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Greater goods: ethics, energy, and other-than-human speech

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Renewable energy projects are ethically laudable for their cleansing intentions, but they also produce effects upon other-than-human beings in their orbit. Taking the case of Mexico's Isthmus of Tehuantepec, which is home to the densest concentration of on-shore wind parks anywhere in the world, and following Foucault's reading of the speech form 'parrhesia', this essay argues that the bodies of affected nonhuman beings, particularly those whose existence is actively balanced against a 'greater good' for humanity, enact a form of other-than-human speech, first in their threatened status and, secondly, through environmental management regimes that seek to synchronize human and nonhuman lives in settings of both local and global ecological failures.

Free speech

In one of his lesser-known theoretical fascinations, Michel Foucault contemplated a Greek speech form called parrhesia. His notes tell us that this term is ordinarily translated into English as 'free speech'. In its subjective usage, the parrhesiastes is s/he/they who utilize parrhesia, the one who speaks her/his/their truth. Parrhesia is the articulation of a genuine belief, unencumbered by rhetoric and thus purified in its honesty. The parrhesiastes uses their freedom to choose frankness over persuasion, or flattery over morality, selecting veracity in place of falsehoods.¹ Foucault further reminds us that the free speech of parrhesia always comes from 'below' and it is always a critique. It may be self-critical and it may be personally or politically directed, but the quality it preserves is that of assessment and evaluation. The parrhesiastes helps people recognize their 'blindness', a blindness that is a consequence of what Foucault calls 'moral fault' (2011: 16).² Parrhesia is a critical project, but a decidedly moral task as well. Finally, the free speech of parrhesia is not simply speaking truth, but telling that lived truth to power. Parrhesia is an enactment that involves risk and danger. Sometimes that risk is bodily, permanent, or fatal, and other times it is less dramatic but perilous nonetheless.³

To be a parrhesiastes, one must be in a subordinated state, similar to what Spivak might call a subaltern position, at least in respect to the person whom one is addressing.⁴

Foucault puts it quite simply when he writes, “The parrhesiastes is always less powerful than the one with whom he or she speaks. The parrhesia comes from “below”, as it were, and is directed towards “above” (1999: para. 19).⁵ A philosopher may speak against a tyrant or a student critique their teacher, but never the other way around. It becomes readily apparent, however, that he who can exercise parrhesia is never fully ‘from below’, because it is in almost all cases only ‘a male [Greek] citizen’ who can undertake such speech. Above all, parrhesia is a human project: whether between one another or to the gods, it is Man who enunciates these transparent truths.

Parrhesia is an index of who, or what, is capable of speaking the truth. It is, for Foucault, a decidedly human act. But what if parrhesia were not solely an occupation of the human? What if we were to consider nonhuman beings as ‘speeching’ (freely)? Remember that: (a) the parrhesiastes has a special relationship to truth because their life may be endangered; (b) the parrhesiastes is synonymous with their message, a living virtue, and a transparent truth that also surfaces ethical concerns;⁶ and, finally, (c) the parrhesiastes always comes from ‘below’.

Parrhesia in the wind

In the examples assembled here, I draw from my research on the massive expansion of wind parks in Mexico’s Isthmus of Tehuantepec.⁷ Mexico’s foray into super-dense wind park development is predicated on a desire for greener forms of profit as well as cleaner power sources meant to better the global climatological commons. But although renewable energy projects are ethically laudable for their cleansing intentions, they also, like all infrastructural works, have effects upon humans and nonhuman beings in their orbit. In this context, I would like to propose that there is in fact a form of parrhesia at work in the bodies of affected nonhuman beings, particularly those whose existence is actively balanced against a ‘greater good’ for humanity, as in the case of endangered species proximate to renewable energy endeavours. Parrhesia is here enunciated first in these creatures’ threatened status, or the probability of their extinction, and, secondly, through environmental management regimes that seek to synchronize human and nonhuman life in settings of both local and global ecological failures. I will argue that as nonhuman beings appear in representational forms (like legal protections), as they are produced through environmental management (as in environmental impact reports), and, finally, as they become present (ironically) in their perishing, this can be taken as a kind of parrhesia an imperilled being-as-message that comes from below. But before encountering our other-than-human parrhesiastes, let me first set the stage in southern Mexico, and within a series of conversations in the anthropology of energy, ethics, and multispecies studies.

Inhabiting the wind

Mexico’s Isthmus of Tehuantepec is a place where eighteen-wheel semi-trucks are regularly overturned, blown, and battered by gusts of *El Norte* (the north wind). Home to a meteorological ontology that makes it one of the best places on the planet to generate renewable electricity (Fig. 1), the Mexican Isthmus has also become home to the densest concentration of on-shore wind parks anywhere in the world. Turbines began to appear in the Isthmus when its windy potential was paired with policy measures to ensure that Mexico would reduce its carbon footprint. Under the guidance of President Felipe Calderón (2006-12), the country came to exemplify ambitious possibilities for climate remediation, setting legally binding targets for clean energy sources to provide

