

PEER-REVIEWED ARTICLE

Contemporary Extinctions and Multispecies Thanatopolitics

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Abstract

Contrary to what Foucault argued, modern biopolitics is inherently thanatopolitical, i.e., it is a politics of life premised on a politics of death. This becomes clear when non-human elements are given greater relevance than Foucault afforded them. Since the reproduction of life results from interdependencies between species and abiotic elements, multispecies relations are at the core of 'a power to foster life or disallow it to the point of death'. In modernity, biopolitical interventions in what Foucault defines as the milieu are intended to foster the lives of (certain) human populations, while they are also premised on killing non-human species. This occurs whether these species are needed to make humans live (e.g., as food) or whether they oppose the goal of fostering the lives of human populations (e.g., as pests or weeds). The ongoing proliferation and acceleration of the extinction of non-human species is one of the extreme manifestations of this thanatopolitical drive of biopolitics, showing that biopolitics promotes death to the point of eliminating entities and relationships on which the reproduction of life depends, which makes it increasingly difficult to keep intervening with the goal to 'make live'.

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Keywords

biopolitics; extinctions; modernity; multispecies interdependencies; thanatopolitics.

Introduction

Contrary to what Michel Foucault (1978, 2003) argued, modern biopolitics is inherently thanatopolitical, i.e., it is a politics of life based on a politics of death. Death is not the limit after which the 'power to "make" live or "let" die' (Foucault 2003: 241) ends (Foucault 1978: 138; 2003: 247–248). Rather, in (capitalist,² colonial, Cartesian) modernity, biopolitical acts intended to 'make live' in specific ways are premised on amplifying death (Aldeia 2016, 2022; Dutkiewicz 2015; Esposito 2008, 2010, 2011). Foucault's conceptualisation of biopolitics fails to recognise this fact because it is Cartesian: it reduces non-human species to part of what he defines as the *milieu* (environment) instead of understanding biopolitics as a series of power exercises over multispecies entanglements. Since Foucault's interest lies in how human populations are shaped by biopolitical practices, he does not consider the thanatopolitical effects of these practices on non-human species.

Foucault's work is Cartesian in a peculiar manner. Foucault's subject could not be less in line with the idealist subject that constitutes itself exclusively out of its own internal capabilities and only afterwards moves into the world. For Foucault, the subject is unavoidably the dynamic result of a series of discursive and material subjective processes, which turn a certain being into a subject of a specific kind (Foucault 1975, 1978, 2004, 2009, 2014). Hence, this subject's ontology is inherently variable according to the historical and geographical setting in which its life unfolds. Foucault's work is Cartesian despite this insofar as there is a clear anthropocentric privilege in it, which takes Descartes's (2006: 51) logic of human mastery over and possession of nature for granted.

2 Since the sixteenth century, the world's dominant political ecological system is modernity – and modernity has been ontologically tied to capitalism from the start (Dussel 1995; Mignolo 1995, 2000; Moore 2009, 2010, 2015; Patel and Moore 2017). I do not deny that there are experiences of modernity that reject capitalism, such as communism. However, despite their different economic rationalities, the kinds of practices employed to govern human populations have been mostly the same in communist and capitalist modern societies (e.g., extensive bureaucratic administration, police or military violence, the scientific identification of normality and deviance) (Foucault 2003: 261; 2004: 91–94; Scott 1998). It is in this sense that Foucault argues that 'there is no autonomous socialist governmentality' (Foucault 2004: 92), i.e., the governmental rationalities employed in communist societies have mostly been taken, although not unchanged, from capitalist societies.

As several authors have made clear – with more success than Foucault (2009) – the biopolitical government of human life³ entails the government of non-human life (Cavanagh 2018; Darier 1999; Dutkiewicz 2015; Fletcher 2017; Luisetti 2019; Lynch 2019; Malette 2009; Parenti 2016; Pugliese 2020; Wolfe 2013; Youatt 2008). However, the ways in which multispecies life is governed in modernity amplify death by making the promotion of certain ways of human and non-human life lead to large-scale death of non-humans (and not only of these). This thanatopolitical drive of modern biopolitics is clear in the contemporary and ongoing acceleration of the extinction of non-human species.

