



BOOK SYMPOSIUM

Nature and its discontents

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There are rites of hospitality among disciplines as well as among peoples, and my first duty and pleasure as guest in these pages must be to thank Philippe Descola, Judith Farquhar, Nicolas Langlitz, Melissa Leach, and Gonçalo Santos for reading my book at once critically and charitably. I am a historian of science, not an anthropologist, and I am all the more grateful as an interloper to be so courteously received at another hearth.

It belongs to the higher courtesy of readers toward authors to subject arguments, evidence, and interpretation to gimlet-eyed scrutiny. Because this little book is really no more than a long essay, in the root sense of that word as an attempt, the rigorous vetting that the commentators have given it is invaluable. Especially precious are the empirical examples and, above all, counterexamples provided. History and anthropology share a fierce allegiance to the empiricism of particulars. Both disciplines do seek patterns and generalizations, but they never lose touch with the terra firma of cases, contexts, and specifics. This is one reason among several why the conversations between historians and anthropologists have been among the most fruitful interdisciplinary interactions in recent decades, and I regard both my book and this forum as a continuation of that dialogue.

The commentaries are rich in reflections, criticisms, examples, and suggestions, and I will not be able to do them all justice in the brief compass of this response, though all will surely inform any larger project that might advance beyond the essay stage that this book represents. Instead, I have tried to single out recurring themes, which I shall address under the following rubrics: (1) Why

write such a book at all? (2) Why use terms like “nature” that apply only to one cultural tradition among many? (3) Where are the politics? and (4) What are the moral and epistemological implications?

Why write such a book at all?

All of the commentators must have been struck by the almost ludicrous disproportion between the brevity of the book and the breadth of its claims: an attempt to say something general about human cognition (and the cognitive passions) in the space of less than a hundred pages. Moreover, the evidence and arguments offered are admittedly based on only one cultural tradition, a long and well-documented one, to be sure, but by no means the only one that meets those criteria. It would be reasonable to ask, why even try? Readers are owed some account of the origins of the book and what it aimed to achieve.

As Nicolas Langlitz notes, the questions posed in *Against nature* have lurked in the background of my work since the research group that resulted in the collective volume *The moral authority of nature* (Daston and Vidal 2004). In the extended discussions among this group of eighteen scholars, whose expertise ranged from ancient Greece to mid-twentieth-century Japan, from Qing dynasty Chinese intellectuals to Enlightenment physicians, our attention was as often arrested by the parallels as by the contrasts (which latter we had expected and were indeed the reason for assembling such a diverse group) among our chosen case studies. Despite vast differences in vocabularies, concepts, institutions, and actors, the moralization





of the nonhuman world for human purposes recurred in the most varied contexts. In the end, we decided to focus on *how* the moral authority of nature had been invoked in each case, rather than *why* it had, the kinematics rather than the dynamics of the phenomenon we were studying.

But the why-question never left me, and in the left-handed way that all of us pursue side projects we dream of eventually undertaking were our desks to be magically cleared of more pressing obligations, I began to collect materials that seemed potentially relevant to answering that question. The other articles Langlitz cites were by-products of that mountainous and still-growing stack of notes and sources. As this side project expanded beyond all reasonable bounds—aspiring to become that “truly cosmopolitan history of ideas (yet to be written)” that Philippe Descola conjures in his commentary—I was asked to write a very short book for a German series entitled “De Natura.” I welcomed the challenge to try to discern the outlines of the forest amidst all the leaves I had been gathering.

So much for the origins of the book, which is still the merest sketch of what a full-dress treatment of the subject would look like (and which probably could only be undertaken by a collective of scholars even more panoramically learned than the one that had prompted my question in the first place). Why even hazard a sketch, especially one based on only one skein of intellectual traditions (despite the lazy way I and others abbreviate this skein as “Western” or “European,” it is neither of those, and anything but monochromatic)? First, because an argument condensed to its essentials, illustrated but not encumbered by examples, gains in clarity and sharpness—and is therefore more easily tested against other evidence. Second, if the argument does not work for even one skein of traditions, it can be discarded outright. But if it detects patterns in that case, there is at least *prima facie* reason to extend the inquiry to others. Because trust in empirical claims is quite rightly earned by firsthand acquaintance with the sources, whether these are historical documents or ethnographic interlocutors, I could not responsibly stray from those that I could read in the original. Another reason for publishing the bare-bones argument was therefore to elicit the response of scholars who commanded other bodies of knowledge.

