

Malthusian Biopolitics, Ecological Immunity, and the Anthropocene

Hannes Bergthaller
National Chung-Hsing University, Taiwan
hannes.bergthaller@gmail.com

Abstract



This essay argues that Michel Foucault's original introduction of the concept of biopolitics should be seen as responding to Emmanuel LeRoy Ladurie's notion of a "Malthusian curse" which during medieval and early modern times kept the French population in check. Biopolitics was, in its original conception, the management of human and nonhuman populations, securing them against famine and disease so as to allow for continuous growth. During the second half of 20th century, however, Neo-Malthusian thinkers pointed out that these strategies for immunizing human life against the vagaries of ecological existence had come to endanger the basic conditions of life precisely to the degree that they had been successful—ushering in the new geological epoch we have lately begun to refer to as the Anthropocene. This paradoxical dynamic can be understood in terms of what Roberto Esposito has described as an "immunitary double-bind": existing immunitary defenses can no longer be dismantled without causing significant harm to human life, yet failure to dismantle them will increase the risk of incurring even greater harm in the future. Such an account, it is argued, yields a more ambivalent picture than the starkly negative views which continue to dominate biopolitical theory.

Keywords: Anthropocene, biopolitics, immunity, neo-malthusianism.

Resumen

Este ensayo sostiene que la introducción original de Michel Foucault del concepto de biopolítica debería entenderse como respuesta a la noción de "maldición malthusiana" de LeRoy Ladurie que durante la época medieval y moderna mantuvo bajo control a la población francesa. La biopolítica era, en su concepción original, la gestión de poblaciones humanas y no humanas, protegiéndolas frente a la hambruna y la enfermedad, y permitiendo un crecimiento continuo. Durante la segunda mitad del siglo XX, sin embargo, los pensadores neo-malthusianos apuntaron que estas estrategias de inmunización de la vida humana frente a los antojos de la existencia ecológica habían terminado por poner en peligro las condiciones básicas de la vida precisamente hasta el punto de que habían tenido éxito—marcando el inicio de la nueva época geológica que recientemente hemos denominado Antropoceno. Esta dinámica paradójica puede entenderse como lo que Roberto Esposito ha descrito como una "atadura doble inmunitaria": las defensas inmunitarias existentes no pueden desmantelarse sin causar un daño significativo a la vida humana, pero fracasar en desmantelarlas aumentaría el riesgo de sufrir aún más daño en el futuro. Tal explicación, se argumenta, ofrece un retrato más ambivalente que las vistas claramente negativas que continúan dominando la teoría biopolítica.

Palabras clave: Antropoceno, biopolítica, inmunidad, neo-malthusianismo.

Introduction

Since the turn of the century, biopolitics has emerged as one of the principal concerns in humanities scholarship. It is not difficult to see the reason for this surge of interest in a concept which, when Foucault originally proposed it during the second half of the 1970s, had found only very little resonance. The so-called “War on Terror” waged in the wake of 9/11 furnished a set of historical circumstances in which the idea of a state that, in the name of security, exercises an unlimited and immediate control over the lives of people assumed a new and frightening plausibility. Elaborating on Foucault’s writings on the subject, Giorgio Agamben and Achille Mbembe described biopolitics as an escalated form of sovereign power. The extraterritorial internment camp at Guantanamo Bay, extraordinary renditions, and the abuse of prisoners at Abu Ghraib offered powerful illustrations of the biopolitical mechanisms of exclusion they had outlined in their discussions of “bare life” (Agamben 10-13) and “necropolitics” (Mbembe 27-30) respectively. Meanwhile, the vast expansion of government surveillance programs, the introduction of new biometric controls and methods for the analysis of meta-data appeared to confirm Michael Hardt’s and Antonio Negri’s analysis of “Empire,” that is to say, of a global neoliberal order which deploys “biopower” in order to wrest surplus value from life.