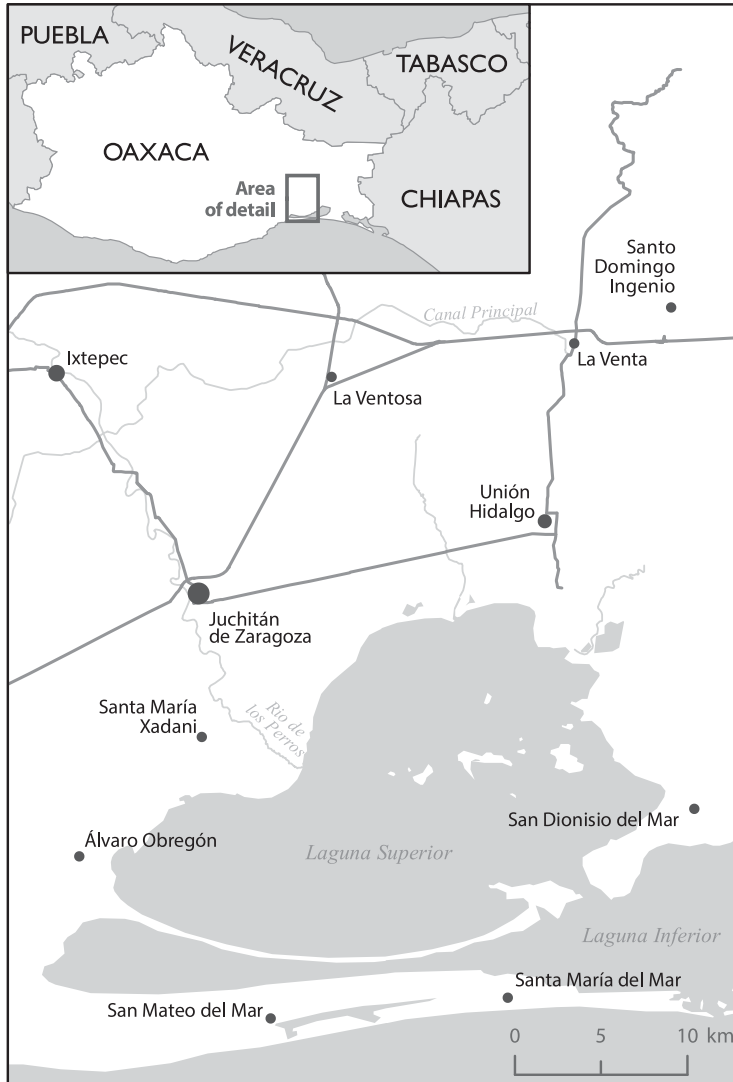


Figure 1. Map of Isthmus of Tehuantepec's core wind zone. (Created by Jean Aroom with assistance from Jackson Stiles and Hannah Krusleski.)

35 per cent of the nation's electricity by 2024 (Booth 2010). Thanks to the barometric pressure differential between the Gulf of Mexico and the Pacific Ocean, the winds of the Isthmus would come to be the hub of that renewable dream, captured through the revolutions of blades and their kinetic powers (Aiello, Valencia, Caldera Muñoz & Gómez 1983; Alonso Serna 2014; Elliott, Schwartz, Haymes, Heimiller & George 2003).

The same biogeography that makes Isthmus winds so potent for the production of renewable energy also makes the region an important migratory corridor for birds. This is a rich avian space, a crossing point between the lowlands of the Atlantic and the Pacific where migrating flocks and keen-eyed raptors avail themselves of draughts and favourable currents. With turbines in their paths, these birds, along with other

animals, encounter potentially deadly obstacles in the form of lopping blades or habitat encroachment. The Isthmus wind pulls many lives through it, both in the form of flighted creatures and among the terrestrial human occupants who hope to achieve better levels of development – such as health centres, schools and prosperity – through the income that new energy infrastructures might bring (Escobar 1994).

If some Isthmus residents have profited from the arrival of the turbines, they are not the only people who see the growth of renewable energy as an ethical project of unqualified good. Investors in renewable energy ventures and Mexican state officials at all levels of governance also recognize the financial and developmental potential of renewable energy in the region, one of the country's most impoverished. Moreover, in a time of ecological precarity and a rapidly changing climate, the need to ameliorate anthropogenic harm by reducing carbon emissions is recognized as a concern affecting all biotic life, human and otherwise. In the Isthmus, as in other elsewhere where turbines and creatures meet, an ethical dilemma emerges (Crate & Nuttall 2009). Is the betterment of a global climate – through the tools of renewable power – to be prioritized over localized ecological spaces where that energy is produced and conveyed? Is there reason to forsake places like the Isthmus for the greater good of the climatological commons? And what sorts of ethical paradoxes are produced between human desires for energy and proximate creatures' desires to survive and thrive? Some response to these questions, I believe, can be found at the nexus of anthropological work on other-than-human lives and their intertangement with energy infrastructures, both physical and bureaucratic (Howe 2019). Anthropological work that treats multispecies dynamics and energy forms in combination offers a unique analytical take on nonhuman speech, as a form of parrhesia enacted in environmentally troubled and ethically charged times.

Energy ethics, multispecies ethics

The Anthropocene⁸ – the dramatic anthropogenic morphing of Earth systems – hails particular conditions of possibility for other-than-human species. It is an opportunity, in one sense, to imagine new calibrations of vitality and its loss, as well as enunciations of risk and danger. Following several years of conclusive evidence from natural scientists that humans have radically altered essential Earth systems and are continuing to do so, many conversations across the social sciences and humanities have centred attention on the consequential relationships emerging between energy and environment (Barry 2015; Kirby 2011; Klieman 2008; LeMenager 2015; Petrocultures Research Group 2016; Szeman & Boyer 2017; Walsh, this volume). Among anthropologists and others, an increasing attunement to energy and its effects now shapes the epistemic ecology that we inhabit. Renewed attention to energy and environment has emerged in parallel with increased ecological precarity and anxieties surrounding extinctions both floral and faunal (Kolbert 2013). A growing recognition of anthropogenic harm has also worked to accentuate interspecies relationships and dependencies, producing innovations of theorizing from the post- or other-than-human (Blaser 2016; Candea 2010; Lien 2015; Matsutake Worlds Research Group 2009; Raffles 2010; Wolfe 2009) to the neo-materialist (Barad 2007; Bennett 2010) and to the post-technological (Haraway 1996; Latour 2013).

