



Article

Listening to Terrestrial Voices in Ted Chiang's "The Great Silence"

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Abstract: Ted Chiang's short story, "The Great Silence", takes the perspective of a parrot living in the Rio Abajo forest in Puerto Rico, sharing its habitat with the Arecibo Observatory. The story first appeared as the textual component of a video installation by Allora and Calzadilla, a piece that emphasizes the entanglement of the forest habitat and the massive structure of the telescope). Chiang's parrot-narrator wonders why humans demonstrate such a commitment to the possibility of interstellar communication while often ignoring the voices and interests of our terrestrial cohabitants. The parrot's critically endangered species, the Puerto Rican parrot, once filled the forests of the island, and the narrator presents his/her narrative as a sort of final plea to humans, asking us to consider the speech of the nonhumans with whom we live. Bruno Latour's notion of "the terrestrial" provides a useful framework for approaching the parrot's narrative, specifically in terms of the demand to come "down to earth", engaging in the politics of human and nonhuman agents who all have something at stake. The parrot asks that we turn more attention to terrestrial concerns, in order to communicate with those who are already speaking to us.

Keywords: interspecies communication; animal studies; environmental humanities; Ted Chiang; Bruno Latour

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Ted Chiang's story, "The Great Silence", feels like a kind of fable. Rather than a short narrative we might see in the collected works of Aesop or La Fontaine, Chiang's story resembles what Bruno Latour describes as a "scientific fable" when discussing the essays of Belgian philosopher, Vinciane Despret. While in traditional fables animals often serve as stand-ins for humans, and thus are able to speak as part of the conceit, Latour argues that Despret's writing asks us to take seriously the speech of real animals—what they have to say, so long as we are willing to ask good questions and to respond to their concerns and interests. According to Latour, "each fable brings us closer to what could be called the collective speech impairments of those who could make others say something if only they themselves were not so hard of hearing" (Latour 2016, p. x). Chiang's fable features a parrot as narrator in the form of a short story, which clearly differentiates it from Despret's philosophical essays in some important ways; but it also asks us to take the speech of animals seriously and draws attention to our seeming refusal to listen. The parrot's narrative warns about the consequences of habitat destruction and climate change, and also describes our failure to value more-than-human life. We, as a general human population, have failed to take into account the perspectives and interests of our cohabitants, silencing their voices. The parrot juxtaposes these failures with our commitment to interstellar communication—despite the absence of an interlocutor—pointing to the irony that the Puerto Rican parrot shares what is left of its habitat with the massive Arecibo Telescope. We turn our ears to outer space, seeking contact with extraterrestrials, and the parrot wonders: "But I and my fellow parrots are right here. Why aren't they interested in listening to our voices?" (Chiang 2019, p. 231).

Chiang's fable explores the relation of the terrestrial and the extraterrestrial, suggesting that our tendency to look upwards and outwards coincides with our seeming inability or

unwillingness to address what is right here on Earth. Chiang doesn't posit an either/or, as if the question of extraterrestrial intelligence lacks legitimacy and necessarily negates efforts to deal with more earthly matters—after all, his most famous short fiction, "Story of Your Life" (Chiang 2016), imagines an encounter with extraterrestrials. Yet, the parrot's narrative clearly proposes that the search for extraterrestrial intelligence, perhaps largely as a matter of vantage point, has in some ways distracted us from perceiving and responding to a variety of terrestrial intelligences. As narrator, the parrot performs the ability to speak and to express his or her subjective experience of the world, and also attests to our failure to listen, to ask good questions, to demonstrate curiosity and responsiveness. As Latour writes in his analysis of Despret's fables, we are, inexcusably, "hard of hearing" when it comes to our fellow terrestrials. Writing the story from the perspective of the parrot, Chiang gives us the opportunity—within the constraints of a fictional story composed by a human—to listen better to the speech of others, and, moreover, to consider what it would mean to invest our attention in the terrestrial.

Latour's discussion of "the Terrestrial" in his book, *Down to Earth* (Latour 2018), provides a useful framework for thinking about the terrestrial/extraterrestrial dynamic in "The Great Silence". Latour defines the terrestrial not simply in opposition to the extraterrestrial, but more broadly as a perspective or positioning that emphasizes the attachments and entanglements of a multiplicity of human and nonhuman actors. He contends that diverse clusters of people—Trump supporters, Trump detractors, global capitalists, climate deniers, and even scientists—must, in different ways, come back "down to earth" in order to compose a shared world as we attempt to avert ecological catastrophe.² For Latour, we have become increasingly dislocated from the terrestrial for a variety of reasons. Some fail to recognize the earth's capacity to respond to human action, rejecting anthropogenic causes of the warming climate; some publically deny climate change while they hoard land and resources in preparation for larger-scale environmental devastation; and some appeal to objective, natural truths from an omniscient, theoretically detached position, rather than emphasizing the earthly institutions and processes that buttress evidence of the changing climate.