Without a doubt, this work had important things to say about its own historical moment, and much of it remains relevant today. At the same time, the developments on which they focused are increasingly being eclipsed by a more expansive, more intractable, and in some ways more pressing set of concerns, namely about the cumulative impact of world society on the Earth, and about the Earth’s continued ability to support a growing human population. These concerns are, of course, not entirely new—indeed, many of the terms in which they are being discussed today became entrenched at about the same time that Foucault was advancing the notion of biopower as a conceptual key to modernity: the rise of the modern environmental movement occurred during the 1960s and 70s; the Club of Rome’s seminal *The Limits to Growth* was published in 1972. However, since Paul Crutzen and Eugene Stoermer proposed, in a short essay published in 2000, that human activity had propelled the Earth into a new geological age which they named “the Anthropocene,” empirical evidence for the ecological self-endangerment of world society has been accumulating ever more rapidly. The discourse of the Anthropocene, especially where it revolves around questions of “planetary boundaries” and relies on the mathematical modelling of complex social and natural systems, is dominated by the Earth system sciences, and it continues the neo-Malthusian lines of argument that had been so central to 20th century environmentalism (e.g. Rockström). But it has also galvanized a host of scholars in the humanities to rethink the conceptual foundations of their respective disciplines and, more specifically, to question the various versions of the nature/society

distinction which underpinned them. My aim in this paper is to show how Foucault's notion of biopolitics, as well as the concept of immunity Roberto Esposito has put forward in order to address unresolved contradictions within the latter, speaks to these issues.

Motionless History and the Malthusian Curse

As a first step, this requires that one recognize the extent to which the interpretations of biopolitics which came to the fore in the aftermath of 9/11 entailed a "willful forgetting of both the original motivations and the insights associated with Michel Foucault's thesis about the rise of modern biopower," as Leerom Medovoi has suggested (22-23). Agamben, in particular, presents biopower as a continuation and radicalization of sovereign power—a power ultimately vested in the state, exercised through the law (and its suspension in the state of exception), and aimed at the domination of particular human bodies. Insofar as it pivots on the Aristotelian distinction between *zōē* and *bios*, or natural and political life, he suggests, the entire tradition of Western political thought, from the Greeks onwards, is essentially biopolitical (Mills 83).

This stands in marked contrast to Foucault's original account of biopolitics as advanced both in his lectures at the College de France and in the *History of Sexuality*. Foucault's point of departure there is the observation that, from the eighteenth century onward, the politics of sovereignty "found itself unable to govern the economic and political body of a society that was undergoing both a demographic explosion and industrialization" ("*Society*" 249). It was in reaction to this crisis that a new modality of power emerged which no longer conceived of the governed primarily as juridical subjects, but rather addressed them as living bodies—first individually (by way of what Foucault had earlier analyzed as disciplines, or "anatomy-politics") and then, beginning in the latter half of the eighteenth century, at the level of the population, which now was made knowable through new methods of demography and statistical aggregation, constituting the field of "biopolitics" proper ("*Society*" 243). Foucault summarizes the contrast between sovereign power and biopower in a pithy formula: the former was "the right to take life or let live," the latter entailed the mandate "to make live and to let die" ("*Society*" 241). Moreover, whereas sovereignty had operated through the law, biopolitics works by "effect[ing] distributions around the norm" (*History* 144); under this new dispensation, the law does not disappear, but it is progressively assimilated "into a continuum of apparatuses (medical, administrative, and so on) whose functions are for the most part regulatory." (ibid.) And while Foucault does indeed at times refer to the result of this process as "State control of the biological" ("*Society*" 240), he also insists that biopolitics is not in fact a prerogative of the state, but also exercised by a host of "sub-State" actors such as "medical institutions, welfare funds, insurance, and so on" ("*Society*" 250). While biopower may be "totalizing" in the sense that it

seeks to intervene in and regularize life in a much more pervasive and fine-grained fashion than could have been imagined under the purview of sovereign power, it does not, in the words of Paul Rabinow and Nicholas Rose, “emerge from, or serve to support, a single power bloc, dominant group or set of interests” (199).

To be sure, Foucault’s remarks on the relationship between sovereign power and biopower are often elliptical and at times contradictory—early on in the lectures, for example, he suggests that the new modalities of power were “absolutely incompatible with relations of sovereignty” (“*Society*” 35), whereas in the concluding session he speaks of them as “complement[ing],” “penetrat[ing], and “permeat[ing]” the latter (“*Society*” 241). Elsewhere, he writes that they “supplanted” sovereign power (*History* 140). However one wishes to read these passages, Foucault leaves no doubt that he views the advent of biopolitics not only as a historical novelty, but as a genuine epochal break. As he was to put it in one of the most famous passages of the *History of Sexuality*: “a society’s ‘threshold of modernity’ has been reached when the life of the species is wagered on its own political strategies. For millennia, man remained what he was for Aristotle: a living animal with the additional capacity for a political existence; modern man is an animal whose politics places his existence as a living being in question” (HS 143).