In parallel with environmental inquiries, a (re-)emerging subfield, the anthropology of energy, has expanded and deepened in recent years along with global initiatives regarding power generation, greenhouse gas reduction, and related ecological issues. Although an anthropology of energy has existed for some time,⁹ the most recent

generation of research has explicitly indexed the coeval relationship between energy forms and environmental systems (Behrends, Reyna & Schlee 2011; Breglia 2013; Cepek 2012). So too have many of these projects underscored human inequalities that are often produced in particular energy regimes (Howe 2015; Howe & Boyer 2016; Mason and Stoilkova 2012; Rolston 2014). Suzana Sawyer's (2004) study of US corporate oil operations in the Amazon, for example, details how economic disparities and lack of adequate healthcare are magnified through energy extraction. Combining Marxian political economic and Foucauldian approaches to biopower, Sawyer focuses critical attention on the subjugation of indigenous peoples and *campesino* mestizos whose worlds have been contaminated by the quest for oil.¹⁰ Where extraction has certainly caused multiple kinds of harm in many parts of the world, the securing of energy must also be recognized as a component of energy infrastructures that also compel certain kinds of work and relationship (Smith, this volume) as well as complex investments – both literal and figurative – of finance capital and valuations of energy forms (High and also Wood, this volume). Energy, in other words, is a complex meshwork of human, material, and other-than-human encounter, open to multiple sociocultural interpretations.

Timothy Mitchell's (2011) influential historical account of 'carbon democracy' offers a critical framework within which carbon, as a fuel source, can be taken as a diagnostic of the broader social, political, and economic outcomes of energy production and consumption. The physical form of energy sources, Mitchell suggests, has in part determined the political and economic status of particular fuels over the last two centuries. Politically organized coalminers, beginning in the late nineteenth century, for example, were able to effectively 'choke' the distribution of the increasingly valuable resource they controlled by halting rail shipments of coal to cities in both the United States and the United Kingdom. Derailing carbon energy in this way led to critical political leverage for labourers that, for Mitchell, fomented the rise of the welfare state and a more equitable distribution of social wealth. Oil, he writes, had a wholly different political economic life. It provided a seemingly endless supply of viscous power, floating around the world by ship, and profoundly shaping politics in the Middle East as well as in Northern countries that had steadily become democracies whose growth and stability was dependent upon cheap oil.

Global inequalities are thus produced through forms of energy, their extraction, and their uneven distribution. Inequalities, in both social and environmental forms, have inspired much of the social scientific work on energy over the last decade. However, as High and Smith (this volume) acknowledge, we cannot limit our analytics to corporate and state critique, or to advocacy positions for more sustainable forms of energy production. Each is important, perhaps even crucial, but in the absence of recognizing a full range of human motivation and valuations of energy as a form (see Mason, this volume), we may leave ourselves unable to contend with greater ethical quandaries that appear on the horizon of energy futures. Contingent morality is implied across accounts of energy and its produced inequalities, but to sit only with political economic questions regarding energy leaves largely untapped the broad ethical implications of energy forms. Human desires find many outlets in the domain of energy, whether 'ecologically entrepreneurial' (Cross, this volume), caring for 'orphaned' energy assets (Wood, this volume), or inspired by a new imaginary of energy ethics that seriously engage with the costs of production and utilization from multiple points of view.

Energy is power materialized but it is likewise ethically charged. In his *An anthropology of ethics* (2011), James Faubion uncovers the carefully layered sense of ethics that Foucault (1997) developed, demonstrating that ethical practice is not atomic but relational. Ethics are not individuated but instead *environmentally* conditioned. The ‘interpretive universe of ethical forms’, Faubion writes, ‘is one of subjects *in*, or passing *through*, positions *in environments*’ (2011: 119, emphasis in original). If we take ethics as constitutionally shaped by relation, interaction, and the social environments in which they are enacted, then any ecoenergetic dynamics of the present should also be read through an ethical account. By extending Foucault’s and Faubion’s social environment – which is composed of human beings exclusively – to a broader ethical ecosystem that includes nonhuman others, a broader analytic of ethics, energy, and socioecological environments may emerge. Accounting for the more-than-human moves us closer to that broader plane of ethical contact, allowing for a ‘more capacious’ (High & Smith, this volume, p. 2) rethinking of energy ethics.

Humans and other-than-human beings are in ethical relationships with one another, even if humans often prioritize their own (inter-human) ethical projects. In his 2013 book *How forests think*, Eduardo Kohn seeks to unravel the singularity of human communicational practice and to enlarge the scope of ethical encounter. Kohn reads the pragmatist philosopher Charles Peirce across human, forest, and animal interactions, advocating the importance of a semiological approach to more-than-human figures. Focusing attention on Peirce’s signs, icons, indexes, and symbols, Kohn argues that the communicational labour between humans and their others is key to disassembling anthropocentrism. After all, it has long been the conceit of anthropos that it is He who is the sole master of language. In Kohn’s work, forests and dogs would argue differently. What is of interest here, in the context of energy regimes and other-than-human lives, is the power of cross-species communication; this is not solely a matter of signs and their objects, but rather communication as a *mode of conduct* and behaviour that produces effects. By surfacing interspecies communicative potential, Kohn’s brand of semiotic realism suggests an ethical practice that is not bound to humans alone but one which has extensional possibilities to other-than-human worlds.¹¹ Communication is, in this context, an invitation for humans to enter a habitat of icons and indexes shared by animals and other living beings.

