

PART II



*The Difficulty of
Being Modern*

The Difficulty of Being Modern

There is an important part of climate change discourse that, it may be said, sees itself as a continuation of the critique of the inequities of globalization and is therefore quite compatible with Schmitt's schema of appropriation→distribution→production we discussed in the last chapter. This is the literature on "climate-justice" issues. But we need to modify the Schmittian schema in one important respect: with the warming seas and their rising levels, with increasing droughts and superstorms, and with refugee numbers swelled directly or indirectly by climate change, the struggle today is not just about distribution or justice, it is about appropriation as well, a subject that directly addresses security studies and international relations, touching on fundamental political questions about sovereignty. I could cite many examples to illustrate this point, but let me just quote Phillip Muller, the then ambassador of the Marshall Islands to the United Nations, speaking to Columbia University's newly set up Center for Climate Change and Law in the year 2009:

The seas are rising, and some decade—no one knows which country of the twenty-nine coral atolls and five islands, located midway between Hawaii and Australia, is going to be under water. When that happens, a number of novel legal questions will arise. If a country is under water, is it still a state? Does it still have a seat at the United Nations? What becomes of its exclusive economic zone, and the fishing rights on which it depends for much of its livelihood? What countries will take its displaced people and what rights will they have when they arrive? Do they have any recourse against those states whose greenhouse gas emissions caused this plight?¹

In this quote, the impact of climate change raises all the issues that marked the Schmittian schema—of sovereignty and justice (distribu-

tion), production (fishing rights), and appropriation (loss of land, exclusive economic zones, refugees turning up elsewhere). The problem of justice is formulated here in political terms that belong to the history of globalization: would the nations and peoples suffering the impact of climate change have “any recourse,” as the Ambassador put it, “against those states whose . . . emissions caused” their plight? At the heart of the climate problem, the justice question introduces the matter of “uneven development.” An anthropocentric concern all right, but one that is directly connected to debates about capitalist development and world markets.

But there is yet another concern of developing nations that underlies their complaints about the inequities of the impact of climate change and one that I consider crucial to the argument about the relationship between climate and global capital: this is the widespread desire for growth, modernization, development, whatever one calls it, in the less developed nations of the world. The question of development—in fact, the right to development—was at the center of the so-called climate-justice debate that was initiated in 1991—a year after the first report of the IPCC was published—by the Indian environmental activists Anil Agarwal and Sunita Narain, whom we have met before. To my knowledge, they were the first to propose that the national emissions of greenhouses gases (GHGs) be computed on a per capita basis. Agarwal and Narain objected to sweeping use of the word *human*—their immediate target a report of the World Resources Institute (WRI) on the “global environment”—and what they saw as the spurious “one world-ism” of the West.² Agarwal and Narain saw all this as an “excellent example of environmental colonialism” that, they suspected, actually “intended” to “perpetuate the global inequality in the use of the earth’s environment and its resources” by blaming ‘developing countries’ for global warming” when “the accumulation in the earth’s atmosphere of these gases [GHGs] is mainly the result of the gargantuan consumption of the developed countries, particularly the United States.”³

For Agarwal and Narain, it was as though climate change was ushering in a cruel and unfair “regime of historicity” that threatened to shut down the future that India and China saw themselves as pursuing as they became two independent nations in the late 1940s and more vigorously since the 1980s: an open vista of modernization that the United States and Soviet Union inspired after the Second World War.⁴

Many developing countries fear that the proposed climate convention [Rio 1992] will put serious brakes on their development by limiting their ability to produce energy, particularly from coal . . . , and under-

take rice agriculture and animal care programmes. . . . The focus [in the West] today is on poor developing countries[,] and their miniscule resource use is frowned upon as hysteria is built up about their potential increase in consumption. . . . The dream of every Chinese to own a refrigerator is being described as a curse.⁵

Thus, the argument that came to be known as “climate justice” could also be seen as a strategy for bargaining, in effect, for a longer life for a developmental regime of historical time for nations like India and China (which is not to deny their point about climate justice).

One cannot debate the politics of climate change without looking at how issues of “development” affect subaltern modernizers of history. Take the simple question of the market for air conditioning in India. On October 12, 2016, negotiators from 170 nations met in Kigali, Rwanda, and agreed to phase out the use of heat-trapping hydrofluorocarbons (HFCs) used in making the cheapest air conditioners that aspirational families, often low in the social hierarchy, have begun to buy in countries like India. The air conditioners enable them to deal with summers that get hotter with every passing year. HFCs trap heat one thousand times more effectively than carbon dioxide.⁶

Economist Michael Greenstone reports in the *New York Times* that while 87 percent of US households have air conditioning, the figure for India is 5 percent (or 6–9 percent according to some others). Annually, Delhi currently gets five or six days when the average temperature goes above 95°F; by the end of the century the number of such days is expected to rise to seventy-five. The mortality effects of each additional day over 95°F “are 25 times greater in India than in the United States, where the use of air-conditioners reduced by 80 percent the number of heat-related deaths between 1960 and 2004.”⁷ In another *New York Times* article, Ellen Barry and Carol Davenport report that scientists claim “a surge in the use of HFC-fueled air-conditioners would alone contribute to nearly a full degree Fahrenheit of atmospheric warming over the coming century—in an environment where just three degrees of warming could be enough to tip the planet into an irreversible future of rising sea levels, more powerful storms and deluges, extreme drought, food shortages and other devastating impacts.” Yet this “surge” is exactly what is happening in India, where, according to the same report, “the purchase of a first unit—not a second or a third—is driving growth.” “Every time government salaries are raised,” Barry and Davenport write, paraphrasing an Indian official, “air-conditioner purchases surge,” even among urban working-class families.⁸

Barry and Davenport’s report captures something of what we may

call, following Ranajit Guha, the “small voices” of contemporary history, the voices of those who have to deal with a warming world while expressing and pursuing their aspiration to social mobility and modernization.⁹ It is also necessary to keep in mind the subject of population growth in India, especially in the cities. Globally, 50 percent of all the growth in human population between now and 2100 is supposed to come from eight countries, of which India and Pakistan are two (the others are all in Africa: Nigeria, Tanzania, Democratic Republic of Congo, Niger, Uganda, and Ethiopia).¹⁰ While on certain aspects of the population question, aspirations and gender-justice can indeed be brought in line with the larger task of democratically reducing population through development—by ensuring women’s access to education, job opportunities, and contraception—there still remains the problem of the rapid development of megacities, a world that Mike Davis appropriately christened a “planet of slums.”¹¹ The overall population in India between 2001 and 2011 grew by about 17 or 18 percent. The city of Bangalore grew “a whopping 47 per cent, its density growing from 2,985 people per square kilometer in 1991 to 4,378 in 2010. Delhi grew by 21 per cent between 2001 and 2011.”¹²

It is not surprising then to read that “a thrill goes down Lane 12, C Block, Kamalpur [Delhi] every time another working-class family brings home its first air-conditioner. Switched on for a few hours, usually to cool a room where the whole family sleeps, it transforms life in this suffocating concrete labyrinth where the heat reaches 117 degrees in May.” “You wake up totally fresh,” says Kaushilya Devi, a housewife. Her husband bought a unit last May. “I wouldn’t say we are middle class,” she adds, “but we are closer.” A bank manager, S. S. Pathak, is grateful that the air-conditioner enabled his children to study for their medical school entrance examination—they could now “manage late-night study sessions without nodding off or being devoured by disease-carrying mosquitoes.” Another interviewee, Sandhya Chauhan, and her family “live in two musty, windowless subterranean rooms, which turn stifling on summer nights, leaving six sweat-soaked adults to fidget, toss and pace until the morning”:

But it was never as awful as this May [2016], when the temperature crept so high that Mrs. Chauhan’s friends speculated that the earth was colliding with the sun. . . . After a doctor warned Mrs. Chauhan that heat exhaustion was affecting their oldest son’s health, her husband bought an air-conditioner on credit. . . . The purchase has changed the way they see themselves. . . . “Education is teaching people to take care

of themselves,” she said. “Now that we are used to air-conditioners, we will never go back.”¹³

These gendered, subaltern, aspirational voices make it clear that our sense of ordinary human flourishing and even of democracy in a warming world depends on making available to all energy that is cheap and plentiful. Arjun Appadurai’s insightful words on such everyday aspirations bear repetition:

Aspirations to the good life are part of some sort of system of ideas . . . that locates them in a larger map of local ideas and beliefs about . . . life and death, the nature of worldly possessions, the significance of material assets over social relations, the relative illusion of social permanence for a society, the value of peace and warfare . . . local ideas about marriage, work, leisure, convenience, respectability, friendship, health, and virtue.¹⁴

Yet imagine the future that Kaushilya Devi and Sandhya Chauhan face as nations make the decision to switch over to alternatives for HFCs. The replacements, says Stephen Yurek, president of the Air-Conditioning, Heating and Refrigeration Institute, are “more flammable and toxic” and hence need better-designed and more expensive air-conditioning units and better-trained workers to install them. India has understandably asked for a slow transition: to delay the elimination of HFCs until 2031 and to phase it down to about 15 percent of 2029 levels by 2050 provided there is some aid forthcoming from the developed countries whose experts say that it is crucial to ban HFC before the air-conditioning boom happens. In China, only 5 percent of urban residents had air conditioning in the 1990s; in ten years the figure rose to 100 percent.¹⁵ Greenstone comments on the obvious irony of the situation: “The very technology that can help to protect people from climate change also accelerates the rate of climate change.” But for now, “India is heavily focused on current residents who face risks that simply don’t exist in wealthy countries like the United States.”¹⁶ Whoever is prime minister of India in the coming decades will need the consent of the Kaushilya Devis and the Sandhya Chauhans of the country to fulfill India’s international obligations on HFCs.

The Posthuman and the Postcolonial

How do we square the reality of these popular aspirations that play out over electoral cycles and institutional politics with what scholarly voices from Earth System Science and from what we gather under the

rubric “posthumanism” tell us about an entangled world, distributed agencies, the role of planetary processes, the nonhuman, and so on? The ambassador of the Marshall Islands, whom I quoted earlier, may indeed speak of the islanders’ right to fish tuna in their exclusive economic zone of the sea, but think of the role of the tuna! The tuna, following changing gradients of oceanic temperatures, could very well decide to turn up in other waters more friendly to the logic of their habitation and reproduction.

A nonanthropocentric view of the world, as discussed in the previous chapter, is integral to Earth System Science, and therefore whether we speak of “capitalism in the web of life” or of the “Capitalocene,” it is difficult if not impossible to ignore—when considering the issue of climate change—the question of the agency of the nonhuman and the nonliving. It is not surprising at all that the planetary crisis of climate change should invite comment from those who broadly write under the rubric of posthumanism—Bruno Latour, Donna Haraway, Anna T. Sing, Jane Bennett, Rosi Braidotti, and others. Elizabeth Povinelli’s *Geontologies*, Déborah Danowski’s and Viveiros de Castro’s *The Ends of the World*, the political theorist William Connolly’s *Facing the Planetary*, Michael Northcott’s *A Political Theology of Climate Change* are attempts to generate a grammar of a new politics combining the agencies of humans and nonhumans.¹⁷ The epistemological appeal of this move toward a posthuman description of the world—and the desire to create a corresponding sense of the political (think of Latour’s idea of the “parliament of things”)—is very well expressed indeed by Jane Bennett in her book *Vibrant Matter*, where she describes the nature/culture distinction as giving us not so much a wrong as a “thin” description of the world. Posthuman studies—her book suggests, using creatively this Geertzian opposition between thick and thin—provide the much needed corrective of “thick” description: “Theories of democracy that assume a world of active subjects and passive objects begin to appear as thin descriptions at a time when the interactions between human, viral, animal, and technological bodies are becoming more and more intense.”¹⁸

Even if we conceded that views that look on agency as something distributed between humans and nonhumans do perhaps give us better descriptions of how the planet and life on it actually work, a critical question would still remain: Why do modern humans, in spite of this knowledge, remain more attached to the nature/culture distinction, that is, to what Bennett calls a “thin description” of reality? How does one account for the desire for modernity or so-called development—or at least for the conveniences of modernization—among many if not

most humans everywhere? What is the relationship between the projects for modernization that were initiated in the third world by anti-colonial modernizers of formerly colonized or “new” nations of the 1950s and 1960s in Asia, Africa, the Pacific, and elsewhere, the desire for capitalist growth and progress in populous nations like India and China, and the climate crisis today?

The existing debate in the human sciences on climate change—even when it acknowledges (and it mostly does) the reasonableness of the “climate-justice” position—gives us no insight into the history of these third-world desires, why and how and through what kind of intellectual and social history development and progress came to be such valued notions in India, China, postcolonial Egypt, Indonesia, or Papua New Guinea. And not only desires. Technological domination of nature was experienced as masculinity far beyond the boundaries of the so-called West. Even in my own economically depressed history of the colonial Bengali-Hindu middle class, a talented, young, and later well-known poet Premendra Mitra (1904–1988), intoxicated by the seemingly triumphant success of the labor of “Western humanity”—Arendt’s *animal laborans*—and taking it to represent the pinnacle of the history of human labor as a whole (notice the use of the word *lazily* in the poem)—thus exulted in human ravaging of the earth by portraying, in an entirely masculine manner, the earth itself as wanting to be so ravaged:

The earth begs for the thrust of the plough
The ocean for the helm.
Metals, imprisoned in the palace of the Deep,
Pine away for [the touch of] man.
The boisterous river wants to fall into chains,
Into bondage to the bridge.
No time, alas, to gaze
Lazily on the beauty of the world.¹⁹

Marxist critics who locate the roots of global warming in the story of global capitalism want to rename the Anthropocene and call it the Capitalocene or something else that alludes to its social genesis. But they are silent on the question of how or why visions of modernized futures came to seize the imagination of the middle and other classes of nations that were once colonies of European powers. If there is any agency of concrete humans in the Marxist literature on Capitalocene—that is, agency in excess of what may be attributed to the abstract logic of capital—it belongs to industrial captains and elites in boardrooms and governments who make economic decisions and not to the elite, middle, or subaltern classes of Asia and Africa.²⁰ In his Keynote lec-

ture to the Millennium Conference of 2015, Bruno Latour explained humanity's willingness to pay this epistemological "price" (the nature/culture distinction) by referring to its practical "advantages": "Of course, this price is worth paying in many situations. Great progress is made by those who localise parts, add relations, build mechanisms, link elements with cause and effect relations, and build a scale model of the whole set up. The advantage of such a procedure is not in question."²¹

