

## The dance with technology

*Philosopher Yuk Hui (Erasmus Rotterdam) on technological (in)humanity*

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### Introduction

*The primordial dance between humans and technology is a dance of life and death, leads to our mummification if we do not ensoul it in time.*

In his book *Recursivity and Contingency* (2019), Honkongese philosopher Yuk Hui compares human thinking with artificial intelligence and comes to an interesting conclusion in his historical research. When it comes to reasonable, logical thinking, humans and machines have long since ceased to differ. According to Yuk Hui, given the current cybernetic developments, we must take into account pitch-black futures, as already sketched at the end of the last century by the most critical philosopher of the time, J.F. Lyotard. Nevertheless, the tide might be turned in time, if we have a keen eye for the diversity of manifold technologies.

Yuk Hui's *Recursivity and Contingency* is craftsmanship in the best philosophical tradition, as well as highly topical to a cluster of the biggest problems and challenges of our time. We face seemingly unstoppable and almost autonomous developments of cybernetics, occurring e.g in A.I. and robotics. These developments are steering most governments, companies, national and transnational processes of production, trade, transport, traffic, money flows and so on. Guiding Yuk Hui's analysis is *organology*, which he very extensively embedded in history as an epistemic paradigm since Kant and the German idealists.

This paradigm, according to Yuk Hui, first resulted in an *organist* technology. By this he means a technical materiality that can organise itself the way organic life forms can organise themselves. Yuk Hui speaks of *organizing inorganic*, surpassing an *organized inorganic*. The challenge for philosophy is then to place this "organistic" form of organology in a wider and broader framework, namely that of full-blown living as it does not merely pre-occupy itself with control, mastery, reducing everything to the most efficient system.

I will first briefly introduce Yuk Hui, and then summarize his penultimate major work, *Recursivity and Contingency*. This book concludes with a chapter on Lyotard, in which Yuk Hui seeks new ways towards technodiversity and what he calls *cosmotechnics*. Not being an expert on technology myself, I rely on Yuk Hui's statement that a philosophy that does not engage with technology can no longer be a philosophy to be taken seriously at all. Finally, I will make some comments on Yuk Hui's interpretation of Lyotard, and in particular with regard to the concept of *differend*. The term *Widerstreit*<sup>1</sup> (differend) does not appear in *Recursivity and Contingency*, which I think is symptomatic of the limited space that ethics, or at least philosophical ethics, *explicitly* occupies in Yuk Hui's work.. This is not to say that he would have no eye or understanding for it. However, I do think that the *ethical differend* is

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<sup>1</sup> Differend in Dutch is *strijdigheid*, whereas the German *Widerstreit* is more to the point

insufficiently addressed in his philosophy of technology, and I will elaborate on that in the second part of my review.

## **Yuk Hui**

Yuk Hui has held the chair of the Human Conditions research programme at the Erasmus School of Philosophy as professor since September 2023. A chair established after Jos de Mul's departure as professor of philosophical anthropology last year. Human Conditions deals with questions about social and ecological crises and the growing technological complexity of our living world. These questions call for constant reflection on who we are as human beings.

After studying Computer Engineering at the University of Hong Kong, Hui completed his PhD with French philosopher Bernard Stiegler at Goldsmiths College in London. In 2020, he obtained his Habilitation in philosophy of technology from Leuphana University in Germany. Hui has already devoted several books to that philosophy of technology: *On the Existence of Digital Objects* (2016), *The Question Concerning Technology in China: An Essay in Cosmotechnics* (2016), *Recursivity and Contingency* (2019), and *Art and Cosmotechnics* (2021), all of which have been translated into many languages: German, French, Japanese and so on but unfortunately not yet in Dutch. His next book, *Machine and Sovereignty* (2024), will be published this year by the University of Minnesota Press.

Hui's work has been praised for fostering a discourse that bridges European and Chinese philosophy, art, technology and media theory, extending his influence beyond academic circles.

His position on artificial intelligence deviates from the dominant view, which expects this technology to reach a point where it will either free us from our jobs or cost us very dearly. In contrast, Yuk Hui seeks to understand how our relationship with technology actually works. He advocates a vision that takes into account the different forms of knowledge within each culture. In doing so, he was inspired by Gilbert Simondon, Martin Heidegger, Henri Bergson and the science of cybernetics promoted by Norbert Wiener in the 1940s, among others.