This habitat, however, need not be limited to living beings alone (de la Cadena 2015; Li 2015). Elizabeth Povinelli’s principle of ‘geontology’ (2016) asks for us to push beyond the (much fetishized) divide between life and death and instead recognize juxtapositions between life and non-life. Working with indigenous Australians, Povinelli shows how figures that appear to the settler colonial mind as land formations are in fact beings for Karrabing people. An important quality of the Two Sisters – or what some would take as paired mountains – is their ability to qualify distinctions of epistemic awareness between those who can recognize them as Two Sisters, as opposed to those who can only ever see two mountains. The aliveness of the Two Sisters is not in question for this is not a rehearsal of animism. Povinelli is instead seeking a concerted distance from the biopolitics of Life and Death; she is drawn towards what she calls ‘the geontological’.¹² In Australian courtrooms, the Two Sisters have a geontological voice. Through the legal pronouncements of human interlocutors, they are poised as sites of cultural heritage and their preservation is thus ensured. The Two Sisters’ speech form is their existence, their being there, even as they are translated by legal experts in order to be understood by those who can only ever see two mountains (and not Two Sisters). Certain forms of

other-than-human existence are semiotically charged and communicatively significant in the protocols of law and policy.¹³

While the logics of settler-colonial modernity and enduring species hierarchies have, in some sense, always compelled nonhuman beings to ‘speak from below’, contemporary conditions of anthropogenic environmental degradation accentuate the precarity of nonhuman beings. Anthropocenic conditions thus open a space for a particular form of speech between human populations, nonhuman beings, and, in some cases, entities that are commonly taken to be without life, but that may, nonetheless, ‘possess a kind of liveliness’ (Penfield, this volume, p. 10). In the examples that follow, and drawing from the communicational possibilities laid out above in other-than-human speech forms, I will suggest that the communicational labour of other-than-human animals operates as a form of parrhesia. Where energy infrastructures infringe upon biotic spaces, it is hares and bats and birds whose being and bodily presence function as indexical lives (a) that come from below, (b) that are necessarily at risk, and (c) whose message of ‘truth’ in bodily form works as a speech act that troubles and interrupts the operative logics of energy extraction, even in its greener forms. Affected nonhumans that occupy the roads in the rush to new forms of energy thus enact a form of speech now (and especially) in a context of climate precarity. Their bodily being-there (presence), or their not-being-there (extinction or displacement), functions as a parrhesiastic ‘true speech’, coming from ‘below’ and imperilled. While many (or most) nonhuman animals have been subjugated to human interests and thus regularly made to occupy a subaltern space, the Anthropocene condition presents a unique set of conditions where increasingly vivid environmental degradation and species loss may in fact amplify the subordinated ‘voice’ of other-than-human parrhesiastes just as they occupy an increasingly precarious place in the biotic and energetic worlds that humans continue to remake. And if particular creatures are threatened at the nexus of purer power and global anthropogenic harm, I would additionally ask whether this condition is not paradigmatic of the ethical challenges faced by humanity and our others: ‘our’ skies vs ‘their’ lives.

Now, finally, we are back to the wind.

Hares

The Tehuantepec jackrabbit is the kind of animal that would scarcely be missed. It is not a predator responsible for culling some population of insects, rodents, or other vermin. As a source of prey, it is meagre, skinny, and now numbering so few that it would scarcely feed anyone or anything. Those likeliest to feast on it are stray dogs or a hungry human, both of whom would be lucky to even find, much less kill, this little hare. Wiry and dune coloured like its arid home, the Tehuantepec jackrabbit resembles its North American kindred in the southwestern United States. With its slightly transparent sunset pink ears cocked and nostrils ready for scents carried across the wind, it does not look remarkable, just another long-legged rabbit on its way to the end of days. *Lepus flavigularis* – also known by multiple other names: the Tehuantepec (or Tehuana) hare, the tropical hare, the *Liebre de Tehuantepec* (or *Liebre Tehuana*) – was named or ‘discovered’ by a nineteenth-century biologist; he called it the ‘beautiful-eared jackrabbit’. The Tehuana hare has no recognized subspecies – meaning that there are no taxonomic ranks below it that can be designated with a distinct nomenclature. It is at the end of its line in its taxonomicality.

The Tehuana hare has suffered a population decline of over 50 per cent in recent years, more than half of its biotic corpus. Its total numbers are less than a thousand



Figure 2. Computer-generated depiction of what the Mareña park might have looked like. (Illustration by the Mareña Corporation.)

and dropping. To make its way in the world, the hare now occupies only a fraction of its original territory, somewhere between 67 and 100 square kilometres. Four small, separate and separated populations make a patchwork of hare habitat – one of which is on a peninsular stretch of land where a portion of a wind park was set to be built: 30 of 132 total turbines, each of which would reach 105 meters (32 storeys) into the sky and weigh 285 tons. The home of the hare was set to become home to the Mareña Renovables project, the largest wind park ever erected in Latin America (Fig. 2). And the hares' habitat was about to become scarcer still as turbines, cement, and rebar would come to occupy their little remaining spaces. The jackrabbit is, however, protected by Mexican law as an endangered species. And when the law functions as it ought to, the little creature should receive respite.