The advent of biopolitics, in other words, marks a fundamental shift in the conditions of human existence. To fully appreciate the character of this shift, it is necessary to read these sentences in conjunction with the passage that precedes them, where Foucault identifies it with an alleviation of the “pressure exerted by the biological on the historical” (HS 142). “For thousands of years,” this pressure had primarily taken the form of “epidemics and famine.” However, in the decades prior to the French Revolution,

an increase in productivity and resources even more rapid than the demographic growth it encouraged, allowed a measure of relief from these profound threats [...]. [The] development of the different fields of knowledge concerned with life in general, the improvement of agricultural techniques, and the observations and measures relative to man’s life and survival contributed to this relaxation [...]. In the space for movement thus conquered, and broadening and organizing that space, methods of power and knowledge assumed responsibility for the life processes and undertook to control and modify them. (HS 142-43)

What these remarks suggest is that the advent of biopolitics was above all a matter of modern societies breaking what the historian Emmanuel Le Roy Ladurie, in *The Peasants of Languedoc* and *Times of Feast and Times of Famine* (originally published in 1966 and 1967, respectively), had described as the “Malthusian curse” (*Times of Feast* 311). Ladurie argued that the population of France from the Middle Ages into the Early Modern period had been in the tight grip of Malthusian cycles: during the fourteenth century (largely as a result of the bubonic plague), the population had crashed from about 20 million to little more than 10 million. By the early sixteenth century, it had rebounded. Between 1560 and 1720, it oscillated between 18 and 20 million, with periods of population growth offset by frequent

bouts of famine and disease. Ladurie described this condition as “histoire immobile.” Only in the early eighteenth century did the French population begin to enter a period of steady growth, reaching about 30 million by the end of the century (*The Peasants* 122-25). This is the historical context in which, according to Foucault, biopower begins to supplement sovereign power, and I cannot help but suspect that when he speaks of the new “space for movement” which enabled this transition, he is implicitly counterposing it to Ladurie’s “motionless history.”¹

This also implies that the epochal significance of the emergence of biopower is not nearly exhausted by the fact that it led to new forms for governing people—even though this is certainly the aspect with which Foucault was mostly preoccupied, and which subsequent theorists of biopolitics have almost exclusively focused on. Just as importantly, biopolitics has to do with the development of methods which made it possible to immunize society against famine and disease, and this is necessarily a matter of governing not only the human population, but also the populations of the many non-human species on which the well-being of the latter depends. Biopolitics is about managing the populations of pigs and wheat, of locusts, mosquitos, and microbes, and any number of other creatures. It aims to bring the ecological conditions of human existence, which hitherto had constituted an “inaccessible substrate that only emerged from time to time, amid the randomness of death and its fatality,” into “the realm of explicit calculations” (HS 143). Biopolitics, in other words, cannot help but also be *ecological* politics; it cannot help but be a biopolitics of the nonhuman.

Naturalization, Denaturalization, and the Biopolitics of Scarcity

At the heart of biopolitics one thus finds a kind of paradox. The efficacy of biopolitical governance rests on the knowledge of a fundamental ontological continuity between human beings and other biological species. Its conceptual premise is the *naturalization* of the human species—the knowledge that human beings are only one life form among others, “a living species in a living world” (*The History* 143). The dangers which biopolitical governance seeks to protect against arise from, and must be addressed at the level of, human commonality with nonhuman species: the susceptibility to disease and the need for sustenance are universal features of all life. Thus Ladurie could argue (“with all due respect to the Angevin character”) that the frequent epidemics which, up until the eighteenth century, kept the human population of Anjou in check were substantively analogous to the diseases that periodically decimate simian populations, serving as a “primitive and cruel form of self-regulation” (“Motionless” 129). Biopolitical governance grows

¹ There can be no question that Foucault would have been keenly aware of these ideas: Ladurie was his colleague at the Collège de France, where he succeeded Ferdinand Braudel in 1973; in his inaugural lecture, he presented a precis of his work which was later published under the title “Motionless History” (Ladurie “Motionless”).

in tandem with the understanding that disease and famine are not “acts of God,” testifying to the power of a divine sovereign no more accountable to human beings than the king was to the peasantry, but arise from natural causes and are amenable to control by natural means.