I now quote Yuk Hui himself, to indicate his engagement with Lyotard:

"In November 2019, I organised a symposium entitled *40 Years after The Postmodern Condition* at the China Academy of Art in Hangzhou. Earlier, I also initiated another symposium organised in connection with the exhibition "30 Years of Jean-François Lyotard after *Les Immatériaux*" in 2015 at Leuphana University in Lüneburg. I am convinced that Lyotard's work should be reread beyond any misunderstanding around the concept of the postmodern and in light of the technological state we find ourselves in today. With the symposium dedicated to his *Condition Postmodern* I wanted to present a Lyotard that is not only relevant to us, but also crucial for understanding our contemporary situation."

## ***Recursivity and Contingency***

*Recursivity and Contingency* (2019), Yuk Hui's third book is the first part of a philosophically very broad and in-depth examination of the conditions and possible future of Western culture and society that he believes are dominated and driven by an under-reflected and insufficiently critically weighted technology. The second part is *Art and Cosmotechnics* (2021) and the third more political part *Machine and Sovereignty* (2024). *Recursivity and Contingency* is a philosophical feat. It unfolds a unprecedentedly thorough philosophical analysis of technology and science having impacted Western man over the last 250 years as s(h)e lives, thinks and

feels under sometimes lightning-fast and deeply profound changes. In his research in this book, Yuk Hui includes philosophers and scientists who have been sidelined in the current canon of many of his colleagues. He does so not for curiosity's sake, but because their insights are highly relevant for seeing through and understanding the conditions we live in today. Most striking is the great significance Hui attributes to some German philosophical idealists of around 1800. His attention to Bergson, Simondon, Meillassoux and Norbert Wiener as pioneers of new schools of thought is also remarkable.

However, in the context of *Waardenwerk*, I will not go into philosophical detail about the substantive richness of the network of connections Yuk Hui establishes among all his references. I will limit myself to raising some main points. To begin with, what does it mean that his book is about recursivity and contingency, as the title suggests? Before I address this question concretely, I will recall once more the context in which Yuk Hui addresses this recursivity and contingency. The book makes giant strides in what seems to be the mission to which Yuk Hui's work to date has been devoted. That mission consists in being able to offer a more hopeful perspective from philosophy on what might be called an ancient but still very prominent "tango" in which man and technology have been intertwined since time immemorial. A dance that constantly evolves and complicates itself in directions that the dancers themselves often do not oversee, but which can feel very different - from deadly and mechanical to sometimes vibrant and inspiring. Lest this metaphor be gratuitous, I add: this dance is a dance of life and (brain) death. It leads to petrification if not resumed in time.

A telling starting point of Yuk Hui's analysis is a remark of the later Heidegger in the early 1950s that he recalls. According to Heidegger, the advent of cybernetics meant the end of philosophy, i.e.: free critical thinking. He then saw cybernetics as a metaphysics that will permeate Western life and thought in everything.

However, Yuk Hui then does not sit back, but comes up with an original interpretation of and addition to Heidegger's thesis of his own. At first glance, he seems to prove the Freiburg oracle right. Yuk Hui first elaborates his own thesis that man and cybernetic techno-system have come to correspond to each other in the same mode of what he calls *organistic* learning from mistakes and setbacks, paradoxes and dilemmas. This is in contrast to a *mechanistic* operating unable to learn and adjust, but only able to execute, as an automaton, or as in a cause-and-effect process. In other words, man and techno-system both do not function mechanistically, but can in fact learn and improve in the same ways, maintain at least. This kind of learning then comes down to *being able to handle contingency recursively*. In simpler terms, it means being able to look back at a mistake, unexpected setback, apparent paradox, something that could not be predicted, and learn from it, and adjust systematics.

Thus, both humans and systems are basically able to survive and develop in the same way<sup>2</sup>. Viewed in this light, then, there actually no longer *seems* to be any relevant distinction between man and system. More precisely, no more difference between the thinking of man and the thinking steps of a system, which is what Heidegger also meant. No more distinction between man and robotics when it comes to solving problems, judging anyway. Humans could largely leave all that to the system, especially since the system can handle most

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<sup>2</sup> Development then within the limits of a certain finality, main objective. Humans and a lot of other life forms have the freedom to abandon or change a finality, machines do not. Or do they? However, according to Yuk Hui, humans and machines have almost the same freedom within the confines of finality, to adapt when circumstances change. Thanks to co-reader Fernando Suárez-Müller

"relevant" tasks and issues infinitely faster, more efficiently, more effortlessly. The effort, *Bemühung* in German, which is characteristic of physical life, becomes redundant. This could then mean that man is finally heading towards a non-physical existence, a thinking without a body that seemingly differs from a machine in little or nothing.

