, Klee, Mondrian, Malevich, and finally Duchamp as a *working-through* (*Durcharbeiten*), performed by modernity in its own meaning.³⁰

28 A chronological and thematic division that considers the implicit movements of Lyotard’s reflection throughout his life is proposed by Jean-Michel Salanskis in: C. Pagès (dir.), *Lyotard à Nanterre* (Paris: Klincksieck, 2010), 13–19.

29 S. Freud, *Remembering, Repeating and Working-Through*, in *Standard Edition*, vol. 12 (London: Hogarth, 1958).

30 Lyotard, “Notes on the meaning of post-,” 79–80, my emphasis.

This working-through process of painting, that Lyotard calls "anamnesis of the visible,"³¹ thus concerns the mechanisms of presentation of the work of art itself and, according to Lyotard, is enacted by the artistic experimentations of the avant-gardes:

This representational or de-representational task, then assigned to the work, acts in fact as a kind of anamnesis, an anamnesis outside of the session perhaps, and in this sense unseemly, but as for its aim related to analysis, in so far as it strives to immerse the scene of the presented in the water of presentation, and to free the object, image, or *readymade* of repetitive imagination, by returning it to the infancy of a frank imagination.³²

The "anamnesis of the visible" is, then, used by Lyotard to "dramatise the visual work—painting first and foremost—by identifying the search for an unrepresentable event, as invisible as the primal scene can be."³³ Nevertheless, it does not aim at discovering something *beyond* what is shown by the work of art itself, but at showing the invisible processes, the conceptual schemes, and aesthetic categories that the work of art performs in its showing. However, for Lyotard, anamnesis is not a hermeneutics of the aesthetic "event": it is not a matter of going back chronologically to its origin, to understand and clarify it, but rather of going through it again, constantly, freely working through the libidinal processes and mechanisms that made it possible. This means that, for the philosopher, every anamnesis has no end:

Anamnesis is in principle interminable. [...] The associative material has no boundaries. The task of passing through the representations as well as the screens (Freud) is never completed. Even the determination of the chain (as a 'language') belongs to the chain and is interminable in principle. It is because the thing that is 'the reason' for the chain is not determinable, because it has never been presented.³⁴

The "anamnesis of the visible" concerns, thus, modern painting's attempts to bear witness to the fact that there is something "unrepresentable," through the display of the technical, gestural, and material aspects involved in the processes of artistic production. This working-through process, at the same time, is "interminable." From this perspective, "anamnesis" can be easily related to Lyotard's notion of "libidinal set-up."

31 Jean-François Lyotard, *Que Peindre? Adami, Arakawa, Buren/ What to Paint ? Adami, Arakawa, Buren*, eds. Herman Parret, (Leuven: Leuven University Press, 2012), 237.

32 Lyotard, *What to Paint?*, 241.

33 Lyotard, *What to Paint?*, 239.

34 J.-F. Lyotard, "Anamnesis of the visible," *Theory, Culture & Society* 21, no.1 (2004): 107–119. doi: 10.1177/0263276404040483, 109.

The first connection between the two notions is due to the fact that they both are used by Lyotard in reference to painting, which he defines as both a 'libidinal set-up' and an 'anamnesis of the visible.'³⁵ However, this connection is also useful to understand the status of technique in Lyotard's postmodernism and to reflect on cartography as a cultural, technical and aesthetic device of mediation and reassertion of space in the context of the "spatial turn."

By "libidinal set-up" [*dispositif libidinal*] Lyotard means a structure through which energetic drives of desire are channelled and blocked, allowing desiring activity to unfold, on the basis of normative criteria sanctioned by these blockages.³⁶ According to Lyotard, this concerns both the artistic and technical spheres. Perspective, for example, is for Lyotard a "libidinal set-up,"³⁷ since in it the desiring activity manifests itself according to precise compositional rules, which produce limitations in the use of libidinal energy. The same notion can be applied, however, to a man moving with a wagon and a horse or a car: if perspective produces a peculiar way of conceiving and representing space, the "libidinal set-ups" of locomotion structure the drive dimension, according to a certain way of moving through space. In short, since for Lyotard every human activity and production must be grasped in terms of an activity of desire, every cultural, technical, and aesthetic device must be understood as a "libidinal set-up" that, by regulating energy flows in a certain way, enables the metamorphoses of libidinal activity.

These "libidinal set-ups" are, thus, all manifestations of the polymorphic character of libidinal activity and can only be grasped from within a process, a libidinal flow that knows no stabilisation. Anamnesis is, therefore, the conceptual instrument and psychoanalytical technique through which, according to Lyotard, it becomes possible to try to re-cross these drives and libidinal flows, not to stabilise or understand, but to *work through* them. The result of this anamnesis can, in this sense, only be a further opening towards other energetic canalisations that will give rise to new "libidinal set-ups."

The "anamnesis of the visible" can in this sense be understood as the process through which painting bears witness to the metamorphic character of the pictorial "libidinal set-up," showing the processes through which it is deconfigured and reconfigured. However, the notion can also be used to reflect beyond artistic space. Far from being, in fact, merely a peculiarity of the artistic experience, the "anamnesis" is a mechanism applicable to

35 See, in particular: J.-F. Lyotard, "Anamnesis of the visible," J.-F. Lyotard, "Painting as a libidinal set-up," in Jean-François Lyotard, *Textes dispersés I: esthétique et théorie de l'art/ Miscellaneous Texts I: Aesthetics and Theory of Art*, eds. Herman Parret (Leuven: Leuven University Press, 2012), 76–101.

36 The enquiry on the "libidinal set-up" is at the centre of Jean-François Lyotard, *Libidinal Economy*, trans. Iain Hamilton Grant (Bloomington: Indiana University Press, 1993).

37 I refer to Lyotard, "Painting as a libidinal set-up."

postmodern reflection on space and time in general.³⁸ For Lyotard, in fact, postmodern is the *anamnesis* of the modern. As Yuk Hui writes:

The postmodern is the self-negation of the modern. It is not that, at a certain moment of modernity, something happened, and at that point the postmodern arrived; it is rather that, at a certain moment of its development, the logic of modernity turned against itself and transplanted into another context.³⁹

Picking up on Hui's reflections and using a language dear to Lyotard, we can understand postmodernity as the "rewriting of modernity" itself, its "working-through" or even its "anamnesis."⁴⁰ For this reason, the postmodern cannot be chronologically located *after* the modern, but is already implied *by* and *in* modernity. Unlike remembrance, which seeks to trace back to the primary source of trauma and signify it, the process of anamnesis is purposeless and it is, therefore, interminable.

Even cartographic production can be considered as a "libidinal set-up" [*dispositif libidinal*], as the product of libidinal investments through which both our "spatial representations" or theoretical conceptions about space, as well as our "spaces of representation" or the imaginaries related to these spaces are generated.

On these bases, we can also consider cartography as a "libidinal set-up" and counter-cartography as its "anamnesis," if we look at cartographic production as the mediation device through which both our "spatial representations" (our conceptions of space), as well as our "spaces of representation" (the imaginaries related to these spaces) are generated. Cartographic representation is a "libidinal set-up," insofar as its structure allows for the blocking and unfolding of specific modes of desire production in relation to space: in the case of the map, these variations are the result of the different processes of diagrammatization and organisation of the representations of the territory, that serves as referent. At this point, to clarify how the desire operates through the cartographic production as a "libidinal set-up," I will focus on the reflection about the "figural" developed by Lyotard during the 1970s, which provides us with extremely useful conceptual and methodological tools for thinking up one or more possible "cartographic anamnesis."

38 Lyotard, for example, takes up the Freudian question of working-through, applying it to the field of technique. This is particularly evident in the essays "*Logos and Techne, or Telegraphy*" and "*Rewriting Modernity*," contained in Jean-François Lyotard, *The Inhuman*.

39 Yuk Hui, *The Question Concerning Technology in China: An Essay in Cosmotechnics* (Falmouth: Urbanomic, 2016), 274.

40 Hui, *The Question Concerning Technology in China*, 269–282.

3. “Veduta” on a Fragment of History of Cartography

Cartography, understood as a cultural object that represents and mediates the relationship between humans and social space, also constitutes a point of intersection between technical and artistic practices. Considering the multiple layers (cultural, technical, aesthetic, spatial) through which it is possible to study cartography as a “libidinal set-up,” in the following paragraphs I intend to show how the “reassertion of space” can also be mediated through the “anamnesis” of cartographic technique. I call this process “cartographic anamnesis.” In this section, I examine how this process of “cartographic anamnesis” operates, drawing on the approach developed by Jean-François Lyotard in his doctoral dissertation *Discourse, Figure* (1971), where questions of artistic and literary space assume a decisive role.