The necessary result of such governance, however, is a radical *denaturalization* of the human, insofar as the function of the biological mechanisms which had regulated human populations in the past is now assumed by society itself. Even as it closes the conceptual gap between human and nonhuman life, biopolitics opens up a divide between those forms of life which are valorized, protected, and in some measure exempted from the vagaries of ecological existence, and those forms of life which must be left to die in order for the latter to flourish. But this dividing line can now no longer be a “natural” one—even if the necessity of drawing it was almost invariably legitimized in terms of its naturalness. This, Foucault argued, was precisely the function of modern concepts of race and of racial degeneracy: to “create caesuras within the biological continuum addressed by biopower” so as allow for the distinction between “what must live and what must die” (“*Society*” 254-55).

This is where, both logically and historically, the ideas of Thomas Malthus come into play. His geometrical proof against the possibility of universal equality and justice (in its first, 1798 iteration, the *Essay on the Principle of Population* was first of all a polemic against William Godwin and the Marquis de Condorcet) is so well known that a very brief of summary will suffice: “Population, when unchecked, increases in a geometrical ratio” (i.e., exponentially); “subsistence increases only in an arithmetical ratio” (i.e., in linear fashion; 4). Because population growth always tends to outstrip available resources, the difficulty of ensuring subsistence continuously suppresses the former—be it in the form of “preventative checks” (20), as when couples decide to delay marriage and child-bearing, thereby reducing the number of their off-spring, or in the form of “positive checks” (23), i.e., malnutrition, disease, and other factors which increase mortality. Either way, the lower strata of society are fated to endure “misery and vice” (5). Efforts to circumvent this “imperious all pervading [sic] law of nature” (ibid.), Malthus argued, could only backfire: the English poor laws, for example, by alleviating the pressure of the positive checks, also removed the incentive to apply preventative checks, i.e. they encouraged imprudent reproductive behavior, and would in due course produce more misery. Their “tendency” was “to increase population without increasing the food for its support,” and thus effectively “to create the poor which they maintain” (26).

The Malthusian calculus furnished a powerful “natural” principle in terms of which the withholding of biopolitical protections from poor and marginalized groups could be justified. Especially after Darwin integrated it into his theory of evolution as the primary mechanism of natural selection, it seemed to mandate the extermination of social degenerates and inferior races in the name of progress. This

was precisely the conclusion drawn by Francis Galton, who cautioned that the civilizing process tended to remove the selection pressures which alone ensured that superior biological types prevailed over the weaker members of society, and thus might lead to the “degradation of the human race” (*Hereditary Genius* 1). Society therefore needed to embark on a deliberate effort to improve the racial stock: “If a twentieth part of the cost and pains were spent in measures for the improvement of the human race that is spent on the improvement of the breed of horses and cattle, what a galaxy of genius might we not create!” (“Hereditary”). Thus Malthusianism flowered into eugenics, eventually bearing fruit in such books as Lothrop Stoddard’s *The Rising Tide of Color against White Supremacy* (1920) (cf. Robertson 13-15).

After WWII, the genocidal policies of Nazi Germany had thoroughly discredited such views. When Malthusianism re-emerged as a key component of the new environmentalist thinking in the post-war period, it was stripped of all overt connections to biological racism. The two books which, more than any others, instigated a renewed public interest in population control, Fairfield Osborn’s *Our Plundered Planet* and William Vogt’s *Road to Survival* (both 1948), framed the issue strictly in terms of resource scarcity, overconsumption, and environmental degradation, and they emphasized that these problems now needed to be addressed on a planetary scale. Both Osborn and Vogt were trained biologists, and in their argumentation applied recent insights from animal ecology and population biology to the geopolitical challenges of the emerging Cold War period (cf. Robertson 37-38). Human history, they argued, was rife with instances when “populations exceeded the carrying capacity of the land” and as a result fell into ecological and civilizational decline (Vogt 40). However, the unparalleled rapacity of modern industrialized societies was putting a far heavier strain on the natural environment. Given the rapid growth of the world’s population, they warned, the idea that the “European and American economic system is applicable to the rest of the world” (Vogt 147) was a recipe for ecological disaster, war, and social collapse: “Like Gadarene swine, we shall rush down a war-torn slope to a barbarian existence in the blackened rubble” (ibid., 288). Osborn and Vogt played a crucial role in establishing the parameters within which the issue of global population growth was discussed during the subsequent decades, a debate that would culminate in the publication of Paul R. Ehrlich’s *The Population Bomb* (1968), the Club of Rome’s *The Limits to Growth* (1972), and Garrett Hardin’s proposal of a “Life Boat Ethics” (1974).