According to Yuk Hui, organistic thinking and judgment are therefore what do not distinguish humans from machines - however, humans might differ from machines in being able to switch (back and forth) between 'organistic' thinking and *organology*, the capacity to think multiple perspectives and fundamentally different finalities. This can give people an escape route to be able, though living skin and hair in the system, to distance themselves from it and tap into other registers. It is precisely at this point that Lyotard is important for Yuk Hui to think beyond Heidegger.

The principle of the *organistic* thinking was first convincingly distinguished from mechanistic thinking by Kant, as Yuk Hui summarizes. Organistic is the principle that a *life form* can maintain and develop itself in the biological sense. Virtually all life forms are capable of judging what is good for them and what is wrong, painful or pleasurable. *Organology* as Yuk Hui contains, however, should be seen as a much broader orientation towards *life in the broadest sense* - in which philosophy can play a role, be it a philosophy that does not hold on to logos only, but looks for a different choreography, more sensitive dance with technology. The dancers could reset themselves, seek freer forms and choreographies of animated movement.

### **The inhuman that remains**

The final chapter of *Recursivity and Contingency* is called "The Inhuman that remains". Thus, Yuk Hui connects to Lyotard's thinking on the inhuman. With him, he seeks a way or a trace of escape from a deadly, or at least disempowering stranglehold of totalitarian techno-systems that permeate society and life ever deeper and more decisively. I will now let Yuk Hui speak for himself. The first quote is about Lyotard's warning that unbridled development of cybernetics will lead to the destruction of all life:

*The destruction of all organic life points to the only possibility for the survival of the human, which is the separation between body and mind, between hardware and software. This metaphor of software and hardware is technological, but it is also not a metaphor because it is a research agenda that covers everything from dietetics, neurophysiology, genetics, and tissue synthesis to particle physics, astrophysics, electronics, information science, and nuclear physics. The search for the separation between thinking and organic life is a response to the prospect of solar catastrophe, since the central question is, how is it possible to survive without an organic form of life? Or, as Lyotard puts it: "[H]ow to provide this software with a hardware that is independent of the conditions of life on earth?" This is 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.<sup>3</sup>*

In the following second quote, Yuk Hui adopts Lyotard's two "inhumanities", a negative and a positive inhumanity:

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<sup>3</sup> *Recursivity and Contingency* § 41 'Inhuman contra system'

*The inhuman is first of all a negation, but a negation of two different facts. First of all, it is the negation of what is considered to be human, for example, the unity of the organic body and the soul. In this sense it is a separation between the mind and the body, the thinking substance and the bodily substance, an ultimate scientific project of humankind in anticipation of the solar catastrophe. Lyotard identifies this first sense of the inhuman with system. He writes, "[T]he inhumanity of the system which is currently being consolidated under the name of development (among others) must not be confused with the infinitely secret one of which the soul is hostage." What does it mean that the soul is the hostage of "the infinitely secret one"? What is this infinitely secret inhuman? It is the Unknown, the improbable, as Lyotard says when commenting on Saint Augustine, that the inhuman is "more interior in myself than me." [.....]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. But what exactly is this inhuman of which the soul is hostage? And what does it mean that the soul is hostage?<sup>4</sup>.*

The second quote in particular I find quite intriguing, as it contains most of the ingredients of the complex notion of the inhuman. In my opinion, however, Lyotard's *L'Inhumain* should be seen in conjunction with his texts on the differend.

### **Ontological and ethical differend**

In my article [Inhuman Differend](#) (Onmenselijke Strijdigheid, dec 2023), I related injustice and suffering, and irreparable damage as done worldwide by (late) modern (techno)systems and neo-colonial language patterns, both to Lyotard's notions of *Widerstreit* (differend) and to *the inhuman* (l'inhumain). At stake is "inhuman" injustice that cannot be convincingly denounced as an injustice for all parties - which is the principle of differend.

With regard to Lyotard's notion of differend, I now distinguish between two categories of it. I do this in particular because, in my view, Yuk Hui recognises one of them, the *ontological* one, obviously, but not the other, the *ethical* one, explicitly. Let me clarify these two categories.