Biopolitics has never purely been the ‘power to “make” live or “let” die’ (Foucault 2003: 241; see also Foucault, 1978: 138), but rather is from the onset inextricable from the sovereign ‘right to take life or let live’ (Foucault 1978: 136, 138; 2003: 241). Given that life inevitably is the result of deep interdependencies between species, the extinction of non-human species also diminishes the condition of possibility for human life, even if this occurs heterogeneously for different social classes, regions and time periods. For privileged human populations in Western countries, such a reduction of vital possibilities is still kept at bay precisely by pushing death towards other spaces, temporalities and humans, thus further intensifying biopolitics’ thanatopolitical drive. Waste produced by the mass consumption of the middle classes and elites in the Global North is dumped in marine and terrestrial ecosystems across the planet, the immediate ecological costs of large-scale industrial production are avoided by outsourcing factory work to other countries (mostly to China), and non-renewable energy sources required to maintain such lifestyles are used at the expense of future generations (of both humans and non-humans).

3 I understand the concept of ‘government’ in the Foucauldian sense of ‘governmentality’ (Foucault 2004, 2009, 2014). As Foucault puts it, ‘government’ should be understood here ‘not in the narrow and current sense of the supreme instance of executive and administrative decisions in State systems, but in the broad sense, and old sense moreover, of mechanisms and procedures intended to conduct men, to direct their conduct, to conduct their conduct’ (Foucault 2014: 12). Governmental practices are power exercises intended to shape both individuals and populations so that they act (and exist) in certain ways. These governmental acts unfold within a specific governmentality, i.e., a type of governmental rationality or, as Foucault (2014: 7) sometimes calls it, an ‘art of government’. In this Foucauldian sense, governmental practices are carried out by myriad actors and not only by the executive branch of constituted political power of a nation-state.

Although Foucault's conceptualisation of biopolitics fails to acknowledge how modern governmental practices magnify death across species while they 'make live' in some way, his discussion of biopolitics is crucial to our understanding of the complex interplays between the shaping of modern human populations and the political-ecological problems of our times. In Foucault's work on regulatory controls over populations (Foucault 1978, 1980, 2003, 2004, 2009), populations are collective entities with statistical regularities whose (historically and geographically variable) behaviours and characteristics are the object of specific governmental acts intended to shape them. Each human population has a different relationship with non-human species and abiotic elements. This is because two populations never inhabit the same *milieu* and because two populations are never governed in exactly the same way, which leads to the specific features and dynamics of each human population. Such analytical sensibility helps those concerned with the relationship between population and ecological sustainability to keep in mind that the way of life of human populations is not homogeneous.

My main interest in this essay is to discuss how Foucault's work on biopolitics turns out to be limited when multispecies interactions are considered. I hope to do this in a way that provides some tentative clues for the general understanding of the complex interplays between the modern government of human populations and political-ecological unsustainability. I will delve into my analysis of Foucault's work by assuming that while the total number of human beings living on Earth contributes to political-ecological unsustainability (Haraway 2015; Mathews 2019; Samways 2022), the latter is chiefly influenced by the particular ways of life of specific human populations. While the ways of life of (mostly Western) middle classes and elites unalterably damage biotic and abiotic elements that make life possible, the ways of life of most of the world's poor humans do not have such damaging effects (Monbiot 2012; Satterthwaite 2009). Thus, the crucial aspect in the relationship between human populations and political-ecological unsustainability is the thanatopolitical manner in which the former have been governed since the onset of modernity around 500 years ago, which destroys the dynamic ecological balances between life and death.

I will start by examining the role of non-humans in Foucault's framing of biopolitics. In a series of lectures given at the Collège de France in 1977–1978, titled 'Security, Territory, Population', Foucault (2009) discusses how the biopolitical regulation

of human populations entails regulating (hence transforming) the elements that compose the *milieu*, the environment that enable the lives of these populations. In these lectures, non-human species are treated in exactly the same way as abiotic elements and human-made infrastructures, i.e., as variables that influence the life of human populations. This take on non-human species is insufficient to fully consider the act of disallowing them 'to the point of death' (Foucault 1978: 138) in biopolitical analysis. Thereafter, I will briefly outline contemporary extinction trends as they are framed in academic disciplines such as ecology, biology and palaeontology. These indicate that the extinction of non-human species has accelerated and proliferated for the last 500 years, which coincides with the beginning of modernity. I will end this essay by discussing how modern biopolitics is inevitably thanatopolitical when considered in its full, multispecies reach.