In the textual “space” interposed by Lyotard between the first and second parts of this book, there is a fundamental section, entitled “Veduta on a Fragment of the ‘History’ of Desire,” where Lyotard shows how the “figural” operates in the history of Western art and culture. The notion of the “figural” designates both the deconstructive capacity of artistic practice and the drive imparted to human expression by the incessant, transformative work of desire. In *Discourse, Figure* Lyotard shows how this metamorphosis takes place in the sphere of art, in both textual and visual space, thanks to the transgressions that a third space, that of desire-libido, produces through free artistic expression and the dilution of the compositional rules imposed by the stylistic canons inherited from tradition. With respect to these canons, figural expression plays the role of their rewriting: “The critical function of the figural, its work of truth, comes to fruition in relation to a ‘script’ [écriture] and consists above all in the deconstruction of this script.”⁴¹ Lyotard himself shows this, through the interpretation of two illuminated manuscripts of the 11th century, through which he particularly problematizes the articulation of the relationship between textual and figural: the first page of the book of Numbers in the Bible of Saint Martial in Limoges and the beginning of the Book of Generations according to Matthew in the Bible of the Moissac monastery.⁴² In both cases, the illuminated manuscript is not merely decorative, but functions as an inscription: a technological instrument for the transmission of knowledge and the organisation of power relations, opening up specific imaginaries and forms of life. Within the illuminated codes, painting gradually takes on a pedagogical function and the figure becomes a text, a message: “To see will be to hear, like reading—the ‘reading’ of those who cannot read,”⁴³ writes Lyotard. In the case of Moissac, this is the result of the pedagogical method and theoretical approach proposed in those years by

41 Jean-François Lyotard, “Veduta on a Fragment of the ‘History’ of Desire,” in: Jean-François Lyotard, *Discourse, Figure*, trans. Hudek, Anthony & Lidon, Mary (Minneapolis: The University of Minnesota Press, 2011), 160.

42 Lyotard, “Veduta on a Fragment of the ‘History’ of Desire,” 164–174.

43 Lyotard, “Veduta on a Fragment of the ‘History’ of Desire,” 170.

the doctrine of Hugh of St. Victor and his school. Lyotard shows how the basic idea was that the image should be integrated into the biblical text, solely to increase its readability: in this sense, the textual dimension progressively absorbed the visual dimension, to fulfil the indoctrination function.

This oscillation between textual and figural dimensions, central within medieval cultural production, can also be found in different ways in medieval cartography. David Woodward points out that "in the Middle Ages, the word (especially the oral word) was predominant over the image and was prescribed as such by the nature of the biblical narrative and the views of the early church fathers."⁴⁴ A significant example in this regard is the Munich "Isidore" world map, probably inspired by the thought of Hugh of St. Victor.⁴⁵ In the *Descriptio mappe mundi* (1130–1135), the theologian, in fact, provided a detailed description of the geographical knowledge of the time, which followed the same course as the map of Isidore of Munich. In this context, the map performs a pedagogical function markedly different from that of modern cartography and is intended to be read rather than seen, much like the miniature. At the same time, according to Woodward, it is very difficult to provide an unambiguous definition of the "mappamundi," as the term rather referred to a plurality of different devices, that could serve a pedagogical and doctrinal function or be used for navigation—like the so-called "portolans." This means that, as "libidinal set-up," the "mappamundi" could be metamorphosed into different energetic stabilisations, which are also dependent on the social and spatial practices through which it is materialized. We can better understand this aspect if we consider two maps, both dating back to the 13th century, which had extremely different functions and structures: the *Hereford mappamundi* (Fig. 1, 1276–1284) and the *Carte Pisane* (Fig. 2, 1275).⁴⁶ In the "cartographic anamnesis" these maps must be studied not only for their technical value, but also for their aesthetic and cultural aspects.

44 Daniel Woodward, "Medieval Mappaemundi" in *History of Cartography* 1, eds. J.B. Harley & D. Woodward (Chicago: University of Chicago Press, 1987), 286.

45 Jeremy Brotton, *A History of the World in Twelve Maps* (New York: Viking, 2013), 111–112.

46 Woodward, "Medieval Mappaemundi," 290.



Fig. 1: Hereford mappamundi (1276–1284)



Fig. 2: Carte Pisane (1258–1291) - Paris, Bibliothèque Nationale de France

The Hereford map—as Brotton points out—follows the pattern of the Munich map and shows no fidelity to the representation of the territory. Its purpose was, rather, to provide an encyclopaedic view of what the geographical and symbolic knowledge of a man of the Middle Ages must have been.⁴⁷

Represented according to the T-O diagram, with the East at the top and Asia occupying three quarters of the surface, Hereford's map incorporates the most heterogeneous elements and knowledges, which do not, however, follow any orientation criteria in physical terms. Hereford is, in fact, not merely a topological device, but an encyclopaedic,

⁴⁷ Brotton, *A History of the World in Twelve Maps*, 99–101.

mythical tale, and the result of temporal and local multi-layering that coexists across the surface of the map. The textual dimension and the figurative dimension—which plays a preponderant role—seem to constantly encroach upon each other, giving rise to a device that wants to be read, but still requires the eye to learn to inhabit it. Figural activity is found, in this case, in the way the map diagram produces the synthesis between figures and text: their juxtaposition follows, in fact, the logic of faith and the beliefs of the time, shaping a surface of coexistence of heterogeneous narratives, which the cartographic synthesis aims to multiply.

Medieval *mappaemundi* such as Hereford—of monastic origin—did not so much have a practical purpose as a pedagogical and narrative one. This function allows us to differentiate Hereford widely from the Pisan map. This map is classified as a “portolan:” a cartographic device of mercantile origin, mainly functional for navigation. For this reason, the meticulousness in the drawing of the coasts and in the naming of places is counterbalanced by the lack of details, and the total absence of figurative elements. In the *Carte Pisane*, in fact, the textual dimension plays a leading role, in structuring the balance between textual space and figural space: the efficacy of this “libidinal set-up” is the result of the way, extremely innovative for the time, in which the diagram rationalises and facilitates the understanding of the space of navigation, emancipating the user from the religious, cosmological dimension, to which Hereford instead referred.

In each of these cartographic devices, libidinal activity is, therefore, channelled according to certain energy blockages, which produce different ways of articulating the relationship between textual space and visual space. In all cases, the “figural” space is in the interstice between the two dimensions, and acts constantly, but indirectly, on the way the map displaces the established “space of representation,” generating its own. This figural dimension, which we see at work on the surfaces of the two medieval maps with different results, can, however, never be directly visualised or signified. The third space of the figural is, in fact, located in the folds of the map as an “interworld,” through which desire moves freely. This means that, to better understand how the two cartographies as libidinal set-ups work, we cannot just trace their historical framework: we need to question the way in which the libidinal activity as “figural,” that de-construct and re-construct the relationship between texts and figures, works. Questioning the figural means trying to trace its paths or trying to map the “interworld” between them. In other words, if we want to produce a “cartographic anamnesis,” we cannot just study the maps as cultural objects, but we must map the work of desire on them, working through the generative processes of the “interworld” itself. But how can we map this “interworld,” to map the work of the “figural?”

4. Mapping “Interworlds”: Klee, Baruchello and the “Cartographic Anamnesis”

We argued earlier that within the postmodern programme of the “reassertion of space,” counter-cartographic practices can be studied as “cartographic anamneses.” These cartographic anamneses can deconstruct established discourses on space and time as they become interested in the way libidinal activity invests the cartographic “libidinal set-up.” This cartographic anamnesis, however, cannot simply be a study of desire’s activity, but as a working-through process, it is itself a libidinal activity. In other words, to be realised, the “cartographic anamnesis” cannot merely map the libidinal flows that affect cartography as libidinal set-up, but must work through these flows, deconstructing and reconfiguring them in its own way. It must, in other words, provide us with a key to access desire as work, to the “figural” dimension, the “interworld,” that lurks between the meshes of the cartographic libidinal set-up. This is, of course, a process that can never be fully accomplished.