* * *

The nature/culture separation, or what amounts to an ontological separation of the human from the nonhuman, results, as Latour points out in his classic *We Have Never Been Modern*, in certain projects of "purification." Modernity and the capitalist mode of production are indeed unthinkable with their accompanying processes, both intellectual and practical, of extracting out of "nature" various entities in their supposed states of purity. This is what Jane Bennett refers to as working with a "thin description" of nature. Think of a commodity as elementary as "land." When a piece of land is sold, it is sold as a piece of abstraction, a two-dimensional figure on a map devoid of, say, all the forms of life that inhabit it except maybe those of immediate monetary value to humans. Or think of metals and minerals. Seldom do they occur in nature in a pure form. And it is no wonder that petroleum plants have "distilleries" — the very name says it all. As Zalasiewicz and his colleagues say, pure or alloyed metals were

rare on prehuman earth, where gold and (less commonly) copper and iron were found to naturally occur in amounts that could be exploited. Commencing only in the Holocene . . . humans have isolated metals by smelting from their compounds, beginning with lead, silver, and tin (most copper and iron, too, had to be extracted from compound ores). In a burst of innovation from the late 18th to mid-20th century, most metals were isolated, including some never known to have existed previously in native form, such as magnesium, calcium, sodium, vanadium, and molybdenum and some that only occur rarely and in miniscule amounts, such as aluminium, titanium, and zinc.²²

Novel metal alloys include bronze, brass, pewter, and iron-carbon alloys, "often with chromium, molybdenum, and other metals." And this production of purity has also led to the proliferation of what Latour calls "hybrids." Humans have now produced a "wide range of synthetic minerals . . . novel forms of garnet . . . [and] crystalline materials" for use in lasers, such as boron nitride (Borazon), "an industrial abrasive." Boron carbide is another such hybrid metal that is used in tank armor and

bulletproof vests, “while tungsten carbide is used as the balls in ballpoint pens.” The Inorganic Crystal Structure Database lists, write Zalasiewicz and his colleagues, “more than 180,000 different types of ‘synthetic’ mineral-like compounds” made by humans.²³ One could also add to this list “Novel Human-Made Minerals” (at first, “human-mediated minerals”) often associated with mining (made “by weathering of mineral slags, crystallization from mine drainage systems, or precipitation on tunnel walls as well as corrosion products around archaeological artifacts”) and synthetic mineral-like compounds such as “mass produced ubiquitous building materials such as Portland cement” (the basis of concrete) and “clay-fired products such as porcelain and bricks.” Less voluminous but equally widespread are “technological crystals, including those used in semiconductor devices, magnets, phosphors and other electronic applications.”²⁴ Latour is absolutely right: the project of purification goes hand in hand with the proliferation of hybrids, a process that, as Latour argues, ultimately undercuts the very nature/society or nature/culture opposition that makes the projects of “thinning” nature or producing entities in a “pure” state possible at all.

All this is granted. But consider also this important point: if the desire for modernization/development of the vast non-Western middle classes were only a matter of utility, practical advantage, greed, or profit, this desire would simply seem crass and morally indefensible. One could then repeat with confident moral anger the aphorism ascribed to Gandhi that while there is enough in the world to fulfill everyone’s needs, there was never enough to fulfill everyone’s greed — and be done with critiquing modernization. If that were all there was to development and modernization, thinkers such as Amartya Sen (and Martha Nussbaum and others) would not have been able to build the famous “capabilities approach” to the problem or describe “development as freedom.”²⁵ One needs to understand the ethical aspects of such desire if one is to plumb the depths of the human predicament today.

This is where, I suggest, the story of anticolonial, third-world modernizers has to be taken into account. Latour’s engagement with the Anthropocene, for instance, has been grounded in his earlier critiques of what he memorably called “the Constitution of the Modern,” a peculiar constitution that, thanks to its absolute separation (let’s say, from the seventeenth century on) of nature from society, a version of the nature/culture opposition, allowed the proliferation of a multitude of hybrids (things that were neither purely natural nor purely social) while denying the actual work of translation between the two poles that brought the hybrids into being and insisting that the hybrids were a mere mixture — a mediation — of two separate and pure forms.²⁶ It is not diffi-

cult to see that the target of his criticism was clearly an entity he called “the West,” “the Occident,” “Western society,” and the arrogant schema of its nature-society separation that helped it to dominate what was outside of it and also its own population by fabricating the themes of modernity and modernization.

Latour suggests, through some cryptic remarks, that this West—both the fabricator and a fabrication of the Modern—is not without history. What we have, however, are some very short, brilliant, and suggestive formulations, such as the one arguing that the Constitution of the Modern has become burdened with its own contradictions. It is not difficult either to put some rough bookends to the story of the Constitution of the Modern. Such bookends become visible from Latour’s narrative: starting from the time of the Boyle-Hobbes controversy (as reported by Shapin and Schaeffer) in the seventeenth century and running through to our present, the moderns have scaled up the production of hybrids—of nature and culture—to such a degree that the constitution dependent on the maintenance of this distinction is at a point of collapse. Climate change confirms the depth of this crisis. Of course, there are those who become the subjects of the modern’s constitution—both in the colonies and in Europe. They tell us human history is much, much older than this constitution and also that, apart from the aspect of scale, none really has ever been modern, surely not those proclaiming their modernity from rooftops. Latour’s project not only divests from any kind of Eurocentrism, it also divests from the claim that this Constitution of the Modern describes how the world actually works, the actual networks of entanglement that he tries to make visible in his magnum opus, *An Inquiry into Modes of Existence*.²⁷

Latour’s project offers in many ways a profound critique of the world that the modern constitution has made possible. He proceeds by critiquing the nature/society opposition at the heart of this constitution and thus attempts to usher in a new world order—a parliament of things (hinted at in *The Pasteurization of France*, somewhat developed in *We Have Never Been Modern*, and fully presented in *The Politics of Nature*).²⁸ When Latour engaged with the Anthropocene and climate change—at least in the first drafts of his Edinburgh lectures that he generously made public and shared with friends and colleagues—his canvas expanded to take in James Lovelock’s Gaia hypothesis, which he dexterously maneuvered to bring up the question of religion. This was completely legitimate—after all, Gaia was herself a religious figure. Latour staged a war between the people of Gaia who did not want to live by the Constitution of the Modern and those who did (the people of sci-

ence). His thoughts went back to the period of “early modernity” by weaving his work through Hume’s work on “natural religion.” But the imaginary population of people who lived by “science” harked back to many of the themes familiar to Latour’s readers. Critiquing the Constitution of the Modern is a project in favor of a more equal and substantially—and not just formally—democratic world.²⁹

I completely agree with Philippe Descola’s remark that “all in all,” Latour’s argument is “very convincing.”³⁰ But where are the anticolonial, late-modern, and the late-modernizing leaders of Asia and Africa—the Nehrus, the Nassers, the Sukarnos, the Nyereres, the Senghors, the Frantz Fanons—in this story? Latour’s argument in *We Have Never Been Modern* and elsewhere remains founded on a face-off between “we moderns from the Western world” or “the Westerners [and] the Whites (whatever nickname one might wish to give them)” on the one hand and the Indigenous peoples of America on the other, especially as represented in Phillippe Descola’s ethnography of the Achuar people living on the border of Ecuador and Peru.³¹ Are we to assume that anticolonial leaders desiring to “catch up” with the West—a desire that still propels the politics of India and China (remember Deng Xiaoping’s “four modernizations” campaign?)—were simply advocating pale, unoriginal copies of their forerunners in the West—mimic, derivative desires condemned by history to repeat the West’s folly—so that critiquing European modernizers takes care of their cases as well? Latour does not discuss debates on modernity that have obsessed postcolonial critics, from Anthony Appiah to Homi Bhabha. What concerns him more is how the project of modernization is doomed to failure. In the sixth Edinburgh lecture on Gaia, he remarked, “If you can still dispute whether ‘we have never been modern’ or not, who now disputes that ‘we’ will never be able to modernize the earth for lack of the five planets (according to calculations by ‘global hectares’) that would be needed to push our endless Frontier to the same level of development as North America?”³² Thus one might argue that while it may be true that many have until now desired to be modern, it seems ecologically well-nigh impossible that we will ever get to a stage where every human being will partake equally of the benefits of modernization. There, irrespective of whether or not we have ever been modern, we will perhaps never be modern, or not all of us anyway!

Fair enough. But we are not going to make any headway in climate-policy debates if we fail to understand why the nature/culture division—that Latour, Bennett, Descola, and others rightly consider epistemologically unsound—found a fresh and original articulation in the

imagination of the colonized. It is precisely on this question, I think, that postcolonial criticism has some distinctive contributions to make to this discussion.

Unless we understand this dream of the colonized—who had been told to wait for self-rule until they were “modern” enough to deserve it—we will not understand the complaint, made in every colony but voiced famously by Aimé Césaire in the closing paragraph of the first chapter of his book on colonial discourse, that European colonial rule amounted to a promise that was deliberately left unfulfilled: “The proof is that at present it is the indigenous peoples of Africa and Asia who are demanding schools, and colonialist Europe which refuses them; that it is the African who is asking for ports and roads, and colonialist Europe which is niggardly on that score; that it is the colonised man who wants to move forward, and the coloniser who holds things back.”³³ All anti-colonial nationalisms, as Césaire highlights, were programmatically committed to modernization, the project of making the nation modern. Nehru, Nasser, Mao, Ho Chi Minh, Julius Nyerere, Sukarno, Leopold Senghor, Aimé Césaire—all were radical modernizers pedagogic in their relationship to their respective populations and idealist visionaries of what would turn out to be energy-guzzling human futures. Gigantic in their own national contexts and inspired by a variety of models of economic development ranging from the American to the Soviet ones, these were men who embodied the desires of those in the world who, in the wake of the rise of European nations to world-dominant status, always wanted to be modern.³⁴ Are they already accounted for, say, in the critical stance that informs Latour’s brilliantly polemical and profound work? I think not.

Modernization and the Ethics of the Nature/Culture Distinction

Let me share with you some examples from Nehru’s statements to show how spiritual and idealistic was this passionate third-world desire for energy-intensive, mostly fossil-fuel-driven modernization. This was three or four decades before the currents of a consumerist globalization swept through the world and about fifteen years away from the new social movements—including second wave feminism and the environmentalist movements—of the 1970s. Nehru saw from the beginning of his term (1947) as the first prime minister of India that the fundamental problem to address in a country that had seen major famines under British rule till as late as 1943 was the availability of food grains.³⁵ Irrigation was essential to growing more food, and central to irrigation was the question of power. This made the Himalayan glaciers and all the rivers flowing out of them into India into some kind of a “standing

reserve” for Nehru. His first priority, he thought, was to dam the rivers to extract both irrigation water and electricity out of them. At a public meeting in Calcutta in 1949, Nehru spoke of the

big plans before us: . . . In two or three years we shall successfully complete the river valley projects of Damodar Valley, Mahanadi Scheme, Bhakra Dam and others all over the country, from south to north, and that shall bring lakhs of areas under irrigation. With the completion of canals we shall produce more food and also electricity. So we shall solve our food problem in 5 to 7 years. But we have immediate plans also to solve the food problem. . . . We hope for an extensive and successful agriculture in the Rajasthan desert after it gets canal waters. . . . That shall happen.³⁶

The Himalayas where many of the glaciers are receding today have a fascinating presence in Nehru’s speeches. They appear at two levels of abstraction—as political and topographical maps in his prime ministerial office, and then as his imagination of them. He liked mountains in a romantic spirit, but the prime minister in him would push all those feelings aside—“I like the Himalayas myself; I like mountains and all that”—to make room for a more extractive vision of the hills: “When I see a map of India and I look at the Himalayan range . . . I think of the vast power concentrated there which is not being used, and which could be used, and which really could transform the whole of India with exceeding rapidity if properly utilized.” As a “source of power,” the mountains seemed most “amazing,” probably “the biggest source . . . in the world—this Himalayan range, with its rivers, minerals, and other resources.” That is why all the rivers issuing from the hills had to be “developed” for the progress of the nation. That is why he attached “more importance”—more than what his romantic sentiments urged—“to the development of those big river valley schemes, dams, reservoirs, hydro-electric and thermal power and so forth, which, once released, will simply drive you forward.”³⁷

This utilitarian but idealist abstraction of the hills would also defeat—at least in the prime minister in him—the scholar who had always displayed a romance of both “world history” and of Indian history in his two major books, *Glimpses of World History*, inspired in part by H. G. Wells, and a text that is still read in classes on the nationalist imagination, his classic *The Discovery of India*.³⁸ “Look at the map of Asia and of India. It stares at me in my room and in my office, and whenever I look at it, all kinds of pictures come into my mind,” he said in a speech to the Central Board of Irrigation in December 1948. What kind of pictures? By his own recounting, the first images that came to his mind

were not that of industrial progress but a much gentler picture “of the long past of our history, of the gradual development of man from the earliest stages, of great caravan routes, of the early beginnings of culture, civilization and agriculture, and of the early days when perhaps the first canals and irrigation works were constructed and all that flows from them.” But “then,” he said, marking an important caesura in his thinking, “I think of the future.” A future that, in a manner reminiscent of what Koselleck said about *Neuzeit* or the time of the modern, would derive its horizon of expectation not from the space of historical experience but somewhere else, a *uchronia* (in Derrida’s locution).³⁹ When he thought of the future, Nehru said, his attention would be “concentrated on that huge block of massive mountains called the Himalayas which guard our north-eastern frontier:” “Look at them. Think of them,” he would exhort his listeners. “I know of no other place in the world which has as much tremendous power locked up in it as the Himalayas and the water that comes to the rivers from them. How are we to utilize it?”⁴⁰

Time and again Nehru would return to this theme. “When I look at the map of India—I look at it very often—it stares me in the face in my office,” he said in his opening address at the twenty-third annual meeting celebrating the silver jubilee of the Central Board of Irrigation and Power at New Delhi on November 17, 1952, “I often think not only of the fact that great mountain chain is a boundary of India, . . . not only that it rises up like a sentinel, not only that it has been the inspiration of so much of our culture and thought in the past, but I think also of that mighty chain being a suppressed source of vast energy. The energy flows out in great rivers coming from those mountains and watering the plains of India, running into the sea, then it takes the shape of minerals and the rest of it.” And then came his utopian bravura: “So it seems to me, here is a mighty reservoir of energy which if only we could utilize it to full purpose, what could we not do of it?”⁴¹

* * *

Science and technology would have had to be of central importance to such a vision. Speaking to an Industries Conference in Delhi on December 1947 (four months after independence, that is), Nehru said, “Many things contributed to the winning of the last war, but I think the final reasons were two, the amazing capacity of American industry and scientific research.”⁴² As he famously did with dams, he designated Indian scientific laboratories, too, as her “modern temples”: “I look upon them [scientific laboratories] as temples of science built for the service of our mother land. . . . Service to science is real service to India—no, even to the whole world; science has no frontiers.”⁴³ A year later, on Decem-

ber 5, 1948, addressing the Nineteenth Annual Meeting of the Central Board of Irrigation, New Delhi, he reiterated this faith in science:

There was a time in the past . . . when it might have been said with some correctness that the world's resources were really not enough to raise the standard of living of the population of the world to the extent desired. Now, I suppose it must be clear to the meanest intelligence that with proper utilization of the present resources of the world—leaving out further development, or even leaving out the world if you like, we can raise the standard of India. This can be shown with a pencil and paper. . . . We have to convert this vast potential into actuality.⁴⁴