The Role of Non-humans in Foucault's Biopolitics

Foucault's framing of the birth of modern biopolitics is well known. According to him, in Europe, until the seventeenth century, power worked primarily through the sovereign 'right to *take life or let live*' (Foucault 1978: 136, 138; 2003: 241). Sovereignty is a form of power derived from the ancient Roman *patria potestas* (power of the father), which granted the *pater familias* (head of the family) an absolute right over the life and death of all members of the *domus* (household), both family members and slaves (Foucault 1978: 135). Sovereignty is inherently asymmetrical insofar as it can only be expressed through the act of killing: this power is only at work in the moment that the person who exercises sovereignty kills or chooses not to kill (Foucault 1978: 136; 2003: 240–241). Sovereignty is 'essentially, a right of seizure: of things, time, bodies, and ultimately life itself' (Foucault 1978: 136) that can only function discontinuously through publicly dramatised moments of punishment or of arbitrary indulgence (Foucault 1975).

From the seventeenth century onwards, the ways in which power works have changed profoundly. Sovereignty did not end, but it became tied – and subordinated – to biopower, a form of power that seeks to promote and govern life, pushing death to a secondary role. As Foucault states: 'Death becomes, insofar as it is the end of life, the term, the limit, or the end of power too. Death is outside the power relationship' (2003: 248). The centrality accorded to governing life transforms death into the point after which biopower cannot continue to

function, thus changing power from the sovereign 'right to take life or to let live' to a 'power to "make" live and "let" die' (Foucault 2003: 241) – or, in the rather more exact phrasing found in the first volume of *The History of Sexuality*, 'a power to foster life or disallow it to the point of death' (Foucault 1978: 138).⁴

This power that has life at its centre operates in two interconnected ways: it totalises through regulatory control over populations (Foucault 1978, 1980, 2003, 2004, 2009), and it individualises through corporeal (and mental) disciplines⁵ (Foucault 1975, 1999) – a duality that, according to Foucault (2006), is encapsulated in the Latin maxim *omnes and singulatim* (all and one). Whereas disciplines are 'an *anatomo-politics of the human body*', 'regulatory controls' are 'a bio-politics of the population' (Foucault 1978: 139).

The goal of biopolitics is to promote certain kinds of life, something to which the emergence of modern techno-science – from medicine to demography, all the way to urban planning and many other fields – is crucial. The scientific identification of a population's normal state (i.e., healthy, non-pathological) allows to intervene in phenomena that influence that population's life to bring it closer to this normality (Foucault 1978, 2003, 2009). Unlike the discontinuous appropriation of life and death that characterises sovereignty, biopolitics requires a continuous government of the phenomena that influence a population's life. This continuity of governmental intervention is shared by biopolitics and disciplines, although the latter involve a much more detailed and ubiquitous kind of control over individual bodies and minds (Foucault 1975, 1999). Biopolitics, on the other hand, allows behaviours at the population level to vary from the statistical norm in order to reach an adequate average or median living state (Foucault 1978, 1980, 2003, 2009). If disciplinary practices attempt to minutely control every bodily action and thought of individuals, biopolitics is concerned with guaranteeing that a population as a whole can live in specific ways despite individual outliers. For instance, the epidemiological government of a population accepts that, while some individuals inevitably die from disease at any given time, these individual

4 The second phrasing is more exact because it highlights that the push towards death that is inherent to power exercises is active and not passive.

5 For Foucault (1975), disciplines are power techniques intended to produce docile individual bodies and minds, from (religious or psychotherapeutic) confession of the self to solitary confinement over mandatory repetitive work, among other techniques.

deaths are not *per se* problematic if they are kept in sufficiently low numbers to enable the entire population to live amid disease. Likewise, when governing the hygienic behaviours of a population to lower the mortality rate, it is unavoidable that some individual conducts deviate from the scientifically defined ideal, but this is acceptable as long as collective behaviour changes enough to increase of general life expectancy.

While Foucault's account of biopolitics is anthropocentric, it does not ignore the roles played by non-human elements in power exercises aiming to "make" live or "let" die' (2003: 241). He considers them as part of the *milieu* from which human populations take their vital conditions of possibility (Foucault 2009: 20–23, 29–30, 77–78). Foucault defines the *milieu* as 'a set of natural givens – rivers, marshes, hills – and a set of artificial givens – an agglomeration of individuals, houses, etcetera. The milieu is a certain number of combined, overall effects bearing on all who live in it' (Foucault 2009: 21).