The “interworld” is a term that Lyotard borrows from a dialogue between Paul Klee and the artist Lothar Schreyer, both Bauhaus lecturers.⁴⁸ In this regard, Lyotard writes:

Klee’s interworld is not an imaginary world: it is the displayed workshop of the primary process. Here one does not speak or “see”, one works. In this space, the line records neither the signifiers of a discourse nor the outlines of a silhouette; it is the trace of a condensing, displacing, figuring, elaborating energy, with no regard for the recognizable. [...] Here the invisible is not the verso of the visible, its flip side. It is the unconscious capsized: the potential of plasticity.⁴⁹

The “interworld” is an intermediate, phantasmatic dimension between what is visible and what is sayable and is at the same time a place where plastic possibilities are generated. The process of “mapmaking” of this third space concerns the construction of a work without reference models, which aims at producing a vision that is “not seen by any eye,”⁵⁰ and from which different visual experiences can arise, whose possibilities of signification always remain partial. The vision of the interworld, in fact, is never returned in its entirety,

48 Lyotard reports Klee’s passage: “I have in mind the realm of the unborn and the already dead which one day might fulfil its promise, but which then again might not – an intermediate world, an interworld. To my eyes, at least, an interworld; I name it so because I detect its existence between those exterior worlds to which our senses are attuned while at the same time, I can introject it enough to be able to project it outside of myself as symbol. It is by following this course that children, the mad, and primitive peoples have remained faithful to have discovered again—the power of seeing.” Lothar Schreyer, *Souvenirs: Erinnerungen am Sturm und Bauhaus* (Munich: Langen und Muller, 1956). Cited by Lyotard, *Discourse, Figure*, 446–447 (n. 32).

49 Lyotard, *Discourse, Figure*, 232.

50 Lyotard, *Discourse, Figure*, 348.

but only in the form of a *trace*. If the artist's aim is to return these traces through the work of art, the viewer has the task of learning to observe the painting, always identifying new possible paths of fruition, possible trajectories of vision:

To look at a painting is to draw paths across it, or at least to collaboratively draw paths, since in executing it, the painter laid down, imperiously (albeit tangentially), paths to follow, and his or her work is this trembling, trapped within four wooden slats, that an eye will remobilize, bring back to life.⁵¹

Painting and seeing are, in this sense, two cartographic operations. In the first case, the operation consists in the invention of the diagram—or diagrams—that reveal possible paths of fruition of the work. The painting of Klee, painter of "interworlds", aims at the plastic production of a multiplicity of diagrammatic possibilities. In the case of the spectator, the cartographic operation consists in the multiplication of the mapping strategies of the painting, through the tracing of possible paths to follow during fruition. Any interpretation of the work, in this sense, is destined to remain partial.

To paint (and see) the space of the "interworld" is thus tantamount to deconstructing both the systems of spatial representation (the rules of composition) and the spaces of representation (the imaginaries connected to these) that are implicated in them, not so much to canonise new ones, but to open a glimpse of the dimension through which these spaces and these representations are generated, as a testimony to their compossibility.

Although this "cartographic anamnesis" is not directly proposed or practiced by Lyotard in his reflection on postmodern paintings and spaces, I think this proposal may fit well with the artistic practice of one of the contemporary artists most appreciated by the philosopher: the Italian painter Gianfranco Baruchello, to whom Lyotard has dedicated several essays.⁵² Baruchello's pictorial aesthetics can, in fact, be considered as a counter-cartographic practice that opens alternative ways of producing knowledges and relations about space. His paintings are very often conceived as large, libidinal surfaces, where the coexistence of figures, words, and heterogeneous materials, defined by Lyotard as "monograms,"⁵³ is seamlessly given: the relationship between the textual dimension and the figurative one does not present any kind of hierarchy and the painting is as much to be seen as it is to be read, while failing to suggest an unambiguous interpretation of what is shown.

51 Lyotard, *Discourse, Figure*, 9.

52 See: J.-F. Lyotard, *Pour faire de ton fils un Baruchello*, in *L'Altra casa*, eds. G. Baruchello (Paris: Galilée, 1982); J.-F. Lyotard, "Essay on the Secret in Baruchello's work," in J.-F. Lyotard, *Miscellaneous Texts II: Contemporary Artists* (Louvain: Louvain University Press, 2012), 210–249.

53 J. F. Lyotard, "Essay on the Secret in Baruchello's work," 217.

In this way, the “anamnesis of the visible,” that takes place in Baruchello’s works becomes also a “cartographic anamnesis:” this double anamnesis deconstructs and produces a meta-reflection on both the mechanisms of pictorial representation and the methods and rules of composition of the cartographic image. This discourse, which can be articulated in different ways to Baruchello’s entire production as artist, is corroborated in this case by two particularly significant works in this regard: *La presqu’île intérieure* (*The interior paeninsula* Fig. 5, 1963) and *Rilievo ideale* (*Ideal relief* Fig. 6, 1965).



Fig. 3 Gianfranco Baruchello, *La presqu’île intérieure* (1963), Courtesy of Fondazione Baruchello (Rome)



Fig. 4 Gianfranco Baruchello, *Rilievo ideale* (1965), Courtesy of Fondazione Baruchello (Rome)

In the first case, the painting is a veritable map of a "peninsula" of interiority, whose diagrams, rather than clarifying the horizon of signification, multiply the possible senses. *The interior paeninsula* is a map of the oneiric work – of the painter, as well as of the viewer – which, however, does not attempt to signify this work unambiguously, but to show its irreducible equivocalness. This is a map that disorients and, as such, completely overturns the purpose of the cartographic device itself.

A similar discourse can be made in the case of *Ideal relief*: in this case, the base on which the monograms are represented is an actual model, representing a real relief. The deconstruction of the functions of mapping and control of space generally attributed to these spatial models is made possible by the introduction of "ideal" figures and signs on the surfaces of the relief that completely undermine its initial "space of representation." The model ceases to be a simple detector of the morphology of the territory, to become the theatre of the artist's and his interlocutors' unconscious. In both cases, the cartographies stop referring to real spatial referents, to turn towards potential spaces and relations, yet to be made, yet to be discovered.

Baruchello's works can then be seen as cartographies in two senses of the term: 1) because through the creation of these libidinal surfaces they open possible ways of inhabiting the world; 2) because the free mapping of these surfaces does not only create space, but also time: the viewers, in fact, freely establish their own paths, creating their own memories and stories. As libidinal set-ups, Baruchello's cartographies are also figural surfaces, through which the mapping impulse, as "cartographic anamnesis," becomes a creative, libidinal process, contingent and free. In this sense, as stated by the art critic Dore Ashton, Baruchello, "who is once again being consulted both in his capacity as thinker and his capacity as shaper,"⁵⁴ can be seen as a "new Mercator," which also invites his spectators to become "new Mercators" on their turn. It is cartography, this time, to be overturned and to become something else. The working-through process of the space of representation Baruchello also inherits from Mercator's cartography is the result of the anamnesis that invests at the same time the pictorial object *and* the cartographical device: it does not only put into question the world, through the instruments and the devices thanks to it is conceived and thought, but it invites also to the creation of alternative models of acquisition of knowledges and thoughts: in other words, working through our ways of seeing and conceptualizing the world, *it creates worlds*.

54 D. Ashton, "Gianfranco Baruchello," in *Baruchello: Certain ideas*, eds. A. B. Oliva, C. Subrizi, D. Luckow, P. Weibel & H. Falckenberg (Milan: Electa, 2014), 345.

5. Conclusions

In this contribution, I have highlighted the importance of reflection on spatiality in Lyotard. I then showed how, in postmodern geography, Soja's proposal for a "reassertion of space" includes among its objectives the critique and rethinking of modern cartographic production systems. I went on to show how, in the contemporary practice, it has been counter-cartographic practices that have developed this project, following a process interpretable through Lyotard's notion of "anamnesis." Seeking to show the continuity between the various phases of Lyotardian thought and highlighting the points of contact between this notion and those of "libidinal set-up" and "figural," I introduced the notion of "cartographic anamnesis." Using Lyotardian methods and categories, I have shown how the notion of "cartographic anamnesis" works, first using two examples drawn from the history of medieval cartography, then two "cartographic paintings" by the artist Gianfranco Baruchello.

The cartographic anamnesis concern first and foremost the relationship between the visible and readable dimensions of the map, then between the space that serves as its referent and the user, and finally between the plurality of actors involved in its use. "Cartographic anamnesis" does not therefore take place only from an aesthetic or visual point of view, but also from a technical, historical, and spatial point of view.

In conclusion, in the infinite ways in which cartographic anamnesis allows us to deconstruct our "spaces of representation," we can discover and invent new ones, not only to imagine our living spaces differently, but also to inhabit them.

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Technics, Forgetting, and Recollection: Heidegger, Lyotard, and Stiegler

Franziska Aigner

Abstract

This essay critically examines the relation between technics, forgetting, and recollection in the thought of Martin Heidegger, Bernard Stiegler, and Jean-François Lyotard. The investigation begins by examining how technics from Plato to Heidegger has harboured a deep suspicion towards technics, which is said to pose a threat to philosophical recollection (*anamnesis*) and, by extension, to truth itself. Heidegger's account of modern technics in particular articulates this anxiety by putting forth an account of modern technics as a mode of revealing that simultaneously veils, whereby reducing the world to a standing reserve and precipitating a forgetfulness of being (*Seinsvergessenheit*).