We would get the likes of Nehru or Mao or Nasser or Nyerere wrong if we thought of them as pragmatic people expressing a simple and naive faith in technocratic solutions to the problem of energy or water supply. Nehru saw the task of making the nation “advance” as nothing short of a spiritual mission, one that required both idealism and faith on the part of the technocrat—but a faith that went far beyond questions of technological effectiveness. What Nehru's vision called for was faith in both the people of the country and in the project of modernization in the interest of unleashing popular energies in creating a nation. There are some telling anecdotes that Nehru himself recounts. Speaking to the Board of Irrigation and Power in December 1958, he recalled that he went, “four or five years ago,” to the Damodar Valley Corporation, where “an enthusiastic young engineer explained to me what they were doing.” Nehru was happy to see this man's “interest excited” and noticed that there were “a few hundred men and women [around] carrying baskets of earth on them.” He commented,

I asked the engineer, “Did you explain to them the reasons for what they were doing?” He said, “No.” I said, “Then you have not understood your work at all. Your work is to explain to the ordinary worker what he is doing in the scheme.” . . . Later I called the hundreds of people who were carrying earth from one place to another. I said, “What are you doing?” They said, “We are taking this basket of earth from here to there.” They did not even know the immediate use of their works as part of a big scheme. . . . [Yet] those are the people who are going to profit ultimately when the scheme is ready. It is up to the personnel who are working in the Damodar Valley Corporation to see that the people of the whole area, the village and other places, know what they are doing.⁴⁵

Faith was ultimately about faith in the project of modernization and faith in trusting it to the people of the nation. All the talk about dams

and laboratories being “temples” was about creating a secular religion of modernization. “No man can build or construct anything beautiful unless he has faith. See the magnificent cathedrals of Europe . . . the embodiment of the faith of the builder,” Nehru said to his Irrigation Board in 1948. But “now we live in a different age. . . . [Our] public works should also be fine and beautiful, because there is that faith. So I would like you to work in that faith and you will find that if you work with the faith and that spirit, that will itself be a joy to you.”⁴⁶ It is not accidental that so many of the speeches I quote here were made to engineers who worked in irrigation and power. “When I read the name of your board, the words ‘Irrigation and Power’ excite my mind,” Nehru remarked in an address to this group in 1952. This is why, he also explained in the same speech, the subject of irrigation or electricity was never “dry or dull” for him—it was “a subject of adventure and excitement and human progress.”⁴⁷ “I should like you,” he further wrote, addressing “not only the big engineer, the middling engineer, but the small engineer,” to “convey something of the exciting approach to this problem to the workers there in the field. Make him realise that he is also working with live material even it might be stone or steel and that it will give birth to further life. Let him be the partner in this adventure which you are starting . . . [and] other results will follow. . . . The worker and the engineer will also progress and advance and become better men and women.”⁴⁸

Of course, this spiritual, ethical, and idealist side of the developmental discourse rings hollow today—at least in an age of jobless growth and intelligent machines, third-world political leaders invoke it in bad faith. The current Indian prime minister, Narendra Modi, authored a book on climate change in 2011 when he was still the chief minister of the state of Gujarat.⁴⁹ The rhetoric of the book that has been described as Modi’s “green autobiography”—an apt description since every good policy of the state of Gujarat is portrayed in the book as stemming from one person’s response to what he saw around him—is strikingly different from Nehru’s.⁵⁰ Science and technology do not appear here as agents of disruptive, utopian, revolutionary transformation of both spirit and matter. The message throughout the book is of harmony—with two successive chapters carrying headings such as “small is beautiful” and “big is also beautiful.”⁵¹ The biggest harmony is, of course, that between ancient Hindu scriptures—the *Vedas*—and modern climate science, whose essentials had all been anticipated in the scriptures. “My views on the complementary relationship between man and nature,” writes Modi, “took definite shape when I studied the *Prithvi-Sukta* of the *Atharva Veda* during my college days. The sixty-three Suktas (couplets) composed

thousands of years ago, contain a whole spectrum of knowledge which is now being propounded under various scientific, academic and analytical banners during discussions of global warming, damage to earth's environment and the resultant Climate Change."⁵² Indeed, we could not be farther away from Nehru's time and temperament.

But were the leaders of Nehru's generation—all modernizers—merely examples of Naipaul's "mimic men," half shadows of Western or European modernizers, devoid of any originality? Such a judgment would fail to understand the problem of "originality" as anticolonial nationalism poses it—Partha Chatterjee's powerful analysis of this genre of nationalism is instructive here—and would be completely oblivious of Homi Bhabha's deeply insightful reworking of the categories of mimicry and ambivalence in colonial discourse.⁵³ It would be to speak as if postcolonial criticism never happened or had nothing to say to our times.

Latour speaks of "provincializing modernity" as a European task: since Europe brought it about and spread it throughout the world, it is now the European intellectual's task to "provincialize" it, to put it back in its proper place.⁵⁴ But, as I argued in *Provincializing Europe*, Europe was not the only originator of modernity; third-world intellectuals who took heart from what they saw as the universal side of certain European ideas were cooriginators in the process. The global project of modernity got a second and original life in the hands of anticolonial modernizers.

The anticolonial desire to modernize was not simply a repetition of the European modernizer's gesture. In fact, Nehru, like many other nationalists of his generation, often—and self-consciously—addressed this question of mimicking, of simply aping the West. Addressing the Engineering Association of India at New Delhi on December 28, 1962, less than two years before he died, he said, "we have to keep to our roots but at the same time it is equally obvious that no country in the world today can succeed in any sense of the word without understanding what the new world is—the new world of science, technology, etc." This was the dilemma every anticolonial modernizing nationalist faced. Here is Nehru again, continuing on the problem:

You will see that in the last 200 years or so great differences have arisen in various countries of the world; in the countries of Asia and Europe because Europe had what is called the Industrial Revolution and is continually having that revolution which is changing the life of human beings and the life of groups and societies. And which is not only bringing a measure of well-being to those people . . . [it is also]

strengthening the various nations. . . . We have to find some way of combining the two—a synthesis between what we consider of value in the old and what we consider of value in the new. Mere attempt to copy other countries is not good enough.⁵⁵

This was not the self-image of a mimic man.

India, the third or fourth (depending on how you count) largest emitter of greenhouse gases, is especially vulnerable to the impacts of climate change. Yet what drives politics in India is not the “planet” of planetary global warming but the “globe” of globalization—a revolution of aspiration across classes that has been engendered by political democracy, postcolonial development, and the more recent liberalization of the economy and the media. Up until the time the climate problem became a topic of general discussion, social scientists welcomed this aspirational revolution as a sign of further democratization of the world, a step toward more justice between humans.⁵⁶ The history of this outlook must go back to the secular ethic of care for the well-being of fellow citizens that the twentieth-century anticolonial drive toward modernization embodied. Listen once again to Nehru in praise of industrialization from a passage that we quoted above: “[it] . . . is bringing a measure of well-being to . . . people.” The very subject of economics, especially welfare economics, emerged in the early part of the twentieth century as this art (or “science,” as many economists then believed and still do!) of scaling up and governmentalizing this ethic of care. For instance, introducing the 1929 third edition of his book *The Economics of Welfare*, A. C. Pigou said,

The complicated analyses which economists endeavour to carry through are not mere gymnastic. They are instruments for the bettering of human life. The misery and squalor that surround us, the injurious luxury of some wealthy families, the terrible uncertainty overshadowing many families of the poor—these are evils too plain to be ignored. By the knowledge that our science seeks it is possible that they may be restrained. Out of the darkness light! To search for it is the task, to find it perhaps the prize, which the “dismal science of Political Economy” offers to those who face its discipline.⁵⁷

Indeed, whether we look at the economist Theodore Schultz’s market-based idea of “human capital” that he propounded in February 1959 in his Sydney A. and Julia Teller Lecture at the University of Chicago—which began by acknowledging that “our political and legal institutions have been shaped to keep man free of bondage” and our shared abhorrence of slavery—or at Amartya Sen’s later idea of “devel-

opment as freedom” rooted in giving a person the capability “to promote her ends,” we are looking at a family of ideas that go back to European discussions of modernity as freedom that anticolonial leaders like Tagore, Gandhi, Nehru, Fanon, Nyerere, and others renewed and reinvigorated for their own purposes.⁵⁸ Economic growth and distribution of welfare seemed to be the best bearer of this ethic of care when such ethic had to be scaled up for communities as large and as impersonal as the nation. We don’t understand the Sandhya Chauhans and Kaushilya Devis—or the legitimacy of their voices—today without remembering the desire for modernization and human flourishing that anticolonial nationalisms nurtured and disseminated.

The Difficulty of Being Modern

It is not always possible for humans to transition smoothly from being attached to a human-dominant order of life to being one species among many. While there may be specific areas of life—such as women’s reproductive rights—where the language of freedom meshes nicely with what seems ecologically desirable, this cannot be assumed for all aspects of human life, as the story of air conditioning in India demonstrates. The predicament of the political thinker, I suggest, is deeper. The insights of the proponents of the Capitalocene and the posthumanists are important and have to be taken on board, but we need to go beyond the story of original “sins” of capital/labor and nature/culture distinctions to understand the human attachment to “thin descriptions” of nature and thus to modernization. While it could be argued that it is important to inaugurate a regime of politics that took the nonhuman seriously irrespective of whether or not humans could act as spokespersons for the nonhuman, the conversation will not proceed very far without negotiating the desire to be modern that anticolonial ideologies of the twentieth century expressed and that came to shape postcolonial and postimperial formations of politics in so many parts of the world. And these desires were stoked by a global-imperial and expanding universe of travel, exposure, and cosmopolitan conversations that were in turn made possible by the extensive use of energy extracted from fossil fuel. For after all, and for all their criticisms of industrial civilization, where would a Tagore or a Gandhi be if there had not been any railways, steam ships, and printing presses—all manifestations, in their times as in ours, of the enduring power of King Coal and his heirs?

Planetary Aspirations

READING A SUICIDE IN INDIA

On January 17, 2016, Rohith Vemula, doctoral student at the University of Hyderabad, son of a Dalit mother and a low-caste father, took his own life in protest against the university authorities who penalized him for his Dalit student activism. By ending his short and promising life, Vemula made a political-ethical statement with his body; his suicide note reflected on the low-caste/Dalit body itself within a utopian cosmos. The “value of a man” in the society he had lived in—wrote Vemula in his parting note—had always been “reduced to his immediate identity and nearest possibility.” “To a vote,” he said, or “to a number. To a thing. Never was a man treated as a mind. As a glorious thing made up of stardust. In [e]very field, in studies, in streets, in politics, and in dying and living.”¹ Vemula leaves us with two ways of transcending the “untouchable,” stigmatized Dalit body: one is by transcending the body altogether, by treating every human being as a “mind” without reference to his or her socially marked body; the other by taking away the “individual” body of the person and connecting it to the material that makes up our universe—ancient atomic and subatomic particles, Vemula’s “stardust,” that circulate through our and other bodies in the cosmos all the time. The second perspective was not simply a matter of rhetorical flourish. He was a student of science and an avid reader of Carl Sagan; he even quoted Sagan in one of his Facebook posts as saying, “Our species needs, and deserves, a citizenry with minds wide awake and a basic understanding of how the world works.”² Sagan’s reference to the “species” gestures toward a very long-term and collective history of *Homo sapiens* and its journey through time, while his phrase “how the world works” points us toward questions about where humans fit into the story of how the planet functions as a quasi-systemic

entity connecting the human with the nonhuman and the living with the nonliving.

It was as if Vemula had read the opening sentences of the last chapter of Kant's *Critique of Practical Reason*, words that also are engraved on the philosopher's tombstone in Kaliningrad.³ "Two things fill the mind with ever more and increasing wonder and awe," Kant wrote, "the often and the more steadily we reflect on them: the starry heavens above me and the moral law within me." He might not have agreed with Kant's interpretation of the starry heavens—the "former view of a countless multitude of worlds *annihilates* my importance as an *animal creature*," Kant wrote. Vemula thought of himself as made up of "glorious stardust," not animality. But he might have agreed with Kant's interpretation of the moral law—Vemula's view of man as a "mind"—that "infinitely," wrote Kant, "raises my worth as that of an intelligence by my personality," by revealing "a life independent of all animality[,] . . . a final destination . . . which is not restricted to the conditions and boundaries of this life but reaches into the infinite." In their thinking, however, they both subordinated to reason the creaturely nature of the body. The two worlds, Kant thought, could be connected by the work of reason.⁴ Reading Vemula's dying statements in the light of the Anthropocene hypothesis allows us to reassign importance to the creaturely connections of the human and to demonstrate at the same time the difficulty of bringing these connections within the emancipatory realms of the political.

My point of departure here comes from some stimulating and generative reflections Martha Nussbaum has made on stigmatization and the emotion of disgust as they feature in the philosophy of modern, mainly American, law.⁵ It is not the specifics of her arguments that concern me here—though some of her conclusions, such as that we should be skeptical about "relying on [disgust] as a basis for law" since "disgust has been used throughout history to exclude and marginalize groups" may well apply to India—but points where her thoughts touch on the evolutionary psychology of humans. Of course, Nussbaum does not elaborate on these points even when she broaches them, as they are often points she needs to both recognize and bracket in order to proceed with her own exposition. But those are often the points that interest me in this chapter. So it would probably be more accurate to say that my argument forms itself, as it were, on the margins of Nussbaum's text by following up on what she acknowledges but does not feel obliged to pursue.

Nussbaum acknowledges, for instance, that the emotion of "disgust" probably entails elements that belong to a deep history of the human species, including "magical ideas of contamination, and impossible as-

pirations to purity, immortality, and nonanimality, that are just not in line with human life as we know it.” Disgust may have played, she suggests, a “valuable role in our evolution,” and it is not just possible but indeed “very likely” that it plays “a useful function in our current daily lives.” Perhaps its function of “hiding from us problematic aspects of our humanity is useful: perhaps we cannot easily live with too much vivid awareness of the fact that we are made of sticky and oozy substances that will all too soon decay.”⁶ “Some self-deception,” she writes, “may be essential in getting us through a life in which we are soon bound for death, and in which the most essential matters are beyond our control.” Nussbaum leaves it there, as her main purpose in the book is to call for “a society where such self-deceptive fictions do not rule in law and in which—at least in crafting the institutions that shape our common life together—we admit that we are all children [i.e., equals without a father figure] and that in many ways we don’t control the world.”⁷

Nussbaum also leaves aside—logically, from her perspective—questions of emotions that may be shared between humans and other animals: “I have said that emotions are ‘human experiences,’ and of course they are that; but most contemporary researchers, and many in the ancient world, also hold that some nonhuman animals have emotions, at least of certain types. . . . I shall leave that issue to one side for now, however, focusing on the human emotions that are the standard material of law.”⁸ Nussbaum’s thoughts are focused on the human alone, and—as with many other liberal thinkers—she thinks of principles that could potentially be applicable to every individual human being irrespective of the total number of humans on the planet. Nussbaum proceeds—rightly, again, from her perspective—from the assumption of “equal worth of persons, and their liberty,” for her attention remains focused on human flourishing, that is, on elaborating some “core” legal principles that she considers essential for the flourishing of all individual humans whose lives are governed by institutions that subscribe to liberal principles.⁹ Nussbaum’s thoughts are anthropocentric by choice.