In both Facing Gaia (Latour 2017) and Down to Earth (Latour 2018), Latour contends that our knowledge practices have, in most cases, moved in an outward direction—away from the soil in order to take a more "global" view, from the vantage point of the universe. The Earth, in this way of thinking, represents one planet among others, and to know it requires a view from Sirius, in Latour's words. Consequentially, "we have begun to see less and less of what is happening on Earth" (Latour 2018, p. 70). As a result of both globalization and the planetary vision of Earth, we have lost our awareness of and sensitivity to nature-asprocess—or, the complexities of dynamic terrestrial entanglements among myriad actors. The view from afar, seeing Earth as one among other planets, makes small changes down here look especially miniscule and meaningless, likely to work themselves out over time. In this way, the distance afforded by the view from the universe makes it possible to ignore the way that nonhuman agents are reacting to human activities, particularly over the last two centuries. For this reason, we must all, scientists and nonscientists, ground ourselves in the politics of our fellow terrestrials, who all have something at stake in the Anthropocene.⁴ Latour argues that ways of thinking and acting that distance us from the material realities of various networks of agents—human and nonhuman—will continue to enable massive ecological devastation.

In "The Great Silence", the parrot-narrator laments humans' apathy and preference to look away—at least when it comes to the plight of our fellow terrestrials. Generously, the parrot contends, "Human activity has brought my kind to the brink of extinction, but I don't blame them for it. They didn't do it maliciously. They just weren't paying attention" (Chiang 2019, p. 235). The degree to which humans deliberately and knowingly cause the extinction of other species is perhaps arguable. Regardless, Chiang's story is interested in the way that a sort of distractability, a lack of attunement with the beings that surround us, propels our choice to invest in the possibilities of outer space while ignoring the crises of

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this space—these terrestrial places and communities. According to both Latour and fellow philosopher Isabelle Stengers, those who benefit the most from the status quo of global capitalism cultivate aloofness and detachment in the populace, as a strategy that supports the continuation of their destructive, self-serving behavior. In her book, *In Catastrophic Times: Resisting the Coming Barbarism*, Stengers argues that a call to action in many ways is a call to *pay attention* (Stengers 2015, p. 61, emphasis in the original). Chiang's fable pushes us in that direction, prompting the reader to engage with the terrestrial world, where other animals have something to say and demand our attention.

Before discussing Chiang's story in more detail, it is important to note that the text originated as part of a video installation by the artist collaborators, Allora & Calzadilla (Figure 1; Allora & Calzadilla 2016). In the video, Chiang's writing appears as a subtitle text accompanying visual and audio footage of the Arecibo Telescope and Observatory, the surrounding habitat of the Rio Abajo forest in northeastern Puerto Rico, and the Puerto Rican parrots who live there (Figure 2). In the art journal, *e-flux*, the piece is described as "an expansive exploration of sound [that] examines the irreducible relationships between the living and nonliving, human and animal, terrestrial and cosmic" (e-Flux 2020). Chiang's text, as noted above, imagines the perspective of a parrot in the forest who contemplates the extinction of his/her own species, as well as humans' desire to establish interstellar communication. The text puts the viewer of the video installation in a position to see the images of the forest from the vantage point of a parrot, and to hear the parrots' voices not just as sound, but as speech. We might even listen for a "contact call" as the narrative describes the ways that parrots identify themselves and signal their interest in others.



Figure 1. The Puerto Rican parrot. Photograph by Tom Mackenzie, distributed under the Fish and Wildlife Service copyright policy.

When I say that Chiang's writing asks us to take seriously the speech of animals, it is clearly important to distinguish between actual parrots in the forests of northern Puerto Rico and the anthropomorphized narrator-parrot whose thought and language reflect a human writer attempting to see the world from the perspective of a parrot. In the case of Chiang's fable, I would argue that the latter—Chiang's human representation

of a parrot's perspective—functions as a means of drawing attention to the former—the speech of real parrots. In this way, we can understand the fable through the lens of what Marc Bekoff calls "biocentric anthropomorphism", or a mode of thinking or relating where humans attempt to "make other animals' worlds accessible to themselves" (Bekoff 2000, p. 867). Demonstrating that approach, Bekoff's recent book (Bekoff and Pierce 2019) about dogs and their lives in relation to humans asserts that humans' ethical treatment of our animal companions begins with a kind of perspectival leap—one where we imagine the ways that dogs experience the world around them, based on what we have learned from scientific study. For Bekoff, decisions about how to care for dogs, emphasizing freedom and happiness, should derive from the initial work of imagining their perspectives and sensorial experiences of their milieu. In a similar way, Chiang's text—as a part of the video installation and on its own—invites us into the world of parrots, specifically because the narrative makes the leap required to imagine the perspective and emotions of another animal.⁶