The acknowledgment of ecological limits sometimes led these writers to chilling conclusions. In *The Population Bomb*, for example, Ehrlich spoke in favor of implementing coercive mass sterilization programs in “underdeveloped countries” (165) and suggested that US famine relief efforts should adopt a system of “triage” similar to that employed in military medicine. Military doctors sort incoming patients into three categories: those who will die regardless of treatment, those able to recover without treatment, and those who require immediate attention in order to survive. Medical resources will be directed only towards the last category. In

much the same manner, Ehrlich argued, countries who are “so far behind in the population-food game that there is no hope that our food aid will see them through to self-sufficiency,” such as India, should simply be left to their own devices (160). Hardin’s essay on “Life Boat Ethics” was tellingly subtitled “The Case Against Helping the Poor”: as long as international aid shielded them from the disastrous consequences of political mismanagement, “the poor countries will not learn to mend their ways, and will suffer progressively greater emergencies as their populations grow.” Allowing their inhabitants to migrate to the prosperous regions of the world would only serve to degrade the natural resources of the latter without improving the situation of the former. The only prudent course for the more fortunate nations is therefore to pull up the drawbridge, protect what is theirs and leave the rest of the world to its sorry fate. Hardin acknowledged that many people would find such a course of action “morally abhorrent,” but insisted that it “clearly offers the only means of our survival” (1974).

Such arguments effectively transposed Malthus’ justification of social inequality to a global scale, and it is hardly surprising that their authors were accused not only of moral callousness, but also of racism and neo-colonialism. In an influential polemic against the neo-Malthusians, Allan Chase argued that their ecological concerns were merely “a new package wrapper for [an] old bill of goods”—namely, the eugenicist views that had held sway during the first half of the twentieth century (1977: 369). More recently, the historian Matthew Connelly has sought to write the entire project of population control as “another chapter in the unfinished history of imperialism” (378). Quite apart from the question whether it is fair to indict a group of writers for beliefs which they explicitly repudiated,² it is clear that neo-Malthusian ideas do indeed make a snug fit with the functional profile of racism as specified by Foucault: they allow for a rational distinction between those forms of life that have to be protected and those that should be allowed to die, between forms of life that are worth living and others which do not rise to this level. One of the most frequently heard criticisms of neo-Malthusian thinking is that it is inherently misanthropic and denies the dignity of human life. But this is at best a half-truth. Rather, what it implies is that human dignity requires self-limitation—what Foucault described as the placement of a caesura. Because overpopulation threatens to debase *all* human lives and to make them expendable, the imperative of averting it entails that *some* of these lives may (or even must) be treated as debased and expendable. Ultimately, as Eva Horn has argued, the neo-Malthusian “biopolitics of scarcity” is thus founded on a logic of exception according to which the exigencies of the moment justify a suspension of the ethical obligations that would obtain in a normal situation (1003). All of this would seem to lead back, then, to the thanatological inflections of biopolitical theory one finds in Agamben or Mbembe—and thus to the conclusion that, because biopolitics invariably tilts

² Some more than others: Hardin did, in fact, express sympathies for eugenicist ideas at various points of his career; cf. Robertson 154.

towards its death-dealing flipside, it is above all something to be rejected and overcome.

Ecological Immunity

But how is one to square such relentlessly negative accounts with an understanding of biopolitics as the socio-ecological formation which accompanied and enabled, as I have suggested above, the modern escape from the “Malthusian trap”? Clearly, the latter understanding would suggest that this new mode of governance which “takes life under its care” (“*Society*” 253) must not too quickly be denounced as a mere strategy of subjugation or a ruse to expand the remit of sovereign power. What this new power “to make live” (“*Society*” 247), to “regularize” human (and, as I have argued above, non-human) life, “to manage it, to compensate for its aleatory nature, to explore and reduce biological accidents and possibilities” (“*Society*” 261) entailed in the most concrete terms was an end to conditions in which the average woman had to bear six or seven children simply in order to ensure that some of them would reach adulthood, as almost half of all children died before they even reached the age of five (Roser); conditions in which a large share of people were physically stunted from chronic malnutrition and disease, with a life expectancy at birth of well under 30 years and an average body weight about a third below what would be considered normal today (Fogel 10). It was the “disciplinary measures” and “regulatory mechanisms” through which biopower began to address humans as living beings—“health-insurance systems, old-age pensions; rules on hygiene that guarantee the optimal longevity of the population; [...] child care, education, et cetera” (“*Society*” 251)—which made possible both sustained population growth and, at the same time, a steady improvement of living conditions from the latter half of the eighteenth century onwards. From such a perspective, the modern effort to control human natality looks less like a thanatological violation and more like a necessary, materially and logically inevitable corollary of the newly acquired power to depress human mortality.