Lyotard usually refers to differend in the sense of an ethical conflict, where the injustice consists in not being able to stand up for the damage or suffering that has been caused, because the dominant discourses responsible for it cannot acknowledge it or even understand it. Already in *Le Differend* (1983) it is made clear that this ethical differend presupposes an ontology of fundamental discontinuity in our awareness of time en succession<sup>5</sup>. In this review, I will assume that Yuk Hui's notion of contingency is on a par with this ontological differend. However, he himself does not link this contingency to Lyotard's notion of differend, but rather to his version of the Kantian sublime (see for that below)

To my mind, the ontological differend implies that what is going to happen, be said, thought or felt after the here and now, the next moment, is in no way fixed, and can be intrusively and sometimes violently in conflict with what preceded it. In my [December 2023 article](#) I put this

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<sup>4</sup> *Recursivity and Contingency* § 7 'After ecology, before solar catastrophe'

<sup>5</sup> A differend, *Widerstreit*, occurs when two sentences cannot logically fit together. The ontological basis of this is the absence of any law or rule that a following sentence must necessarily match the preceding one. An event or feeling is also a sentence, but not in the standard pattern sender-receiver-meaning-reference. See further also: [Taal, logos en strijdigheid](#) on my website

in the first-person perspective, i.e. individual consciousness. In doing so, I entered the territory of phenomenology, to which Lyotard did devote his doctoral thesis (1954) but subsequently criticised in almost all his later work<sup>6</sup>.

What matters to me, however, is that the sense of differend that nothing is fixed for what is to come, amounts to a conflict between reason and feeling, logos and sensus. I mean the primary experience in the-here-and-now that is, for the time being, at odds with all kinds of pre-paved and channelled discourses and language patterns that regulate and direct our existence. This experience of an "empty", indeterminate here-and-now cannot connect with reason, cannot be recognised as meaningful. Seen from those discourses and language patterns, there is no "empty" here-and-now, they are theoretically always continuous, ideally without interruption.

However, life can indeed feel like a "continuous interruption", basically every moment. In my view, awareness of this ontological differend is *by itself* hardly bearable, not endurable. In a paper for the conference [\*Too Mad to be True II: The promises and perils of the first-person perspective\*](#), Ghent 2023, I have suggested that ontological differend can be a ground for madness not to underestimate. In general, then, it does not come to that: people stick to established discourses, forms of reason and beliefs. These protect against a free fall into the abyss, but can also make us deaf and blind to anything that does not conform to rigidly held frames of conduct, destinations, and meanings. The ontological differend of the indeterminate sequel can open a gateway to madness, to quote the Gent paper. At the same time it also offers a sublime carte blanche, freedom for creativity and innovation. But even these can often instil great, often closely veiled anxiety, to the extent of defensiveness, conservatism and even aggression and violence.

## **Two forms of inhumanity**

This brings me to the notions of inhumanity, which appears both with Lyotard and Yuk Hui in two opposite sets of connotations. Might there be a connection between the two categories of differend and those of "inhumanity"? I suspect so, and keep that question open for a moment.

I personally find the first, "negative" form of inhumanity (in both Lyotard and Yuk Hui) best understood immediately. In their penchant for certainty, predictability and control, people rely on reason-driven, logocentric systems and language discourses. In doing so, they can inflict untold damage to almost all other life forms on earth, but also to themselves, to each other. Lyotard called this "inhuman" for many reasons. After all, precisely in terms of the ethical differend, many injustices done to fellow human beings and nature can go unrecognised, or even never recognised, for a long time<sup>7</sup>. Even worse is what human hyper-control and intrusion through system and language may eventually lead to: to the destruction of much of all life on our planet, or at least much of physical life in various individual bodies and species. From his systemically-driven pursuit, the only way out for humans would then amount to a

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<sup>6</sup> See also my [article Waardenwerk 2023](#). Lyotard generally criticised traditional phenomenology for its focus on intentional consciousness, pointing out the importance of perceptions at the margins, and suggested that a battle for attention rages in consciousness as well, with feelings and impressions being sidelined - not to mention the unconscious, see *oe Economy libidinal, Discourse, figure, and Des dispositifs pulsionelles*

<sup>7</sup> For a brief explanation of differend as an injustice that cannot be articulated in language, see [Taal, logos en strijdigheid](#) again at my site

"thinking without a body", an A.I. emulated form of digital survival, anyway the only alternative when embodied existence is no longer possible<sup>8</sup>