In a second moment, this article will show how for Stiegler, technics is not the enemy of recollection but its very condition. To this end, he offers a compelling critique of Heidegger's reading of the Prometheus myth, Greek mythology's account of the technological condition of the human, in which Heidegger, like many others, omitted the figure of Epimetheus, Prometheus' brother. This article claims that Heidegger's forgetting of Epimetheus is not accidental but symptomatic of a more structural problem, one that shaped Heidegger's philosophical judgments, including, in the last step, his endorsement of National Socialism.

In a third moment, this article will show how Lyotard deepened this critique by shifting attention to Heidegger's silence regarding the Holocaust despite his explicit philosophical project of remembering that a forgetting of being is at work in Western metaphysical thought. Heidegger's only known reference to the Holocaust appears in his 1949 Bremen lecture, where he groups concentration camps together with the industrialization of agriculture and the hydrogen bomb under the name of enframing (*Gestell*). While some interpret this as pointing to a problematic, shared technical essence, Lyotard argues that and how Auschwitz resists representation and thus exemplifies a traumatic aporia that thought essentially cannot grasp.

To address this aporia, Lyotard reads the Freudian critical differentiation between primary (*Urverdrängung*) and secondary repression through Kant's aesthetic theory. This framework will, finally, allow for a critical reconceptualization of the forgetting of technics by philosophy. By reading technics in its relation to philosophy through the lens of primary repression, this essay calls for a different approach to philosophical anamnesis, one that does not so much attempt to remember technics as if it were once known and tragically forgotten, but instead aims to confront the conditions under which technics was never thought to begin with.

Keywords: forgetting, primary repression, technics, Lyotard, Heidegger, National Socialism, Stiegler, Kant, Freud

1. Technics, forgetting, and recollection

For most of its history, European philosophical thought has approached truth as a question and problem of memory and recollection. After all, *aletheia*, the ancient Greek notion of truth, is composed of the negative pre-fix ‘*a*’ followed by the word root *lethe*, which stands for forgetting, oblivion, and concealment. Famously translated by Martin Heidegger as unconcealment (*Unverborgenheit*), *aletheia* designates that which is freed from concealment and as such no longer concealed and forgotten. The corresponding philosophical method of inquiry into truth is subsequently found in anamnestic recollection, which lies at the centre of an aporia, the rearticulation of which provides what Bernard Stiegler called “the very spring of all thought, and notably of modern thought, be it that of Descartes, Kant, Hegel, Husserl, Nietzsche, or Heidegger.”¹ The aporia in question refers to the Sophistic challenge that true and new knowledge is impossible, first posed in both the *Meno* and the *Phaedrus* dialogues penned down by Plato. “The claim is that it’s impossible for a man to search either for what he knows or for what he doesn’t know: he wouldn’t be searching for what he knows, since he knows it and that makes the search unnecessary, and he can’t search for what he doesn’t know either, since he doesn’t even know what it is he’s going to search for.”² Socrates famously articulated the aporia by way of introducing originary knowledge into the equation, which is first acquired by the soul but in a second step tragically forgotten as the soul comes into its body. From here on, forgetting must essentially be thought as the condition of possibility of anamnestic recollection and philosophical inquiry *tout court*, a condition equally articulated from Plato to Immanuel Kant, for whom this originary knowledge preceding all experience was later given the name of the transcendental and said to provide the universal and necessary conditions of the possibility of experience.

On the one hand, then, from Plato until Kant, philosophy has sought truth on the side of not forgetting. On the other hand, that same notion of truth is furthermore pitted against technics from Plato until Kant, Edmund Husserl, and Martin Heidegger, since technics is said to endanger the sought after philosophical, anamnestic recollection as well as the originary knowledge it depends upon.³ In the twentieth century, the threat

1 Bernard Stiegler, *Technics and Time, 1: The Fault of Epimetheus*, trans. Richard Beardsworth and George Collins, (Stanford, CA: Stanford University Press, 1998), 98. Hereafter *TT1*.

2 Plato, “*Meno*,” in *Meno and Other Dialogues*, trans. Robin Waterfield (Oxford: Oxford University Press, 2005), 80e. See also *TT1*, 98.

3 Plato’s *Phaedrus* articulated the technics of writing as an aid for memory and critiqued it for producing a “forgetfulness in the minds of those who learn to use it, because they will not practice their memory,” See Plato, *Plato in Twelve Volumes, Vol. 9*, trans. Harold N. Fowler (Cambridge, MA: Harvard University Press; London, William Heinemann Ltd. 1925), 275a. Kant agreed with Plato in the end of 18th century when, in his *Anthropology from a Pragmatic Point of View* (1796), he repeated that “the art of writing has ruined memory.” Immanuel Kant, *Anthropology from a Pragmatic Point of View*, trans. Robert B. Louden (Cambridge: Cambridge University Press, 2006), 7:184. Husserl went further

of modern technics for anamnestic recollection, truth, and meaning as a whole was most forcefully articulated by Heidegger, who proposed that the essence of modern technics is nothing technical and—under the name of enframing (*Gestell*)—should be recognized as a mode of revealing (*entbergen*) that covers or veils at the same time. Enframing, he argued, challenges the real to reveal itself as a standing reserve (*Bestand*), due to which that which is veiled is revealing as such and thus that “wherein unconcealment, i.e., truth, comes to pass.”⁴ Technics as a whole was subsequently read as the Promethean realisation of metaphysics which fundamentally endangered anamnestic truth and recollection, as it instead leads to a forgetting of being (*Seinsvergessenheit*) as well as an abandonment of being (*Seinsverlassenheit*) in its aggravated form. Technics in its modern instantiation is thus said to affect a crisis in modern thought as a whole, obscuring the deeper, existential meaning of existence.⁵

Heidegger’s articulation of the forgetting (of being) that takes place in all of thought and representation mobilized the ancient Greek myth of Prometheus’ theft of fire, that is, Greek mythology’s account of the technological condition of the human. In a quasi-tragic turn of events, Stiegler shows how Heidegger himself forgot that Prometheus had had a brother named Epimetheus. And without his brother, Bernard Stiegler asserts, “the figure of Prometheus (to be found, for example, in Heidegger’s Rectorate Discourse) *makes no sense by itself*.”⁶ There is, then, a forgetting (of Prometheus’ brother) at work in Heidegger’s discourse, which is here specified as his inaugural address at the University of Freiburg in 1933, in which Heidegger fatefully endorsed Adolf Hitler. Within the blink of an eye, the political stakes of the relation between technics, recollection, and forgetting have come onto the stage. Heidegger, Stiegler argues, forgot about Epimetheus, which lead him to make erroneous, philosophical judgments in his articulation of the question concerning technics and lead him to endorse National Socialism.

In the canonical task of reckoning with Martin Heidegger’s National Socialism, this article contends that Heidegger’s error was less about simply forgetting about Epimetheus in his critique of technics as the Promethean realisation of metaphysics. Rather, I will argue in the following that technics was never fully apprehended by the “system of forces”⁷ called

in diagnosing a crisis of the European sciences 140 years after Kant, arguing that with modernity, the technicization of numeration and calculation both threatens and in fact excludes originary eidetic intuition, leading to a crisis in meaning and apodictic certainty. See Edmund Husserl, *The Crisis of European Sciences and Transcendental Phenomenology*, translated by David Carr (Evanston, IL: Northwestern University Press, 1970). See also Stiegler, *TT1*, 3.

4 Martin Heidegger, *The Question Concerning Technology*, trans. William Lovitt (New York and London: Garland Publishing, 1977), 27.

5 Martin Heidegger, *Wegmarken, GA Band 9* (Frankfurt a.M.: Vittorio Klostermann, 1976), 339.

6 Heidegger, *Wegmarken*, 186.

7 Similarly to how after 1915 Freud shifted his account of the psyche away from the perspective of a subject facing an object towards an idea of psychic experience as an economy of forces and counterforces in his metapsychology, Immanuel Kant’s critical project can be considered as an approach

philosophy to begin with, as it is subject to a more originary, structural forgetting. What was never apprehended cannot be forgotten in the ordinary sense, and can thus also not be remembered in the usual terms of anamnesis. To this end, the article turns to Jean-François Lyotard's reading of the Freudian distinction between primary (*Urverdrängung*) and secondary repression in his book *Heidegger and "The Jews"*, which reads Heidegger's silence on the Holocaust until his death as symptomatic of a primary repression, arguing that what withdraws from Heidegger's thought is not accidental but bound to the very structure of his existential-ontological approach.