While regulations are often prone to slippage and non-compliance in places like the Isthmus that lie at the margins of the nation-state, in this case, the little hare proved victorious. Saul Ramírez, an environmental impact specialist with many years of experience in the Isthmus region, explained that the presence of protected or endangered species was a 'definitive reason' to compel the developer to 'move the road, move the substation, move whatever'. In these cases, Saul noted, it is the ethical and legal obligation of government agencies, contracted researchers, and project developers to shift the co-ordinates of a project. Following another series of studies, the park was in fact moved, relocated owing to the presence of the withering jackrabbit.

Speaking from below with their bodily presence, hares articulated the fact of their existence and thus their endangerment in the planned path of the gigantic wind park. Although this truth may have been enunciated in human terms of impact reports and

policy protocols, the presence of threatened hares had a parrhesiastic effect: exhibiting a unique relationship to truth because their lives were at risk. The presence of hares, and the speech effect this produced, however, need to be understood in parallel with the documents and legislative acts that made this speech possible. If hares are able to speak themselves through their bodily presence, their bureaucratic, legal, and actionable existence is made legible through the documents, reports, and statements that shape the condition of possibility for a wind park (or by that logic, any other infrastructural megaproject). The jackrabbits' vulnerability is enunciated through human mediators, often those who work in government agencies or environmental protection organizations. In other words, the body of the hare speaks only to the extent that regulatory devices of environmental preservation, and the human managers of those regulations, are able to also articulate themselves.¹⁴

Environmental impact

The Mexican Secretariat of Environmental and Natural Resources (SEMARNAT) is a building filled with managers, overseers, and administrators whose job it is to ensure adherence to the laws governing the environment and natural resources. Located in a relatively prosperous commercial neighbourhood in Mexico City, the building itself is homage to high, concrete modernity. Alberto Villa is the Director of Evaluation for the Energy and Industrial Sectors, and he has an office set high in the SEMARNAT complex. In our meeting together in the autumn of 2012, he pulled out a massive tome that SEMARNAT has authored to ensure that legal obedience to the nation's environmental laws and resource regulations is assiduously followed. With the volume at his side, Alberto began to explain the intricacies of protections. Other-than-human species were clearly subject to the human machinery of bureaucracy, teetering between the protocols of oversight, care, and legality as well as the inertia of institutional practice.

A megaproject cannot be born, Alberto assured us, without first producing an environmental impact statement, known as a *manifestación de impacto ambiental* (or MIA). The MIA must be contracted by the developer of the structure and executed by third-party consultants. The *manifestación* describes the proposed project – its dimensions and duration, materials and magnitude. It must evaluate and speculate on a proposed project's potential impacts, as well as offer mitigation and prevention measures for those.¹⁵ It also needs to situate each element of the proposed infrastructure within an 'environmental system'. The MIA includes the site's current state of 'degradation' as well as the 'environmental services' (*servicios ambientales*) provided by 'the system' in question. Each must be described and enumerated. Systems logic surfaces here by conscripting networks, actors, and interrelated actants, both human and nonhuman, in a kind of cybernetic dance among species.

If the baseline of the MIA is to reflect what is environmentally extant and what kinds of injury currently prevail, its true purpose is predictive. It is poised to proffer a future and to be an exercise in the possibilities of risk attenuation (Beck 2008; Masco 2014). It is a prognostication about human-imposed future damage and a detailed portrait of the plausible outcomes to be expected. In other words, the MIA is a prospecting device. Its scenarios are creatural extinctions and displacements and its idiom is regulatory and enacted through the state. Hares and bats and birds speak from below, in danger, and in their truth, through the MIA.

Alberto, in his executive position at SEMARNAT, struggles with what appears to be a sacrificial offering: the local environment for the maintenance of a somewhat ambiguous global one. He is aware that creatures and places, materials and flows are systemically linked, and his attunement to the burgeoning of protections and the prevention of extinctions – which includes slowing the pace of global floral and faunal demise – is part of his conscious presentation of self. He stresses that government agencies, ‘as a rule, assent only to conditional approval for a project’. They are prone to argue for more intervention, not less, before agreeing to industrial developments like wind parks. ‘Vigilance is important’ because, as Alberto pointedly remarked, ‘sometimes the local impact [of a project] is much more environmentally detrimental than climate change is’ (see Eakin 2006). And it is towards these sorts of ethical questions that Alberto has been slowly moving us, leaping through the many calculations, measurements, and validations pertaining to species that live in the region where a wind park would be installed.

Saul Ramírez is also someone who ably navigates the details of environmental impact reports, but from the other end of the process, as a contracted assessor. ‘To build a wind park’, Saul begins, ‘you need two key permissions: an environmental impact permit [from SEMARNAT] and a *cambio de uso de suelo* [change of land use] permit that attends to effects on native vegetation’, especially forests (Hecht, Morrison & Padoch 2014; Mathews 2011). The first is a description of the project and its physical footprint, including roads and turbine siting. The second is a discussion of interrelated ‘mediums’: the *medio físico* (the physical setting and context) and the *medio biótico* (the biotic setting). In the case of wind developments in the Isthmus, Saul notes, these mediums are lagoons, forests, and (human) communities, including people’s ‘customs and population demographics’.¹⁶ The biotic setting, in good species-tracking form, includes human populations and their quantifiable ‘demographic presence’.