The second form of "positive" inhumanity as referred to by Lyotard is somewhat more complex. Instead, this second form includes essential aspects of existence which are repressed, denied and disqualified by the first one<sup>9</sup>. So why does Lyotard call this "inhuman" as well? Because these registers of living and feeling are actually alien and even inferior to many people. It is more common to children, animals, drop-outs, outcasts, outlaws, the very ones and all that which cannot fit well into "human civilisation and culture". By the latter, Lyotard mainly meant the culture of values of a dominant, self-righteous superior Western humanity. Yuk Hui replaces this with Western technoculture, i.e the belief in the salvation of a techno-system driven by capitalism. "We live in a giant techno-system" is the title of a very informative interview with Yuk Hui April 2024.<sup>10</sup>

What is preferably not addressed in a monolithic techno-culture or in a complacent humanity is the experience of the contingency of existence, existential uncertainty. I proposed here above to consider ontological differend as the core and basis of this existential uncertainty as not being able to know or even feel what is going to happen in the next moment. On the one hand, this is intolerable, but on the other, it is the most essential condition of life: *That "something else" can happen, that basically nothing is ruled out*. Established cultures however, crystallised in systems and fixed values and norms, want to stay as far away from these uncertainties as possible. In that vein, uncertainty, sensitivity and vulnerability, are looked upon as inferior, not worthy of human beings. This is why Lyotard called the alternative to violent inhumanity also inhuman, but in a positively intended sense, at the other end of the sliding scale of "being human". Indeed, on this side of existence it is possible to escape from the compulsion and one-sidedness of the totalitarian systematic, even if it is accompanied by insecurity and fear, and disqualification from the ruling regimes aimed at security and control.

Here I am already taking an advance on the question I left open a moment ago: I see the "positive" inhumanity in both Lyotard and Yuk Hui as the embodied experience of ontological differend, and of contingent existence as well. In that experience, the body feels an openness and indeterminacy that the mind cannot simply cope with as yet. This can be both frightening and inspiring. In my view, this "lived" contingency is, in the long run, the ontological ground and source not only of animated human life, but also of the flexibility and vitality of all forms of life. This seems to distinguish life fundamentally from the machine and the system, which can handle contingency only by adapting, presumably. The big question then is whether machines and systems can, in the long run, withstand the indeterminacy of contingencies in general and ontological differend in particular, and whether they can choose entirely new paths and goals on the fly, and of their own accord.

Suppose non-human systems, indeed, once will be able to deal and cope with contingency just as humans can do in their choices and decisions. It is of the utmost importance to understand

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<sup>8</sup> Yuk Hui also quotes famous passages from *L'Inhumain* in which Lyotard points out, that when the sun explodes and subsequently extinguishes, there can no longer be any physical humanity. Everything then goes up in fire and smoke, unless stored digitally or in some other form of preservation and transported somewhere else. Very recently, there was a scientific report that this even might never happen.

<sup>9</sup> Negative and positive inhumanity presuppose each other as Yuk Hui also suggests in the quotes above

<sup>10</sup> <https://lab.cccb.org/en/yuk-hui-we-are-living-in-a-gigantic-technological-system/>

then, how a lived, embodied contingency is not only concerned with an ontological, but also with an ethical differend. Or rather, how ontological differend has ethical consequences, very relevant to living in embodied first person perspective. The system, however, does not have its vantage point and source in a felt here-and-now, whereas living beings continuously have to cope with the good and the bad each moment again and anew. "What happens now", Lyotard's "arrive-t-il?" is a burning issue for the living, who cannot repair and adapt to unexpected pain and damage instantly.

Interestingly, this basic vulnerability of all life-forms is often considered as symptom of inferiority, unworthy of man. Such disqualification amounts to an ethical differend in itself, because it does injustice to the positive dispositions and possibilities of accepting and allowing vulnerability and uncertainty, instead of entrenching oneself in the false certainties of control and mastery.<sup>11</sup>. Indeed, referring to these resources of seemingly vulnerable life is referring to the positive inhuman, in the sense assigned by Lyotard en Yuk-Hui

In the same sense, I also regard Lyotard's positive inhumanity as the *more-than-human* as referred to by more radical ecologists such as Latour, Bellacasa and Haraway<sup>12</sup>. In previous articles, I have brought these vital resources under the heading of *paralogy*, this notion of Lyotard is also mentioned by Yuk Hui in interviews and I will return to it later<sup>13</sup>.

