

# Learning to Live in Toxic Nature (Toxicus Natura)

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*\* The genesis for this article was a conversation at the 2017 Oxford Forum for the Future which explored the nature of the possibilities beyond the conventional dialogue. That said, the ideas here are the author's; not necessarily those of the other participants.*

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## Abstract

*Studies suggest 2°C of global warming by 2050, locked in by human behaviour, will contemporaneously precipitate a range of other negative environmental reactions. The planet's inhabitants must accept the resultant potentially existential disconnect and an unalterable, increasingly toxic, nature. This essay argues an alternative framing. It explores the thinking (ontology) and knowledge (epistemology) these challenges present and explores the opportunities available for future safe operating spaces if a 'plurality of world making' is preferred over a deteriorating, hegemonic, Western way of knowing in which many are embedded. Thus, it aims to become a small part of a global narrative of 'beneficial escape'.*

**Keywords:** Toxic nature, Reframing, Pluriverse, Alternative understandings, Post capitalism, Mythology of nature, Post agency, Epistemicide, Techno-optimism, Hyperobjects, Interrelationality, Alternative reality.

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Contemporary society, with its Western epistemological orientation, has a profound challenge. Despite its considerable technological prowess and unparalleled capacity to create and share knowledge, it has been unable to understand at an elemental level the relationship it needs with the planet to ensure the protection of the 'safe operating spaces' essential for our collective survival. It is as though, in the pursuit of a rational cleverness and self-interest, we have not only become disconnected from this imperative, but collectively, we have also discarded, without much thought, "other" knowledge systems that had more sustainable interpretations of the relationship<sup>1</sup>. This, of course, is because for the most part these missives lay in knowledge systems and ontologies that Western rationalist models have characterised as either mythical or magical. Yet so dire is the present dysfunction all, except a few soulless high priests of neo liberal economics and those whose vested interests are best served by the short term<sup>2</sup>, now understand that something must be done differently to rethink and repair the relationship. The problem is that most attempts to remediate are being undertaken within the same framing that created the breakdown in the first place. Thus, there is a crisis of perspective, or a way of framing, that has existential implications for humanity.

Central to this essay, therefore, is the assertion that a different kind of framing is required, and that the centrality of framing, as a first order means of understanding, underpins our future collective relationships on this planet. It argues that, if the rational-centric western enlightenment frame is put to one side and other frames considered, then phenomena that have been rendered invisible become evident, and previously visible phenomena that have only been seen in particular ways might now be interpreted quite differently. In this construct, a focus of framing and phenomenology therefore takes precedence over the analytical, the empirical and the comparative. This is not to assert that these other forms of understanding do not have validity, indeed they are critical. Rather, the suggestion is that if the analytical and the empirical are given priority they structurally reinforce the premise that human rationality is central, that anything of import can always be measured, and that the challenges facing us are best understood ‘objectively’ and normally through a discipline locus. In contrast, alternative framings that are conceived through ‘other’ narratives or praxis (theory and practice) might “imagine new ways of theorising and of generating transformative collective action” (Santos, 2013, p. 4) that can then be developed through previously unthought of analytics or empirical consideration.

In like manner, comparative understandings are also heavily influenced by what is central (and normative) to the comparison process. Hence western models that have so heavily colonised the global economic model struggle when confronted with “problems of incommensurability, incompatibility or reciprocal intelligibility.” Consequently, if we define ourselves as a ‘collective humanity’—something that exists beyond and above the short sighted and self-centred prisons we call nation states—we require new tools and different dialogue to consider our place in an interdependent *pluriverse*<sup>3</sup>, given, for the most part, our unit of comparison is the universal.