This article proceeds in three stages: a first, brief reconstructing of the tradition of anamnesis from Plato to Heidegger and its relation to technics has already been presented in the opening paragraphs; second, I will critically examine Stiegler's attempt to reopen this tradition through the figure of Epimetheus; and third, I will turn to Lyotard to conceptualize a more radical form of forgetting, that is, primary repression. This article advances the claim that philosophy's relation to technics cannot be adequately understood within any straightforward account of forgetting and recollection. Against readings that treat technics as a lost or forgotten object awaiting retrieval, I argue that technics has been subject to a more originary exclusion, analogous to a primary repression. What is at stake, then, is not simply a critique of Heidegger or a correction of Stiegler, but the need for a transformation of philosophical anamnesis itself.

2. Stiegler, Lyotard, and Heidegger

While Heidegger claimed in *The Question Concerning Technology* that the right question concerning technics had not yet been asked prior to his own intervention, Bernard Stiegler prefaces his own inquiry into the conjunction between recollection, forgetting, and technics with a psycho-analytic qualification of the forgetting at work. Employing the category of repression (*Verdrängung*), Stiegler writes that "at its very origin and up until now, philosophy has repressed technics as an object of thought. Technics is the unthought."⁸ For Stiegler, then, technics does not only threaten thought's capacity for

towards science and knowledge and thus ultimately philosophy as a whole as the product of a system of faculties, powers and forces called the understanding, reason, desire, judgment etc. I am employing this Kantian-Freudian account of a system of forces in order to inquire into the nature of forgetting at play in philosophy's age-old relation to technics. Apprehension is here furthermore used in line with the Kantian idiom as the first moment of synthesis that takes up the 'given' in experience. Sigmund Freud introduced his system of metapsychology in a series of essays written between 1915 and 1917, particularly in works like *Instincts and Their Vicissitudes* and *The Unconscious/Das Unbewusste*. See Sigmund Freud, *Gesammelte Werke* (Frankfurt: S. Fischer Verlag, 1968–2006). For apprehension, See Immanuel Kant, *Critique of Pure Reason*, trans. Paul Guyer and Allen Wood (Cambridge: Cambridge University Press, 1998), A165/B206.

8 Stiegler, *TT1*, ix.

anamnetic recollection, as it is itself repressed as an object of inquiry of that very same thought. Subsequently *Technics and Time* should be read as an attempt to remember and think technics philosophically by undertaking a quasi-psychoanalysis of Western thought. To this end, Stiegler undertakes a cross-reading of French paleo-anthropology on the one hand, and ancient Greek mythology as European philosophy's pre-history on the other. Following the French anthropologist André Leroi-Gourhan, who famously put forth the thesis of the "originary characterization of the anthropological by the technological,"⁹ Stiegler argues that technics is the originary supplement of the human. In "default of origin,"¹⁰ the human is essentially said to be supplemented by a technical prosthesis that functions as a special kind of memory and which Stiegler terms epiphylogenesis.¹¹ Epiphylogenesis designates the accumulation of individual experiences and traces inscribed in technical artefacts that function as external memory supports of a past that none of us have lived, but that mediates and opens us onto the world. Stiegler also refers to this notion of epiphylogenesis as the "already there."¹² The nomenclature invoked by Stiegler reveals that at stake in Stiegler's account of technics as epiphylogenesis is nothing but an encompassing critique of Heidegger's notion of the "already there," arguing that Heidegger has essentially forgotten about the originary prostheticity of the "already there" constitutive of being (*Dasein*) in his existential analytic.¹³ This critique by Stiegler goes to the heart of the Heideggerian project as it argues that Heidegger forgot that being is always already technical, despite his explicit attempt to ask the question concerning technics.¹⁴

The second path taken by Stiegler in his psycho-analytic project of remembering technics performs a close reading of Hesiod and Plato's respective accounts of the myth of Prometheus' theft of fire. Central to Stiegler's interpretation of the myth is the fact that the titan Prometheus in fact had a brother called Epimetheus. While Prometheus is the figure of foresight, prescience, and anticipation, Epimetheus is the figure of thought that comes too late and of forgetting, who is ironically himself forgotten in many iterations and interpretations of the myth, including most notably by Heidegger in his 1933 Rectorate Discourse. Heidegger famously took over the rectorate at the University of Freiburg in 1933, for the occasion of which he delivered his historic inaugural address entitled *The Self-Assertion of the German University* (*Die Selbstbehauptung der deutschen*

9 TT1, 25.

10 TT1, 114.

11 Stiegler, TT1, 140.

12 Stiegler, TT1, 204–238.

13 Stiegler, TT1, 16. See also Franziska Aigner, "Confronting the Technical Aporia: Heidegger's and Stiegler's Technics-thinking," *Technophany* 1, no. 2 (2022–2023).

14 See also Franziska Aigner, *Kant and Technics* (London: Bloomsbury Publishing, 2024), 41–56.

Universität).¹⁵ Famously containing his endorsement of Adolf Hitler, Heidegger joined the NSDAP ten days later. The second path taken by Stiegler in his psycho-analytic project of remembering technics consequently articulates Heidegger's forgetting of Epimetheus within the context of Heidegger's Nazism.¹⁶

Stiegler was, however, not the first to have inquired into the nature of Heidegger's own forgetting in relation to his Nazism. In 1988, Jean-François Lyotard argued that there is a problematic paradox at the centre of Heidegger's thought, since "how could this thought (Heidegger's), a thought so devoted to remembering that a forgetting (of Being) takes place in all thought, in all art, in all 'representation' of the world, [...] how could this thought forget and ignore 'the Jews' to the point of suppressing and foreclosing to the very end the horrifying (and inane) attempt of exterminating [...]"¹⁷ Differently to Stiegler, who critiqued Heidegger for his forgetting of the technical condition of the "already-there" as well as his forgetting of Epimetheus in his reading of the Promethean myth, Lyotard's critical investigation revolves around the fact that Heidegger remained silent about the National Socialist project of genocidal extermination until his death in 1976. And indeed, the hitherto published contents of the *Heidegger Gesamtausgabe* refer to the Holocaust, that is the systematic extermination of the Jews, Roma, Sinti, as well

15 Martin Heidegger, Karsten Harries, and Hermann Heidegger, "The Self-Assertion of the German University: Address, Delivered on the Solemn Assumption of the Rectorate of the University Freiburg The Rectorate 1933/34: Facts and Thoughts" trans. Karsten Harries, *The Review of Metaphysics* 38, no. 3 (1985).

16 The political consequences of Heidegger's forgetting alluded to by Stiegler remain contained to a parenthesis in Stiegler's text. The context of the parenthesis is of course Stiegler's discourse on Epimetheus, which is itself made possible by the work of French classicist Jean-Pierre Vernant, who was able to 'remember', as it were, that Prometheus had in fact had a brother. Stiegler's alignment with Vernant indicates the political vector contained in Stiegler's technics-thinking, because history tells us that Vernant joined Liberation-Sud and thus the Strasbourg chapter of the French resistance against the National Socialist occupation of France together with other prominent French thinkers such as Georges Canguilhem and Jean Cavailles. After the end of the Second World War, Vernant no longer seemed to harbour philosophical ambitions of his own, as he instead turned to read ancient Greek thought and mythology. The forgetting of Epimetheus, the forgetful one, Vernant's work suggests, was dangerously consequential. If one wants to arrive at a different conclusion intellectually, philosophically, and politically than Heidegger and others, who embraced fascism at a fateful moment in history, one needs to re-interpret the myths from which European philosophy emerged and derives its meaning. This reading of Vernant's role and place within French post-war thought was presented by Howard Caygill in a series of lectures in Philosophy of Technology at the Centre for Research in Modern European Philosophy at Kingston University, London in 2016. It remains to be shown, however what the figure of Epimetheus, the forgetful one, could contribute to an anti-fascist re-orientation of philosophy as a whole and of technics-thinking in particular. It is my understanding that Stiegler's technics-thinking should essentially be re-interrogated in light of this question. The second question of the relation between Heidegger's forgetting of Epimetheus and his alignment with National Socialism demands a deeper investigation into the nature of forgetting at stake, which will be undertaken in the remainder of this essay.

