"We Most Certainly Do Have a Language"

Decolonizing Discourses of Language Extinction

DIANE NELSON
School of Languages, Cultures and Societies, University of Leeds, UK

NHENETY KARIRI-XOCÓ
Kariri-Xocó Indigenous community education system, Brazil

IDIANE KARIRI-XOCÓ
Kariri-Xocó Indigenous community education system, Brazil

THEA PITMAN
School of Languages, Cultures and Societies, University of Leeds, UK

Abstract This article proposes that languages should be embraced by the field of extinction studies while at the same time being mindful of the imbrication of colonialism in both the assignation and terminology of extinction and attempts to revive or reclaim endangered and extinct languages. It thus argues for a decolonizing approach to discourses of both language extinction and reclamation. The article starts by contextualizing the complementary extinction crises facing both species and languages. It then moves on to explore the links between colonialism and the extinction crisis for languages as well as the colonialist underpinnings of many attempts to document and revive endangered and extinct languages. The article then looks to a particularly unique case of decolonial language reclamation, focusing on the work of members of the Kariri-Xocó Indigenous community in present-day Northeast Brazil. It concludes that, by reclaiming their language in a way that is both agentive and co-constructed, the Kariri-Xocó bring together language, culture, and spirituality as tools for resistance.

Keywords language extinction, Indigenous, language reclamation, biocultural diversity, Brazil

Introduction

We wish to begin with a note on positionality and authorship: Nhenety Kariri-Xocó and Idiane Kariri-Xocó are members of the Kariri-Xocó Indigenous community located in the present-day state of Alagoas, Northeast Brazil. Diane Nelson and Thea Pitman are white academics of European descent who are based at a UK university. We

Environmental Humanities 15:1 (March 2023)
DOI 10.1215/22011919-10216239

have published as a group previously.[1] On that occasion the authors were listed in alphabetical order. This also corresponded to the level of authorial input and overall multivocality of the publication. On this occasion the dynamics of the collaboration have been different and, with the agreement of all of the group members, Nelson has taken the lead and it is her voice that guides the reader through the argument.

This article is framed by two significant historical events. On July 17, 1873, the Brazilian Ministry of Agriculture, Business, and Public Works issued a formal edict to declare the Indigenous peoples, languages, and cultures of Northeast Brazil to be extinct. On November 12, 2019, 146 years later, author Idiane Kariri-Xocó, a descendant of these peoples, addressed the audience at the Viva Língua Viva conference on Indigenous languages in Rio de Janeiro. Speaking her revived Kariri-Xocó language,[2] she publicly asserted its vitality. This extraordinary story of the official extinction and present-day reclamation of the Kariri-Xocó language offers us a unique perspective on language, culture, the effects of colonization on Indigenous peoples, and the ways in which language can be a tool of resistance. The story also raises wider questions about the meaning of extinction: Where is the locus of agency in declaring a language or culture extinct? And where is the locus of agency in resistance to both the label and the process? How do these processes engage with discourses of extinction, and, if the process of language extinction is inextricably linked to colonialism and to the ongoing coloniality of knowledge, how can discourses of language extinction be decolonized?

Extinction studies is an emerging interdisciplinary approach to research in the humanities that aims to explore the meaning and significance of extinction beyond the level of individual species, to find interconnectedness within the multispecies communities where extinction occurs. In *Extinction Studies: Stories of Time, Death, and Generations*, Deborah Bird Rose, Thom van Dooren, and Matthew Chrulew outline an approach that is "grounded in the understanding that there is no singular phenomenon of extinction: rather, extinction is experienced, resisted, measured, enunciated, performed, and narrated in a variety of ways to which we must attend."[3] They distinguish extinction studies from the related field of multispecies studies as "having a particular focus on understanding and responding to processes of collective death, where not just individual organisms, but entire ways and forms of life, are at stake."[4] That volume, alongside the majority of other work in extinction studies, approaches meanings of extinction through stories about nonhuman animal species. In trying to find meaning in extinction, extinction studies seeks to implicate humans in these stories beyond the well-worn tropes of the hero conservationist or an abstract human threat, instead asking,

1. I. Kariri-Xocó, N. Kariri-Xocó, Nelson, and Pitman, "A retomada da língua Kariri-Xocó."

2. The language is also known as Dzubukuá Kipeá; here we will refer to it as Kariri-Xocó, as this is the way it is most commonly spoken of by members of the community.

3. Rose, van Dooren, and Chrulew, "Introduction," 2–3.

4. Rose, van Dooren, and Chrulew, "Introduction," 5.

"Which forms of human life are driving these catastrophic processes of loss, and in what other diverse ways are humans drawn into and implicated in extinction—and its resistance?"[5]

In this article we would like to make a case for extending the scope of extinction studies to embrace the domain of language. Sidestepping the human/nonhuman dichotomy, we understand that language straddles the social and the biological, the human and the nonhuman. Arguably a system with evolutionary roots in our primate heritage, it is also a lens through which we apprehend, categorize, and establish relationships among ourselves and with other species. Like nonhuman species, languages are multitudinous and complex, emerging to reflect the kaleidoscope of cultures and experiences, and like nonhuman species, they are disappearing at an alarming rate. Central discourses surrounding species extinction—issues of agency and responsibility, grief and mourning, hope and blame—extend also to the extinction of languages, with the key difference that humans can speak back and thus challenge the discourses of extinction that effectively colonize subaltern and nonhuman perspectives by entirely supplanting them. We therefore respond to previous critiques of this position[6] by taking a decolonial approach: in the case of the Kariri-Xocó, reclamation of Indigenous language and identity is a direct and explicit response to a declaration of extinction.