A shared reframing might start with an understanding that *toxicus natura*, or Gaia, or the Clthulucence (Haraway, 2015, p.159-65) does not need us to survive. It will (and does) simply respond to our careless endeavour through changing itself systemically. In doing so it will present humans with a set of circumstances that are at the extreme end of conditions conducive to preferred habitations and resources. These changed circumstances—almost certainly of our own making—are not then nature as we would wish to know it. The situation drags us to the reluctant conclusion that the particular conceptions of nature most favourable to human survival, are not only a relatively recent phenomenon in geological terms, but are also forevermore confined to live in our imaginations and mythologies. They are the romantically conceived, seasonally determined “lumps of stuff that existed prior to the emergence of capitalist production” (Morton, 2013), that “have previously enabled a regular anxiety free prediction of the future”(Morton, 2016). The challenge that humanity now faces is that it has, as Naomi Klein (2014, p.21) so delicately put it, “over invested in a system that is at war with the planet, except that the planet won’t play by our rules”. What is confronting about this changed environment is not just a coming mass sixth extinction, or a whole range of unforeseen feedback loops that we are spectacularly ignorant about, but rather an ‘anthropocence as nature’ that is in toxic nightmare form, one waiting to emerge as catastrophe, at least as far as we humans are concerned (Dussel, 2009, p. 58).

The concept of living in an environment that is increasingly toxic to human existence is at once discordant with our sensibilities and seems to rob us of agency. There is something deep inside us that rebels against this proposition. Perhaps this is because deeply embedded in the stories of human existence are tales and verses that knew nature as occasionally cruel but mostly bountiful, abundant and seemingly inexhaustible. We long to return to a state where nature can once again function as ‘mother earth’. This pattern of thinking always rejects the arguments advocated here as ‘going too far’, because these assertions cannot be processed within the contemporary heuristic. But regrettably the toxicity is not metaphorical, it is a harsh emergent reality of our own making that future generations will need to live with. Their verse is unlikely to eulogise ‘nature’ in the same romantic way we have grown accustomed to. The privileging of views that avoid this condition

merely perpetuate the myth that nature exists for our benefit, a flawed 'sense of hope', a dystopia that obscures the serious cognitive flaws in a shared worldview that places humans at the centre of everything. In contrast, recognition and acceptance of the conditions in which we find ourselves exposes the fragility and nonsense upon which many of our shared understandings are based. If we confront these discomforts then future generations may discover an understanding of what it means to be human that is not dependent on unsustainable growth, heavily distorted and unjust competitive models and a reckless reliance on relationship models that characterise everything that is not human as an object to be managed or manipulated.

While our collective ignorance about the future uncertain is considerable, a definition of *toxicus natura* as catastrophe in scientific terms might best describe a world of more than 2° of warming and related biophysical degradation. It is important to separate out the goals of the Paris Agreement (to limit warming to below 2° by 2100) and what was promised (3.5°) (Walsh, 2017). Given that there has already been considerable backsliding and fudging of figures for short term economic interest, and that these negotiated figures do not include any consideration of cumulative feedback loops, it is now reasonable to assume that a future of plus 2° is likely sometime closer to 2050 than the 2100 narrative. If this is accepted to be even possible—even as a plausible uncertainty—then a second strand of framing becomes visible. That is, we need to design and rapidly implement multiple actions that are part of a coherent pathway, dramatic in both processes and outcomes. It must have, as an unwavering intent, the containment of the cumulative carbon envelop to near zero by as soon as 2040. This multi-stranded and multidimensional pathway must recognise that such action will not prevent 2° by 2050, for that, for the most part, is locked in. Rather, it needs to focus on preventing an inexorable advance to an unthinkable 4° and beyond by the end of the century.