The “Dalit question” in India, or the persistence in modern Indian institutions of the old problem of “untouchability” in new forms, illustrates at once why both Nussbaum’s critique and rejection of disgust as a basis for social management and why Carl Sagan’s view of the human body as “stardust” (as Vemula summarized it) are *both* relevant concerns today. They are relevant, but they are also somewhat at odds with each other. In the Brahmanical scheme of things, the body of the “untouchable” person was considered untouchable precisely because it was invested with a certain degree of disgust-arousing significance. This dis-

gust was the emotional source of the marginalization and oppression of the Dalit. From Nussbaum's position, rejecting such a degrading construction of the human body in favor of the individualized body that underwrites the "equal worth of persons" principle is one way to overcome the Dalit's body. And it perhaps speaks to Vemula's complaint that the Dalit could never be seen as someone who had overcome his/her body, and thus, as he put it, demanded to be seen "as a mind." The body as "a glorious thing made up of stardust," however, is a construction that sees the human/Dalit body as connected to everything else in the cosmos, to its ancient past and its present. The view here is neither anthropocentric nor one that individuates the human body. While in Nussbaum's view human flourishing refers to conditions under which all individual humans can potentially flourish, the body as "stardust" dissolves the individual body into some connected view of the physical universe and goes beyond the question of human flourishing. The use of the adjective *glorious* by Vemula in describing this view of the body perhaps signifies the majesty and miraculous nature of the body as it appears at least to Vemula's scientific eyes. He clearly saw this as another powerful way to escape in imagination the limits violently imposed on his "low-caste," Dalit-identified body.

In this chapter, I propose a reading of "the Dalit body" — admittedly an abstract construction about which I will have more to say shortly — by placing such a body at the intersection of the two different traditions of thought that I have collected under the signs of Nussbaum and Sagan. What I have called here the planetary age carries a complexity that marks the present moment in human history. It is this: while we cannot *not* think of human flourishing and questions of justice between humans as we move deeper into the present century, pursuing these questions with no reference to how individual human bodies are connected to nonhuman elements on the planet — both living and nonliving — can in the end imperil human flourishing itself. The overlaps between the literature on climate change and Earth System Science convince me that with the number of humans on the planet today, we need to be increasingly more aware of these connections even as we pursue our own flourishing. That we are made up of "sticky and oozy substances that will all too soon decay" may have to become a part of our everyday awareness. Not only that. The point that not humans but microbial and other small forms of life constitute both by weight and numbers the bulk of life on the planet and are central to the drama of life — from the production of soil to the internal workings of the human body, not to speak of the maintenance of the share of oxygen in the atmosphere — may have to be

assigned, as the climate crisis unfolds, the status of a salutary fact that humans will need to keep in mind in thinking about planetary conditions that make our existence and flourishing possible.¹⁰

The Dalit body, as imagined in the oppressive Brahmanical schema, is marginalized because of its forced contact with death and waste matter; however, it is also one example—bracketing for the moment the relations of oppression that upper castes have built around it—of the human body imagined as intrinsically connected to the nonhuman and the nonliving. We could find similar, and probably a lot more benign, examples in the older religious myths of Native Americans, American Indians, tribes in India and Africa, and of the Australian Aboriginals with the crucial difference, of course, that in the context of caste, Dalits were marginalized and oppressed precisely because of such perceived connections.¹¹ Rohit Vemula clearly found in the planetary conception of the human body—the human as inextricable from other forms of life and nonlife—an emancipatory horizon of thought. What I do in this chapter is show how difficult it still is to “politicize” this connected figure of the human and why the force of Vemula’s emancipatory aspirations remain more poetical than political (in contemporary terms).

The Invisibility of the Dalit Body

The phenomenology of the Dalit body, as Sundar Sarukkai has argued, clearly lies in the Dalit—and the Brahman, too, in a perverse manner—being deprived of something profoundly important to human beings, the touch of other humans.¹² Matters of bodily comportment and performance thus play a crucial role in the history of “untouchability” in South Asia. One cannot theorize “untouchability” without theorizing the body and its cultural location in the history of oppression of Dalits in the subcontinent.

Yet there is a certain kind of forgetfulness about this body that marks the vast and otherwise learned literature on caste and untouchability in India. Symptomatic of this, I now think, was the invisibility of the “Dalit question” even in as self-consciously radical a project as *Subaltern Studies*. Most if not all of Ranajit Guha’s examples of acts of physical domination and subordination in everyday life in rural India in his classic book, *Elementary Aspects of Peasant Insurgency in Colonial India* (1983) came from literature on caste, but caste was almost an absent category in his—and later our—analytical framework. It was not as though we did not know about caste and its terrible inequities, but caste was sublimated into the categories “peasant” and “class” in the interest of a historiography that was meant to advance a politics of revolutionary transformation of Indian society, a transformation we understood through

the prism of a Marxist outlook, however dissident and democratic its spirit may have been. The subject of humiliation by members of upper castes in everyday Indian life was an embodied subject—sporting a moustache, carrying an umbrella, wearing shoes or breast cloth gave affront to members of dominant groups in particular societies and elicited a violent response of abuse and torture. The humiliated body was marked by caste and its rules of exclusion, yet caste was what we did not discuss in *Subaltern Studies* for a very long time until criticisms from the likes of Kancha Ilaiah made us aware of this serious gap in our intellectual endeavor.¹³

True, traditional Marxist categories are often blind to “caste” and tend to fold it into the category “class,” but that problem had already been recognized as such by the time *Subaltern Studies* came to be published. So why did we, academics working on South Asia with most of us having grown up and experienced caste in its multiple manifestations in different parts of the subcontinent, not recognize caste oppression for what it was—a form of oppression whose logic of humiliation and exclusion expressed itself through the materiality of embodied practices? There are, of course, many factors that contributed to this general elision of the centrality of the Dalit body in narratives of Dalit suffering. One could point to the plethora of caste studies in the 1960s and 1970s that aimed at highlighting facts about social mobility within the caste “system” in order to dispute the European canard that the so-called caste system was a straitjacket that held people inevitably confined to the caste (*jati*) into which they were born.¹⁴ The category “caste” belonged here to an emerging discipline of Indian sociology. Dalits and the question of untouchability were folded into the problem of caste, and caste—like race (though many argued caste was not race, and there was an entire CIBA foundation volume dedicated to this question alone)—was seen as a form of inequality that democracy, socialism, or sheer market or developmental logic were meant to take care of in the end.¹⁵

There was also an idealistic strain in criticisms of caste-related oppression that portrayed a “spiritual” history of India or Hinduism by emphasizing the emancipatory potential of the Bhakti movement—a devotional form of religion that borrowed antihierarchical elements from both Hindu and Islamic sources—in a gesture calculated to give the egalitarianism of Indian democracy a deep historical genealogy. In modern discussions of this literature, the problem of the body of the Dalit was often converted into a problem of the spirit—a matter of consciously or unconsciously held attitudes that could be spelled out and questioned in religious texts. This was a civilizational narrative of India in which certain Indic texts are seen as having prefigured solutions to

problems that the nascent Indian democracy born after 1947 would have to face. One good example are the Patel lectures the famous Sanskrit scholar Raghavan delivered in Delhi in 1964 at the invitation of Indira Gandhi, who was then the minister of information and broadcasting. In these lectures, Raghavan took his audience through an enlightening tour of the various phases of the Bhakti movement from the sixth to the seventeenth centuries in India to paint, as John Stratton Hawley puts it, “a sweeping panorama of India’s democratic instincts as they existed before the word ‘democracy’ was coined.”¹⁶

The blindness to the problem of the body was not just a question of how—that is, through what methods—we discussed caste. There was more to it. I left India when I was 27. In those twenty-seven years of growing up in India, I never heard a single argument—either in school or at home or in social conversations—defending the practice of “untouchability,” and yet it remained in everyday life in various forms, some more subtle than others. Of course, knowledge mattered. Knowing about a problem usually leads to action or policy calculated to address it. Hence the various measures India has taken so far to address the problem of untouchability, beginning of course with the remarkable step of pronouncing it illegal in independent India. Yet discrimination—and practices based on age-old assumptions about the body of the Dalit—never really ceases. Why?

Here we need to make a distinction, it seems to me, between, say, particular practices of discrimination and something we may call “prejudice.” We become cognitively aware of discriminatory practices and seek to explain them with the various knowledge systems at hand. This is how the various disciplines of history, anthropology, or law would create out of the changing realities of caste their particular object of research and investigation. These knowledge systems, at the same time, also suggest steps for remedial action that may lie in the realms of legislation, economy, politics, or even in consciously held attitudes. Prejudice is something different. It refers to the judgment you make of someone before you consciously judge them—it is in that sense, *pre*-judice, as Gadamer explains in *Truth and Method*.¹⁷ These we imbibe from the earliest phase of our childhood as we come into the symbolic order and as grown-ups explain the world to us and guide us into it, as they necessarily have to. Prejudice becomes part of habitus (to switch from Gadamer to Bourdieu). Oftentimes you see the knowledge/prejudice split in the same person, or, if my logic is right, probably in all of us.

In the interest of time and space, let me illustrate this point with the help of an autobiographical anecdote. I apologize for making autobiog-

raphy stand in for ethnographic research, but then twenty-seven continuous years in one place is much longer than the time an anthropologist would typically spend in the field over his/her entire life. So perhaps I can claim a certain right to speak as a native-turned-ethnographer. When I was growing up in Calcutta in the 1950s, there was a very famous Bengali poem on the figure of the sweeper included in my school text. It was a stridently antiuntouchability poem beginning with lines that Bengalis of my generation can still recite from memory: “Ke bole tomare, bondhu, asprishya ashuchi?” (Who dares to call you untouchable and impure, my friend?). Satyendranath Datta, the grandson of the famous nineteenth-century rationalist Akshaykumar Datta, wrote it.¹⁸ Datta died young at 39 in 1922. He was an ardent admirer of Gandhi, so the poem probably was composed in the years after Gandhi came back to India permanently in 1915. The poem clearly had a long life. Gandhi began the publication of his journal against untouchability, *Harijan* (1933), with an English translation of this poem by Rabindranath Tagore, and the original Bengali version turned up in my school text some forty years later. My mother, who was a teacher of Bengali literature in a high school, would teach me the poem explaining with much sincerity and fervor the injustice of untouchability and how its every precept did violence to any fundamental principles of human equality and justice. Yet every morning, Lakshman, a Bihari Dalit appointed by the city corporation to sweep our neighborhood clean, would moonlight by cleaning the lavatories of the houses of our streets. (Both of these were standard practices then: the city authorities would invariably appoint Dalits to do sweepers’ work, probably a practice even today, and the sweepers in turn would making additional money by taking up private employment during their official working hours.) My parents had a good relationship with Lakshman—he would leave with them his money and other valuables whenever he went home on leave—and never treated him as an untouchable person during these social visits. But every morning when he came into our house as a sweeper wielding a large, wet, and dripping *jhadu* (broomstick) with which he cleaned our lavatory, my mother would scramble to ensure that nothing—no draperies or pieces of furniture—was touched by him or the *jhadu*, producing in the process quite a panicky commotion in the household. Lakshman himself would also walk around assuming a stiff and awkward bodily posture at these moments, taking care to maintain a “proper” distance between his body with the *jhadu* and the furniture and the people of the household so that upper-caste sensitivities about waste matter and pollution were not in any way offended. Richer households would actually build a separate

entrance, sometimes even a separate spiraling staircase, for the use of the sweeper.

Growing into my high school years, I came to think of this everyday event as expressive of some kind of hypocrisy on my mother's part. Perhaps she really did not believe in what Datta's poem said, the message of which she would explain to me by way of teaching me the right values of India's egalitarian democracy? I realized later that I was perhaps wrong. My mother was sincere in explaining to me the injustice of untouchability. What was in evidence on Lakshman's entering our house was prejudice in the Gadamerian sense: my mother's deeply Brahmanical sense of her own body was perhaps revolted by the thought that Lakshman and his *jhadu* dripping with water that may have been used to clean fecal matter—an extended untouchable body, really—might come into contact with anything in our household. The point was not about hygiene. It was about the body of the Dalit qua Dalit. Formal knowledge of the oppression of Dalits historicizes or sociologizes the figure of the Dalit. Once you know the historical context that aids the exploitation of Dalits, you evolve policies aimed at changing the context of Dalit lives. But prejudice—the judgment you have before you deliberately judge—reproduces a structure with time constituting a very long and stable present.

The Dalit Body as Inscription and Abstraction

The “Dalit body” I mention here is, as I have already said, an abstraction. Since this abstract figure may be mistaken for an essentialist, Orientalist, or static view of the body of the Dalit on my part—as a denial of history, that is—let me begin with a full acknowledgment of the empirical fact that on the ground there is perhaps no one who can correspond to “the Dalit” of my description. On the ground, there are only the bodies of the members so many different *jatis* that were traditionally considered “untouchable.” As the Australian scholars Oliver Mendelsohn and Marika Vicziany once observed, “the Untouchables are organized into *jatis* just as other Hindus are”—“Chamar, Bhangi, Dhobi, Pulaya, Paswan, Madagi are some of the many hundreds of Untouchable *jatis* scattered through every region of India.” And they added, “At the local level everyone knows that there are particular Untouchable castes, rather than Untouchables in general.”¹⁹ Dalit intellectuals have themselves related sometimes how much being treated as an “untouchable” was a function of time and place, that is, dependent on the opportunism and selfish interests of the higher castes. A. Shukra (a pseudonym), born in Pune to Panjabi parents belonging to the Ravidasi (worshippers of

Ravidas) caste of Chamars, mentions in an autobiographical essay how the treatment his family received at the hands of their social superiors varied from their time in the village when they would not be allowed to use the water pots of upper castes to the time when he had acquired education and his services were needed by the same social superiors. The “rules of untouchability,” he found out, “were complex and hypocritical.”²⁰

This empirical diversity and the various historical changes are not denied by the conceptual exercise I undertake here. My treatment of the Dalit body is somewhat like Frantz Fanon’s treatment of the “black body” in his *Black Skin, White Masks*. The “black man” has no corporeal schema, suggested Fanon, using Hegel and Merleau Ponty, meaning that the “black man” could never forget his blackness; he could not ever forget the color of his limbs or backside, like “humans” do when in everyday being or when they are asleep, say. The black person’s sense of his body is always refracted through a third-person consciousness: “In the white world the man of color encounters difficulties in the development of his bodily schema. Consciousness of the body is solely a negating activity. It is a third-person consciousness.”²¹

This body of the “black man” that Fanon discussed may have been empirically unavailable for the purpose of verifying his proposition. It is possible that the “black men” Fanon knew, including his own empirical self, were entirely capable of losing all consciousness of the color of their skin while asleep. But that was not Fanon’s point. His abstraction, the “black body,” was central to a certain structure of racist oppression he wanted to make visible. The “Dalit body” as employed here is a similar construction. I use it to make a point about how we might think about the human body and its completely porous relationship to its so-called environment. The empirical variations in the history of the different groups of Dalits who now constitute India’s scheduled castes do not concern me here. For whatever the elements of plurality and variation in the history of untouchability in Indian social history, the body would have to be central to the phenomenon itself. The practices that tend to make a human being “un-touch-able” focus on the body of the person concerned: it is their touch, shadow, their bodily signs and excretions, their food, and so forth, that were and are seen as polluting.