When we raised the question of rumours that environmental impact reports have been cut-and-pasted from other studies in other regions, or ‘bought and paid for’ and then delivered in place of legitimate environmental reports, Saul rejected such speculation. ‘That would be unethical’, he declared. ‘And in any case, the legislation is very clear that the data must be specific to the project site’. But he paused for a moment and reflected. ‘Pirating’ studies might happen, he admitted, but it is utterly unethical. Nonetheless, the question of graft and obfuscations muddied the transparency of species protections.

In the role of conservation professional, and in the job of ‘environmental management’, the rubric of care and concern is expanded. It becomes more crowded: human needs, social needs, energy needs, and ecosystems that will be allowed to continue to flow in continuity. With the scope of species awareness extended, other-than-human beings, like those that Alberto and Saul must account for, become increasingly wrapped up in human worlds. This kind of awareness is perhaps especially clear for those who are thinking with other-than-human species day in and day out. Even as they count themselves as belonging to a world of ‘moderns’, the care exercised by Saul and Alberto for other-than-humans reflects a certain kind of urgency, a more complicated condition where it is not just ‘other’ creatures that are in harm’s way, but humans as well. New demands on soils, waters, and skies appear via spreadsheets and carefully thumbed-through manuals, lists, and precautions. But each turn of the page indexes competing interests between creatures and plant life, energy and

uncorrupted skies, local environmental stability and translocal measures to clear the air. This process is, as Fabiana Li (2015: 92-4) has described it, an enactment of 'equivalence' where expertise and technical tools combine with political conditions and authoritative knowledge in order to shape value and determine comparable metrics of harm and remediation. Alberto, Saul, and others working in these spheres of care and management seem to be deeply aware of their role. Signs of disappearance and the ongoing development of power provoke a condition of creatural and habitational care and the associated horizons of risk. In these horizons of risk, the MIAs must be trained on the presence of endangered life, both floral and faunal, in a nexus of ethical concerns.

Bats

Barotrauma is a fatal phenomenon for bats swerving through corridors of turbines. Many dead bats that litter the grounds of wind parks have suffered no apparent external physical trauma, but inside their lungs have exploded. Unlike birds, which have rigid lungs, a bat's lungs are pliable. When these more fragile lungs are exposed to a sudden change of atmospheric pressure – such as that occurring directly in front of a rotor in operation – they will expand quickly beyond their capacity and the creature will literally drop dead.

Various hypotheses have been offered as to why bats would be drawn to wind turbines. In Canada and the United States, thermal imaging has documented bats attempting to land on the blades, which they may perceive as roosting trees. The structures may also be seen as a source of food since the blades and rotor area are peppered with dead insects. Another pull may be the heat generated by turbines. Or it may be that sound frequencies and electromagnetic waves produced by turbines disrupt echolocation, causing bats to inadvertently hurtle towards the towers and blades. According to comparative data from wind parks in North America, Europe, and other Interamerican Development Bank-financed parks in Mexico, bat mortalities outnumber those of birds. Despite these comparative reports, the final assessment for the giant wind park slated to be built in the Isthmus nevertheless concluded – in a final glum deferral – that ultimately 'there is no way to know' if bat populations would be adversely affected by the growth of wind parks in the region. Dead bats had piled up in other places where turbines were, but in this case they were simply assigned to the column of the unknowable. Whether they would survive the infrastructural apparatuses of clean energy was left as a question rather than a compelling impetus for protection. Perhaps dead bodies do not speak as well from below. Or maybe bats do not enunciate a particular kind of charismatic truth in their existence. In time, killed bats would provide comparative data for future parks in similar lands; their fatalities would speak to science in number and form. Bird bodies, too, enable similar acts of true speech.

Birds

Environmental impact assessments may report potential dangers, but they can also serve as opaque prognostications that obscure rather than reveal. In a 2004 report on bird life in the area that would be affected by the Mareña wind park's installation, it was noted that, 'given the lack of studies, the extent of nesting displacement is hard to predict'. And 'significant questions remain as to how flight strategies vary in different wind conditions and how migrating hawks use the site during spring migration'. Spring migration patterns themselves were qualified as 'unknown' and nocturnal migration

studies in the region were non-existent. Birds were quantified and identified throughout the studies but ultimately bird appearances in the wind zones became less an object of conservation than they were a calculable, and calculated, data stream.

Indeed, each prognosis found that bird mortalities that might occur with the installation of wind parks would render valuable scientific data. Killed birds would, the report explained, provide ‘a baseline for future wind park developments across Mexico and Central America’. ‘Collision fatalities’ that would be documented once parks were in operation would, in a macabre twist of environmental authority, offer statistical information about bird deaths in the land of the turbines. ‘Monitoring results of bird mortalities in Eurus and La Ventosa [two other sites of wind parks in the Isthmus of Tehuantepec]’, it was noted, when ‘combined with the results of this Project will be helpful in determining the extent of cumulative impacts’. Wind parks could become an experimental lab, testing the necrotic potential of turbines with Isthmus bird deaths serving as baselines, an animal ‘testing’ of a different kind (Stengers 2011). Birds were to be placed at the centre of an authorizing practice that would establish boundaries and designations of ‘biolegitimacy’ (Fassin & Pandolfi 2010): a politics of policing the limits of who or what can die and what kinds of lives are eligible for exceptional protection (Jackson & Warren 2005).¹⁷

In many settings, birds have been understood to have predictive virtues and the ability to illustrate futures (van Dooren 2014), sometimes able to speak in human registers (Kirsch 2014: 104).¹⁸ In many North American indigenous communities, writes Vine Deloria (2006), birds would sketch pictures in the sky, moved in one arc or another by the spirit of the place over which they flew. Birds’ prophetic powers are an enduring form of communication across human and animal communities, and examples of birds’ perception of future events can be found around the world and across time. Roman divinations were drawn from the observation of bird flight (*auspices*) and were integral to foundational legends. They often preceded political decisions, and no important judgements were made without consulting the *auguri*. Roman oracles were likewise consulted for their *omen*, or ‘true speech’, a truth predicated not on the present but on an emerging future (Keck & Lakoff 2013).