When governmental exercises take the promotion and preservation of life of human populations as their essential objective, the *milieu* becomes the empirical field of biopolitical action. In Foucault's conceptual framework, normalising a population entails regulating the *milieu* in which its members live. In Foucault's words, 'the milieu appears as a field of intervention in which ... one tries to affect, precisely, a population' (Foucault 2009: 21). It is by directly influencing the *milieu* that a governmental exercise indirectly achieves changes in the way that population experiences life (e.g., one intervenes to reduce the mortality rate by building public sanitation systems in cities so that residents are not exposed to unsanitary conditions).

By understanding human populations as subject-objects that are inextricably linked to their *milieu*, Foucault emphasises that human life is inherently dependent on non-human elements and that governing the former involves acting over the latter. In this sense, a population is 'a multiplicity of individuals who are and fundamentally and essentially only exist biologically bound to the materiality within which they live' (Foucault 2009: 21).

Non-human elements, thus, are of utmost importance for governmental exercises, which is clear in the modern connection of sovereignty and biopolitics.

The privilege of biopolitics over the 'right to take life or *let live*' (Foucault 1978: 136, 138; 2003: 241) does not eliminate sovereignty but fundamentally changes its goals and the means of achieving them. Subordinated to biopolitics, sovereignty becomes concerned with influencing non-human elements. Putting the right to kill in a very secondary position – at least, according to Foucault – , now,

the sovereign deals with a nature, or rather with the perpetual conjunction, the perpetual intrication of a geographical, climatic, and physical milieu with the human species insofar as it has a body and a soul, a physical and a moral existence; and the sovereign will be someone who will have to exercise power at that point of connection where nature, in the sense of physical elements, interferes with nature in the sense of the nature of the human species, at that point of articulation where the milieu becomes the determining factor of nature (Foucault 2009: 23).

Since the reproduction of life results from multispecies interactions (Rose 2005, 2008, 2011, 2012; van Dooren 2014),⁶ interrelations between humanity, non-human species and abiotic elements are at the very core of biopolitics. However, non-humans are entirely deprived of agency in Foucault's work. The *milieu* is a population's environment and non-human elements of this environment are biopolitically relevant only to the extent in which they are variables that influence the normal or abnormal state of a population, either as resources to be used in governmental acts or as obstacles to be governmentally dealt with. This Cartesian understanding of the *milieu* as the environment of a human population – that 'Great Outside' from which humanity, more or less freely, appropriates its vital resources (Aldeia and Alves 2019) – allows room for non-humans only insofar as they exist for human objectives. Thus, non-human species are part of the 'natural givens', and Foucault's account of biopolitics deals with them in the exact same way as it does with abiotic elements.

6 I will return to this point in the section entitled, 'The Thanatopolitics of Extinctions in Modernity'. Deborah Bird Rose (2005, 2008, 2011, 2012) and Thom van Dooren (2014) argue that life is the result of myriad intergenerational and coeval interactions between different species.

Foucault's discussion of the biopolitical production of nature and of the co-production of nature and humanity is largely underdeveloped. Several authors have alluded to this in their (heterogeneous) efforts to better take non-human elements into account in biopolitics, hence showing that the *milieu* as an object of biopolitical intervention is much more than a set of 'natural' and 'artificial givens' (Cavanagh 2018; Darier 1999; Dutkiewicz 2015; Flecher 2017; Luisetti 2019; Lynch 2019; Malette 2009; Parenti 2016; Pugliese 2020; Wolfe 2013; Youatt 2008). More so than Foucault's inclusion of non-humans in biopolitical analysis as parts of the *milieu* shows, the environments that humans inhabit are actively created by governmental interventions – from building infrastructures to farming and forest plantation over deforestation and scientific knowledge production (Altvater 2016; Parenti 2016; Scott 1998; Tsing 2017).

My interest here is not to further develop these arguments but rather to discuss how, by considering non-human species simply as parts of the *milieu*, Foucault's understanding of biopolitics does not sufficiently take into account the inherent dependence of governmental exercises intended to 'make live' on the promotion of death. As I argue in the following, taking multispecies relations into account makes the thanatopolitical drive of modern biopolitics clear, which is observable in today's large-scale extinction of non-human species.

Extinction Trends in the Past Five Centuries

Since the beginning of modernity around 500 years ago (Dussel 1995; Mignolo 1995, 2000; Moore 2009, 2010, 2015; Patel and Moore 2017), the extinction of species has accelerated and proliferated, reaching an uncommon magnitude compared to the natural background, i.e., the standard extinction rate in geological time. Depending on the source, current extinction rates are estimated to be somewhere between 100 times (Ceballos et al. 2015, 2020) and 1000 times (De Vos et al. 2015) above the natural background. Data presented by Ceballos et al. (2015) shows a massive increase in extinction in the past five centuries, which has accelerated significantly in the past two centuries and again in the last decades.