For Roberto Esposito, the profound ambivalence of biopolitics, epitomized by the strange fact that “a power that functions by insuring, protecting, and augmenting life” could yield “the mass production of death,” constitutes a “dyscrasia” which Foucault seemed unable to overcome (*Bios* 33). The notion of biopolitics superimposes two semantic vectors that pull in opposite directions and generate a seemingly irresolvable tension: what is subject and what is object in the phrase “politics of life”? Is biopolitics to be understood as a politics *of* life, in which life realizes its own imperatives through the political, or is it a politics *over* life, wherein the political overwhelms life? What is lacking in Foucault’s account, Esposito suggests, is a principle which could bring these two alternatives under one conceptual schema, a principle which would not merely juxtapose them but rather articulate the specific logic in terms of which both become legible as aspects of a

single phenomenon. His proposed solution to this “enigma of biopolitics” (*Bios* 39) is the paradigm of *immunization*.

The term “immunity,” Esposito points out, combines biological and juridical meanings which serve to illuminate each other: in the former sense, it refers to “a condition of natural or induced refractoriness on the part of a living organism when faced with a given disease;” in the latter, to “a temporary or definitive exemption on the part of the subject with regard to concrete obligations that under normal circumstances would bind one to other” (*Bios* 45). Both meanings obey the same underlying logic: they denote a mode of self-protection which functions through the introjection or incorporation of a threat. Rather than *either* negating *or* enhancing life, power is seen as enhancing life *by* negating it—not as something that “imposes” itself on life from without, but as “the intrinsically antinomic mode by which life preserves itself through power” (*Bios* 46). Immunization protects the organism by “subject[ing] the organism to a condition that simultaneously negates or reduces its power to expand”: “Just as in the medical practice of vaccinating the individual body, so the immunization of the political body functions similarly, introducing within it a fragment of the same pathogen from which it wants to protect itself, by blocking and contradicting natural development” (*ibid.*). Thus a vaccine exposes the body to an attenuated form of the pathogen; a group of people, to immunize themselves against internecine violence, instates a sovereign ruler, invests the state with a monopoly on (lawful) violence—and then immunizes the citizens of that state against potential abuses of state power by investing them with individual rights.

In all of its instances, immunization is a way of “safeguard[ing] life from the risks that derive from its own collective configuration and conflagration” (*Bios* 55). That is to say, it is concerned with threats that do not originate in some absolute outside, but which arise rather from the fact that a living organism can survive only by virtue of its embeddedness within a matrix of other living organisms. Any particular organism owes its life to the lives of others—it is, in that sense, not “proper” to itself, and always threatened by the possibility that those others come to collect the debt. According to Esposito, this condition of indebtedness is expressed in the Latin word *munus*, denoting a public office, a duty, a burden, and specifically the obligation arising from gift-giving. Both *communitas* and *immunitas* are lexical derivations from *munus*. To belong to a community is to be *cum munus*, under an “obligation of mutual donation” (*Bios* 50). Esposito asks his readers to be attentive to the negative dimension of communal belonging: to belong also means to be owned, to see one’s self-possession negated. The term *immunitas* is formed by attaching the private prefix to the same etymological root; it denotes “the condition of dispensation from such an obligation and therefore the defense against the expropriating features of *communitas*” (*ibid.*). Esposito argues that *communitas* and *immunitas* must be understood as dialectically implicated in each other, each forming the other’s necessary obverse. Every community confers a particular kind of immunity on its members; in doing so, however, it also imposes a burden against

which the latter must then once again be immunized. Immunity is thus “simultaneously [...] object and motor” of community, both that which compels its original formation and that which keeps it from consuming its members; it is “the fold that in some way separates community from itself, sheltering it from an unbearable excess” (*Bios* 52).