### **Yuk Hui and contingency: recursion or leap of faith?**

I recapitulate: ontological differend implies that what is going to happen, be said, thought or felt after the here-and-now, the next moment, is in no way fixed, and can be intrusively and even violently contradictory to what preceded it. Yuk Hui seems to mean the same thing by what he calls contingency: the undetermined, unpredictable that is characteristic of an awareness of and perspective from the here-and-now. A here-and-now in which the next sentence, what may happen in the next moment, can be experienced as indeterminate and undefined. Yuk Hui's book is then primarily about how we can always "come back" to any experience of that contingency, which is recursiveness. That is also the pattern of the sublime experience: first the shock of what is the experience of a contingency, what one does not expect, does not count on et cetera, and then: coming back to that experience and trying to give it a place into a system, a narrative, some or other arrangement.

However, from the beginning of his book *Recursivity and Contingency* this is where the shoe wrings for Yuk Hui. This scheme of dealing with contingency and recursivity does not ultimately distinguish man from the system. He notes that Lyotard also gets stuck here: after all, his critical "free" Kantian reflective judgment serves the system, which can absorb any recursion and use it to adapt to new conditions. Nevertheless, Yuk Hui attaches great importance to Lyotard since he was one of the first to characterise post- or late-modernity as an era dominated by the system. At least as relevant to Yuk Hui is that, for Lyotard, our era is equally characterised by an unprecedented sensibility and awareness of indeterminacy, uncertainty and unpredictability (at the failure of grand narratives and meaning-making interpretations) That is the era we live in and which Lyotard foresaw back in the 1980s -

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<sup>11</sup> I set out to demonstrate this at length in my Waardenwerk 2023 ["De onmenselijke strijdigheid"](#).

<sup>12</sup> See also my article [Ethics of Ecological Care](#), 2019 and <https://ethicsofcare.org/reframing-care-reading-maria-puig-de-la-bellacasa-matters-of-care-speculative-ethics-in-more-than-human-worlds/>

<sup>13</sup> Paralogy, like differend does not occur in *Recursivity and Contingency*



dehumanising systematisation parallel to an uncertainty, indeterminacy - contingency - that is, barely tolerable by humans.

However, Yuk Hui then sees in this late-modern sensibility precisely the possibility of being able to discover and explore "new paths and directions of recursivity". Not to make prevailing systems, monolithic and levelling as they are, even more contingency-proof. But rather to discover new techniques, other ways of dealing with what makes life necessary and worth living. Yuk Hui calls this a movement towards "technodiversity", and also speaks of "cosmotronics" in that context. A multifarious plurality of locally rooted techniques presupposes a different kind of cosmology, image and conception of the universe in which humans live. I am immediately reminded of Latour, Haraway, but also of countless local ecological initiatives by not only young people who want to do things very differently from big business, governments and organisations. Who no longer strive for ever more growth, profit, efficiency and automation. And thereby take other turns, no longer heading for the negative inhuman, as sketched by Lyotard and after him Yuk Hui.

Yuk Hui seems to appreciate the Lyotard of *Condition Postmodern* more than the later Lyotard of *Le Differend*, where ethics plays a much bigger role than aesthetics. In the later Lyotard, free reflectiveness, Kantian reflective judgement plays the leading role. According to Yuk Hui, Lyotard did not sufficiently fathom that this reflection, in its purely recursive function, actually always affirms the system, enables it to constantly adapt, instead of being radically criticised, undermined.

Rereading *Recursivity and Contingency* more than once, it finally dawns on me what Yuk Hui might also mean by technodiversity. If I dwell a little longer on his critique of Lyotard's reflective judgment, I wonder whether Yuk Hui's conception of recursivity should be thought even more radically. Perhaps machines and systems will eventually be able to do everything that a human brain or a network of creative minds is capable of. Then it will be crucial to have indeed a basically limitless plurality and diversity of locally oriented systems in the air and on earth. Nevertheless, even under that constellation, life will have to distinguish itself from *organizing inorganic*. And it will continue to distinguish itself with the ethics that remains inherent in the embodied existence of individuals, who experience life from moment to moment, for better or for worse.