In late 2022, 45,187 species were 'threatened with extinction', according to the Red List of Threatened Species compiled by the International Union for Conservation of Nature (IUCN), the most widely accepted institution registering the extinction

of species. Additionally, 940 (known) species have become extinct since 1500 AD, not counting the 86 species that are 'extinct in the wild' (IUCN 2022).⁷

The true number of endangered species might be much higher since the Red List is based on incomplete data (Pimm and Raven 2019: 98–99). As of late 2022, a little over 150,000 species have been assessed by the IUCN, which, while significant, is less than 10 per cent of the species known, which, in turn, is likely to only be a fraction of all species on the planet. Furthermore, the criteria used to establish the Red List are ill-suited for taking into account the long-term effects of climate change on species and ecosystems (Cameron 2012: 54; Hannah 2012: 6).⁸ Other sources, such as the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, estimate significantly higher numbers of threatened species (IPBES 2019).

These numbers have led to the idea that we are living through the 'sixth mass extinction' event in the history of Earth (Kolbert 2014; Leakey and Lewin 1996; Sepkoski 2020: 263–283; Wilson 1992).⁹ However, framing the issue in these terms conceals methodological difficulties in quantifying and comparing current and past extinction rates: among them, the fossil record holds little information on species, frequently leading palaeontologists and biologists to work at different taxonomical levels (families or genera in the case of palaeontologists, species in the case of biologists) that are not automatically commensurable (Barnosky et al. 2011; Sepkoski 2020: 269–271).

7 For a discussion of the process of creating the Red List and its uses (and, more general, of threatened-species lists) as biopolitical technologies of calculation deployed to govern human and non-human life, see Braverman (2017). Braverman's examination of the application of computational mathematics in the creation of threatened-species lists in order to govern unknown phenomena – i.e., the risk of future extinction – is particularly interesting. Analysing extinction estimates and the technologies used to measure and classify species in threatened-species lists is, however, outside the scope of this essay. Notwithstanding the peculiarities and problems of scientifically measuring extinction, I accept the general point that the extinction of species has accelerated and proliferated in the past centuries.

8 See Mace et al. (2008) on the criteria used for the Red List.

9 The five largest (known) mass-extinction events (there have been others of smaller scale) occurred near the end of the Ordovician (c. 450 million years ago), Devonian (c. 375 million years ago), Permian (c. 252 million years ago), Triassic (c. 202 million years ago) and Cretaceous (c. 66 million years ago) geological periods (Raup and Sepkoski 1982).

Despite the difficulties in quantifying and establishing comparisons across geological time, scientific estimations of contemporary extinction rates indicate a significant increase during the last 500 years. It can be stated with reasonable certainty that, within this period and with respect to the species that are known, extinction rates have significantly accelerated. These estimates point to a geo-historical correlation between the emergence of modernity and accelerated extinction rates.

The Thanatopolitics of Extinctions in Modernity

Either due to the inability to biologically adapt (Darwin 2008) or due to catastrophic climatic and ecological events (Cuvier 2009; Raup and Sepkoski 1982), extinction is a characteristic of planetary geological time.¹⁰ However, the present acceleration and proliferation of extinctions are peculiar: they are the product of the magnification of death across species that results from modern forms of making life (McBrien 2016; Rose 2005, 2008, 2011; Tsing 2017, 2019; van Dooren 2014). The ecological phenomena that feed contemporary extinctions – such as rising emissions and concentration of greenhouse gases, desertification, deforestation, rising sea levels, increased toxicity and radioactivity, the proliferation of industrial waste, the extraction and depletion of energy sources, etc. – are the thanatopolitical consequence of biopolitical exercises intended to ‘make live’ in specific ways in modernity.