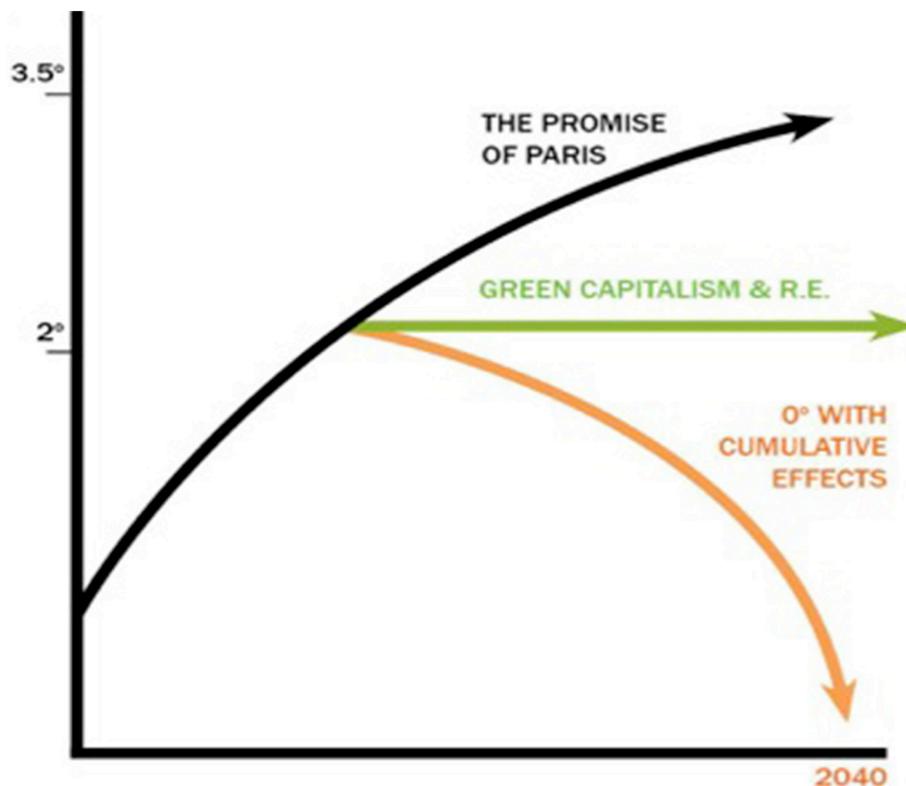


Figure 1. Framing the revolutionary trajectory of cumulative carbon

As Figure 1 suggests, it is unlikely that the acceptable face of environmental activism, which looks to halt the rate of emissions, will be anywhere near sufficient<sup>4</sup>. While many of the initiatives of what has been called ‘green capitalism’ are without doubt important, they are also a dangerous seduction, for they lead many to believe that we can live inside *toxicus natura* without confronting the economic and consumerist models that we either aspire to or have become accustomed to. What will be necessary is a descent that is revolutionary in its reach and impacts; one that our institutions, corporations, cities and civics have only a little over 20 years to come to terms with. This cannot be a position of compromise, in the ‘no-man’s land’ between what is required and what is ‘acceptable’, for that will simply drive us across biophysical thresholds that will have catastrophic consequences of a scale that will dwarf all previous collapses, including that of the Atlantic North West Cod Fishery, where environmental and economic ruin became inextricably intertwined. Nevertheless, even if we do succeed, it will necessitate coming to terms with a future where the lights will surely be dimmer for us all.

When the position advocated above is articulated, there are (almost always) two standard counters put forward. The first is that the envisaging of such futures is unnecessarily scary and that it undermines the capacity for positive agency. The second is that technologies are developing at a rate that will resolve the issues raised above, despite the interference of the naysayers. However, in reality, both these counters are just macabre Venetian masks; distortions that hide a self that simply refuses to do without the illusory comfort of current framing. They are protective protestations of structures and worldviews that few wish to question.

The ‘agency will save us’ counter is a particularly dangerous assertion of false hope. Firstly, it places hyper individualism (for that is what agency is) at the centre of the supposed solution; one where any worthy individual or group effort engages in activity that is either misaligned or suboptimal in terms of the systemic shift that is required. This privileging sustains the growth and consumerist ethos (‘if I try harder, things will be better for me’), erodes the development of a ‘commune-ism’ for a rethought civic, and makes invisible both values and non-monetary value exchanges that have the capacity to make life more viable as the old way disintegrates. Secondly, as recent scandals in the waste recycling business remind us, these acts of agency can be quickly undone by those neoliberal enterprises who have few or no ethics. Such interventions are possible because there are ethical, structural and design inconsistencies across institutions and organisations, many of whom look to profit through what can only be described as a rapidly growing ‘environmental industry’. Thirdly, given that agency is all too often focused on lowering the rate of impact (the individual installation of solar panels for instance), the imperative to reframe is drowned out in the white noise of the environmental normal. Again, this is not to advocate that such efforts are unworthy, but rather that our collective survival will be better served if localised and diverse responses are nestled within ‘revolutionary’ pluriverse narratives that more closely correspond to the reality we face. As they develop, these narratives must inform a new symbolic language around which activity and shared collective learning can orientate<sup>5</sup>, one that is somewhat tempered and humbled by the grim consequences of the circumstances in which we now find ourselves.