Louis Dumont’s classic study of caste, *Homo Hierarchicus*, is helpful here. “It is clear,” wrote Dumont, “that the impurity of the Untouchable is conceptually inseparable from the purity of the Brahman. . . . In particular, untouchability will not truly disappear until the purity of the Brahman is itself radically devalued; this is not always noticed.”

Dumont continues to comment on the centrality of the association between the cow and death in the constitution of the defiling nature of the untouchable person:

It is remarkable that the essential development of the opposition between the pure and the impure in this connection bears on the cow. . . . The murder of a cow is assimilated to that of a Brahman, and we have seen that its products are powerful purificatory agents. Symmetrically, untouchables have the job of disposing of the dead cattle, of treating and working their skins, and this is unquestionably one of the main features of untouchability.²²

Dumont's powerful study has been much criticized in the literature on caste, and we do not have to debate either his propositions or his methods. But a sharp memory of the body he describes—mediated sometimes by the reminiscences of a person no less than the great Ambedkar himself—animates Gopal Guru's powerful efforts to conceptualize the experience of being Dalit. "During the Peshwa rule in [early] nineteenth-century Pune," recalls Guru, "the Brahmins forced the untouchables to tie an earthen pot around their neck and a broom around their waist. The pot was to spit in and the broom to erase their footprints that were also considered polluting." Mahars, the untouchable caste that Ambedkar belonged to, were expected to carry sticks with bells attached to them so that the "noise of the bell would communicate the undesirable arrival of untouchables in the main village." This past is not quite dead for Guru. "Thus," he remarks, "the Peshwa rule seems to have developed the prototype of today's biometric techniques," rendering Dalit bodies into inscribed surfaces.²³

A Reading for the Anthropocene

Let me thus return to the Dalit body that is marked by its involvement with both fecal matter and the skin of dead animals or with death itself (as in the case of the *dom* or the *chandala* of the famous Raja Harishchandra legend that occurs in several *puranas* and influenced Gandhi's thinking). Recall Gyan Prakash's description of "untouchable" bonded laborers in Bihar—the landlords would always ask them to do the first plowing of the land every cultivating season, for the upper castes did not want to risk their bodies by facing the death-dealing matter the earth was meant to give off at the touch of the first plow.²⁴ The Dalit's body was the buffer between life and death. It absorbed all that could spell death to humans. The prejudice against that body was and is part of the habitus of upper-caste embodied selves.

I do not wish to enter policy or legal debates here first, because I am

not competent to do that, and second, because the prejudice against the Dalit body has survived legal and policy initiatives (which is not to devalue these initiatives—we need them). *Subaltern Studies* failed to account for the Dalit because it had no material theory of the body; its “subaltern” was a representative of “insurgent consciousness.” But that is not where I want to return. I want to suggest that once you grant me the structure of exclusion—the reaction of disgust it produces in the bodies of “cleaner” castes—we can think of the Dalit body as precisely the body that helps us to think the planet in this age of the environmental crisis that passes by the name of “global warming.” To do so, however, we need to get beyond the moves in political philosophy that privilege the abstract, unmarked body either as the carrier of rights or as the ground on which to situate that Marxist category of “abstract labor” so necessary to Marx’s critique of capital. Our thoughts on human flourishing perhaps cannot be grounded any more in political thought that focuses on the individual human (as bearers of rights and recipients of welfare) irrespective of the total number of humans on the planet and that brackets all questions of connections between human and other forms of life and their profound relationship to the Earth system processes.

Fanon said—as I have mentioned before—the black person had no “corporeal schema.” It is possible for a nonblack person to forget, for instance, what his or her own particular body looks like and be aware in everyday consciousness of just a bodily schema, such as having a vague awareness that he or she had two hands without necessarily remembering or visualizing the color or the shape or the age of the hands. The black person could not do that, for he or she could never forget—even in their sleep—that he or she was black, so deep was the mark that race left on their own embodied sense of themselves. One might be tempted to think likewise of the Dalit body. One could argue that the Dalit person, his or her body always already marked by its proximity to and contact with feces and animals under conditions where the Brahmanical schema of the body dominates, can never experience a general schema of the human body. The Brahman’s disgust, as Dumont argues, is inseparable from the stigma the Dalit body bears.

I would, however, resist surrendering completely to such a line of thinking. To put the Brahmin’s disgust and the Dalit’s closeness to feces and dead animals into an inseparable binary opposition is to remain locked in a kind of humanism that overlooks the live matter in feces and animals, dead or alive—in short, the question of microbes. Since this fact is often forgotten in ontological thinking about the human where the human stands all alone and in abstraction from other life-forms in

the world, we could look on the Dalit's body as both an acknowledgment and a reminder, however perverse in its constitution, of all the other living bodies we need to connect with in order to keep our human bodies alive.²⁵ If we could get out—even in pro-Dalit thought that only focuses on injustice between humans—of anthropocentric thinking, then we could see the Dalit's body as the body that makes us aware of all the networks of connections between different life-forms that enables humans, as a form of creaturely life, to survive. The Dalit's body is itself constructed nonanthropocentrically—it is always human *with* animals, live or dead, and embedded in the world of microbes (with its relationship to the handling of waste). In that sense, the Dalit's is what I might call the planetary body.

In saying this, I do not at all mean to romanticize the vulnerability of the bodies of the poor, be they Dalit or not, who do not have adequate access to health care. Nor do I suggest that we make ourselves vulnerable to diseases and death. There is no “friendly” relationship humans can have to bacteria and viruses that are or become hostile to human life. At the same time, it is true that we owe much of our health to friendly or commensal microbes living in our bodies. My point is about two different but related questions: How do we (re)imagine the human as a form of life connected to other forms of life, and how do we then base our politics on that knowledge? Our political categories are usually imagined not only in profoundly anthropocentric terms but in separation from all these connections. But can we extend them to account for our relationship to nonhuman forms of life or even to the non-living that we can damage (such as rivers and glaciers)?

Take the human-animal conflict that is ubiquitous in South Asia today. The so-called “monkey menace” in Delhi, caused by habitat loss for monkeys, is a matter of everyday experience. Frequently in India the media carry reports about human-leopard or human-elephant conflicts (as a simple google search will confirm). The question is, contra Hannah Arendt, Can the figure of the refugee remain only human anymore? Should we not think of wild animals such as leopards, monkeys, and elephants that turn up as unwelcome guests in South Asian cities as refugees too? And we have not even begun to think about our relationship to microbial life, though biologists have some definite knowledge of their role in our pasts and futures (viral responsibility for human differences of phenotypes, for instance). However we find a beginning to such thinking, we need to imagine the human not in isolation from other forms of life, in the blinding light of humanism, as it were, but as a form of life connected to other forms of life that are all connected eventually

to the geobiology of the planet and are dependent on these connections for their own welfare.

Vemula's emancipatory thoughts—his protest against the oppressions of caste and what in India is called “vote-bank politics”—moved between two perspectives: a liberal-humanist perspective of seeing the human body as unmarked (“never was a man treated as a mind”) and a nonanthropocentric perspective derived from science that looks on man as “a glorious thing made up of stardust.” The last statement was not a piece of rhetorical flourish nor a figment of romantic imagination but actually a scientific fact on which my Chicago colleague Neil Shubin has written illuminatingly: “Each galaxy, star, or person is the temporary owner of particles that have passed through the births and deaths of entities across vast reaches of time and space.”²⁶

This chasm between the place that astrophysics, geology, biology, and the story of human evolution assign to humans in big histories and that assigned by political thought since the seventeenth century has generally been a matter of pragmatic compartmentalization of knowledge. We know, for example, that humans, apart from being an arithmetic sum of the total number of humans on the planet, are also a biological species, *Homo sapiens*, but that knowledge is usually treated as being of no special political import. But when biodiversity in the world faces, for the first time in its entire history, the bleak prospect of a “great extinction” driven by the activities of one biological species, *Homo sapiens*, the urgency of creating a sense of politics based on this second understanding of ourselves as a species deeply embedded in the history of life dawns on us. But here is the problem that Rohit Vemula thoughts ran up against: we don't know yet how to do that. One might read posthumanists as giving us visions of cosmologies that could help us leap over the chasm between political thought as it exists and political thought as we need it to be. But at present, this is a leap of faith. The chasm exists as the awareness of a deep abyss that acts as the limit to our current human sense of politics. The latter remains focused on individual humans as bearers of rights or as recipients of welfare but never on humans as a totality—one species among many in the larger history of life. This is the chasm that Rohit Vemula pondered in his quest for emancipation but could never cross.

But the failure, if that is what it was, was not Rohit Vemula's alone. Even when political theorists of our time have felt obliged to acknowledge humanity's connections with other forms of life and with the non-living, they have simply had no intellectual resources within political thought to “politicize” such connections. Consider, for instance, the fol-

lowing passage that occurs early in an otherwise engaging discussion on a possible “political theory of climate change” in Steve Vanderheiden’s book on atmospheric justice. It begins with what can be easily recognized as a nonanthropocentric position on the climate crisis, a position that eminently recognizes the fact that humans are embedded in what following Darwin many call “the web of life”:

Carbon is one of the basic building blocks of life on the planet earth, with CO₂ the dominant means by which carbon is transmitted between natural carbon sinks, including living things. In an exchange known as the *carbon cycle*, humans and other animals take in oxygen through respiration and exhale CO₂, while plants absorb and store CO₂, emitting oxygen and *keeping terrestrial life in balance*.²⁷

Vanderheiden acknowledges that without the greenhouse gases and “the *natural greenhouse effect*,” the planet would be inhospitably cold for life in general and for human life in particular. “While some life,” he writes, “might be possible to sustain within a small range of temperature variability beyond that seen since the last Ice Age, the climatic equilibrium produced by 10,000 years of GHG [greenhouse gas] stability is responsible for the development of *all terrestrial life*, and even tiny changes from that equilibrium could throw those ecosystems dramatically out of balance.”²⁸ Vanderheiden is factually wrong since the coming of complex, multicellular life preceded the Holocene by some hundreds of millions of years, but he is right in seeing the modern atmosphere of the planet as an entity shared by different forms of life.

Yet in spite of fully acknowledging that the climate crisis concerns “the balance” of “all terrestrial life” on the planet—whatever such “balance” might mean—and therefore needs be thought of in terms at least of thousands of years, Vanderheiden’s questions of justice and inequity circle around problems of human life and human life alone, and problems that are actionable only on much smaller, human measures of time. As he himself says: “While anthropogenic climate change is expected to visit significant and in some cases catastrophic harm on the planet’s *non-human species*” (emphasis added), his pursuit of issues of climate justice would follow the IPCC in focusing exclusively on “the planet’s human habitats and populations.” Vanderheiden gives a good, practical reason for this approach: we do not yet know how to compose a global climate regime that would include representation for “animals and future generations”—not to speak of nonanimal life-forms or even the inanimate world. He refers to the work of the political theorist Terrence Ball to argue that even if we represented these groups “by proxies in democratic institutions, giving at least some voice to their interests, . . . they would

necessarily remain a legislative minority.”²⁹ Thus, it is acknowledged, on the one hand, that “the global atmosphere is a finite good” and is so not just for humans, for it is “vital for the continuation of life on this planet” while being “instrumental for human flourishing” as well. This is the lesson of the sciences. And yet, on the other hand, when it comes to justifiable issues of inequality with regard to climate change, the absorptive capacities of this “one atmosphere”—which, it is acknowledged, “must be shared between *all* the planet’s inhabitants”—are divided up *only* among humans (“the world’s nations or citizens”) with no discussion of what might be the legitimate share of nonhuman forms of life!³⁰ From here it takes only one step to forget nonhuman life altogether and declare global warming to be synonymous with issues of human justice and even to see it as a problem that cannot be remedied *until* issues of human justice are satisfactorily addressed. See how the quotation below moves from a moral recommendation—“concern for equity and responsibility *should not be* dismissed” and so forth—to a conditional statement—“anthropogenic climate change . . . *cannot be genuinely remedied unless*” and so forth—and finally to a statement that posits a relation of identity between global justice and climate change:

Concern for equity and responsibility should not be dismissed as secondary to the primary goal of avoiding catastrophic climate change, for . . . anthropogenic climate change is also a problem of justice and so cannot be genuinely remedied unless the international response aims to promote justice [including the poor nations’ “right to develop”]. . . . Global justice and climate change [are] . . . manifestations of the same set of problems.³¹

My second example comes from a reputed political thinker of our time—the theorist of republicanism Philip Pettit. In his acclaimed book on republicanism, Pettit adduces some “decidedly anthropocentric” reasons for “why we should be concerned about other species and about our ecosystem generally.” But notice how humanity—a “we”—occurs in his prose as two distinct and unconnected figures and even this lack of connection goes unremarked. “The ecosystem, with the other species of animals that it contains, offers us our place in nature; it is the space, ultimately, where we belong,” writes Pettit. But this “we” is an arithmetical sum of a collection of individuals, a sigma function, as it were, drawn over the basic activities that define the individual human: “We are what we eat. And equally we are what we breathe, we are what we smell, we are what we see and hear and touch.” Clearly, eating, breathing, smelling, seeing, hearing, and touching are all activities that could be carried out only by the individual human body. But the same Pettit

also writes, “We live in physical, biological, and psychological continuity with other human beings, with other animal species, and with the larger physical system that comes to consciousness in us.”³² “Physical, biological, and psychological *continuity*”: this second “we” then is not an arithmetic sum of individual humans. It is a figure of “continuity” that connects us to other species and to processes we may consider planetary. It “comes to consciousness in us” and yet we cannot dispense with the figure of the individual and the autonomous human subject who remains the mainstay of political thought. This problem is peculiar to political thought, as our political institutions are in the end profoundly anthropocentric. Anthropologists, on the other hand, have struggled thoughtfully to bring to life in their prose some of the critical functions shared between humans and nonhumans.³³

Pettit’s thoughts therefore also lead us to the same chasm that Vemula pondered. We now know that the story of human flourishing—the uneven narrative of modernization that has in its sight every individual human—has now run up against a deeper story about humans, our collective unconscious history as biological species that, in the history of life on this planet, is the first to have successfully dominated its entire landmass and, indirectly, even large parts of the oceans. How do we bring both versions of the human—in Vemula’s terms, “every human being treated as a mind” and the same person as “star dust”—together to constitute a new kind of political thought? Until we can answer this question satisfactorily, being modern will remain a difficult position to occupy in times that are simultaneously both global and planetary in the senses in which these words have been used in this book.