Weaving across the sky in the same way they did centuries ago, in the renewable age, species of birds and bats seem to offer similar revelations and prognostications: a form of truth enunciated with the presence of their being, openly in the wind.¹⁹ They may be unwilling gauges interpreted through human estimations of harm and risk, but their presence, or disappearance, speaks to ethical concerns created by new energy infrastructures. Certain creatural deaths get caught up in the rotations of power moving forward and these lives are quantified, and thus qualified, on a scale of importance. Dead bats and birds tell a story, from below, with their lives, in a transparent truth that also demands attention to ethical concerns. Hares, birds, and bats perform speech in their indexical being and this speech can be heard, and translated, by humans who are actively thinking with other species as their part of their quotidian lives and studied expertise.

Greater goods

Mexico’s road to the wind in climatologically imperilled times is a move towards purging the carbon congestion that urban-industrial modernity has brought. But it is also a test of weighing local deaths – in the form of hares, bats, and birds – against global data under the auspices of climatological risk reduction. This is where dead

birds and bats speak, like the parrhesiastes. It is where hares are pardoned, heard in a different register, and spared. As they appear in representational forms (like policies and regulations), and as they are produced through environmental management (as in their role in environmental impact assessments), and, finally, as they become present in their threatened extinction, other-than-human beings appear to ‘speak’ a kind of parrhesia: indexing their imperilled state of being as a message from ‘below’ and enunciating an ethical challenge. The ethical conundrum to which they speak is a question of how to balance local life and global sustainability.

As we stage the survival of species in the Anthropocene, and look to sites of renewable energy generation that are meant to ensure that survival, we occupy a pivotal moment: a tipping of what Isabelle Stengers (2011) describes as ‘value scales’: the relational balance between human interests for the (so-called) ‘greater good’ and the suffering inflicted upon other creatures.²⁰ For Stengers, value scales get revealed in the mix of science, experimentation, and animal testing in scientific labs.²¹ Here, value scales become articulated across spheres of life processes and the biopolitical management of species that are, collectively, caught up in the wind. Being caught up in the wind means also, in some cases, finding a true voice, a parrhesiaic truth expressed in the bodies of nonhuman beings, made especially dramatic when their existence (or extinction) is being actively balanced against humanity’s ‘greater good’.

NOTES

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¹ Parrhesia may have a derogatory meaning, according to Foucault, roughly designating someone as a ‘chatterbox’ who prattles on about nothing of consequence. However, in the positive sense of parrhesia that he explores at length, the parrhesiastes is both frank and illuminative of his truth. ‘Parrhesia is therefore “telling all”, but tied to the truth: telling the whole truth, hiding nothing of the truth, telling the truth without hiding it behind anything’ (2011: 10).

² ‘The parrhesiastes does not help people somehow to step beyond some threshold in the ontological structure of the human being and of time which separates them from their future. He helps them in their blindness, but their blindness about what they are, about themselves, and so not the blindness due to an ontological structure, but due to some moral fault, distraction, or lack of discipline, the consequence of inattention, laxity, or weakness. It is in this interplay between human beings and their blindness due to inattention, complacency, weakness, and moral distraction that the parrhesiastes performs his role, which, as you can see, is consequently a revelatory role very different from that of the prophet, who stands at the point where human finitude and the structure of time are conjoined’ (Foucault 2011: 16).

³ In Foucault’s terms, ‘Parrhesia therefore not only puts the relationship between the person who speaks and the person to whom he addresses the truth at risk, but it may go so far as to put the very life of the person who speaks at risk, at least if his interlocutor has power over him and cannot bear being told the truth’ (2011: 12). And the relationship established is, for Foucault, both game and pact. ‘This kind of pact, between the person who takes the risk of telling the truth and the person who agrees to listen to it, is at the heart of what could be called the parrhesiastic game’ (2011: 13).

⁴ But of course for Spivak the subaltern cannot speak (through western academic representation) whereas Foucault’s Greek citizen can.

⁵ The power differential of the parrhesiastes and his or her audience is critical, just as parrhesia is itself earnest critique. ‘Parrhesia is a form of criticism, either towards another or towards oneself, but always in a situation where the speaker or confessor is in a position of inferiority with respect to the interlocutor’ (Foucault 1999: para. 19).

⁶ Foucault puts it this way. 'It is a stance, a way of being which is akin to a virtue, a mode of action' (2011: 14).

⁷ The ethnographic research that I detail here was a collaborative project carried out with Dominic Boyer that sought to reveal how wind power might operate as a 'salvational object': a social and technical apparatus to mitigate climate change in environmentally precarious times. The ways in which wind power was being located – epistemically, infrastructurally, and politically – were the abiding questions that our research team of two set out to answer over the course of sixteen months of fieldwork in the Isthmus of Tehuantepec, as well as Oaxaca City and the country's capital, Mexico City.