The second counter can only be described as techno-optimism on steroids; the brilliant child of the enlightenment tradition. It is the heir apparent that every city in the world is deeply vested in, because almost all conglomerations in their current configurations exist as defiant statements of human ingenuity with little or no regard for the planet. But while technologies will form a critical piece of the future puzzle there are several important caveats that need to be made. The first, as with the agency argument, is that for technologies to really impact they need to operate inside a wider narrative, one that is different from the capitalist (or occasionally socialist) model of growth and efficiency in which they are currently situated, for unless they do, the inexorable rise in toxic threats will simply continue. The second is that the sole focus must be to ensure that the technologies that are part of the solution, not the problem, have in their cumulative effect a reduction in both

the resources they require and in the complexity of both the technologies themselves and/or the transactional activities they generate. This is not as easy as it seems, for as Joseph Tainter (2011, p. 96) points out:

*[M]ore commonly complexity [in human history] increases in response to problems. Complexity emerging through problem solving typically precedes the availability of energy and compels increases in its production. Complexity is not something that we can ordinarily chose to forgo.*

Thus, a mastery of a new simplicity is critical in ensuring we co-create what many have called a ‘safe operating space for humanity’<sup>6</sup>. As a narrow window of viable existence it must, in its effect, completely reframe and sustain global cities within footprints that do not exceed carrying capacity while also ensuring a new global social justice in environments that are increasingly uninhabitable for humans<sup>7</sup>. It will also require us to come to terms with an almost unthinkable and unspeakable idea: that the present socio-economic model we call capitalism, through its very design and orientation, is not capable of giving effect to what is required. For many of us, this takes us into a place and space where there is no compass and we simply do not know what to do. But regrettably, there is no alternative: if capitalism were to make the changes that are required it would be so completely altered that it would no longer be recognisable as a system.

This brings us to a rather uncomfortable point in the framing of understanding. We must, as Roy Scranton suggests, learn to let go of so much of the life we know, in order to deal with whatever problems *toxicus natura* presents us without attachment or trepidation. In a sense, we need to come to a place in our minds and cultures where we do not fear the death of what we know and have (Scranton, 2015, p.28). While at first glance this seems preposterous, there are many exhortations for humans to ‘let go’ in almost all the great religions and philosophies we know of. Learning to die in this way is embedded deeply in our social DNA and mythology: we just have to find it again. It is the very essence of what it means to be truly human.

*It means that all of our structures of awareness that form and support our present consciousness structure will have to be integrated into a new and more intensive form which could in fact unlock a new reality (Gebser, 1984, p. 4).*

This requires confrontation with the abyss that clearly lays in front of contemporary society. We won’t be able to cross it if we can’t let go of our egos, agency, certainty and pleasure and the many other things our system promises us but rarely delivers. Chillingly the consequences are existential. By that I mean that the failure to confront and then cross the abyss will see more and more of the human family, in the next few decades, experience a world that is more closely akin to the nine circles of hell in Dante’s *Inferno* than the ‘nature as provider’ we rely on. Our children and their children will not thank us for this legacy.

Part of the letting go requires (particularly Western) humans to completely reorient our conceptual and narrative structures about what nature is, or is not. As the philosopher Timothy Morton (2013, p.10) points out, *toxicus natura* is best understood as a *hyperobject*, that is, a “thing massively distributed in time and space relative to humans”. As a *hyperobject* Morton (2013, p.10) argues we cannot really think about it objectively because we live in it and it “sticks to beings that are involved with it”. Furthermore, it involves profoundly different temporalities to the human scales we are used to, and is non-local in that “any local manifestation of the *hyperobject* is not the *hyperobject* itself (Morton, 2013, p.10). Considering *toxicus natura* in this way suggests the need for greater knowledge humility. It requires “acknowledging what we don’t know as well as what we do, [in order] to support more flexible and adaptive ways of navigating transition pathways” (Floyd, 2017, p.6).