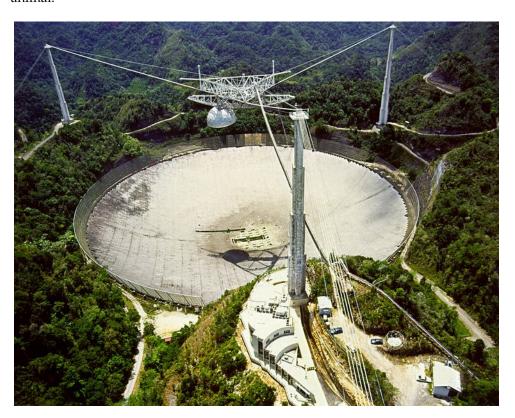


Figure 2. Aerial image of the Arecibo Telescope and Observatory, surrounded by the Rio Abajo forest. Photograph by H. Schweiker/WIYN and NOAO/AURA/NSF, distributed under a CC-BY 4.0 license.

The narrator identifies him/herself as a Puerto Rican parrot, a species that once inhabited forests across Puerto Rico but now exists exclusively in only three wild forest habitats: Maricao Forest, El Yunque National Forest, and Rio Abajo Forest (The Puerto Rican Parrot 2022; Figure 3). Designated a "critically endangered species", the Puerto Rican parrot experienced a significant decrease in population, from about two thousand birds in 1937 down to seventeen in 1975 (White et al. 2014, p. 5). The species has benefited from conservation efforts where parrots bred in captivity have been reintroduced, with some degree of success, in the managed forests of northern Puerto Rico. Irus Braverman points to the Puerto Rican parrot as an example of an endangered species where significant investment in conservation, sometimes at the cost of other species, has had successful results, though Thomas White et al. note that the species would likely go extinct without ongoing management efforts (Braverman 2015, pp. 1–3; White et al. 2014, p. 52). In other words, as a result of deforestation and climate change, the Puerto Rican parrot population

can no longer survive without direct, persistent intervention, even within a protected national forest. While conservation efforts attest to some degree of engagement in terrestrial politics, many consequences of drastic habitat loss and species decline cannot be reversed. For these reasons, the Puerto Rican parrot remains on the critically endangered species list. In Chiang's story, the narrator openly acknowledges the bleak future of his/her fellow parrots, telling us, "My species probably won't be here for much longer; it's likely that we'll die before our time and join The Great Silence" (Chiang 2019, p. 236). The parrot's narrative demonstrates what Ursula Heise describes in her book, *Imagining Extinction: The Cultural Meanings of Endangered Species*: the tendency of stories of extinction to "seek to mobilize readers' emotions through the lament, melancholy, and mourning that are characteristic of elegy" (Heise 2016, p. 34).



Figure 3. Location of Puerto Rican parrot habitat. A small wild population currently exists in each of the three forests marked on the map.

The parrot tends to frame the impending extinction of his/her species as a kind of squandered opportunity, bringing attention to what we will all lose when the "cacophony of voices" becomes silent (Chiang 2019, p. 232). In this way, the parrot's portrayal of silence emphasizes the loss of sound—a kind of silencing—rather than the absence of sound. The parrot explains that some people understand "the Great Silence" from that perspective as well, theorizing that we have found no sign of intelligent life beyond the Earth because extraterrestrial species go extinct before developing the capacity to signal their existence beyond their own terrestrial spheres. In that way, "the hush of the night sky is the silence of a graveyard" (Chiang 2019, p. 232). Thinking about silence in these terms evokes Rachel Carson's *Silent Spring*, where she describes a "strange stillness" in her opening chapter, "A Fable for Tomorrow" (Carson 2002, p. 2). In the fable, Carson imagines an American town where toxic chemicals have caused widespread ecological devastation. She specifically describes the eerie absence of the songs of birds, suggesting a sort of silence that holds the memory of what the town used to sound like. Carson writes, "It was a spring without voices" (Carson 2002, p. 2). Carson's town is a graveyard, to use the language of Chiang's parrot, its silence an indicator of something that has happened, something that has been lost. The parrot imagines a similar silence in the future of the forest it inhabits—made more tragic by the fact that their voices were never taken very seriously, even though they once filled the forest with sound.⁸ The calls of the parrots simply served as background birdsong for human endeavors, like building a telescope to communicate with nonhuman intelligent lifeforms. Seeking contact with extraterrestrial intelligence, we simultaneously silenced our fellow intelligent terrestrials—yes, by diminishing their habitat, but also by assuming their inability to speak and looking elsewhere for meaningful communication.