17 Jean-François Lyotard, *Heidegger and "The Jews,"* trans. Andres Michel and Mark Roberts (Minneapolis: University of Minnesota Press, 1990), 4.

as other people and groups considered enemies by National Socialist Germany, in one brief moment alone. In 1949, Heidegger delivered a lecture in Bremen entitled *Das Gestell* (Enframing),¹⁸ which would later provide the preparatory material for the 1954 publication of *The Question Concerning Technology*, which, without a doubt, became Heidegger's most important philosophical writing on technics. Heidegger's lecture notes for the Bremen lecture were posthumously published in 1994,¹⁹ and contain the following: "Agriculture is now a mechanized food industry; in essence it is no different than the production of corpses in the gas chambers and death camps, the embargoes and food reductions to starving countries, the making of hydrogen bombs."²⁰ The later published *The Question Concerning Technology*, however, no longer contains any reference to gas chambers and death camps. The genesis of Heidegger's thought of enframing from lecture to publication thus demands to ask the question concerning Heidegger's thought on technics in light of his National Socialism.

On the most general level, Heidegger distinguishes the pre-industrial, artisanal *techne* from the mode of revealing of modern, industrial *Technik*. While *techne* and *Technik* are surely both modes of revealing, Heidegger proposes that the revealing of the artisanal *techne* is a mode of revealing by way of bringing forth (*poiesis*) and technical knowledge, while modern technics challenges the real to reveal itself as what he calls standing reserve (*Bestand*). As a standing reserve, the real no longer comes into view as an object (*Gegenstand*), as it is instead subjected to acts of "unlocking, transforming, storing, distributing and switching."²¹ It is this demand of generating and storing energy that fundamentally distinguishes modern technics from its pre-modern instantiation according to Heidegger, and which is characteristic of enframing (*Gestell*). Enframing thus essentially designates this instrumental mode of revealing that challenges the real to reveal itself as a standing reserve, as a demand directed to nature "to supply energy that can be extracted and stored as such."²² In the Bremen lecture, Heidegger then proposes that the Holocaust, the hydrogen bomb, as well as the mechanized food industry are three examples of this particular mode of revealing that is characteristic of modern, industrial technics. Mahon O'Brien argues that while it might well appear as morally reprehensible to draw up a list containing National Socialist concentration camps next to the mechanized food industry or the splitting of the atom, Heidegger is nevertheless right to draw our attention to the

18 Martin Heidegger, "Bremer und Freiburger Vorträge," in Heidegger Gesamtausgabe 79, ed. Petra Jaeger (Frankfurt a.M.: Vittorio Klostermann, 1994), 27.

19 Heidegger, "Bremer und Freiburger Vorträge," 79.

20 Heidegger, "Bremer und Freiburger Vorträge," qtd. in Lyotard, *Heidegger and "The Jews,"* 85.

21 Heidegger, *The Question Concerning Technology*, trans. William Lovitt (New York and London: Garland Publishing, 1977), 16.

22 Heidegger, *Question Concerning Technology*, 14

fact that there is indeed a common way of revealing at work in each of these instances.²³ One finds a comparable argument in Gunkel and Taylor's *Heidegger and the Media* when they write that "it is critically important to note here that Heidegger is not saying that the mechanization of agriculture and the extermination camps are equivalent phenomena. Instead, the similarity being alluded to is one of essence, and it is this conceptualization that has profound implications for our understanding of media as an integral part of a diverse technological environment that shares certain essential features."²⁴ At stake in both O'Brien as well as Gunkel and Taylor's defences of Heidegger's position is thus the argument that the examples mentioned in the Bremen lecture point to a particular mode of revealing that is itself the work of the essence of modern technics called enframing.

In foregrounding the shared structure of enframing as the operative logic behind the series of phenomena referred to by Heidegger, both accounts tend to subordinate the historical and ideological specificity and responsibility of National Socialist Germany to a more general, higher order technological framework called enframing.²⁵ What comes to the fore, then, is a rash techno-pessimism in each of the authors that radically underestimates the essentially pharmacological nature of technics and thereby the ambiguity at the heart of any and all technical prosthesis to both save and condemn us. At the same time, any argument premised on the claim that something was ever actually brought forth or revealed (*entbergen*) in Auschwitz seems to radically misunderstand the nature of the undertaking. Moishe Postone famously argued that National Socialism transformed labour into an extermination rather than production device, with Auschwitz essentially functioning as a "factory to 'destroy value'."²⁶ But for Heidegger, Lyotard writes, the Holocaust attests "to a mutation of the *mise-en-scène* itself, that is, in Heidegger's terms, of the way in which the Being of beings gives itself to and hides itself from *Dasein*, a way that is no longer tragic, but rather technological."²⁷ And the danger that consequently emanates from this technological mode in which Being (un)veils itself is "equally revealed"²⁸ in each of the examples, such is Heidegger's claim, be it agriculture or Auschwitz. In a different way to Postone, Lyotard contends, that rather than revealing, one is faced with an impasse and

23 Mahon O'Brien, "Re-assessing the 'Affair': The Heidegger Controversy Revisited," *The Social Science Journal* 47 (2010): 13.

24 David Gunkel and Paul Taylor, *Heidegger and the Media* (Cambridge: Polity, 2014), ix.

25 See also Emmanuel Faye, *Heidegger: The Introduction of Nazism into Philosophy* (New Haven, CT: Yale University Press, 2009), 272.

26 "A capitalist factory is a place where value is produced, which 'unfortunately' has to take the form of the production of goods. The concrete is produced as the necessary carrier of the abstract. The extermination camps were not a terrible version of such a factory but, rather, should be seen as its grotesque, Arian, 'anti-capitalist' negation. Auschwitz was a factory to 'destroy value', i.e., to destroy the personification of the abstract." Moishe Postone, "Anti-semitism and National Socialism: Notes on the German Reaction to 'Holocaust'," *New German Critique* 19, no. 1 (Winter 1980): 114.

27 Lyotard, *Heidegger and "The Jews"*, 86.

28 *Heidegger and "The Jews"*, 86.

thus something that precisely “does not come to be thought”²⁹ in Heidegger’s attribution of the Holocaust to enframing. This impasse of thought contained in the imputation of Auschwitz to enframing furthermore fails to provide an adequate answer to the question of why enframing has predominantly targeted the Jewish people over and against others. “As much as it can make sense of the effects that touch on economic, scientific, and technological development, on nuclear energy, agribusiness, and underdevelopment, among others (among those no less shocking, which, under the name of ‘culture’ touch upon language and *aisthesis*), it leaves in the dark, ‘in the shadows,’ that is to say, on the side, untouched, the ‘reason’ (since one is now under the requirement to give reasons) why ‘the Jews’ were chosen to prove, in all the senses of the term, that sort of ‘effect.’”³⁰ Lyotard point is thus that Heidegger’s only reference to National Socialist extermination camps in his preliminary reflections on enframing in his Bremen Lecture attempts to think concentration camps without its victims, that is, without both care for or knowledge about the subjects of genocidal extermination.³¹

3. Two Kinds of Forgetting: Lyotard, Kant, and Freud

Heidegger’s imputation of the Holocaust as yet another effect of the curiously untechnical essence of technics in his Bremen Lecture remained the only known instance in which he explicitly referred to the Holocaust. It is this circumstance, which ultimately led Lyotard to ask how Heidegger’s thought so committed to remembering the forgetting inherent in thought, art, and representation - particularly the forgetting of Being - could itself overlook and remain silent about the National Socialist genocidal project of annihilation. Lyotard addresses Heidegger’s symptom by way of a double-articulation between the Freudian two-fold notion of repression on the one hand, and the Kantian differentiation between

29 Postone, 87.

30 Heidegger and “The Jews”, 88

31 Acknowledging that National Socialist persecution also targeted Roma and Sinti, homosexuals, political dissidents, and others, Lyotard mobilized the phrase ‘the Jews’ not as an empirical category alone, but as a philosophical figure for what Western thought persistently seeks to exclude, forget or even foreclose. In his account, ‘the Jews’ name a structural position within the history of the West: the sign of what resists assimilation to its drive for mastery and control. This distinction does not attribute any inherent quality to the Jewish people. Rather, it marks a place assigned to them within Western metaphysics. Heidegger’s forgetting of the victims of the National Socialist project of genocidal extermination is thus itself read as a paradoxical symptom of this tendency of suppression and forgetting by Lyotard. Moishe Postone on the other hand argues that modern antisemitism specifically targets Jews not as an inferior race or people, but as a symbolic representation of abstract, global, and intangible power and thus ultimately capitalism itself. Antisemitism consequently misidentifies the source of capitalist domination by projecting systemic problems onto a supposed invisible global power of international Jewry. This distorted critique allows antisemites to engage in a vulgar form of anti-capitalism while reinforcing its structure by scapegoating Jews instead of understanding the dynamics of capital itself. See Postone, “Anti-semitism and National Socialism: Notes on the German Reaction to ‘Holocaust’”

the beautiful and the sublime in his aesthetic judgment on the other. There is, Lyotard argues, a structural analogy between the two-fold Freudian notion of forgetting on the one hand, and Kant's distinction between the beautiful and the sublime on the other, with the beautiful mapping onto what according to Freud's metapsychology is called secondary repression, and the sublime mapping onto what Freud calls *Urverdrängung*, that is, primary repression.³² This double-articulation is all the more interesting because, as first pointed out by Philippe Lacoue-Labarthe, Heidegger's political amnesia finds itself mirrored in the domain of aesthetics. Essentially, Lacoue-Labarthe argues, Heidegger could not think the sublime (*das Erhabene*).³³