Morton's hyperobject archetype, although still a western ontological construction, in its dismantling of dualism and objectivism begins to make visible knowledge systems that have a completely different kind of relationality; an 'ecology of knowledge' that might assist with the central dilemma of this essay. For instance, in his description of mangrove world lives of the Yurumangui of Columbia, the design philosopher Escobar takes about a 'relational ontology' that considers humans and other inhabitants completely non separate; "one that has a rhizome logic that is impossible to follow in any simple way and that is very difficult to measure if at all; it reveals an altogether different way of being and becoming in territory and place" (Escobar, 2015, loc. 7425). The Yurumangui interrelationality has a cognitively different orientation. It sees knowledge as both embodied and extended where action and experience flows between all the inhabitants, including humans, in a mutually beneficial way. This enables what Maturana and Varela described as autopoiesis; self regeneration through a network of processes and productions that are at once both transformational and destructive, but that through their interactions continuously regenerate the network while creating and realising unities and dependencies in the spaces in which they exist (Maturana & Varela, 1987, p.47). While the credibility of this 'other world(s) making' knowledge does not necessarily entail or equate to the discrediting of scientific knowledge, it does assume that in situating our relationality with nature it is rather an interrelationality, where more than one kind of knowledge is necessary, and thus almost certainly where more than one kind of ignorance is present as well (Santos, 2013, p.188).

This embrace of irreducible uncertainty, the limitations of the scientific model, the inappropriateness of the single solution mindset and the scale of our ignorance invites us to have dialogues in spaces where "irrationality is not the only alternative to what is currently considered rational, chaos is not the only alternative to order and concerns about what is less true must be balanced by concern about what is more than true" (Santos, 2013, p.9). It argues for a different kind of enlightenment, where there is an ecology of knowledges, each of which, though incomplete, may contain grains of knowledge that will at some future time emerge as a sociology for living in the *hyperobject* conditions that no previously known human society has experienced.

The present quest, therefore, is a search for new meaning that will only reveal its deeper senses of an alternative reality as it comes into contact with the almost foreign *toxicus natura* we now inhabit. Critical to this process will be imaginative narratives of the post-now that provide the scaffolding of global analogical pathways and adaptations for a world we are yet to fully understand. If done well, these narratives will engender a different kind of capacity to aspire; one that releases most of us from the socio-economic systems in which we are generally trapped. They will generate a shared anticipation where risk is not simply passed on to future generations, where communities can transcend the politics of blame and where we contemplate why we tolerated for so long the often-unhappy conditions of the fossil fuel age.

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## Endnotes

1. In the New Zealand Maori tradition for instance people call themselves tangata whenua, the people of the land who view themselves as one with and integrated into the natural world of Papatuanuku (Earth mother), Ranginui (Sky father) Tane Mahuta (God of the Forests) and

Tangaroa (God of the Sea). This integration is reflected in multiple localised lore which explicitly links natural form and local peoples.

2. It is worth noting, though, that when the folklore of the neo-liberals fails, as it did in 2008, private losses are socialised as public debt. Piketty, T. and Goldhammer A. (trans). *Capital in the twenty-first century*. Cambridge Massachusetts, 2014.
3. The notion of pluriverse suggests a world conceived in other than the universal (a western oneness) and the post-modern. Dussel, E. "A New Age in the History of Philosophy: The World Dialogue Between Philosophical Traditions", *Philosophy & Social Criticism* 35, no.5 (2009): 499-516.
4. The trajectories in Figure 1 are a stylised extrapolation from a number of cumulative carbon studies, in particular that of Richard Millar et al., 'The Cumulative Carbon Budget and Its Implications', *Oxford Review of Economic Policy*, 32/2 (2016), 323-42.
5. David Christian argues that symbolic language and collective learning are the basis of a non-genetic adaptive advantage for humans that has enabled the species to act as though they are masters of other species. Christian, D. "World History in Context", *Journal of World History*, no. 4 (2003): 437-58.
6. The concept of a safe operating space as a set of environmental thresholds was first argued by Rockstrom et. al. in Rockstrom, J., et al. "A safe operating space for humanity", *Nature* 461, no. 7263 (2009): 472-5.
7. It was later extended to include a global social foundation as well in Raworth, K. *Doughnut economics: seven ways to think like a 21st-century economist*. London: Random House Business, 2017. loc. 882.

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