Modern biopolitics is not thanatopolitical because it amplifies the extinction of non-human species. Rather, extinction unfolds within modernity because, when considered at the full length of multispecies interdependencies, biopolitics has unavoidable thanatopolitical effects (Aldeia 2022; Dutkiewicz 2015; Lynch 2019; Pugliese 2020). Although extinction shows the thanatopolitical drive of biopolitics, the latter is thanatopolitical in itself, and before extinctions occur. Alongside extinction, other biopolitical practices that involve non-human species are clearly thanatopolitical, from the massive death machine of industrial stock breeding, which is not only predicated on large-scale slaughter but also greatly contributes

10 Darwin’s argument that the extinction of species was part of biological evolution was presented against Cuvier’s understanding of extinction as the result of catastrophic climatic and ecological events. In the last decades, without denying Darwin’s theory of evolution, the statistical verification of the geological occurrence of mass-extinction events in the fossil record (Raup and Sepkoski 1982) has steered scientific discourses towards the idea that ecological and climatic catastrophes can lead to the massive extinction of species independently of their adaptive capabilities (Sepkoski 2020).

to the creation of zoonotic pathogens (Keck 2019; Wallace et al. 2016, 2020), to daily pest-management practices aimed at killing individuals and populations of species whose presence in farms and orchards hinders human mastery over crop commodities (Aldeia 2022; Dutkiewicz 2015; O’Gorman and van Dooren 2017; Perfecto, Jiménez-Soto and Vandermeer 2019; Philipps 2013; Scott 1998: 262–306).

In modernity, regulating the life of human populations is premised on promoting urbanisation, industrial production, mass consumption and accelerated movement by car, ship and airplane. Biopolitical interventions to normalise human populations so that their biological lives are protected require creating the epistemic and material context in which human beings can act (Foucault 2004, 2009). To govern the lives of human populations, this context must be technoscientifically mastered, which entails transforming the non-human elements with which humans interact – from species and ecosystems to the atmosphere. Mastery requires that these non-human elements become either resources to be appropriated or obstacles to be eliminated.¹¹ In other words, for modernity to exist, the non-human elements of the world need to be transformed into ‘the environment’, i.e., the *milieu* in which humans exist and that exists solely for their purposes (Aldeia and Alves 2019). This is the essence of Cartesianism: using modern technology and science, humans (white, European, male, property owner) would become ‘the masters and possessors of nature’ (Descartes 2006: 51).

Creating the right environment for the lives of modern human populations requires myriad biopolitical interventions. Forests need to be cleared out so that wood can be used to build infrastructures or as an energy source for industrial production and household activities, as well as to make space for crops that would feed growing populations of humans, cattle or poultry (that will end up feeding humans). Ecosystems need to be altered to allow for monoculture and pharmaceutically supported agriculture that produces food in abundance at relatively cheap prices.¹² Land and sea need to be drilled and mined to extract raw materials for both energy sources (e.g., coal or oil) and money (e.g., silver or gold). Mountains need to be excavated and the course of rivers altered to build cities and roads to connect urban settlements.

11 On the modern relationship between mastery and ecological problems, see Plumwood (1993).

12 Jason Moore argues that cheap food is one the foundations of what he calls the ‘capitalist world-ecology’. In modernity, the remaking of ecosystems is inextricable from the needs for cheap food to feed cheap labour (Moore 2015, 2016; Patel and Moore 2017).

The creation of new forms of nature occurs both intentionally and unintentionally. Some forms of nature are purposefully produced, such as new kinds of simplified plantation ecologies characterised by a relatively small number of species that are welcome and whose vital activities can be mobilised to foster the rapid and large-scale growth of commodity crops (Aldeia 2022; Haraway 2015; Haraway, Tsing and Mitman 2019; Moore 2009, 2010, 2015; Perfecto, Jiménez-Soto and Vandermeer 2019; Scott 1998: 262-306; Tsing 2017). Other forms of nature are the unintentional result of promoting modern ways of human and non-human life, such as an atmosphere with a growing concentration of greenhouse gases due to the emissions of burnt fossil fuels (Malm 2016).

Intended or not, new forms of multispecies entanglement that result from biopolitical interventions to 'make live' lead to the extinction of species through the extermination of pests and weeds, consumption of edible species or radical alteration of the ecological features of the sites where species reside. Modern biopolitics cannot operate without bringing death to non-human species (Aldeia 2022; Dutkiewicz 2015; McBrien 2016; Pugliese 2020; Rose 2005, 2008, 2011; Tsing 2017, 2019; van Dooren 2014).