Much of the parrot's narrative makes a case for the communicative ability of parrots and the characteristics they have in common with humans. As a first attempt to establish the intelligence of parrots, the narrator refers to the story of Alex, an African gray parrot who worked with Irene Pepperberg for many years and provided evidence that parrots

can have a conceptual understanding of the words they are speaking. In *The Alex Studies*, Pepperberg writes that she and some of her colleagues understood that interspecies communication, rather than operant conditioning, would "enable researchers to ask more complex and advanced questions", rather than assuming limited intelligence and an inability to demonstrate conceptual understanding (Pepperberg 2002, p. 5). Though many researchers expressed skepticism, Pepperberg initiated her work with an openness to the potential of what might happen with an interactive approach. She thought that failures to teach parrots anything beyond mimicry possibly "had more to do with inappropriate training and testing procedures than the birds' actual abilities" (Pepperberg 2002, p. 12). And, perhaps most importantly, Pepperberg explains that her goal "was not to examine the extent to which a bird could learn to use a human language, but rather to establish some form of avian-human communication and then use this communication to explore further avian cognitive capacities" (Pepperberg 2002, p. 12, emphasis in original). From Pepperberg's perspective, an interactive or communicative approach would require a sort of shared language, composed by both participants, rather than assuming that a parrot's intelligence can only be judged in terms of the bird's capacity to learn on strictly human terms. In other words, Pepperberg's research model involved listening and learning, based on the belief that her research collaborator, Alex, had something to say. As the parrot-narrator in "The Great Silence" puts it: "Out of all my cousins, Alex was the one who came the closest to being taken seriously as a communication partner by humans" (Pepperberg 2002, p. 232).

The narrator identifies humans and parrots as vocal learners, establishing an important similarity in cognitive processing, and thus "a special relationship with sound" (Chiang 2019, p. 233). Playing on the cogito, the parrot asserts, "I speak therefore I am" (Chiang 2019, p. 234). Of course, René Descartes's philosophical dictum ties existence to thought—an ability that he famously does not attribute to nonhuman animals. One of Descartes's primary reasons for seeing animals as mechanistic and unintelligent relies upon the assertion that animals do not have language. He specifically mentions parrots and magpies, who "can utter words as we do, and yet cannot speak like us, that is, by showing that they are thinking what they are saying" (Descartes 2006, p. 58). Of course, Pepperberg's work with Alex provides evidence to the contrary, but as the parrot of "The Great Silence" points out, "Humans like to think they're unique" (Chiang 2019, p. 232).

Many philosophers in the western tradition have differentiated humans from other animals specifically in terms of the ability to acquire and use "meaningful" language. As Eva Meijer writes, "different interpretations of humanism see language, understood as human language, as what creates or expresses a pure break between human and nonhuman animals" (Meijer 2016, p. 75). In The Animal That Therefore I Am, Jacques Derrida famously unravels the assertion of a fundamental difference between the categories of human and nonhuman. Such categories lack differentiation in both human and nonhuman groups, especially when it comes to lumping together the multiplicity of nonhuman species, simply as a matter of their nonhuman-ness (Derrida 2008, p. 32). Still, some contemporary linguists maintain the orthodoxy that animals, on the whole, do not have language, as demonstrated in Stephen R. Anderson's Dr. Doolittle's Delusion (Anderson 2006). Of course, such arguments depend upon specific definitions of language that emphasize differences between the way human and nonhuman animals communicate with one another. In a lecture where Chiang discusses this very issue as it pertains to "The Great Silence", he makes reference to the work of linguist, Charles Hockett, whose "design features" describe the specific characteristics of human language that differentiate it from the ways that nonhuman animals communicate (Chiang 2018; Hockett 1958). It bears noting here that nonhuman animals have a wide variety of modes of communication that can't be reduced to "animal communication", though the point of the design features, as well as Anderson's book, is to identify the unique qualities of human language.

Donna Haraway, for her part, posits that we have wrongly insisted upon the significance of language (or supposed lack of language) when evaluating both the cognitive and communicative abilities of different species:

Too much weight has been loaded on to questions and idioms of language in considering the doings of the great variety of animals and people alike. Especially for thinking about world making and intelligent intra-action among beings like dogs and donkeys, to ask if their cognitive, communicative skills do or do not qualify for the imprimatur of language is to fall into a dangerous trap. (Haraway 2008, p. 234)

Haraway does not deny aspects of human language that do indeed differentiate it from the ways other animals communicate, but she rejects the impulse to identify a singular difference that allows us to maintain discrete human and animal camps, imagining a simple dividing line that perpetuates outdated binary categories. Likewise, Pepperberg, in her work with Alex, and Despret, in her scientific fables about the speech of animals, contribute to new ways of thinking about multispecies and interspecies communication that refuse the identification of human language as a pre-condition for having something to say. This shift in thinking supports a different kind of engagement in the terrestrial world, since it recognizes the speech of both human and nonhuman agents. For both Haraway and Despret, we see this kind of engagement particularly in the work of animal trainers and caretakers, who compose relationships *with* nonhuman animals, "becoming together" and establishing a means of communication that doesn't rely upon shared language (Haraway 2008; Despret 2016).