Third, and probably most controversially, I wanted to revive a Kantian tradition of philosophical reflection on humanity *per se*, inspired by but not confined to specific case studies. I am aware of the historical abuses of

such generalizing traditions: Judith Farquhar kindly but firmly points out that the use of “a universalist rhetoric using words like ‘our species,’ ‘must be,’ ‘the human impulse,’ and ‘all conceivable orders’” is bound to provoke the “prickly retort ‘But [humph! I can authoritatively state] not in *my* village!’”—a rejoinder that is sometimes all too justified. (I shall turn to these counterexamples in the next section.) Historians wield an exact analogy to the anthropologist’s retort: “Well, not in *my* archives!”—note the telltale possessive first-person pronoun in both cases, a marker of territory as well as authority. Both disciplines stand guard against premature and unproven generalizations, in recent years generalizations advanced by evolutionary psychologists and biologists about human nature *tout court*. Nonetheless, I was and remain concerned that principled resistance to any kind of generalization, the product of an emphasis on variability that has both political and epistemological roots in controversies over human nature (Milam 2019), tends to lend credence to skeptical questions about whether disciplines like history and anthropology seek knowledge at all.

To my mind, the alternative is not to embrace an unthinking scientism, aping methods devised for other sorts of subject matter, but rather to defend the forms of empiricism and explanation characteristic of our disciplines. More specifically, I wanted to experiment with a form of hypothetical generalization that originated in one body of evidence but could be tested against others. My earlier experience with the Moral Authority of Nature research group had persuaded me of the generality of the *explanandum*: could a suitably general *explanans* be found?

Why use terms like “nature” that apply to only one cultural tradition among many?

Imagine a language free of all words referring to “nature” and to the great divisions between “nature” and its many opposites: art, culture, nurture, society, humanity. Instead, this language marks distinctions among the regularities of experience, according to the degree to which they can be reckoned with or not. Special words would pick out the most reliable phenomena, which might include not only the astronomical cycles of the seasons as the sun proceeds along the ecliptic but also the characteristic properties of certain stones when chiseled or polished and the fact that children learn a language. At the other end of the spectrum, equally precise words would apply to the flightiest phenomena, from the mutations



of clouds to the whims of kings. Clumped in the middle would be the things that can be expected to happen most of the time but not without exception: the arrival of the monsoon rains, obedience to the rules of who may (and may not) marry whom, the response of a sick person to a medication, the behavior of this or that animal species, the celebration of holidays, and much, much else. Such a language would not distinguish between the human and nonhuman, the natural and the unnatural, only between the predictable, the unpredictable, and (by far the largest category) the semipredictable. For speakers of this language, Lévi-Strauss's distinction between the rules of culture and the laws of nature would make little sense (Lévi-Strauss 1967: 9). They would make no categorical distinction between the vagaries of the wind and the vicissitudes of love affairs, on the one hand, or between arrival of the vernal equinox and human mortality, on the other.

The point of this thought experiment is to set aside as many culture-bound assumptions as possible about what is natural and what is not, right down to the very category of the natural. Melissa Leach and Philippe Descola object that my arguments about the moral authority of nature rely much too heavily on one skein of cultures (and one that has already received a disproportionate amount of scholarly attention) at the expense of many others that understand the world in very different terms. Moreover, both offer examples that seamlessly blend what observers schooled in naturalist traditions would be obliged to separate into natural and social components. Leach describes the Kissi category of “*maa*”: “‘*Maa*’ for the Kissi is not a social disturbance of a natural order, but a socionatural disturbance to socionatural orders in which human, plant, and animal vitality are inextricably intertwined.” Descola invokes “a sociocosmic whole where every event in one sector reverberates in another sector.” Strikingly, both offer the example of how grave breaches of sexual and other social norms can precipitate “droughts, floods, or torrential rains” (Descola) or “crop failure, societal infertility” (Leach). Both conclude that it would be procrustean or worse to force these more holistic schemes into the bifurcated mental universe of nature versus culture (or nature versus anything).