This biopolitical spread of death cannot be understood without expanding Foucault's work. Foucault's conceptualisation of the roles of non-humans in biopolitics is limited by its Cartesian subordination of non-human entities – and, especially, of non-human species – to humans. This is one of the main reasons why Foucault's discussion of biopolitics wrongly assumes that death is primarily the limit after which this power 'to make live' cannot be exercised (Foucault 178: 138; 2003: 247–248). In other words, by ascribing importance to non-human species merely as factors that influence human populations, Foucault fails to see that at the core of biopolitics is not only the avoidance of death but also, paradoxically, the amplification of death. Among other things, the role of non-human species in Foucauldian biopolitics makes it impossible to fully take into account how contemporary extinctions show that modern biopolitics is inherently thanatopolitical.

Current extinctions are the result of the thanatopolitical ways in which human life is fostered in modernity. Biopolitical interventions amplify death in the form of destroyed ecosystems, depleted sources of nourishment or an unbreathable atmosphere, which makes extinction proliferate. Each new extinction further amplifies death because its consequences harm all the other species that depend

on the activities carried out by the dead one, humanity included (Rose 2005, 2008, 2011). As Deborah Bird Rose (2012) reminds us, life and death are inextricably linked both across intra-species generations and across inter-species interactions (see also van Dooren 2014). Through these sequential and synchronous bonds, 'multispecies knots' (Rose 2012) manage 'to bend death back into life' (Rose 2005: 124): dead organisms turn into nourishment for other species, whose activities allow other species to flourish, which in turn will allow the next generation of the dead organisms' species to thrive.

The extinction of a species interrupts these – agonistic or harmonious – situated inter-species relations of mutual support on which life depends. Extinction is a phenomenon of what Rose (2005) calls 'double death', an amplification of death that not only entails the death of individual bodies or populations (the first death) but also breaks the sequential and synchronous bonds between species and generations, between life and death, making the act of turning death back into life significantly more difficult (see also Rose 2008, 2011; van Dooren 2014). The result of double death is the spread of the damages of extinction to the remaining species whose life experiences depended on the support provided by the deceased one.

For Foucault, the central aims of sovereignty and biopolitics are fundamentally at odds. Whereas sovereignty is premised on death, biopolitics is focused on promoting (certain kinds of) life. According to Foucault, since biopolitics cannot be exercised once death occurs, biopolitics must operate through state racism to become predicated on death (Foucault 2003: 254–263). Emerging in the nineteenth century and gaining strength in the twentieth century (e.g., Nazism, Soviet Communism), state racism enabled power exercises to differentiate between categories within the population under its control, which were ordered hierarchically on the basis of a biological discourse on 'race'. With modern state racism, the biopolitical exercises through which the life of a human population is protected and fostered become directly dependent on the sovereign act of killing other populations: Foucault writes that 'if the power of normalization wished to exercise the old sovereign right to kill, it must become racist' (2003: 256). In other words, state racism enables the sovereign 'right to take life or let live' to express itself within the matrix of life-affirming biopolitics.¹³

13 See Mbembe (2019) for a more recent discussion of how racism and colonialism turn biopolitics into thanatopolitics – or, in his terminology, 'necropolitics'.

This Foucauldian conceptualisation of what is, essentially, the thanatopolitical impulse of biopolitics is insufficient. Instead of being something that might eventually show itself under certain specific historical circumstances, thanatopolitics is at the very core of modern biopolitics. The thanatopolitical dimension of biopolitics has been argued before, and it is clear in the exposure of bare life to sovereign acts (Agamben 1998, 2005) or in strategies employed to immunise communities (Esposito 2008, 2010, 2011).¹⁴ These are undoubtedly important arguments to understand how biopolitics' promotion of life is predicated on death. But if one goes beyond the anthropocentric premise common to the work of Agamben and Esposito, it becomes clear that there are many other instances where biopolitics unfolds in ways that are inherently predicated on the amplification of death. Rather than being its limit, death is *condition sine qua non* of the exercise of biopolitics: to make humans live in certain ways in modernity, death needs to be pushed away from the human populations whose lives are at stake – but this can only occur by pushing it towards other human and non-human populations.

Going beyond Foucault's analysis, contemporary extinctions show that thanatopolitics is constitutive of biopolitics. If life is understood as the result of multispecies interactions and is not restricted to humans in biopolitical analysis, it can be observed that, since the beginning of modernity, attempts to 'make live' have been fundamentally dependent on killing non-human populations.

Conclusion: Multispecies Thanatopolitics

Foucault's conceptualisation of biopolitics is invaluable for the analysis of modernity. However, it is also limiting due to the scholar's treatment of non-human species as part of the *milieu*, which makes it impossible to fully grasp the connection of biopolitics and thanatopolitics. As I have argued, the acceleration and proliferation of extinction in modernity points to a foundational dependence of biopolitical acts intended to 'make live' on the amplification of death.