Interestingly, in Chiang's story from a previous collection, "The Story of your Life", he explores what it would require to develop a means of communicating with a nonhuman species—in this case, an extraterrestrial species. The protagonist of the story, a linguist, asserts that "the only way to learn an unknown language is to interact with a native speaker" (Chiang 2016, p. 4). The emphasis on interaction and exchange resembles Pepperberg's approach with Alex and suggests that communication depends upon the co-composition of a relation. Furthermore, interspecies communication begins with the assumption that both interlocutors possess intelligence and the capacity to speak. Of course, as established above, the conventional belief that animals do not think or speak has served as a barrier to communication. When we imagine extraterrestrials, though, we tend to presume intelligence, perhaps especially when they have managed to create spaceships for interstellar travel. The question of how to communicate, though, remains tricky. Bran Nicol discusses the linguist's attempts to establish a means of communicating with the "heptapods" in "The Story of Your Life": "learning the heptapods' language means becoming able to think like them, no longer perceiving life in terms of beginnings and endings or forwards or backwards movement" (Nicol 2019, p. 118). If we apply this logic to terrestrial interspecies communication, our failure to hear the speech of other animals not only reflects reductive ideas about the speaking abilities of nonhuman animals, but it also reflects an unwillingness to think differently—a reluctance to open ourselves to new ways of perceiving the entanglements of our dwelling places, specifically by imagining the world from other, nonhuman vantage points.

After all, despite Alex's successes, as Chiang's parrot-narrator suggests, we don't seem to be very interested in listening. It seems that we can hear a parrot speak while simultaneously denying its capacity to speak. The parrot's narrative in "The Great Silence" responds to our skepticism, functioning as an affirmation and performance of parrot intelligence, even if within the realm of a fictional story. While the parrot generally accepts the fate of his/her species, it does feel like he/she is making a case, or perhaps a plea, to the reader. The parrot does not make reference to specific human causes of parrots' endangerment like deforestation or climate change, though he/she suggests that extraterrestrials employ "a wise strategy" if they "actively try to conceal their presence, to avoid being targeted by hostile invaders" (Chiang 2019, p. 231). Such a suggestion clearly points to the parrot's mistrust of humans, since experience has taught him/her about humans' preference for invasion and colonization over communication and cohabitation. More simply and more fundamentally, though, the parrot demands our attention and forces us to consider what we might hear if we actually took seriously the speech of our fellow terrestrials. The parrot

challenges our assumptions of human exceptionalism and highlights the ways we have failed to value more-than-human life. The parrot affirms that it speaks, breathes, thinks, and acts intentionally (rather than purely instinctually): "When we speak, we use the breath in our lungs to give our thoughts a physical form. The sounds we make are simultaneously our intentions and our life force" (Chiang 2019, p. 234). If we were to take such speech, such life, seriously, what would that look like? Could we continue to function in the ways we have until this point, razing the habitats of other terrestrials with very little regard for what they might have to say about it?

Of course, living in ways that value more-than-human-life would require significant sacrifice when it comes to human desires and interests. Not listening, based on the assumption that another animal can't speak and has less value, allows for the continuation of destructive, self-interested behavior. As Meijer writes, "Viewing humans as fundamentally different, and hierarchically above other animals, leads humans to act in ways that do not take into account the well-being of other animals, and to see their interests as less important than human interests" (Meijer 2016, p. 73). Perhaps for this reason, the parrot insists, again and again, on the similarities between parrots and humans, picking apart the perception of nonhuman animals as absolute Others. 11 The parrot identifies, and thus empathizes, with humans, despite the lack of reciprocation. Knowledge practices in the western world have typically derided human identification with other animals as anthropomorphic, since it assumes similarities that we can't possibly prove and that function as a projection of our own humanness onto another animal. As Lorraine Daston and Gregg Mitman write in Thinking With Animals, "In the sciences, to impute human thoughts or emotions to electrons, genes, ants, or even other primates is to invite suspicions of sloppy thinking" (Daston and Mitman 2005, p. 3). They continue, "Laboratory studies of animals have usually stood opposed to anthropomorphizing tendencies: the proper scientific attitude is defined as cool, distanced, objective" (Daston and Mitman 2005, p. 8). When taking "the proper scientific attitude", how can we possibly perceive and acknowledge the similarities between humans and parrots to which the narrator attests? The intellectual demand to stay distant and detached becomes a barrier to the sort of empathic approach that the parrot asks of us—leaving us floating somewhere above and outside of the terrestrial realities of our cohabitants. In contrast, Latour argues, earthbound scientists are "embodied creatures" who "belong to territory outlined by their instruments" (Latour 2017, p. 252). In other words, they are terrestrials, engaged in "the existential drama" of living with other terrestrials, always "bringing in new agents to be full participants" and thus creating a fuller picture of what is at stake (Latour 2017, p. 252).