I entirely take their point. I can even supplement their examples with very similar ones from the traditions that I study, starting with the opening scenes from Sophocles's *Oedipus rex*, in which the seer Teiresias explains crop failure and human infertility in Thebes by the fact that a man in their midst has murdered his father and slept with his mother, “father and brother both to the

children in his house” (Sophocles 1991: 28), and ending with the latest headlines alleging human environmental culpability in connection with the COVID-19 pandemic, of which Leach gives several good examples. It doesn't make much sense in any of these examples, from whichever cultural tradition, to sort out the “natural” and “social” elements: as Leach and Descola convincingly maintain, everything is interwoven with everything else.

However, I think it does make sense to sort out perceived cause and effect, order and disorder. As I understand these examples, crop failures, infertility, droughts, floods, and other disasters are interpreted as signs that norms have been transgressed. But are breaches in norms ever taken as signs that crop failures and the whole suite of cataclysms have occurred? This is an empirical question, and for the answer I defer to those far more expert than I in the cultures described by Leach and Descola. Surveys of accounts of natural catastrophes (earthquakes, floods, plagues) and their attributed causes in the European tradition from the twelfth century through the present testify that the pattern of natural catastrophe-as-sign-of-transgression is common; reversals (transgression-as-sign-of-catastrophe) are exceedingly rare (Groh, Kempe, and Mauelshagen 2003; see also Kempe and Rohr 2003). There is a widespread tradition, originating in the astrometeorological observations of the ancient Near East, of interpreting certain unusual occurrences, such as comets or monstrous births, as portents of impending cataclysm, such as war or the death of kings or the end of the world (Rochberg 2016). But once again, the reverse order of inference—e.g., the death of the king implies an impending comet—is vanishingly rare.

To adapt Leach's suggestive language of the socionatural: pairs like the appearance of a comet and the death of a king or a devastating flood following a rise in sodomy cases might well be described as socionatures, but within each pair a one-way temporal and usually causal sequence obtains. If this asymmetry in the direction of attribution and interpretation is more widespread, it would be *prima facie* evidence of an at least implicit distinction between kinds of disorder, however tightly linked they may be. In the case of both catastrophes and portents, the kinds of disorder that attract the greatest attention and cause the most consternation are those that occur infrequently and therefore by that very fact define an order by contrast. If they occurred all the time, their value as signs and warnings would be lost.

This is the point of my linguistic thought experiment. Even in a language that did not distinguish between human



and nonhuman realms, with no category corresponding to “nature,” I would still expect the more predictable end of the spectrum, whatever it might be called, to be moralized and for its elements to be used to model (and prop up) those in the semipredictable middle. Conversely, the rare disorders that disturb the more predictable end of the spectrum are the most likely to be moralized as mirroring disorders in the semi- and unpredictable realms, especially those involving human misconduct.

This is not simply a reiteration of the nature-versus-society dichotomy. First, it is a spectrum, not a dichotomy of any kind. Second, a great many natural phenomena will end up in the semipredictable and unpredictable regions of the spectrum, just as some, though fewer, human phenomena will gravitate toward the predictable pole. Much social behavior is a good deal more regular than much weather. My thought experiment is designed to isolate what I take to be the core element of why some resources are more attractive than others in representing and legitimating norms: it is a certain kind of regularity (and irregularity) rather than the category of nature per se that is at issue.

All of the reviewers raise the question of whether constant exposure to fluctuating circumstances might render all contrasts of order and disorder moot. Farquhar observes that after the 2008 Wenchuan earthquake, “[n]ature in Wenchuan, even today, is highly unreliable”; Leach asks, “is nature really so ordered?”; Langlitz notes that even a garden is a “savage battleground”; Santos points to the “processes of environmental decay and ruination”; Descola offers examples of metempsychosis between species and never-ending feuds, all manifestations of the fundamental instability of everything. My thought experiment is an attempt to address these examples: the human realm has no monopoly on disorder; the natural realm has no monopoly on order. But I do maintain that there will be phenomena from both realms that dependably if not unexceptionably fall in the more predictable region of the spectrum. Just what those phenomena may be in any given locale is a matter of experience: some regions are earthquake-prone but can reckon with the reliable healing virtues of medicinal plants; others can bank on the ground remaining steady beneath their feet but must deal with hurricane season. As Farquhar quotes Dr. Li apropos of good doctors: “All they need is herbs that do well.” What I cannot imagine is a world with *no* regularities, in which *all* phenomena, both social and natural, are clumped at the unpredictable end of the spectrum. If crops failed as often as not, if the efficacy of medicinal

plants were random, if all social bonds and rules might be dissolved at any moment without warning, it is hard to imagine how any community of any species could survive.