This is why Vemula’s cosmological imagination of emancipation remains, in the end, poetical—because the thinkers of the political do not yet know how to construct the political on the basis of the understanding of the human body that several branches of science give us: that it is porous in its boundaries and remains a zone through which other forms of the living and the nonliving necessarily traffic.³⁴ As a reader of Bengali literature, I find the poignant poetry of Vemula’s thoughts reminiscent of a letter that the poet Rabindranath Tagore—with a very different background to Vemula’s—once wrote to Ramedrasundar Tribedi (1864–1919), a pioneer popularizer of science in Bengal. The letter was written about a year before he, Tagore, was awarded the Nobel Prize for literature. It is dated February 29, 1912.³⁵ From evidence internal to the letter, the following would appear to be its background. Tribedi was preparing some of Tagore’s old letters for publication as a book (*Chinapatrabali*) and appears to have edited out a sentence from one of them.

“There was a day,” Tagore had written, “when I grew into a leafy tree on a young and moist earth bathed in seawater.”³⁶ This was a sentence that Tribedi found unworthy of inclusion because its publication before in an excerpted form in a Bengali magazine had caused unending mirth in a journal hostile to Tagore, *Sahitya*. Tribedi was trying to protect Tagore from future ridicule. Tagore’s letter to Tribedi was an attempt to exercise—with his characteristically gentle sense of humor—the author’s right to protest while admitting the editor’s prerogatives in the “execution of [his] duty” (this phrase occurs in English in the letter).

Tagore’s protest—much like Vemula’s but decades before Carl Sagan and his cosmology were around—ran as follows.

You have raised the editorial axe against my memories of [having been once a] tree. But this [action of yours] is not like the pruning of unnecessary branches, it is striking at [the root of my] life. Because this is my inmost realization. Within my life there is a secret memory of the life of trees. I can acknowledge it only because I am a human being today. Why only trees? Within me are deposited memories of the entire material world. All the vibrations of the universe bring thrills of kinship to my entire body—the silent and ancient exuberance of trees and creepers have found today a language in my life—why else would I feel called upon to celebrate the Spring right now when budding mangoes on trees seem to be intoxicated with a joyous spirit? Why would you not let me express the tremendous sense of joy [coming from] water, land, trees, and birds that [keeps] coursing through me? Why? Lest people should make fun of me?

He then added, “Whenever, at auspicious moments, the realization that I am here together with the sun, the moon, the stars, and the land, rocks, and water rings out in my mind with the clarity of a musical note, my body and mind experience the intimate thrills of a vast existence. This is not me poeticizing, this is my nature [speaking]. It is out of this nature that I have written poems, songs, and stories. I do not feel the slightest bit of shame about this. It is because I am a human being that the entire truth of the nonliving and the living finds itself in a state of completion in my existence.”

Much of this may seem a Heideggerian-sounding proposition about the specialness of man—only in the human does the world find its own consciousness. But Tagore complicates the thought by striking a different note in the end. He remained a stranger to the elements with which he was one: “the waves in my bloodstream dance to the rhythm of the waves in the sea—but the waves of the sea cannot recognize me. . . . The

joys of my life blend in with those of the trees but the trees do not know me. They do not carry my memory [as I do of them]. But what is there to laugh at in all this?"³⁷

Tagore's and Vemula's visions were not the same. Vemula's idea of himself as a "glorious" piece of stardust did not assign the "glory" to humans. The glory belonged to the cosmos. Tagore's was a celebration of his existence as a human in the cosmos. Theirs were both expanded visions of the human, visions that connected humans both to the living and the nonliving. In Tagore's time, this was a poet's vision; in Vemula's emancipatory reading, Carl Sagan's astrophysics bought him glimpses of a figure of the human liberated from the indignities suffered by the Dalit. Both were thinking at the limits of political thought while responding in their human souls to the invitations of the planetary.

In the Ruins of an Enduring Fable

The year 2015 was the first when the average surface temperature of the world rose by 1°C above the preindustrial average, thus taking us closer to the threshold of a 2° rise, a Rubicon we are told we must not cross if we are to avoid what United Nations Framework Convention on Climate Change (UNFCCC) of 1992 described as “dangerous anthropogenic interference with the climate system.”¹ The year 2016, as one meteorologist put it, was “off the charts” as far as global warming was concerned.² The historian Julia Adeney Thomas remarked in 2014 that the idea of being “endangered” could not be a purely scientific idea, for the planet has been through many other episodes of climate change—and five great extinctions of species—before.³ *Dangerous* here is indeed a word that scientists, politicians, and policy makers use as concerned citizens of the world, glossing *danger* as a threat to human institutions. In Thomas’s words,

historians coming to grips with the Anthropocene cannot rely on our scientific colleagues to define “the endangered human” for us. . . . It is impossible to treat “endangerment” as a simple scientific fact. Instead, endangerment is a question of both scale and value. Only the humanities and social sciences, transformed though they will be through their engagement with science, can fully articulate what we may lose.⁴

Indeed, one of the first general books to be written on the problem of anthropogenic climate change around the time of the publication of the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), Tim Flannery’s *The Weather Makers*, pointed out that the entity to which climate change posed a real threat was human civilization as we have come to understand and celebrate it.⁵ *Civilization*, of course, is a value-laden and therefore contested word that humani-

ties scholars in recent decades have done much to demystify.⁶ I bring up the point here simply to show how central the concerns of the humanities and the human sciences have been to defining one of the gravest problems humans face in the twenty-first century. The point is underlined when the moral philosophers such as Peter Singer describe climate change as the “greatest ethical challenge” ever faced by humanity.⁷ True, we could not define “human-induced planetary climate change” except with the help of big science; and, true, the problem of the “two cultures” of the sciences and the humanities remains.⁸ But the questions of justice that follow from climate-change science require us to possess an ability that only the humanities can foster: the ability to see something from another person’s point of view. The ability, in other words, “to imagine sympathetically the predicament of another person.”⁹

This moral demand on humans today acquires an additional twist from the thought that, seen in a long-term perspective, unabated global warming may very well accelerate the already growing rates of human-induced extinction of nonhuman species, with unhappy consequences for humans themselves. Voices have been raised, including that of Pope Francis, recommending that human justice be extended not just to animals that crossed a certain threshold of sentience (as animal liberationists once argued) but to the entire world of natural reproductive life—what Aristotle called the *zoe*. This proposition that in effect subjects the domain of biological life to the work of the moral life of humans marks, I argue, a critical turning point for the humanities today, as it departs radically from a tradition—instituted by, among others, Immanuel Kant—that made a strict separation between our “moral” and “animal” (i.e., biological) lives, assuming that the latter would always be taken care of by the natural order of things. This separation, after all, is what has buttressed for more than a century the much-critiqued gap between the humanities and the physical or biological sciences. Strands of environmentalist thought have questioned and on occasion attempted to close this chasm, but the gap persists and has not been easy to overcome.

To ask, as we do today, how humans might use the resources of their moral capacity to regulate their life as a biosocial species among other species is to bring within the ambit of human moral life something that has always lain outside of its scope: the history of natural life on the planet. This problem is not adequately answered by what has been written on extending the conception of rights to certain animals because, first, the number of animals considered in this discussion is limited by a “sentience threshold,” and second, because—as we know today—the bulk of life on the planet is microbial.¹⁰ The assumption—made since

at least the Enlightenment and still prevalent in many social science disciplines, including branches of mainstream economics and political thought—that the planet’s biosphere will take care of our “animal life” while we struggle in search of a collective moral life without regard to our collective life as a biological species is now under severe strain. This has serious implications for the humanities, which have traditionally served as the domain for the discussion of moral issues in separation from biological life. I argue this by looking first at some relevant writings of Kant in the context of discussions on climate change and possible human stewardship of life on the planet and then engage, in conclusion, with the work of Bruno Latour to show where his thoughts indicate a way forward.

Two Narratives of Climate Change

Let me begin with the two dominant approaches to the problem of climate change.¹¹ One approach is to look on the phenomenon simply as a one-dimensional challenge: How do humans achieve a reduction in their emissions of greenhouse gases (GHGs) in the coming few decades? Climate change is seen in this approach as a question of how best to source the energy needed for the human pursuit of some universally accepted ends of economic development so that billions of humans are pulled out of poverty. The main solution proposed here is for humanity to make a transition to renewable energy as quickly as technology and market signals permit. The accompanying issues of justice concern relations between poor and rich nations and between present and future generations: What would be a fair distribution of the “right to emit GHGs”—since GHGs are seen as scarce resources—between nations in the process of this transition to renewables? The question of how much sacrifice the living should make as they curb emissions to ensure that unborn humans inherit a better quality of life than that of the present generation remains a more intractable one, its political force reduced by the fact that the unborn are not present to press their case. “The nonexistent has no lobby,” as Hans Jonas once remarked, “and the unborn are powerless.”¹²

Within this broad description of the first approach, however, are nested many disagreements, ranging from capitalist to noncapitalist utopia of sustainable futures. Most imagine the problem to be mainly one of replacing fossil-fuel-based energy sources by renewables. Some others—on the left—would agree that a turn to renewables is in order but would still argue that because it is capitalism’s constant urge to “accumulate” that has precipitated the climate crisis, the crisis itself provides yet another opportunity to renew and reinvigorate Marx’s cri-

tique of capital. And then there are those who think of actually scaling back the economy, degrowing it, and thus reducing the ecological footprint of humans while designing a world characterized by equality and social justice for all. Still others think—in a scenario called “the convergence scenario”—of reaching a state of economic equilibrium globally whereby all humans live at more or less the same standard of living. The role of the humanities is confined here mainly to climate-justice issues with both political economists and philosophers (both in the Rawlsian and utilitarian traditions) contributing to relevant discussions.¹³ For all its shortcomings, however, the reduction of the climate crisis to the problem of renewable energy has the advantage that we can develop frameworks of both policy and politics around it.

One can also, however, see climate change not simply on its own but as part of a family of interlocking problems. Exponential population increase, food insecurity, water scarcity, expansion of resource industries and an increase of economic inequalities contributing to human-animal conflicts, habitat loss for other species, GHGs emissions, and so on—all of these are planetary in scope and speak to the fact of an overall ecological overshoot on the part of humanity that affects the distribution of natural life on the planet. Global warming then seems more like a shared predicament for all humans—not to speak of other species—than a problem that is simply a question of switching to renewables. Then there is the knotty question of human “agency” that many scientists have underlined, the new geophysical agency of humans on a scale that has allowed them already to change the climate of the planet for the next one hundred thousand years, putting the next ice age off by anything between fifty and five hundred thousand years.¹⁴ Within this perspective that looks both into deep pasts and deep futures, a very particular challenge opens up for the imagination of modernity. After all, if the problem of planetary climate change arises out of our need to consume more energy than before, then the excess GHGs in the atmosphere could easily be looked on as the resultant “waste” that cannot yet be properly recycled in the time frame suitable for human flourishing (the planet being much too slow for human needs!). Since this human “waste” affects other life-forms—by acidifying the oceans or raising the average surface temperature of the planet—the crisis requires us to do something that the humanities train us to do: “imagine sympathetically the predicament” of others, the relevant “others” here including not just humans but nonhumans as well.

It is, of course, not the physical phenomenon of warming alone that caused this shift in our moral orientation. If one could imagine someone watching the development of life on this planet on an evolutionary

scale, they would have a story to tell about *Homo sapiens* rising to the top of the food chain within a very, very short period in that history. “If we imagine,” writes John Brook in his masterful study of human history and climate change, “the 5 million years of human evolutionary times as a twenty-four hour period, the entire 300,000 years of modern humanity comprises about an hour and a half, the 135,000 years since modern humans have left Africa comprise about a half hour, and the 12,000 years since the end of the Pliestocene . . . slightly more than four minutes. . . . Not until about 6,000 years ago, more than half the total time elapsed since the end of the Pliestocene, was much of humanity on a clear course towards agriculture.” In addition, he remarks, “Viewed from the long history of the earth system . . . , the rise of settled agriculture seems simply a single phase in the brief, explosive eruption running from the emergence of modern humans and their global colonizations and intensifications to our present high-technology, overpopulated, climatically unbalanced condition.”¹⁵

The more involved story of rich-poor differences would be a matter of finer resolution in the big history that Brooke recounts. As I have said elsewhere, the ecological overshoot of humanity requires us to both zoom in to the details of intrahuman injustice—otherwise we do not see the suffering of many humans—and to zoom out of that history—or else we do not see the suffering of other species and, in a manner of speaking, the suffering of the planet.¹⁶ Zooming in and zooming out are about shuttling between different scales, perspectives, and different levels of abstraction. One level of abstraction does not cancel out the other or render it invalid. Nor does this separation of levels deny the point that in our everyday life we sometimes enjoy the geological agency of humans without knowing or calling it by that name (see the introduction). But my point throughout this book has been that the human story can no longer be told from the perspective of the five hundred years (at most) of capitalism alone.

Humans remain a species in spite of all our differentiation. Suppose all the radical arguments about the rich always having lifeboats and therefore being able to buy their way out of all calamities including a great extinction event are true. And imagine a world in which some very large-scale species extinction has happened and that the survivors among humans are only those who happened to be privileged and belonged to the richer classes. Would not their survival *also* constitute a survival of the species (even if the survivors eventually differentiated themselves into, as seems to be the human wont, dominant and subordinate groups)?

The ecological overshoot of humanity does not make sense without

reference to the lives of other species. And in that story, humans are a species too, albeit a dominant one. This does not cancel out the story of capitalist oppression. Nor does it amount to the claim that any one particular discipline now has the best grip on the experience of being human. Biology or some other science that misses out on the existential dimension of being human will never capture the human experience of falling in love or feeling love for God in the same way that poetry or religion might. A big brain gives us a capacity for cognition of that which is really big in scale. But it also gives us our deeply subjective experience of ourselves and our capacity to experience our individual lives as meaningful. We cannot produce a consilience of knowledge. But surely we can look on ourselves and on the human story from many perspectives at once.