Understandably baffled by the choice to seek intelligent species beyond the earth's atmosphere while ignoring intelligent terrestrials, the parrot points out: "But parrots are more similar to humans than any extraterrestrial species will be, and humans can observe us up close; they can look us in the eye" (Chiang 2019, p. 234). Continually giving humans the benefit of the doubt, the parrot neglects to see the way that humans' interests (or perceived interests) get in the way of seeing and listening. In the case of Puerto Rico, colonial deforestation, driven by the timber trade and large-scale agriculture, along with more recent urban development, has left little forest habitat for species like the Puerto Rican parrot (Helmer 2004). "Observing up close" would require an engagement with the politics of our fellow terrestrials—to use Latour's language—that we have not yet demonstrated the will to do. Interestingly, in an interview with Ezra Klein, Chiang speaks to this very question when Klein asks how humans would treat extraterrestrials in the event of some sort of contact. Chiang replies:

We would probably treat them very respectfully because we could afford to, because it wouldn't cost us anything to treat them with respect. [. . .] Treating animals on earth with a comparable amount of respect would be very, very costly for us. If we wanted to treat every animal on earth with respect, we would pretty much have to restructure our entire way of life. And that's not something we are willing to do. (Chiang 2021)

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The parrot in "The Great Silence" doesn't realize how easy it would be for humans to communicate with extraterrestrials if nothing is at stake, compared to how hard it is to do so with our fellow terrestrials—because so many of our structures and activities in the world have depended upon de-valuing more-than-human life. We would, for example, need to do away with inhumane industrial farming practices involving cattle, chickens, and pigs; we couldn't continue to cut down rain forests in the Amazon to "raise beef" for multinational fast food corporations; and we would have to end fossil fuel extraction and use in order to slow anthropogenic climate change and its devastating effects on more-than-human life. In Puerto Rico and elsewhere, growing profitable crops on large-scale farms and selling timber has taken precedence over respecting and maintaining biodiverse ecosystems—in addition to exploiting local human communities on the island. This provides another unfortunate reason that parrots' attempts to communicate with us have fallen upon deaf ears, as listening and paying attention would require a different kind of engagement with the terrestrial and thus a different way of life.

As it stands, the forest is becoming a graveyard, and the parrot, along with the others who remain, is "sending a message to humanity" as a final gesture before disappearing (Chiang 2019, p. 236). The message is short and simply repeats the words of Alex cited earlier in the story: "You be good. I love you" (Chiang 2019, p. 236). The parrot remains skeptical that the message will reach human ears, even though we have heard it before, from Alex himself. It seems we have compartmentalized Alex's successes, perhaps chalking them up to the unique abilities of a special bird. As the parrot-narrator makes clear to us, we have willfully refused to extrapolate, to apply what we learned from Alex's work with Pepperberg—and from countless other nonhuman animals that show us again and again that they have something to say, as enumerated in the work of Despret (Despret 2016)—to broader animal communities and have instead turned our attention to the "great silence" of outer space. Ironically, the parrot concludes that the instrument built to receive interstellar communications might represent his/her species' last hope as they send their final message to humans: "We just hope the telescope at Arecibo will enable them to hear it" (Chiang 2019, p. 236). The notion that we need a telescope capable of detecting radio waves from quasars and galaxies "from the farthest reaches of the Universe" in order to hear parrots with whom we live does indeed say something about our listening skills (Arecibo Observatory 2020). Interestingly, the Arecibo telescope was recently facing its own impending "extinction", due to lack of funding and the emergence of new telescope technologies, and it eventually collapsed in December of 2020 (Drake 2016; Witze 2020, Figure 4). While the parrot's narration (and Chiang's story) precedes the telescope's collapse, the fact that the telescope and the Puerto Rican parrot share a similar fate further emphasizes the parrot's narrative of degradation and loss—this time in regard to a human structure that the parrot identifies as his/her last hope to be heard.