Where are the politics?

The short answer to this question, posed most pointedly by Leach and Santos but also implicitly by Langlitz, is: everywhere. There would be no need for moral authority, from whatever source, if the moral orders that call upon its support were uncontroversial. All of the examples I give in my book, from the body politic of medieval Europe to nineteenth-century claims that energy expended on higher education would unfit women for motherhood to current controversies over genetically modified organisms, are examples of attempts to buttress the legitimacy of political orders that are anything but uncontested. Whether it is the Catholic church arguing that homosexual marriage is unnatural or environmentalists arguing that wildfires in California are nature’s revenge for rapacious real estate development, those who play the nature card are always doing so against adversaries, and the stakes are always political. Because the politics of nature’s moral authority are so obvious and so ubiquitous, I confess that I did not think it necessary to belabor the point.

For me the question is not, “where are the politics?” but rather, “what kind of politics is nature supposed to have?” In some European political traditions, there is, for example, an arresting shift in the political valence of arguments between the eighteenth and latter part of the nineteenth century. Whereas nature is broadly speaking on the side of reformers and revolutionaries in the eighteenth century, by the mid-nineteenth century it had become a cudgel with which conservatives and reactionaries could beat their opponents—and remained so until quite recently. For Enlightenment enemies of inequality and despotism, imagined states of nature and natural laws provided a vantage point from which to criticize existing political arrangements: if natural law decrees that all men are born equal, why are they everywhere in chains? But only a few decades later, nature had come to stand for obdurate resistance to all change: the way things are is the way they have to be, no matter how unjust. This opposition between immutable nature versus variable nurture (Galton 1972: 77), between areas of human experience in which political argument makes sense and those in which it allegedly does not, is, for example, still inscribed into the experimental design of hundreds, if not thousands of



inquiries into gender differences (Richardson 2013; Longino 2013).

I offer this particular flip-flop example because it shows how protean nature can be as a political resource and also because the consequences of the shift from liberal to conservative nature are still very much with us. But there is nothing particularly modern about enlisting nature to fight human battles. *Pace* Santos, it is not the case that it was the Scientific Revolution that made nature “a powerful source of authority for images of moral order.” Ancient and medieval sources provide plenty of examples for invoking nature to uphold men’s oaths, condemn sodomy, keep women in their place, and entrench the powers-that-be. As I argue on the basis of the many such examples given in my book, the mystery is not that nature’s authority is constantly mobilized for political ends—there is overwhelming evidence that it is, in the past as well as in the present. The real question is why the sheer frequency and flexibility of such arguments don’t unfit them for purpose: if anyone can appeal to nature to legitimate almost any political cause, why bother? My book is an attempt to answer precisely this question.

Santos asks about the “ideals, institutions, and politico-economic structures” that maintain the various visions of nature. This is an excellent question, but one that would require many volumes to answer adequately. Here I can only gesture toward where one might begin to look in the sources that I know: the homilies preached in sermons that draw upon nature as “God’s second book,” proverbs and fables that connect the cycle of the seasons with the cycle of human activities, innumerable portraits of a personified nature as nurturing mother or avenging fury, the moralized natural history of school instruction and museum displays, landscape paintings and maps that cement ideas of the regional distribution of flora and fauna, television science documentaries featuring images of the grandeur of galaxies or the lives and loves of animals, and great swathes of literature about affective human responses to everything from thunderstorms to insects. And this is the merest beginning. Santos himself offers an example of another rich vein of what might be called nature socialization: children’s literature, which is chockful of various animals (and sometimes plants) who ventriloquize human values to human children. As Aesop’s fables and centuries’ worth of other moralized animal tales testify, this is not a modern phenomenon. We are so inured to this genre that we no longer register how bizarre it is (in Santos’s example) for the tale of a little bird to be used to teach a child its own niche in the world. Like the poli-

tics of nature, the socialization into the uses of nature is ubiquitous.