Kant's *Critique of the Power of Judgment* (1790) starts from the peculiar problem that, despite his adamant claim to have enumerated all of the universal and necessary conditions of objects of experience in the *Critique of Pure Reason* (1781), there are a number of unruly, disobedient things that successfully resist these supposedly universal and necessary conditions. In the face of these unruly things, specified as beautiful and living things, the understanding and its a priori concepts become powerless; while we may well encounter unruly things, they can never be remembered and thus equally not anticipated by the understanding under the name and a priori rule of the transcendental. Kant famously proposes that one can nonetheless *make sense* of these unruly things upon their encounter according to an altogether different principle, which he terms purposiveness (*Zweckmäßigkeit*).³⁴ Some unruly things are then judged to be beautiful. What this means is that on the level of the cognitive faculties a certain harmony and pleasure is enacted - they are purposive *for us*. There is however a second kind of unruly thing that is of quite a different nature, since rather than being accompanied by the feeling of pleasure and harmony, it is formless, overwhelming, and painful for our faculties. This is the case, because when it comes to the sublime (*das Erhabene*), the power of imagination attempts to grasp an appearance in nature which carries a sense of infinity with it.³⁵ And it is the subsequent experience of the inadequacy and disproportion between the attempted apprehension of this infinite phenomenon and its comprehension in the process of what Kant calls synthesis, which gives rise to the feeling of the sublime in us. Something is too big, too much, or too intense, due to which it cannot be apprehended, anticipated, and altogether introduced into the mental apparatus in the same way that other objects can.

32 Lyotard, *Heidegger and "The Jews,"* 5

33 Lyotard, *Heidegger and "The Jews,"* 4.

34 Immanuel Kant, *Critique of the Power of Judgment*, trans. Paul Guyer and Eric Matthews (Cambridge: Cambridge University Press, 2000), 5:180.

35 Ultimately, Kant will contend that we can never encounter the infinite in nature but that it reveals to us that there is something in us that is infinite and which causes the disproportion between our reason and nature characteristic of the feeling of the sublime. So, even though we might say that the Egyptian Pyramids or a stormy sea are sublime, it is actually my own mind that is sublime. There is something in me, which is too big for my finite presentation and which points to the supersensible capacity of my own thinking. See Kant, *CJ*, 5:254-257.

The imagination cannot do its work and the resulting affect is not only not pleasurable, it is explicitly said to be painful.

Lyotard reads the Kantian notion of the sublime through Freudian primary repression and from the vantage point of Freud's meta-psychology, which considers the psychic apparatus a system of forces.³⁶ This means that rather than thinking from the perspective of a subject facing an object, Freud thinks psychic experience through the perspective of an economy of forces and counterforces. Analogously to Kant's notion of the sublime, there can be, such is Freud's astonishing proposition, a stimulus which is so great that this system of forces (psychic apparatus) has no capacity of dealing with it. What emerges from this encounter, subsequently, is not a trauma in the 'usual' sense, meaning a destruction of the system of forces, a collapse, or a flooding. Rather, the stimulus was never apprehended, meaning that it has never been presented, never been taken up, and thus no affect in the psychic apparatus was ever caused; it is a stimulus about which the psychic apparatus has no knowledge of. And since the psychic apparatus has not been affected nothing needs to be forgotten or repressed either, there is no need to get rid of anything neither, because nothing was registered or apprehended in the first place.³⁷ This is the case, Lyotard writes, because "its 'excess' (of quantity, of intensity) exceeds the excess that gives rise (presence, place, and time) to the unconscious and the preconscious. It is 'in excess' like air and earth are in excess for the life of a fish."³⁸ Just how much Lyotard thinks primary repression through the sublime and vice versa is apparent in the differentiation of this stimulus in excess into quantity and quality, which also differentiates the mathematical from the dynamical sublime according to Kant.³⁹ When it comes to primary repressions, no one is affected and thus the silence that follows from the stimulus is caused by the fact that the psychic apparatus itself did not register anything. While there is surely a forgetting which concerns particular representations that are forgotten and that can be undone through recollection, neither Kant's notion of the sublime nor Freud's primary repression can ever be inscribed into memory, be it conscious or unconscious. What this means is that neither primary repressions nor the sublime are subject to recollection in the same way that secondary repressions are.⁴⁰ It is not that something was repressed or forgotten. No

36 Sigmund Freud introduced his metapsychological system of forces in a series of essays written between 1915 and 1917, particularly in works like *Instincts and Their Vicissitudes* and *The Unconscious/Das Unbewußte*. See Sigmund Freud, *Gesammelte Werke* (Frankfurt: S. Fischer Verlag, 1968 – 2006).

37 Sigmund Freud, "Die Verdrängung," in *Gesammelte Werke* X, 109; Sigmund Freud, "Das Unbewußte" in *Gesammelte Werke* X, 136.

38 Lyotard, *Heidegger and "The Jews,"* 12.

39 For Kant, the experience of the sublime generates a feeling of counter-purposiveness, because the imagination proves inadequate to present what appears absolutely great or powerful. Yet this very inadequacy occasions a second-order judgment, in which the mind will recognize its supersensible vocation. Kant thus realized that the moral feeling of respect articulated in his *Critique of Pure Practical Reason* required an aesthetic supplement, that is, the feeling of the sublime.

40 Lyotard, *Heidegger and "The Jews,"* 5.

one has heard anything and thus there is nothing to say about it.⁴¹

And yet, something will be felt at a later point. A feeling remains, which evidences the fact that something has found its way inside despite the fact that it has never been transformed into an object that the psychic apparatus can 'do' anything with.⁴² Whatever has found its way inside, remained in the form of potential energy rather than as a localizable object in the psychic topology. It was Freud's clinical observations which pushed him to conclude that there must be such a thing as an unconscious affect, even if it sounded like a paradoxical proposition to him.⁴³ He was quick to point to the absurdity of his proposition since, usually speaking, the affected is taken to be the only witness of the affect. When it comes to the paradoxical unconscious affect, he then proposed that the remaining potential energy causes a feeling (most often of anxiety) at seemingly bizarre moments, and it is because of this feeling that consciousness can, under certain circumstances, realize that something did happen, even if nothing can be recalled or represented.⁴⁴ In the face of this sublime threat of forgetting that is primary repression, the task of both psychoanalytic intervention and philosophical anamnesis, according to Lyotard, is, then, to introduce both events, the first stimulus without affect and the second affect without stimulus into a chronology, in order to locate "the first and the second blow, inscribing its plot on the tape of life."⁴⁵ The task of psychoanalysis, following Freud, is thus to find a guiding thread between the first and second event. Following from this, Lyotard argues

41 "For the silence surrounding the 'unconscious affect' does not affect the pragmatic realm (the transfer of a meaning to the listener); it affects the physics of the speaker. It is not that the latter cannot make himself understood; he himself does not hear anything." Lyotard, *Heidegger and "The Jews,"* 12.

42 Lyotard, *Heidegger and "The Jews,"* 17.

43 Freud, "Das Unbewußte" in *Gesammelte Werke* X, 136.

44 The question, philosophically speaking, is how this energy, the shock, the stimulus, could get inside the psychic apparatus in the first place, which is equally a problem for Freud as for Kant, since how can the beautiful and the sublime be taken up into the Kantian mind (*Gemüt*) in the first place. Kant solves this problem by way of inventing the category of reflective judgment and thus a hypothetical restriction, by way of which an unruly thing is related to the subject alone meaning that no giveable object is properly speaking sublime. According to the *Critique of the Power of Judgment* no object of nature must properly speaking be called sublime for Kant. Rather, there is something in us that is unsuitable to our power of presentation. Reason and its ideas are infinite and are thus in disharmony with our finite existence. The Kantian question is essentially how I, as a thoroughly finite being can have an infinite idea that is absolute, absolutely great? I am sure to have such an infinite idea, because I can feel it. There is something in me, which is too big for my finite presentation, because it is absolute. The sublime thus points to the supersensible capacity of our own thinking. See Kant *Critique of the Power of Judgment*, 5:180-204. Freud here transgresses the Kantian limit and offers a variety of different theses throughout his career for what might cause a primary repression (love for the father, incest etc.). What combines all of them, is that the psyche was underprepared, or perhaps, we might want to say, that it can never be fully prepared. In Lyotard's reading of Freud, the psyche was not mature enough, meaning that minority, or childhood as a whole, is here proposed, as an incapacity of presenting something, of combining something.