As the parrot points out, the loss of a species has much broader implications than we might at first realize. While even a minimal amount of reading about the ecological impacts of species loss demonstrates how the loss of one species affects other species and can disrupt the healthy functioning of a given ecosystem, we are much less likely to come across arguments about the cultural loss that comes with the decline of a species. Culture, like speech, is something we have conventionally attributed to human populations, though many contemporary scientists, comparative psychologists, and philosophers do indeed recognize animal cultures (Whiten 2021). Still, the fact that the parrot frames the extinction of his/her species in terms of a cultural loss, rather than an ecological or biological loss, shifts the way that we typically talk about the demand to save endangered species. It evokes the loss of indigenous languages and cultural traditions across the world, again emphasizing the parallel between human and nonhuman communities—this time by drawing attention to the devastating cultural losses that come with colonization and global capitalism. After discussing various human myths concerning sound and speech, the parrot notes, "We Puerto Rican parrots have our own myths", and then adds, "So the extinction of my species doesn't just mean the loss of a group of birds. It's also the disappearance

of our language, our rituals, our traditions. It's the silencing of our voice" (Chiang 2019, p. 235). For the narrator, the loss of his/her species is not simply a matter of biodiversity or ecological impact, even if these issues remain extremely important from a systemic point of view. But, the parrot's narrative implies, when we *only* think of a group of parrots as a component of an ecosystem, we risk falling into the same mechanistic view of animals that prevents us from hearing their speech. ¹² Becoming terrestrial requires us to recognize the agency, interests, and culture of nonhuman animals, beyond what we might see as a mechanical or systemic role in a given habitat.



Figure 4. Aerial image of the Arecibo telescope during demolition, following its collapse. The instrument platform was suspended by a system of cables (see Figure 2) and fell into the dish, causing significant damage to the structure. Photograph by Tedder, distributed under a CC-BY 4.0 license.

The parrot explains that each parrot has a "contact call", or a "unique call that it uses to identify itself" (Chiang 2019, p. 233). As he/she explains, parrots communicate with one another in the wild by imitating the contact call of another parrot, thus soliciting that parrot's attention. One might think of this communicative gesture in relation to the parrot's narrative—both as an identifying call and as a kind of imitation that throws our own call back to us. Much like humans have sent out a call from Arecibo in order to "demonstrate human intelligence", the parrot transmits his/her own call for similar purposes (Chiang 2019, p. 233). Of course, the parrot wishes to be heard not by theoretical beings in other galaxies, but by fellow terrestrials—to have his/her identifying call understood as a sign of intelligence. For this reason, the narrative also functions as an imitation meant to initiate contact; the parrot reaches out to us by mimicking our own language and establishing likeness, with the hope of getting our attention. While the parrot's narrative does in many ways evoke the elegiac form described by Heise—as a sort of mourning for what we have already lost and are continuing to lose—it also invites us to imagine a different kind of story.¹³ In this new story, humans would receive and respond to the contact call of parrots and other animals, recognizing the intelligences and interests of nonhuman species. Humans would desire to communicate, to establish a language for exchange and to compose ways of living together in the terrestrial spheres we cohabit. Such a story does not exclude telescopes. After all, some of the most striking images of the video installation of "The Great Silence", show how the Rio Abajo forest has grown into and around the framework of the Arecibo Observatory, creating a mixed habitat of native plant and animal

species, and human-made structures. But the new story does demand that we attend to the terrestrial voices that surround us, taking seriously the speech of other animals and seeing ourselves as members of a multispecies community.

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Notes

It is important to note from the beginning that the pronoun "we" implies a universality of behavior among diverse human peoples who have different approaches to nonhuman life. The same problem appears when referring to "humans" as an undifferentiated group. That said, Chiang's parrot-narrator does address him/herself to "humans", and I will rely on that generalization in this paper as well—with the caveat that, as has been well-established, not all humans have the same anthropocentric attitudes that we have historically seen in western traditions, nor do all humans bear equal responsibility for the extinction of nonhuman species. In addition, many scholars, animal trainers, animal caretakers, scientists, and others have indeed worked to counter anthropocentric behaviors and attitudes towards more-than-human life, though the problem unfortunately persists, as the parrot attests.