### **Technology and ethics**

By more or less "forgetting" the later Lyotard - the term "differend" does not occur with Yuk Hui, at least nowhere in *Recursivity and Contingency* - in my opinion, an important ethical aspect is missing in his arguments. As I suggested above, I think Yuk Hui does recognise the ontological differend in what he calls contingency. This contingency, according to him (and before him Lyotard) is recognised and lived on in many fronts in late modernity. But not everyone embraces this sensibility characterised by uncertainty regarding truth, security, meaning, predictability and so on. Accepting this uncertainty as a basic condition of existence is a big challenge then. Especially when, at the same time, one wants to continue to live in the hope of rationally or resignedly processing most concrete instances of misfortune, accident, surprise, chance, one's own mistakes and errors, sooner or later. Processing them in

explanations, stories and orderliness that one nevertheless believes in and in that sense has something to hold on to<sup>14</sup>.

However, accepting uncertainty does not at all preclude being able to believe in the possibilities and space to think out of the box, and try something new. This usually then takes effort, a lot of effort often, which can be saved by surrendering and giving in "like everyone else" to the convenience of all kinds of devices, systems and habits that speed up, expand and facilitate all kinds of everything without limits. Not choosing this clueless consumption and still enduring the uncertainty of existence takes effort, a lot of effort. Anyway, confronted with contingency and ontological differend in the here-and-now one has to make moral choices all the time, from moment to moment.

Yuk Hui interprets "technodiversity" very broadly as a "ways of living" involving much more than utilitarianism and making use of matter. The path to "technodiversity" then, however, tends not to follow pre-paved paths and rules of logos and system, but has to proceed "paralogically", as I mentioned above in relation to Lyotard's *Condition postmodern*. Yuk Hui admittedly does not mention paralogy at all in *Recursivity and Contingency*, but he does so in interviews with him. Perhaps Yuk Hui, at least in *Recursivity and Contingency*, did not elaborate on paralogy further because he wanted to emphasize the importance of as many different techniques as possible, since together they might provide for sufficiently diverse recursion, vis a vis all contingency in the cosmos. I regret that, because in my opinion a variety of techniques does not come about by itself. We probably need an attitude such as paralogy, hand in hand with ethical consideration of what is actually being initiated.

In some previous articles, I have tried to explain the meaning and possible practices of paralogy<sup>15</sup>. Many artists work paralogically according to new patterns of recursion, dealing very differently with the given - it is not for nothing that Yuk Hui has devoted another book to this.<sup>16</sup> Outside art, the same can be done, for instance when one reflects on what really feels necessary or inspirational and what doesn't so much. This then depends heavily on how one not only experiences and views one's own local form of life, but also sees that form of life in relation to life in general in the world and nature. Yuk Hui then talks about cosmology as the basis of local ethos, and not vice versa.

In my view, however, ontological differend cannot be properly separated from ethical differend, and thus not separated from ethics, which is about injustice, about doing wrong or being done wrong. In *Recursivity and Contingency*, the concept of *Widerstreit* (differend) as intended by Lyotard, is missing. I have tried to show that this does not mean he ignores ontological differend, which he himself presents as the contingent or the sublime. But the ethical differend does not come up with him anywhere.

The simplest example is a differend between a system, say a government or a bank, and a victim of that system, who cannot recover the damage suffered because it simply does not fit the logic of that system. For the system, this is then at best a contingency, a mistake or

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<sup>14</sup> Much appreciated co-reader Harry Kunneman points out here the highly developed interference zones between system and life-world in which we have learned, to a certain extent, to deal with the alienating forces and violence of the systems. His comment is very valid, but the systems have now become too powerful, and many interference zones have also become even more-than-systematic

<sup>15</sup> See, for example, [Living together beyond language](#), Waardenwerk 2022

<sup>16</sup> *Art and Cosmotechnics*, 2021

shortcoming made, which can be corrected afterwards - recursion, in other words. But at the time of the "incident" itself, this does not benefit the victim at all, but the system can profit from it later on.

However, this simple example can be considered in a much larger context and on a much larger scale, especially if we take ethical and ontological differend together as components of experience in the here and now. With a felt injustice or uncertainty, *in the moment itself* there is nobody or nothing to turn to in case of an ethical or ontological differend. The damage done by systems can perhaps be repaired afterwards, but not *during* the possible experience of that damage. Lyotard and Yuk Hui call cybernetic systems inhuman precisely because their damage done *cannot be prevented via recursivity*, and moreover, that damage falls plainly into the category of ethical differend.

Another example of stacked ethical and ontological differend is madness, seen as a greatly reduced ability to deal with a significantly intensified sensitivity to the contingencies of our time. Some are not always able to take refuge from that sensitivity to temporarily safe havens of structured and regimented "reasonableness", to conventions and more or less fixed patterns. Those who are then labelled "confused" are often victims not only of ontological, but also of ethical differend: it is then usually impossible to articulate why the boat of reason was missed, and that often feels like an injustice, and it is.