14 It is outside of the scope of this essay to discuss the works of Agamben and Esposito, which are tangential to my argument. Although they are crucial to understand thanatopolitics, my point is that the centrality of death in the biopolitical objective of fostering life is clear if non-human species are considered as an integral part of biopolitics – because they are integral to the reproduction of life. I have discussed a possible extension of Esposito's arguments to multispecies relations in Aldeia (2022). A proposal to expand Agamben's ideas to political ecology (*latu sensu*) can be found in Smith (2011).

To understand this, the analysis of biopolitics must start with the empirically verifiable assumption that governing human populations is inextricable from governing non-human species and ecosystems. Non-human species are not merely part of the *milieu*. Rather, they are sets of living individuals who are permanently entangled in multispecies interdependencies. Life's conditions of possibility are always the result of these interdependencies, which makes an anthropocentric understanding of biopolitics inadequate. In other words, biopolitics always is a multispecies phenomenon.

A multispecies framing indicates that modern biopolitics is also always thanatopolitics. The point I have made is not that biopolitics is thanatopolitical because it amplifies extinction. Rather, it amplifies extinction because it is thanatopolitical. Governmental practices intended to 'make live' in modern ways are inherently premised on a duality between life and death in which (certain kinds of) human life can only be fostered at the expense of making death proliferate among non-human species – and also among other human populations besides the ones whose lives are being fostered, but this was outside the scope of this essay. Hence, understanding biopolitics as a type of power that has its limit in death is misleading. More so than sovereignty, which separates life and death insofar as it can only operate through the latter, modern biopolitics merges life and death in its life-fostering practices, although this interrelation is uneven insofar as life and death are distributed in different ways to different populations – and even to different species. By continuously intervening in multispecies entanglements to foster the lives of human populations, modern biopolitics keeps amplifying death in ways that ultimately oppose the promotion of life. To put it in Foucault's terminology, as governmental practices keep intervening in the *milieu* to regulate the lives of human populations, they impoverish it by eliminating living beings and relationships on which the reproduction of life depends. As time goes by, the potentialities found in the *milieu* are reduced – which inevitably makes it harder to sustain modern ways of life (or any kind of life).

Given the unavoidable amplification of death in modernity, thanatopolitics can only (possibly) end by imagining different – and undetermined – forms of multispecies relations that break away from this political-ecological system. This would most likely not end biopolitics, but it could create conditions of possibility to stop 'double death', i.e., the magnification of death that makes death start to

threaten the lives of different species instead of providing nourishment for them (Rose 2005, 2008, 2011). To borrow Roberto Esposito's (2008: 11) formulation, doing so might make it possible to change multispecies biopolitics from a 'politics over life', which is inextricable from thanatopolitics, to a 'politics of life' that aims to foster it without *a priori* deciding that only the life of a preferred phenotype, social class, place of birth or species matters. Assuming that anyone knows *a priori* whose lives should be nurtured is fraught with peril. One needs to look no further than the historically shifting interpretation of exactly who is 'human' to be aware of these dangers.

While I do not presume to provide any sort of normative answer to what such a multispecies biopolitics should be like, I do think that it is important to highlight that the 'politics of life' needed to break away from modern thanatopolitics must nurture life as a whole, which is not compatible with nurturing all potential (future) lives across different species. The point of such an emancipatory biopolitics is providing the conditions of possibility for all humans and non-humans to experience a good life – as it might be defined in specific multispecies entanglements. This means nurturing the lives of all human beings who are currently alive and, as far as possible, the lives of non-humans – essentially, it means nurturing the lives that are harmed by multispecies thanatopolitics. But for life as a whole to be nurtured in the long term, healthy multispecies entanglements are essential, and these are not compatible with the unchecked growth of any single species – no more than they are compatible with mass consumption, unchecked industrial production or the current scale of global movement of humans, non-human species and things. Hence, an emancipatory biopolitics cannot be premised on unrestrained pronatalism or unlimited economic growth since this sooner or later disrupts local multispecies homeostasis.

Acknowledgements

I would like to thank Ana Manso, the two anonymous reviewers and David Samways, the editor of *JP&S*, for their comments on a previous version of this essay, as well as Pauline Kargruber for editing the manuscript. I am also grateful to Fátima Alves, Fernando Morgado and Pedro Mendonça for our discussions about the extinction of species. I am responsible for any issues that remain.

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