The aims of this article are therefore threefold:

(1) to present arguments for the place of language extinction[7] in extinction studies by drawing on Harmon and Maffi's notion of biocultural diversity;

(2) to appreciate the relationship of discourses of extinction to colonialism and the ongoing coloniality of knowledge, and to argue for a decolonial approach to language extinction; and

(3) by adopting extinction studies as a framework for finding meaning in specificity, to learn from the Kariri-Xocó of Northeast Brazil as they resist ongoing colonization by reclaiming their language and culture.

Languages Are Part of the Extinction Crisis

Language is an essential part of the myriad societies and cultures we inhabit. According to most recent estimates, around seven thousand human languages are currently spoken. Yet it has been argued that linguistic and biological diversity face parallel global crises. In his 1992 study of language endangerment, Michael Krauss made this link explicit:

5. Rose, van Dooren, and Chrulew, "Introduction," 6.

6. Muehlmann, "Languages Die Like Rivers."

7. We recognize that the term *extinct* is itself considered harmful by many Indigenous people. In this article we use the term in the context of the field of extinction studies and for cases where third parties use the term as a descriptor. We explore attempts to decolonize this term in a later section.

"Language endangerment is significantly comparable to—and related to—endangerment of biological species in the natural world."[8] He then set out the stark statistics of the decline facing the world's languages. In many parts of the world, languages are no longer being acquired by children, effectively a death sentence for the language (Krauss describes these languages as moribund; this can be seen as equivalent to a description of species as functionally extinct). Globally, Krauss calculated that between 50 and 90 percent of the world's languages will become endangered or extinct by the end of the twenty-first century, though more recent estimates are closer to 50 percent.

Deeper links between linguistic diversity and biodiversity strengthen the case for integrating language into the field of extinction studies. In *The Descent of Man* (1871), Charles Darwin noted that language "is not a true instinct, as every language has to be learned. It differs, however, from all ordinary arts, for man has an instinctive tendency to speak, as we see in the babble of our young children."[9] Linguists and cognitive scientists, led by Noam Chomsky, have argued that the ability to use and learn language is to some extent a human-specific capacity, transmitted through, yet distinct from, human cultures.[10] At the same time, humanities scholars such as Michael Marder, David Abram, and Geoffrey Lloyd adopt nondualistic approaches to language, challenging the nature-culture dichotomy and non-Indigenous anthropocentric views to embrace language as part of the more-than-human world, while Nick Evans and Stephen Levinson reject universalism to emphasize the kaleidoscopic diversity in the structure of the world's languages.[11] In the context of this article, we see these debates as orthogonal to the main point: language may emerge out of the diversities of experience and culture in its broadest more-than-human sense, or it may have a biological (physiological or neurological) basis in humans that is partly shared with nonhumans, but both views firmly embed language as part of the natural world. If language is part of nature, then the catastrophic loss of diversities currently unfolding represents a crisis for humans and nonhumans alike.

Further parallels are evident between languages and species. Processes of change and variation in individual languages are strikingly similar to those in biological evolution. Like genes, languages are transmitted from generation to generation with slight modifications, but the timescale for evolution is cultural, not biological. Like species, languages diverge into families and subfamilies over time and borrow material from

8. Krauss, "World's Languages in Crisis," 4.

9. Darwin, *Descent of Man*, 55.

10. The extent to which individual components of language are uniquely human or lie on a continuum with nonhuman animal communication (related to the so-called continuity hypothesis) and the question whether language acquisition is guided by an innate universal template (the theory of universal grammar) are issues fiercely debated within linguistics. See, for example, Hauser, Chomsky, and Fitch, "Faculty of Language"; Tomasello, *Origins of Human Communication*; Pinker and Jackendoff, "Faculty of Language."

11. Marder, *Plant Thinking*; Abram, *Spell of the Sensuous*; Lloyd, *Cognitive Variations*; Evans and Levinson, "Myth of Language Universals."

each other through contact. To describe these quasi-evolutionary behaviors of languages, linguists have adopted a raft of terms from evolutionary biology to draw useful analogies with biological species. Languages are said to share genetic relationships and form family trees; Salikoko Mufwene, Johanna Nichols, and others invoke metaphors of phylogeny, cladistics, stocks, and founder effects when modeling the ways languages change and diverge from each other over time.[12]

Others have linked the geographical distributions of linguistic diversity and biodiversity. Daniel Nettle noted that the parts of the world where the most languages are spoken have a long growing season (that is, the tropics),[13] and Larry Gorenflo and cowriters found that areas of high biodiversity also tend to be areas of high linguistic diversity.[14]