### **In conclusion**

Yuk Hui is championing an organological technology in which life can apply and use technology instead of being replaced by it. A technical *savoir-vivre* with which people take up life as broadly and widely as possible. Life techniques in plural, in a diversity that can and should be *locally* developed and rooted (technodiversity). Nevertheless, according to Yuk Hui, this techno-diversity could be best underpinned by a cosmology, with principles of how life and matter relate in the cosmos, with a view of man. A view of humanity with aspects that cannot be organised and controlled in a uniform and apparently reasonably systematic way, under penalty of a perversion of values, of self-esteem in particular, of being (in)human.

On self-esteem, being human, and values of being collectively human, I cannot elaborate further in the scope of this Yuk Hui discussion. I want to do that in a subsequent article, in 2025. Suffice it here to note that, for now, Yuk Hui has weighed values of humanity mainly in aesthetic and technological frameworks, and not explicitly in terms of a coherent ethics, as Lyotard did to some extent. For Yuk Hui, ethics comes from local communities and their sensibilities, vulnerabilities in particular. I find that philosophically sub-optimal, considering how important a cosmology is to Yuk Hui's technodiversity. Just as Yuk Hui assiduously argues that a philosophy without technology cannot be called philosophy, I would venture that a philosophy without explicit ethics does not carry too much weight either.

But of course, Yuk Hui's research and arguments are also underpinned and driven by ethics. Every (working) community has an ethos (morality) from which you, as an individual personality, can deviate to a greater or lesser extent. You don't always, in fact only rarely, have to articulate that morality explicitly. As long as you put it into practice. From a philosophical ethos, however, you should expect that, especially when it comes to contemplation of technology and science. YukHui makes no bones about this, and, without being very explicit about it, pursues an obvious moral course. A course against the *negative* inhumanity of totalitarian systematics, but in favour of a *positive* inhumanity (*the Inhuman that remains*) as a source of technodiversity and cosmotechnics.

I am curious, however, what Yuk Hui thinks of my comment that he does not explicitly include the ethical differend as it was crucial to the later Lyotard in relation to the ontological differend, which Yuk Hui preferred to conceive in terms of contingency. In other words, that in his *Recursivity and Contingency* in my view, too little account is taken of an *ethics of contingency*. A contingency that always presents itself anew in the here and now, and that must be held out no matter what preceded it and what may happen. *How one could bear this contingency is, in my view, not just a technical, but always also an ethical matter.*

Yuk Hui, on the other hand, focuses on the creative openings that the "contingency here and now" has to offer, because, after all, nothing is fixed and, in principle, everything is possible. But even then, there is literally no harm in taking up the challenge of this freedom on the basis of values of what one considers human, or indeed inhuman. Why being aware of the inhuman can be so liberating, in the sense then especially of the more-than-human. In an article written in 2014, I tentatively suggested some *paralogical values*, and I still find them plausible 10 years later, bzw. food for thought and discussion<sup>17</sup>.

These values cannot really be read properly outside their context at that time, but I mention them anyway: *indefiniteness, passibility, vulnerability, hospitality and visibility*. The question, of course, is how these non-technical values can play a supporting role in the creative process towards technodiversity as Yuk Hui advocates. I noted above that I want to devote a subsequent article to the importance of human self-esteem and self-image vis a vis differend and contingency. How these values are fundamentally coexistential and necessarily not exclusively technical, perhaps organological, as intended by Yuk Hui.

Maybe I can give an example of what I call a paralogical practice or technique: among many other small-scale, local and, in my opinion, typically technodiverse initiatives of late, I mention *food forestry*. The food forest also requires a technical approach that seeks to combine agriculture with green ecology on a very local, non-intrusive scale. In doing so, nature is left as free as possible, but some things have to be done and organised with as little ecological imprint as possible. The opposite of predatory and optimised production - a form of recursivity that does not "adapt" the existing agricultural system to new demands, shortages and objections, but literally deploys an almost entirely new set of techniques, and lets nature do its job<sup>18</sup>.

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<sup>17</sup> See [On paralogical core values](#), excerpted from 2014 article *Waardenwerk voor de strijdigheid van het bestaan*, in: *Waardenwerk* nr 57, sept 2014

<sup>18</sup> See: <https://www.aardpeer.nl/boer/de-jonge-voedselbosboeren>