- Latour wrote *Down to Earth* (Latour 2018) in response to the election of Donald Trump in 2016 and is largely focused on how western countries must change how we address ecological catastrophe and how we cohabit the earth with others, human and nonhuman.
- This idea comes up in Latour's essays since the publication of *Down to Earth* as well. In "Seven Objections Against Landing on Earth", Latour's introduction to the edited volume, *Critical Zones: The Science and Politics of Landing on Earth*, he writes, "Haven't you ever worried that when you say the Earth is a planet, that it is a globe, you actually have to mentally position yourself as if you were considering it *from out in space*? [. . .] This is why 'Critical Zone' is such a useful term: it helps us to free our imagination from the attraction of the too-famous Blue Marble. We are not space aliens" (Latour 2020, p. 12).
- Latour's use of the term "politics" here refers to conversations and negotiations among any and all entities who have something at stake—human and nonhuman. He calls for a "return to politics", where "newly defined peoples" state their interests and attachments (Latour 2017, p. 223). In the last lecture in *Facing Gaia*, he describes a conference where participants enacted this kind of diplomacy, representing various groups of human and nonhuman agents.
- There have been numerous nonfiction books about mass extinction in recent years, including Elizabeth Kolbert's, *The Sixth Extinction: An Unnatural History* (Kolbert 2014) and Richard Leakey and Roger Lewin's earlier, *The Sixth Extinction: Patterns of Life and the Future of Humankind* (Leakey and Lewin 1996). Given the number of species that have gone extinct or are teetering on the brink of extinction, the specific circumstances of each case—and thus the question of what humans do knowingly and deliberately—are impossible to generalize. Regardless, the ecological devastation caused by irresponsible, shortsighted, and anthropocentric behavior is inarguable.
- Bekoff's definition implies a long tradition in western thought of regarding anthropomorphism as unscientific, lazy, and anthropomorphism. Bekoff, and other contemporary scientists and philosophers, argue for the value of certain types of anthropomorphism. I will discuss this issue at greater length later in the paper. There are also clearly precedents for literary texts imagining and "leaping into" the perspectives of animals, as discussed, for example, by Elizabeth Costello in J.M. Coetzee's *The Lives of Animals* (Coetzee 2016).
- Braverman's article (Braverman 2015) also discusses the ways that policy approaches to endangerment and extinction favor some species over others, coming to sometimes arbitrary wildlife management policies. This is not the sort of "terrestrial politics" described by Latour, who favors multiplying voices and trying to account for the interests of as many actors as possible.
- It is important to note, as Braverman does in her article (Braverman 2015), that the endangered status of the Puerto Rican parrot has garnered significant attention compared to many other species—partially due to its placement on the critically endangered list and partially due to its familiarity to humans. As Heise explains, conservationists often refer to such species as "charismatic megafauna"—those chosen for their "obvious anthropomorphic qualities" or "aesthetic appeal" (Heise 2016, p. 24). In "In Search of Lost Snails," Thom van Dooren turns his attention to the importance of naming and describing countless unknown species that risk going extinct before we have identified them, focusing in particular on snail species in Hawaii (van Dooren 2022). Studies on the loss of lesser known or unknown species—often invertebrates—bring our attention to conservation efforts beyond "charismatic megafauna", emphasizing, in this case, the way that taxonomic projects can develop awareness about and concern for other species. With that in mind, it is important to emphasize the entanglement of species like the Puerto Rican parrot with the wide variety of species that share the parrot's habitat.
- Despret's description of Pepperberg's work with Alex affirms the notion that previous researchers had faulty research models and procedures—even if they had adopted a communicative approach. For Despret, the researchers failed to interest the parrots with whom they worked, offering peanuts as a reward and ultimately confusing the parrots (Despret 2016, p. 95). Pepperberg, conversely, employed the model-rival approach, where she brought in another human researcher to serve as a model for language acquisition and also as a rival, motivating the parrot by encouraging a sense of rivalry (Pepperberg 2002, p. 15).

As endnoted earlier, one cannot make statements about all humans that apply equally across the world—whether we are talking about the failure to value nonhuman lives and perspectives, or about invasion and colonization. The parrot's narrative in Chiang's story, at least implicitly, is directed at western cultures and scientific practices—ways of thinking that have emphasized human exceptionalism.

- The parrot's rhetorical strategy here—one that emphasizes "I'm just like you"—also resonates with the well-documented tendency of wildlife protection policies to favor some animals over others. This again highlights what Heise says about "charismatic megafauna" (Heise 2016, p. 24).
- As Heise explains, animal welfare advocates, when butting heads with conservationists, often draw attention to the conservationist tendency to regard animals exclusively in terms of species, and to measure their value in regard to their role in an ecosystem. That perspective, for some, devalues the lives of individual animals (Heise 2016, p. 138). I do not think Chiang's parrot necessarily advocates for the individual lives of individual parrots, but the narrative does clearly counter mechanomorphic ways of viewing animals.
- Heise's *Imagining Extinction* advocates for new ways of culturally representing ecological crisis. While she sees the role of the elegiac mode in mourning the loss of species, her book asks how we might go beyond that mode, specifically by imagining different kinds of world-building—how to move forward in *this* world, rather than grieving the loss of, or trying to return to, an idealized past.

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