What are the moral and epistemological implications?

Langlitz probes the implications of my argument for moral relativism. It is not a topic that I address directly in the book, but Langlitz is right to point out that my arguments about the moral uses of nature do bear on that theme. At the very least, I would contend that nature offers no solace to those who seek universal absolutes. There may be other reasons for embracing such universals, but it’s a mug’s game to look for them in nature writ large or small. But, Langlitz persists, what about human nature? In one sense, the book is all about one aspect of human nature: a certain kind of cognition that (a) needs to represent its ideas to itself and conspecifics; (b) preferentially seeks models for representing moral orders in natural orders; and (c) registers breaches of order with characteristic cognitive passions. On the whole, I agree with critics, from Hume to Mill and beyond, that such analogies and justifications do not stand up to close scrutiny. But unlike the critics, I believe that such inveterate habits deserve an investigation in their own right—all the more so because no amount of rebuttal seems to uproot them. That inquiry is what the book aims to provide.

Does this feature of human cognition have implications for human nature more broadly conceived, including the specifics of human morals? Beyond the obvious claim that all human communities observe norms of some kind, I do not think that my arguments point in any particular normative direction. This is not necessarily because I am a moral relativist but rather because I am an epistemological minimalist. Especially in claims about human beings in general, I think premises must be as few and as well-grounded as possible. This is why I do not avail myself of the support of the evolutionary anthropology literature Langlitz cites, though I find its arguments full of interest. However, given the paucity of evidence for the early stages of hominoid evolution, many of its conclusions must remain highly speculative. I am all too aware that I am already treading on thin ice in generalizing from what I admit (and believe that critics are fully justified in pointing out) is a limited empirical corpus, albeit one that is millennia-long as well as linguistically and culturally diverse. My book advances a hypothesis that will already strike many readers as impossibly broad; it behooves me to focus its assumptions and claims as narrowly as possible.



This brings me to a final point, raised explicitly or implicitly by all of the reviewers: what is philosophical anthropology, and what is it good for, if anything? Isn't it just "trying to reinvent the wheel" (Santos), a device already invented and perfected by anthropologists themselves? Speaking only for my generation of historians of science, it is certainly the case that our notoriously Eurocentric horizons have been greatly enlarged by anthropologists' explorations of natural knowledge in many cultures, and we increasingly substitute "natural knowledge" for "science" as our subject matter. Still more important has been the "ontological pluralism" Descola invokes, which has helped to rescue historians of science from the arid search for anticipations of what-scientists-think-now in historical sources and instead to focus on reconstructing past worlds of thought and things in their own terms. But the enterprise of a philosophical anthropology is a somewhat different one: to try to say something significant about human cognition in general. Are there patterns underlying all of that historical and cultural variability in the way humans (and perhaps other species) make sense of the world? It is philosophical not because of an airy disdain for empirical evidence but because it is about how humans philosophize—and therefore about the possibilities and limits of philosophy. There is a reason why my book begins and ends with Kant.

Any such account may well be doomed by its own ambitions. There is just too much relevant empirical evidence to encompass, perhaps even for an interdisciplinary collective of diligent, polyglot scholars, much less a single person. Even the tradition to which I limited myself is full of variety and change, as the reviewers note; it is also geographically dispersed, belonging as much to parts of Africa and Asia as it does to anything remotely "Western." I am therefore particularly indebted to the reviewers for both their analogies (e.g., Farquhar's example of the Chinese *xing*) and counterexamples (e.g., Leach's example of the Kissi *maa*), which reveal further assumptions that may lame the generality of the account but also point the way to where further comparative research may prove fruitful.

The German language, which has a word for almost everything, has a fine verb, *mitdenken*, which can be roughly translated as "thinking along with someone else" and suggests a spirit of intellectual fellowship though not necessarily agreement. The *Mitdenkerin* or *Mitdenker* (unfortunately, the German language also requires that gender be specified) provisionally tries out another's perspective, an act of intellectual generosity. My last words, like my first, must be ones of sincere thanks to the four commentators for agreeing to think along with me.

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