The phenomenon of the rise of humans to a position of dominance—due, perhaps, to the development of a big brain that has helped humans over tens of thousands of years to create attachments and affiliations to imagined communities far beyond the face-to-face scale of kin group or band—is now seen by many to have taken place over a very long historical period reaching back to times that Daniel Smail describes as our “deep history.”¹⁷ The Israeli historian Yuval Noah Harari explains the issue well in his book *Sapiens: A Brief History of Humankind*. “One of the most common uses of early stone tools,” writes Harari, “was to crack open bones in order to get to the marrow. Some researchers believe that this was our original niche.” Why? Because, Harari explains, “genus *Homo*’s position in the food chain was, until quite recently, solidly in the middle.”¹⁸ Humans could eat dead animals only after lions, hyenas, and foxes had had their shares and cleaned the bones of all the flesh sticking to them. It is only “in the last 100,000 years—with the rise of *Homo sapiens*,” says Harari, “that man jumped to the top of the food chain.”¹⁹ This has not been an evolutionary change. As Harari explains,

Other animals at the top of the pyramid, such as lions and sharks, evolved into that position very gradually, over millions of years. This enables the ecosystem to develop checks and balances. . . . As the lions became deadlier, so gazelles evolved to run faster, hyenas to cooperate better, and rhinoceroses to be more bad-tempered. In contrast, humankind ascended to the top so quickly that the ecosystem was not given time to adjust.²⁰

Harari mentions an additional significant fact. As a result of their quick ascent to the status of top carnivore, humans themselves, writes Harari, “failed to adjust.” He adds, “Most top predators of the planet are majestic creatures. Millions of years of domination have filled them with

self-confidence. *Sapiens* by contrast is more like a banana republic dictator.”²¹

The human ecological footprint, we can say, further increased with the invention of agriculture (more than ten thousand years ago but intensifying in the next few millennia) and then again after the oceans found their present level (about six thousand years ago) and we developed our ancient cities, empires, and urban orders while moving to every part of the planet. It increased yet again over the last five hundred years with European expansion and colonization of faraway lands inhabited by other peoples and the subsequent rise of industrial civilization. But it dramatically expanded after the end of the Second World War when human numbers and consumption rose exponentially thanks to the widespread use of fossil fuels not only in the transport sector but also in agriculture and medicine allowing, eventually, even the poor of the world to live longer — though not healthy — lives.²²

Scholars have carried forward the notion of “overshoot” — “instances in which populations of organisms so changed their own environments that they undermined their own lives” — that William R. Catton Jr. put forward in a book of that name in 1980.²³ The literature on animal liberation/rights that extends the human moral community to include (some) animals recognizes issues of both cruelty to animals and the overshooting of human demands for consumption.²⁴ Scholars working on human-induced species extinction in the context of anthropogenic climate change have long recognized the “overreach” that humans have achieved, often to their own detriment, in the various ecosystems they inhabit.²⁵ In addition, well-known arguments about “the great acceleration” and “planetary boundaries” that some earth scientists and other scholars have put forward are statements, precisely, about ecological overshoot on the part of humans. As one of the authors of the “great acceleration” thesis put it, “the term ‘Great Acceleration’ aims to capture the holistic, comprehensive and interlinked nature of the post-1950 changes simultaneously sweeping across the socioeconomic and biophysical spheres of the Earth System, encompassing far more than climate change.”²⁶ Their data document exponential rise in human population, real GDP, urban population, primary energy use, fertilizer consumption, paper production, water use, transportation, and so on — all happening after the 1950s. And there is corresponding exponential rise in “Earth system trends” to do with the emission of carbon dioxide, methane, nitrous oxide; ocean acidification; loss of stratospheric ozone, marine fish culture, shrimp aquaculture, tropical forests; terrestrial biosphere degradation, and so forth.²⁷ Similarly, the idea of nine “planetary boundaries” that humans should avoid crossing that was put for-

ward in 2009 by Johan Rockström and his colleagues at the Stockholm Resilience Center was also an exercise in measuring human ecological overreach.²⁸ Some Earth system scientists reported recently that “the present anthropogenic carbon release rate [around 10 petagrams C per year; 1 petagram = 10^{15} grams] is unprecedented during the [entire] Cenozoic (past 66 Myr)” and that “the present/future rate of climate change and ocean acidification is too fast for many species to adapt” and will likely result in “widespread future extinctions in marine and terrestrial environments.” We are, effectively, in “an era of no-analogue state, which represents a fundamental challenge to constraining future climate projections.”²⁹

Not only have marine creatures and many other terrestrial species not had the evolutionary time needed to adjust to our increasing capacity to hunt or squeeze them out of existence, our GHG emissions now threaten the biodiversity of the great seas and thus endanger the very same food web that feeds us. Jan Zalasiewicz and his colleagues on the subcommittee of the International Stratigraphy Commission charged with documenting the Anthropocene point out that it is the human footprint left in the rocks of this planet as fossils and other forms of evidence — such as terraforming of the ocean bed — that will constitute the long-term record of the Anthropocene, perhaps more so than the excess carbon dioxide in the atmosphere. If human-driven extinction of other species results — say, in the next few centuries — in a great extinction event, then even the epoch-level name of the Anthropocene may be too low in the hierarchy of geological periods.³⁰ The music historian and theorist Gary Tomlinson, writing recently in the context of climate change, has summed up the problem nicely from an Earth system point of view:

Across millions of years of biocultural evolution . . . , certain systems remained *outside* the feedback cycles of hominin niche construction. Astronomical dynamics, tectonic shifts, volcanism, climate cycles, and other such forces were in essence untouched by human culture and behavior (or if touched, touched in a vanishingly small degree). In the language of systems theory, all these forces were in effect *feed-forward* elements: external controls that “set” the feedback cycles from without, affecting the elements within them but remaining unaffected by the feedback themselves. . . . The Anthropocene . . . registers a systemic rearrangement in which *systems that had always acted as feed-forward elements from outside human niche construction have been converted into feedback elements within it.*³¹

Viewed thus, as Zalasiewicz says in the concluding paragraph of a recent essay, “The Anthropocene—whether formal or informal—clearly has value in giving us a perspective, against the largest canvas, of the scale and the nature of the human enterprise, and of how it intersects (‘intertwines’ now, may be a better word) with the other processes of the Earth system.”³² Anthropogenic climate change is therefore not a problem to be studied in isolation from the general complex of ecological problems that humans now face on various scales—from the local to the planetary—creating new conflicts and exacerbating old ones between and inside nations. There is no single silver bullet that solves all the problems at once; nothing that works like the mantra of transition to renewables to avoid an average rise of 2°C in the surface temperature of the planet. What we face does indeed look like a wicked problem, a predicament. We may be able to diagnose it but not “solve” it once and for all.³³

Modernity and Kant’s Geology of Morals

If, as I have claimed, the challenge posed to our moral life by the scale of problems created by our animal life (i.e., humans as consumers, as *animal laborans* in Hannah Arendt’s phrase) makes a breach in the assumed separation of our “moral” and “animal” lives and demands of us that we find “moral” solutions to problems created by “natural history” of the human species, then clearly the human sciences, and in particular the humanities, face a novel task today. For it was this very separation between the animal and moral life of the human species that underlay, for a large part of the twentieth century, the separation of the human from the physical and biological sciences.³⁴ The subject deserves more research. But older readers will remember how vociferously—and oftentimes acrimoniously—sentiments in favor of this separation were voiced when in 1975 Edward O. Wilson published his book *Sociobiology*, making some strong claims about connections between biology and culture and managing to infuriate in the process Marxists and social scientists of many other persuasions.³⁵

The enduring importance of the assumed separation of the moral life of humans from their animal or creaturely life in post-Enlightenment narratives of modernity is perhaps best studied with reference to a fable that Immanuel Kant spelled out in a minor essay called “Speculative Beginning of Human History” published in 1786. The opposition between the animal life of the human species and its moral life was at the heart of this essay. The essay provides a fascinating reading of the Biblical story of Genesis and the question of man’s dominion over the earth.³⁶ The aim of Kant’s exercise was to bring “into agreement with one another

and with reason” what he saw as “the oft misunderstood and seemingly contradictory claims of the esteemed J.-J. Rousseau”:

In his works, *On the Influence of the Sciences* and *On the Inequality among Men*, he [Rousseau] displays with complete accuracy the inevitable conflict between culture and the human race as a *physical* species whose every individual member ought fully to fulfill its vocation. But in his *Emile*, in his *Social Contract*, and in other works he seeks to answer this more difficult question: how must culture progress so as to develop the capacities belonging to mankind’s vocation as a *moral* species and thus end the conflict within himself as [a member of both a] moral species and a natural species.³⁷

Kant regarded this conflict itself—engendered within man by the human species possessing at the same time both a “physical/natural/animal” (these words are used in the same sense in his essay) life and a moral life—as a decisive influence on human history. For “impulses to vice” arose from “natural capacities” that were given to man “in his natural state”; they necessarily conflicted with “culture as it proceed[ed].” “The final goal of the human species’ moral vocation” could not be reached until “art so perfected itself” that it became, in Kant’s words, a “second nature.”³⁸

Many in the vast literature on Kant have discussed the philosopher’s answer to the Rousseau puzzle, some tracing certain critical elements in his answer back to ancient principles including those postulated by Aquinas.³⁹ My purpose here, however, is not a historical excavation of the roots of Kant’s thoughts but to reconstruct Kant’s argument in order to explicate how precisely he sought to understand the relationship between the animal and the moral aspects of the human being. Kant began his essay by explaining why he could take the liberty of reading the story of Genesis speculatively while clarifying that the speculative was not the same as the “fictional.”⁴⁰ Speculation could be “based on experience,” but the experience in question was that of “nature,” something that, for Kant, remained constant in its essential structure. So if human history were a history of freedom, then a statement about its “first beginnings” could be read speculatively (i.e., guided by reason) if we based ourselves on our experience of nature (constant by definition) and only in so far as the beginnings in question were made by nothing other than nature itself. As Kant put it, “A history of freedom’s first development, from its original capacities in the nature of man, is therefore *something different* from the history of freedom’s progression, which can only be based on reports,” and thus become the historian’s province.⁴¹

Kant, of course, made certain assumptions about this original con-

dition of humans so that “one’s speculation [would] not . . . wander aimlessly.” He took a certain figure of the human for granted—“one must make one’s beginning something that human reason is utterly incapable of deriving from any previous natural causes”—and hence began “not with [human] nature in its completely raw state” but with “man as *fully formed adult* (for he must do without maternal care).” He also assumed “man” to actually be “a *pair*, so that [man] can propagate his kind,” and the pair had to be “*only a single pair*, so that war does not arise, as it would if men lived close to one another and were yet strangers.” This latter assumption, it seemed to Kant, ensured that “nature might not be accused of having erred regarding the most appropriate organization for bringing about” what Kant saw as “the supreme end of man’s vocation, sociability” (for the desire to socialize would be maximized by “by the unity of the family from which all men should descend”). Besides, he made some further assumptions to keep his speculative logic straight: “the first man could thus *stand* and *walk*; he could *talk* (Gen. 2:20), even *converse*, i.e. speak in coherent concepts (v.23), [and] consequently, *think*.” This threshold of assumptions regarding human skills, he reasoned, would allow him “to consider only the development of morality in [man’s] actions and passions.” Having thus reconstructed this original pair of humans, Kant placed them squarely in the middle of what we might today see as the geological Holocene period with considerable advances already made in “human civilization”: “I put this pair in a place secured against attack by predators, one richly supplied by nature with all the sources of nourishment, thus, as it were, *in a garden*, and in a climate that is always mild.”⁴² Kant did not know this, but the “man” of his assumptions could have existed only after the last ice age was over!

Kant’s “man” began his journey completely absorbed in the animal life of the species when instinct alone—“that *voice of God* that all animals obey”—“first guided the beginner.” But by the time Kant has the human being in his sights, reason, a faculty somewhat beyond animal life and yet put in place by some design of nature, had already begun to “stir” and “cook up” in humans—in partnership with a companion human faculty, imagination—“desires for things for which there is . . . no natural urge,” with the result that “man became conscious of reason as an ability to go beyond those limits that bind all animals.”⁴³ A critically important discovery followed: “[man] discovered in himself an ability to choose his own way of life and thus not be bound like other animals to only a single one.”⁴⁴ The deepening of this “inner” propensity gave man the capacity to refuse desires that were merely animal—thus developing the ability to love. “*Refusal*,” wrote Kant, “was the feat whereby man passed over from mere sensual to idealistic attractions, from mere

animal desires eventually to love and, with the latter, from the feeling for the merely pleasant to the taste for beauty.” This, together with the development of a sense of “decency,” “gave the first hint of man’s formation into a moral creature,” a small beginning that for Kant was “nonetheless epochal.”⁴⁵ Reason also led humans to “the reflexive *expectation of the future*” and then to a height that raised “mankind altogether beyond any community with animals” enabling humans to conceive of themselves — “though only darkly” — as “the true *end of nature*.” Humans could now see that the pelt of the sheep “was given by nature” not for the sheep but for them. Their dominion over the earth that Genesis speaks of had thus begun. But this also led to the idea of equality of all humans — “[men] must regard all men as equal recipients of nature’s gifts” — and, more importantly, to the idea that “man became the *equal of all [other] rational beings*, no matter what their rank might be (Gen. 3:22), especially in regard to his claim *to be his own end*.”⁴⁶ This formulation is, of course, a close cognate of the famous Kantian dictum regarding treating every human being not instrumentally but as an end in himself or herself.⁴⁷

Kant was acutely aware that this “portrayal of mankind’s early history” revealed “that its exit from . . . paradise . . . was nothing but the transition from the raw state of merely animal creature to humanity, from the harness of the instincts to the guidance of reason — in a word, from the guardianship of nature to the state of freedom.”⁴⁸ This, as Kant explains, had to be the story of a fall, morally speaking. Before reason stirred in the human breast, “there was neither a command nor a prohibition and thus no transgression either.” But reason could ally itself “with animality and all its power” and thus give rise to “vices of a cultivated reason” (to produce wars, for instance). “Thus, from the moral side,” writes Kant, “the first step from this last state [the state of innocence] was a *fall*; from the physical side, a multitude of never-known evils of life [natural disasters, hardship], thus punishment, was the consequence of the fall.”⁴⁹ Much of human history as we know it followed from the fall: there was hardship, inequality — “that source of so many evils, but also of everything good” — wars, and humans getting “drawn into the glistening misery of the cities.”⁵⁰ But this also complicated the role of reason in the story of human freedom. Humans could use reason in a way that hastened the vocation of their species — a species designated, according to the Genesis story of “man’s” dominion, “to rule over the earth, and not as one designated to live in bovine contentment and slavish certitude.”⁵¹ But reason did not straightforwardly guide humans toward recognition of their vocation (though Kant in other essays will explain why humans would nevertheless end up fulfilling their destiny).