45 Lyotard, *Heidegger and "The Jews,"* 20.

that it is not only important to account for the two-fold nature of repression, but that it is furthermore important to not conflate primary repressions with secondary ones. This is the case, because any straightforward attempt to remember or represent a primary repression entangles thought in a series of contradictions and further displacements as well as further forgetting.

Whenever one represents, one inscribes in memory, and this might seem a good defense against forgetting. It is, I believe, just the opposite. Only that which has been inscribed can, in the current sense of the term, be forgotten, because it could be effaced. But what is not inscribed, through lack of inscribable surface, of duration and place for the inscription to be situated, what has no place in the space nor in the time of domination, in the geography and the diachrony of the self-assured spirit, because it is not synthesizable - let us say, what is not material for experience because the forms and formations of experience, be they unconscious (those which are produced by secondary repression), are inapt and inept for it cannot be forgotten, does not offer a hold to forgetting, and remains present "only" as an affection that one cannot even qualify, like a state of death in the life of the spirit. One must, certainly, inscribe in words, in images. One cannot escape the necessity of representing. It would be sin itself to believe one self safe and sound. But it is one thing to do it in view of saving the memory, and quite another to try to preserve the remainder, the unforgettable forgotten, in writing.⁴⁶

46 Lyotard, *Heidegger and "The Jews,"* 26. An expression of the contradictions and difficulties that arise if primary repressions are misrecognized as secondary ones might be found in present day German memory culture (*Erinnerungskultur*) and its project of remembering the Holocaust by way of public memorials and educational, pedagogic projects. Its self-ascribed explicit aim is most certainly to ensure that a catastrophe like the Holocaust will never happen again. The argument, as so lucidly laid out by Aleida Assman, is that the twentieth century was witness to a critical threshold of what forgetting can afford, meaning that if genocide, crimes against humanity and violations of basic human rights stand between the present and the past, there is an ethical duty to remember this past and resist the resolve of forgetting. See Aleida Assmann, *Formen des Vergessens*. Göttingen: Wallstein, 2016. Present-day unconditional support of the state of Germany for the state of Israel in its open ended occupation of various Palestinian, Syrian, and Lebanese territories, the ethnic cleansing of the Palestinian people from their UN-mandated land, as well as its ongoing genocidal war in Gaza following the events of October 7th 2023 raises questions whether Germany has drawn the adequate political and moral conclusions from its memory practices. To this end, Sami Khatib writes that "from the perspective of German *Staatsräson* (reason of state), the unconditional support of the state of Israel, regardless of the mode of its existence, proves Germany's success in moral redemption and material reparation for the Holocaust. In this way, Israel's existence becomes the external embodiment of Germany's post-Holocaust goodness. Within this imaginary universe, Israel is not a real place but the narcissistic mirror image of Germany's goodness [...]. For such a mindset, it is inconceivable (both cognitively and emotionally) to imagine the state of Israel as a state actor of war crimes, systematic human rights abuses, apartheid policies or genocide." Sami Khatib, "Against Singularity: Palestine as Symptom and Cause" *Radical Philosophy* 2.16 (Summer 2024): 24. Thinking back to Lyotard, present-day German

4. The Question of Technics in Light of Primary Repression

The beginning of this article has shown how philosophy's relation to technics has historically oscillated between suspicion, suppression, and neglect. This pattern can equally be recognized in twentieth-century philosophy, where explicit engagements with technics are repeatedly accompanied by accusations that predecessors have still failed to think it adequately, reproducing the very forgetting they seek to overcome. This article has shown how Heidegger surely self-reflexively argued that the right question concerning technics had not yet been asked prior to his own intervention, only to be diagnosed by Stiegler with a further two-fold forgetting of technics, both concerning his notion of the 'already-there' as well as his forgetting of Epimetheus. Gilbert Simondon, Heidegger's French techno-optimist contemporary, radicalizes this diagnosis by arguing that modern culture as a whole has constituted itself as a defensive system against technics, as it oscillates between two opposed yet equally reductive attitudes, either reducing the technical object to pure matter assembled as a means for human ends, or to the myth of the robot harbouring adversarial and hostile intentions towards the human. Technics, he argues, is either conceived as an object of mastery or as an uncontrollable force, either as entirely corruptible and without essence or as a bearer of hostile intentions, sometimes at the same time.⁴⁷ Both positions, according to Simondon, fail not only to account for the mode of existence of technical objects, but function precisely as defences against such knowledge, because culture as a whole "has constituted itself as a defence system against technics."⁴⁸

Simondon's notion of defence, in a similar way to Lyotard's reading of primary repression, diagnoses not a mere failure of interpretation or a recoverable forgetting when it comes to technics. It rather points to an originary exclusion of technics from the world of meaning, due to which technical knowledge has hitherto returned in distorted, defensive forms, furthering feelings of anxiety, alienation, and resentment. Thinking philosophy's relation to technics with both Simondon and Lyotard, the argument advanced here is not that

memory culture in its manifold projects of remembering and atoning for its historical crimes appears to be working more towards the salvation of German memory by way of forgetting anew, rather than participating in the necessary task of preventing another genocide, only this time against the Palestinian people. In this regard, Lyotard points out that "to make us forget the crime by representing it is much more appropriate if it is true that, with 'the Jews,' it is a question of something like the unconscious affect of which the Occident does not want any knowledge. It cannot be represented without being missed, being forgotten anew, since it defies images and words. Representing 'Auschwitz' in images and words is a way of making us forget this." Lyotard, *Heidegger and "The Jews"*, 24. The danger of misrecognizing primary as secondary repressions is thus that it is a fundamentally different thing to remember "in view of saving the memory, and quite another to try to preserve the remainder, the unforgettable forgotten, in writing." Lyotard, *Heidegger and "The Jews"*, 26.

47 Gilbert Simondon, *On the Mode of Existence of Technical Objects*, trans. Cecile Malaspina and John Rogove (Minneapolis: Univocal, 2017), 17.

48 Simondon, *On the Mode of Existence of Technical Objects*, 15.

technics itself constitutes a primary repression, but that philosophy's relation to technics is structured as such. The claim is methodological rather than ontological. While primary repression in psychoanalysis designates a pre-symbolic condition of psychic possibility, it is mobilized here as a critical tool for interrogating the limits of philosophical recollection. Lyotard's reading of Heidegger demonstrates that the existential-ontological approach inherited from Heidegger remains governed by a logic of anamnesis, according to which what withdraws is nonetheless presumed to have been available to disclosure. It is certainly true that Heidegger's own understanding of anamnestic recollection was acutely aware of its interminable character, insisting that truth is not the unveiled but the movement of unveiling itself.⁴⁹ But both his own forgetting and silence reveal that there has always been 'something' that withdrew from Heidegger's self-reflexive promise of anamnestic working through, there has always been "a region that it does not open, that will remain closed, fallen, abject, outside its project."⁵⁰ And while Stiegler decisively foregrounds technics as constitutive of temporality and experience, his project nevertheless remains oriented towards a horizon of retrievability. His decisive contribution lies in demonstrating that technics is not an external supplement to human experience but a constitutive condition of temporality and individuation. However, his pharmacological framework ultimately reinscribes technics within a horizon of retrievability. From the perspective developed here, this remains insufficient. By lacking a distinction analogous to that between primary and secondary repression, Stiegler risks treating the exclusion of technics as a recoverable forgetting, rather than as a structural limit of philosophical recollection itself that exceeds the conditions of recovery altogether. What his pharmacology cannot fully account for is a technics that was never apprehended in the first place.

To think technics in light of primary repression requires a decisive shift in philosophical method. Rather than approaching technics through a logic of retrieval or recovery, philosophical reflection must reckon with what was never available to inscription, representation, or synthesis in the first place. This does not entail abandoning the concept of anamnesis but instead recognizing its limits. Only on this basis can the relation between technics and the human be thought beyond the recurrent logic of fear, anxiety, and defensive projection. The present argument has been limited to establishing the necessity of such a shift. Its concrete philosophical, political, and technical articulations will need to be addressed next.

49 Lyotard, *Heidegger and "The Jews,"* 60.

50 Lyotard, 64.

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