⁸ A fair amount of controversy surrounds the term 'Anthropocene', which I do not have space here to elaborate (but see, e.g., Haraway 2015; Moore 2016; Tsing 2012; 2015).

⁹ The anthropology of energy has been with us for a long time, beginning with Leslie White's mid-twentieth-century theory that linked cultural evolution to fuel sources, efficiency, and human management of energy forms (see White 2007 [1959]). In the days of the early 1970s global oil crisis, anthropologists were again drawn to questions of energy, most comprehensively in the work of Laura Nader (see Nader & Beckerman 1978). Then came the lull, the materialist legacy of energy studies perhaps ill suited to post-structuralist analytics that typified the 1980s and 1990s.

¹⁰ Anthropologists have explored the impacts of energy infrastructures following a similar set of political economic principles, articulating disparities, local and global, among humans around the world who are caught in the political and economic vicissitudes of carbon harvesting and its subsequent incineration. Inequalities and contamination figure heavily in many of these anthropological analyses of energy forms and their effects. Contingent morality is implied throughout, and particularly faulted (perhaps unsurprisingly) are transnational energy corporations. And rightly so, since these institutions have been at the centre of the risky entanglement of biotic lives and carbon combustion.

¹¹ Forests' and dogs' thinking is conveyed metonymically in the signs they use: icons (signs that share a likeness with what they represent) and indexes (signs that are in relation, contiguous in time, space, and action with what they represent). Indexes, inasmuch as they are deeply in relational and contiguous time with what they mark, share a kinship with Foucault's parrhesia; indexes are coeval with their message. So too with parrhesiastes.

¹² Povinelli is interested in value questions that proceed not from life and death but from the possibility of non-life. This is specifically not extinction. It is non-life.

¹³ Similar cases are found in Peruvian Earth beings in Marisol de la Cadena's (2015) work and in the relationship between humans and *atiku* (or caribou) described by Mario Blaser (2016). What gives each of these analytics cohesion is the way in which particular dyads operate (in Kohn's case dog/human, in Povinelli's and de la Cadena's examples earthform/human, or in Blaser's account caribou/human).

¹⁴ In Foucault's formulation, the parrhesiastes does not utilize an interlocutor, or mediator, of their voice.

¹⁵ Developers are responsible for reforestation of areas beyond what is removed for a project. SEMARNAT is also specific about species: Alberto notes, 'you cannot just do the reforestation ad hoc, go plant a bunch of little pine trees in a deciduous forest . . . your proposal would be invalid in that case'.

¹⁶ Attached to the biotic medium of human populations in this calculus are also their 'customs', their culture. Here, humans are consummately 'specied' despite cultural aptitudes. If 'culture' has long been used to distinguish humans from our animal others, here it is merely a quality of species behaviour, or practices that may have effects, but are only important to the extent that they condition the biotic setting and the environmental system. In small ways, the permit process itself demands that humans relinquish their species exceptionalism; culture is here not unique but subordinated to the greater conditions of the species maintenance system.

¹⁷ Or who can be killed but not sacrificed (Agamben 1998; see also Fassin & Pandolfi 2010; Jackson & Warren 2005).

¹⁸ For instance, Yonggom people of Papua New Guinea recognize the predictive qualities of birds, whose visions often come in dreams, offering omens and openings for communication between birds and humans through magic spells. In *Mining capitalism*, Stuart Kirsch (2014) describes how following the disaster at the Ok Tedi gold and copper mine in PNG, the disappearance of animal and bird life from the region not only resulted in diminished biodiversity but also foreclosed the possibility of human/bird dialogues.

¹⁹ In his essay 'Earth, sky, wind, and weather' (2007), Tim Ingold sketches the qualities of an 'open' world where persons and things do not relate as closed, separate autonomous forms reacting to one another, but are instead constituted by their common immersion in a medium of generative flux. That medium, for Ingold, is air, wind, and weather. He asks if earth and sky are viewed as separate, if complementary, hemispheres

furnished with ‘environment’ – for example, trees, rocks, mountains – then we face a phenomenological dilemma: ‘If we are *out* in the open, how can we also be *in* the wind?’ (2007: 519, emphasis in original).

²⁰ For Donna Haraway (2008) as for Stengers, this is a suffering that has never been properly shared.

²¹ For Stengers, this is linked to the cosmopolitical proposal. The cosmos, she writes, ‘corresponds to no condition, establishes no requirements. It creates the question of possible nonhierarchical modes of coexistences among the ensemble of inventions of nonequivalence, among the diverging values and obligations through which the entangled existences that compose it are affirmed . . . thus [integrating] an ecology of practices [that involves multiple domains of living]’ (2011: 356).

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Biens suprêmes : éthique, énergie et parole non humaine

Résumé

Les projets d'énergies renouvelables sont louables du point de vue éthique parce qu'ils veulent lutter contre la pollution, mais ils entraînent aussi des conséquences sur les êtres vivants non humains. Cet article prend appui sur le cas de l'isthme de Tehuantepec au Mexique, qui abrite la plus forte concentration d'éoliennes terrestres au monde. Suivant l'acception par Foucault de la forme de rhétorique dite « parrhésie », l'auteure avance que les corps des êtres vivants non humains affectés, notamment ceux dont l'existence est délibérément mise dans la balance par rapport au « bien suprême » de l'humanité, réalisent une forme de parole non humaine, d'abord par leur statut d'espèces menacées et aussi par le biais de régimes de gestion de l'environnement qui cherchent à synchroniser les existences humaines et non humaines dans des contextes d'échecs écologiques locaux et planétaires.