Even though it can be said to reflect a vital necessity, the negative protection of life through its immunization is always in danger of slipping into a catastrophic *aporia*—as evidenced by the genocide of the European Jewry, which Esposito describes as a result of an “absolute normativization of life” in which the forced coincidence of the biological and the juridical issued in the annihilation of both (*Bios* 182-84), but also, in a different fashion, by the autoimmunitary paroxysm of the “War on Terror,” in which “excessive defense [...] ruinously turns on the same body that continues to activate and strengthen it” (2008: 148). Esposito’s ultimate aim is to work towards an “affirmative” biopolitics, a “new politics of life” (*Bios* 109) which would be able to avoid such disastrous outcomes. Rather than “negating” immunization—a gesture which would only reproduce that which it seeks to reject—Esposito insists that such a project must proceed by “deepening the internal contradiction” that lies at its heart (*Immunitas* 16).

I will not try to spell out here what this could possibly mean in practical terms. What interests me in Esposito’s account is not the question whether the paradigm of immunization can somehow be overturned, but rather how it can help to elucidate the ecological dimension of biopolitics I have sought to outline above—and, more specifically how it can provide a clearer view of the latter’s deeply ambivalent quality. I want to suggest that Ladurie’s “immobile history,” the time when the Malthusian checks bore down on the human population with unrelieved pressure, may be understood as a condition in which human beings were more fully integrated into the ecological community, so to speak. At the most fundamental level, to be a part of an ecological community means to prey and be preyed upon, to have to compete for food, to be a host for other species and a conduit for the energy flows that circulate through the trophic pyramid, from the primary producers through the herbivores and carnivores to the fungi and bacteria. It also means to be exposed to changing climatic conditions, such as fluctuations in rainfall and temperature. The life of every organism is a gift from the ecological community of which it is a part; but while it is alive, it will seek to defer the date of reciprocal donation for as long as it can. This deferral is the limited immunity the organism enjoys, which is identical with its finite ability to live.

Against this background, one can think of the new forms of biopolitical governmentality which developed from the eighteenth century onwards as systematic, stepped up efforts to immunize society against the vagaries of ecological existence. Their purpose is to exempt human life from the ecological *munus*, as new forms of scientific and administrative expertise are mobilized to emancipate society from the twin threats of scarcity and disease. A principal driver of ecological

immunization was fossil energy, which enabled human beings to decouple themselves to an unprecedented degree from the flows of solar energy that sustain most other biological species, and to construct material and symbolic containers within which human life could flourish seemingly regardless of ecological conditions. By the middle of the twentieth century, however, it was becoming increasingly clear that these strategies were leading to an impasse—not in spite, but precisely *because* of their spectacular success: instead of furthering the autonomy of the individual, they were making it ever more dependent on the political and techno-scientific mechanisms that sheltered society from environmental risks. Because these protective mechanisms had allowed for an exponential increase of the human population, all the while becoming ever more complex and resource-intensive, they were also exacerbating the very imponderables which had made them appear to be necessary, in the first place. In an uncanny inversion, human health, longevity, and fertility, which had been the primary objects of biopolitical regulation, were themselves turning into a source of risk. The attempt to shore up the defenses of the individual body and the body politic against external threats precipitated the latter's recurrence from within—a process which, from Rachel Carson's *Silent Spring* onwards, was frequently allegorized as a form of cancer (Bergthaller 121; for a striking example, see Ehrlich 166). The mechanisms of ecological immunization were turning against the very communal matrix which sustained the human population; its most powerful agent, fossil energy, was fraying the atmosphere, that ultimate immunitary envelope by which the biosphere shields itself from the deadly milieu of interplanetary space.

The Biopolitics of the Anthropocene

It will perhaps have become obvious at this point that the account of Malthusian biopolitics and ecological immunization which I have offered in the foregoing is, at the same time, a genealogy of the Anthropocene—of the Anthropocene not as a stratigraphic or geological set of facts, but rather as the product of a process in which the social and the natural are inextricably intertwined. Seen from this vantage point, Foucault's analysis of the advent of biopower anticipates many of the arguments that humanists have advanced in recent years in order to make sense of the Anthropocene—writing, for instance, that it dissolves customary distinctions between the temporalities of natural and human history (Chakrabarty), puts an end to the illusion of a human monopoly on agency (Latour), erases the boundary between the Kantian realms of freedom and necessity (Hamilton 138), or otherwise collapses distinctions that had been foundational to the self-descriptions of modern society. In one way or another, most of these theorizations find themselves circling around the paradox I pointed to above: on the one hand, the Anthropocene seems to give the lie to all attempts to assign human and non-human beings, social and natural facts, to different ontological planes.