Kant would thus write, “The history of *nature*, therefore, begins with good, for it is God’s work; the history of *freedom* begins with badness, for it is *man’s* work.”⁵²

* * *

The key to human beings’ success was “to be content with providence,” wrote Kant in concluding this essay.⁵³ But this was precisely what was never easy for humans to do. Providence worked through what humans considered adversity: wars (that in the end generated “respect for humanity from the leaders of nations”), brevity of life (that guaranteed that improvement accrued to the species and not to individuals), and the absence of a golden age of all leisure and no toil.⁵⁴ As Kant put it: “Contentment with providence and with the course of human things as a whole, which do not progress from good to bad, but gradually develop from worse to better; and in this progress nature herself has given everyone a part to play that is both his own and well within his powers.”⁵⁵

The late Kant would anticipate, repeat, elaborate on, and develop these basic points in the third *Critique* (the section on teleological judgment) and in several essays including “Idea for a Universal History with a Cosmopolitan Intent” (1784) and “On the Proverb: It May Be True in Theory, But Is of No Practical Use” (1793). Here is Kant, in the third *Critique*, for example, on the subject of the separation of the moral life of humans from their natural history.

External nature is far from having made a particular favorite of man. . . . For we see that in its destructive operations—plague, famine, flood, cold, attacks from animals great and small, and all such things—it has as little spared him as any other animal. . . . Besides all this, the discord of inner *natural tendencies* betrays him into further misfortunes . . . through oppressions of lordly power, the barbarism of wars, and the like. . . . Man, therefore, is ever but a link in the chain of physical ends. . . . As the single being upon the earth that possesses understanding, and, consequently, a capacity for setting before himself ends of his deliberate choice, he is certainly titular lord of nature, and, supposing we regard nature as a teleological system, he is born to be its ultimate end. But this is always on the terms that he has the intelligence and the will to give to it and to himself such a reference to [final] ends as can be self-sufficing independently of nature. . . . Such an end, however, must not be sought in nature.⁵⁶

The important point here is the separation that Kant effected—in order to put forward his theory of human freedom—between the animal and the moral lives of the human. He assumed that human beings’ animal

life was given, constant, and was to be provided for by the planet (the *biosphere*, in today's terms). Human history and thinking were concerned mostly with the constant struggle of humans to meet their moral destiny of a "perfect" and just sociability: "nature has given man two different capacities for two different ends, namely, an end for man as animal species and another end for man as moral species."⁵⁷

The Entangled Moral and Animal Lives of Humans

The pressure that "the animal life" of the human species — our material and demographic flourishing (in spite of the gross inequities of human societies) — now puts on the distribution of natural, reproductive life on Earth, endangering human existence in turn, is something that becomes clearer by the day. It is not surprising then that thinkers and philosophers should call climate change the greatest ethical challenge of the day and raise some critical moral-theological questions, revisiting, in secular forms, the Biblical proposition of "man's dominion over earth": What should humans do, now that our animal/natural life overwhelms the natural lives of nonhumans? Indeed, the question of capitalism reemerges in this morally charged context. Should we continue with capitalism but without fossil fuels? Should we be seeking alternatives to capitalism? Should humans retreat back into small communities? Should the wealthy consume less?

These moral questions testify to the endurance of one of Kant's propositions: that the moral life of humans assumes that man can "choose his way of life and not be bound like other animals to only a single one."⁵⁸ But if what I have argued above is right, then it could also be said that the Kantian fable of human history that I recounted is now coming under strain in unprecedented ways. On the one hand, many thinkers still work with (implicitly Kantian) ideas about our moral life representing a zone of freedom, but we cannot any longer afford the assumption that Kant along with many others made — that the needs of our animal life will be attended to by the planet itself. We now want our moral life to take charge of our natural life, if not of the natural lives of all nonhumans as well. The Biblical question of man's dominion has now assumed the shape of secular questions about man's stewardship of and responsibility to the planet.⁵⁹

For reasons of space, let me work with only two prominent examples here of such thinking: Pope Francis's recent and prominent encyclical to Catholic bishops, and a recent essay by Amartya Sen. The pope's encyclical is probably the only available Western/European attempt so far to read humanity's current climate crisis in terms of a deep-set spiri-

tual crisis of modern civilization, albeit within the terms of Catholic theology, but that does not lessen its value. (For an Indian scholar, it is reminiscent of a famous essay Rabindranath Tagore wrote in 1941, the year he died, entitled “The Crisis of Civilization.”) The pope has quite a radical critique of the excesses of consumerist capitalism and especially of what he sees as “misguided,” “tyrannical,” “excessive,” and “modern” anthropocentrism of “throwaway” civilization that capitalism has spawned and promoted.⁶⁰ In this context, he revisits the question of man’s “dominion”: “An inadequate presentation of Christian anthropology gave rise to a wrong understanding of the relationship between human beings and the world. Often, what was handed on was a Promethean vision of mastery over the world, which gave the impression that the protection of nature was something that only the faint-hearted cared about. Instead, our ‘dominion’ over the universe should be understood more properly in the sense of responsible stewardship.”⁶¹ “We are not God,” writes Pope Francis elsewhere in the book, opposing strongly and by implication the view that humans are now the God species. “The responsibility for God’s earth means that human beings, endowed with intelligence, must respect the laws of nature and the delicate equilibria existing between the creatures of the world.”⁶²

Amartya Sen makes a similar argument but within a non-Christian framework drawing on some tenets of Buddhist thought. Writing on the climate crisis and on human responsibility to other species, Sen argues for the need for a normative framework in the debate on climate change, one that he thinks—and I agree—should recognize the growing need for energy consumption by humans if the masses of Africa, Asia, and Latin America are going to enjoy the fruits of human civilization and acquire the capabilities needed for making truly democratic choices. But Sen also recognizes that human flourishing can come at some significant cost to other species and therefore advocates a form of human responsibility toward nonhumans. Here is how his argument goes.

Consider our responsibilities toward the species that are threatened with destruction. We may attach importance to the preservation of these species not merely because the presence of these species in the world may sometimes enhance our own living standards. . . . This is where Gautama Buddha’s argument, presented in *Sutta Nipata*, becomes directly and immediately relevant. He argued that the mother has responsibility toward her child not merely because she had generated her, but also because she can do many things for the child that the child cannot itself do. . . . In the environmental context it can be argued

that since we are enormously more powerful than other species, . . . [this can be a ground for our] taking fiduciary responsibility for other creatures on whose lives we can have a powerful influence.⁶³

There is, of course, some irony in the fact that one of the species “threatened with [at least partial] destruction” is the human species itself. Humans need to be responsible to themselves, which, as the history of humanity shows, is easier said than done. But think of the problems that follow from this anthropocentric placing of humans in loco parentis with regard to “creatures on whose lives we can have a powerful influence.” We never know of all the species on which our actions have a powerful influence; often we find out only with hindsight. Peter Sale, the Canadian ecologist, writes, for example, about “all those species that may be able to provide goods [for humans] but have yet to be discovered and exploited, and those that provide services of which we simply are unaware.”⁶⁴

This applies even more to the life-form that constitutes the “sheer bulk of the Earth’s biomass”: microbial life (bacteria and viruses). As Martin J. Blaser observes in his book *Missing Microbes*, microbes not only “outnumber all the mice, whales, humans, birds, insects, worms, and trees combined—indeed all the visible life-forms we are familiar with on Earth—they . . . outweigh them as well.”⁶⁵ Could we ever be in a position to value the existence of viruses and bacteria hostile to us except in so far as they influence—negatively or positively—our lives? Here again the question is complicated by the fact that ecology and pathology often give us changing and contrary perspectives. Bacteria and viruses have played critical and often positive roles in human evolution, such as the ancient stomach bacteria *Helicobacter pylori*. But since the rise of antibiotics and the consequent changes in the biotic environments of our stomachs, however, *H. pylori* has come to be seen as a pathogen.⁶⁶ We cannot be responsible stewards for these life-forms even when we cognitively know about the critical role they have played—and will continue to play—in the natural history of life, including that of human life itself.⁶⁷

This would mean that humans could only ever discharge the responsibility Sen tasks them with imperfectly, since they would never fully know who exactly their wards were or for whom they could assume responsibility in a fiduciary sense. But here indeed is evidence of the strain under which the Kantian fable of human history currently labors. Kant did not demand of human morality that it brought within its own conspectus the natural history of life. Needless to say, his framework was based on a pre-Darwinian understanding of the history of natural

reproductive life and constructed long before humans began to discover and understand the roles of microbes in the history of life. We are at a point, however, where we are debating the question of extending the sphere of human morality and justice to include the domain of natural reproductive life.

It is, of course, undeniable that questions of justice between humans have been central to the tradition of the postwar humanities. The intensification, globally, of capitalist forms of social organization has sharpened the political instincts of scholars in the human sciences. Furthermore, given the history of human values in the second half of the twentieth century, we are committed in principle to securing the life of every human and to ensuring their moral and economic flourishing regardless of the overall size of the human population and its implications for the biosphere.⁶⁸ Besides, any practical proposal for reducing the size of the human population in effect becomes an antipoor proposition and is therefore morally repugnant. At the same time, a single-minded focus on human welfare and intrahuman justice increasingly seems inadequate. This is the dilemma to which thinkers in the humanities who ponder questions of modernity need to respond. The question is, Since what the humanities and the human sciences provide are perspectives from which to debate the issues of our times, can they overcome their hallowed and deeply set anthropocentrism and learn to look at the human world also from nonhuman points of view?

To Latour, Looking Ahead

Bruno Latour developed his art of thinking long before many of us woke up to the problem he was responding to: the problem posed to modern thought by the unsustainable opposition between nature and science on the one hand and culture and society on the other. He has developed his thinking over the number of texts including the recent *An Inquiry into Modes of Existence*.⁶⁹ Since I have been discussing microbial life in this essay, however, let me turn to the classic book of his that speaks of microbes, *The Pasteurization of France*, to show how his thinking clears a path for developing an approach that challenges human modes of being and knowing and helps us to see where the human receives intimations of the nonanthropocentric precisely through the rustle of language that no doubt remains, ultimately, all too human.⁷⁰ Additionally, it remains a nice coincidence for this chapter that Latour's anticolonial humor in his book is aimed in part at the good old philosopher from Königsberg whose titanic presence in all discussions of modernity, and for all the barbs we can throw at him, is impossible to escape.

Quite early on in his study of Pasteur's work, Latour draws our atten-

tion to the agential presence of microbes not only within the constrained conditions of the laboratory but in everyday human life. “A salesman sends a perfectly clear beer to a customer,” writes Latour, but “it arrives corrupted.” Why? Because “between the beer and the brewer there was something that sometimes acted and sometimes did not. A *tertium quid*: ‘a yeast,’ said the revealer of microbes.”⁷¹ The presence of microbes tells Latour that “we cannot form society with the social alone”: we have to add in “the action of microbes.”⁷² Thus, “you organize a demonstration of Eskimos in the museum. They go out to meet the public, but they *also* meet cholera and die. This is very annoying, because all you wanted to do was to show them and not to kill them.” “Traveling,” similarly, “with cow’s milk is another animal that is not domesticated, the tubercule bacillus, and it slips in with your wish to feed your child. Its aims are so different from yours that your child dies.”⁷³ Thus, it is only after the milk has undergone the process of Pasteurization—and the project of purification that commodification entails (chap. 4)—and the microbe has been “extirpated” that it will come to represent the purely “social,” that is, “economic and social relationships in the strict sense,” which can only happen in some very limited and technologically produced conditions.⁷⁴ Latour concludes the first part of his book by remarking that “as soon as we stop reducing the sciences to a few authorities that stand in place of them, what reappears is not only the crowds of human beings, . . . but also the ‘nonhuman.’”⁷⁵ His project becomes that of “the emancipation of the nonhumans” from what he calls “the double domination of society and science.”⁷⁶

Microbes speak of deep time in the history of life. “For about 3 billion years,” writes Blaser, “bacteria were the sole living inhabitants on Earth. They occupied every tranche of land, air, and water, driving chemical reactions that created the biosphere, and set conditions for the evolution of multicellular life.”⁷⁷ Emancipating such nonhumans from the “double domination of science and society” could not be a political task in any institutional sense of the political. Nor does it produce an immediate program of activism. It is a question, primarily and at the current state of development of the governing institutions of humans, of developing a nonanthropocentric perspective on the human world.

In the second part of the book, “Irreductions,” Latour looks on this project of “emancipation” of the nonhuman as something akin to an intellectual act of decolonization. “Things-in-themselves?” he puts this rhetorical question to Kant with his characteristic wit, and retorts, “But they’re fine, thank you very much. And how are you? You complain about things that have not been honored by your vision?” Latour’s critique of the anthropocentrism of Kant’s thinking uses the metaphor-

concept of colonization to create agential space for the nonhuman. “Things in themselves lack nothing, just as Africa did not lack whites before their arrival,” he writes. “However, it is possible to force those who did perfectly well without you to come to regret that you are not there. Once things are reduced to nothing, they beg you to be conscious of them and ask you to colonize them.” And he proceeds to place Kant in a line of colonial heroes: “You are the Zorros, the Tarzans, the Kants, the guardians of the widowed, and the protectors of orphaned things.”⁷⁸ “What would happen,” he asks further, “if we were to assume instead that things left to themselves are lacking nothing?”

This is also where the idea of deep time becomes a part of his critique: “For instance, what about this tree that others call *Wellingtonia*? . . . If it is lacking anything, then it is most unlikely to be you. You who cut down woods are not the god of trees. . . . It is older than you. . . . Soon you may have no more fuel for your saw. Then the tree with its carboniferous allies may be able to sap *your* strength.” And he drives home the limitations of calculating on human timescales alone (which is what we do when we think politically): “So far it [the tree] has neither lost nor won, for each defines the game and time span in which its gain or loss is to be measured.”⁷⁹

And then comes the arrow of a question aimed as much at the heart of ancient Biblical thought as at its Heideggerian mutation, one that declared humans to be specially destined to exercise dominion over the planet:

Who told you man was the shepherd of being? Many forces would like to be shepherd and to guide others as they flock to their folds to be sheared and dipped. There are too many of us, and we are too indecisive to join together into a single consciousness strong enough to silence all the other actors. Since you silence the things that you speak of, why don't you let them talk by themselves about what is on their minds? Do you enjoy the double misery of Prometheus so much?⁸⁰

This I regard as the most important civilizational question of our times, the one that the pope raised within the limits of his religion.

Latour's epochal question reminds us that deep pasts and futures are not amenable to human-centered political thought or action. This does not mean that our usual disputations about intrahuman (in)justice, inequalities, and oppressive relationships will not continue; they will. But now that the moral and biological lives of the species *Homo sapiens* cannot any longer be disentangled from each other, one has to learn to have recourse to forms of thought that go beyond—but that do not discard—the human political. The connected stories of the evolution

of this planet, its climate, and its life cannot be told from any anthropocentric perspective. These other stories are necessarily anchored in accounts of deep time. They make us aware that humans come very late in the history of this planet, that the planet was never engaged in readying itself for our arrival, and that we do not represent any point of culmination in the planet's story. This is where Latour's—and some other scholars'—attempt to open up vistas of aesthetic, philosophical, and ethical thought help us to develop points of view that seek to place the current constellation of environmental crises in the larger context of the deeper history of natural reproductive life on this planet. This returns us to our discussion of planetarity that we take up in the concluding section of the book.