Biopolitical strategies may aim to enhance the vitality of humans; in practice, they are predicated on the general commutability of life forms and weave together all sorts of bodies. The Anthropocene forces one to think human history within the context of geological and evolutionary time, as only one skein in a much larger process to which human goals and intentions are incidental. On the other hand, however, and for many of the same reasons, it also seems to mark the end of “nature” as a distinct domain of reality and its total vulnerability to human intervention. This has prompted some writers to hail the Anthropocene as the world historical moment when humans are compelled to recognize themselves as “the God species” (Lynas) and to assume their proper responsibility of shaping the biosphere in accordance with human needs (e.g. Kareiva et al.; Ellis). Many others felt compelled to denounce it as a “surreptitious purveyor [...] of the human supremacy complex” (Christ 133) and to warn against the ways in which it might serve as “a legitimizing philosophy for an oligarchic geopower” (Bonneuil and Fressoz 288).

What difference does it make to place these debates within the frame of biopolitics, and to think of the ecological turbulences that mark the onset of the Anthropocene in terms of an immunitary crisis? For one thing, I would argue, it should make one a little more hesitant to dismiss the forms of scientific expertise and intergovernmental cooperation which Christophe Bonneuil and Jean-Baptiste Fressoz lump together under the heading of “geopower,” a term by which they designate the expansion of the biopolitical strategies Foucault had described from the level of the nation state to a global scale. In their view, the popular narrative of the Anthropocene as a moment of epiphany obscures the much more unsettling fact that many of the transformative processes which brought on the end of the Holocene were not the result of innocent mistakes, but rather the outcome of deliberate decisions by a self-serving technocratic elite. To be sure, there are excellent reasons to balk when “scientists and engineers” are called upon to gird themselves for the “daunting task” of “guid[ing] society towards environmentally sustainable management” (Crutzen and Stoermer 23)—a gesture that cannot fail to induce an apprehensive sense of *déjà vu* among historians of modernity (see e.g. Scott 2-6). At the same time, such skepticism towards the authority of scientific knowledge and its harnessing by the state can easily be carried too far, and may well play into the hands of interest groups who would be only too happy to dispatch the immunitary protections most functioning states continue to afford today, e.g. public health care, pension schemes, or environmental and consumer protection standards.

The forms of biopolitical governance that developed from the eighteenth century onwards were not merely ruses of power (although they often were that, too), and they often (but not always) benefited a wide range of people. They were profoundly ambivalent in their effects, and the transformations they wrought on society and ecology created problems that could not be solved by retracing our steps, in Hansel and Gretel-like fashion, to return to the place where we went wrong. With reference to Gregory Bateson, one might say that these problems often

assumed the structure of a double bind: existing immunitary defenses can no longer be dismantled without causing significant harm to human life, yet failure to dismantle them will increase the risk of incurring even greater harm in the future (in the case of pesticides, because pests are literally becoming immune; Bateson, 496-501). All of this holds for Bonneuil and Fressoz's "geopower," as well. Many of the most important questions in the Anthropocene will revolve around the recalibration of society's immunitary mechanisms—to what extent it is possible and desirable to scale them up, who ought to be included and whom it is admissible to exclude, what risks we are willing to incur by dismantling them, how much relative weight we should accord to the wisdom of Aldo Leopold ("too much safety seems to yield only danger in the long run"; 141) and John Maynard Keynes ("*In the long run, we're all dead*"; 80), respectively. The autonomy and cultural integrity of local communities, which Bonneuil and Fressoz prize so highly (95), will have to be an important criterion in such considerations, but no more so than the integrity of ecological systems whose scale simply eludes them. The Anthropocene forces us to make choices and to answer questions for which there are no correct answers; as Cary Wolfe puts the matter: "We *must* choose, and by definition we *cannot* choose everyone and everything at once. But this is precisely what ensures that, *in the future, we will have been wrong*" (103). I am not sure whether to act on this maxim would be a sign of hubris or of humility, whether it would lead to recklessness or to paralysis; but precisely for that reason, it strikes me as an apt summary of what it might mean for human beings to live in an epoch they have named after themselves.

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