The close interrelation of linguistic and cultural diversities with biodiversity has given rise to an interdisciplinary approach termed "biocultural diversity" by Louisa Maffi, David Harmon, and Jonathan Loh. Biocultural diversity sees the human species as the product of many millennia of evolution within various ecosystems, human cultures as ways of knowledge for thriving in those ecosystems, and languages as storehouses for cultural and ecological knowledge. Within this framework, there is no possibility of disentangling diversity in the human and nonhuman: "The 'true' web of life is biocultural diversity: the interlinked diversity of life in nature and culture, an integrated whole formed by biodiversity, cultural diversity, and linguistic diversity."[15] Biocultural diversity as a model also extends discourses of endangerment and extinction from species to languages and cultures. Maffi writes that "all three diversities are under threat by some of the same forces and from the perception that loss of diversity at all levels spells dramatic consequences for humanity and the earth"[16] and warns of a "converging extinction crisis" across all three diversities.[17]

Linguistic diversity and biodiversity are tracked and measured using parallel frameworks. Just as the IUCN Red List collates information about threatened biological species, UNESCO has monitored the world's languages since 1992, publishing its *Red Book of Endangered Languages* and more recently its online *Atlas of the World's Languages in Danger*. UNESCO sets out a system for evaluating language vitality according to a published set of criteria including rate of transmission to children, age of speakers, and the social domains where the language is spoken. Language extinction has its own technical definition: by extinct, "we mean that it is no longer the first tongue that infants learn in their

12. Mufwene, *Ecology of Language Evolution*; Nichols, *Linguistic Diversity*. It is also important to reiterate that extensions of these terms to languages are metaphorical, not literal; for a critique of these analogies, see Muehlmann, "Languages Die Like Rivers."

13. Nettle, "Explaining Global Patterns."

14. Gorenflo et al., "Co-occurrence of Linguistic and Biological Diversity."

15. Loh and Harmon, "Biocultural Diversity."

16. Maffi, "Linguistic, Cultural, and Biological Diversity," 599.

17. Maffi, "Linguistic, Cultural, and Biological Diversity," 603.

homes, and that the last speaker who did learn the language in that way has passed on within the last five decades."[18]

What is lost when a language ceases to be spoken? A language can be seen as a repository for the people who speak it—an oral repository, as a large proportion of the world's languages are unwritten.[19] Communities of speakers keep essential information in their languages, like topography of rivers, mountains, and forests, and encyclopedias of plant and animal species, including which ones are edible or poisonous or can be used as medicines. Language is the vehicle for transmitting codes of ethics, family trees, and creation stories. In this way, language enmeshes human relationships with land and the more-than-human world. When the chain of transmission between caregivers and children is broken, tens of thousands of words and grammatical information disappear, often unrecorded. A recent article by Rodrigo Cámara-Leret and Jordi Bascompte found that large amounts of information on medicinal functions for plant species is stored in Indigenous languages and that this information tends to be unique to the language—that is, not shared with speakers of other Indigenous languages. The authors note that while the medicinal plants in these regions are generally not at a high risk of extinction, the Indigenous languages are. They conclude that "each indigenous language is therefore a unique reservoir of medicinal knowledge—a Rosetta stone for unraveling and conserving nature's contributions to people."[20] This suggests that the loss of a language may lead to epistemological impoverishment.

Above all, the death of a language creates a void for the community of speakers. Grief is a central theme running through current discourses around extinction and climate. Acceptance of grief is a starting point for Jem Bendell's Deep Adaptation agenda[21] and is reflected in the grief circles and grief marches hosted by Extinction Rebellion. For communities of speakers, language endangerment and death trigger equivalent feelings of grief and loss, often linked with ecological grief. In their analysis of attempts and failures to revive severely endangered languages in Alaska, Indigenous linguists Nora Marks Dauenhauer and Richard Dauenhauer observe that "facing the loss of language or culture involves the same stages of grief that one experiences in the process of death and dying."[22]

For speakers, the source of this grief may lie in the close ties between language and worldview, a lens through which to experience and categorize things in the world.[23]

18. UNESCO, "Endangered Languages."

19. According to *Ethnologue*, an estimated 43 percent of the world's languages do not use a written form. Eberhard, Simons, and Fennig, *Ethnologue*.

20. Cámara-Leret and Bascompte, "Language Extinction," 1.

21. Bendell, "Deep Adaptation."

22. N. Dauenhauer and R. Dauenhauer, "Technical, Emotional, and Ideological Issues," 71.

23. Many speakers of Indigenous languages as well as linguists posit a close relationship between language and worldview. This is not the same as adopting linguistic determinism, the strong version of the so-called Sapir-Whorf hypothesis. The claim that language *constrains* thought has been refuted in numerous studies.

In *Braiding Sweetgrass*, Robin Wall Kimmerer describes the laborious process of learning the language of her ancestors, Potawatomi, as a vital step in connecting to her Indigenous heritage; she and her classmates are motivated by an urge to push back against the centuries of forced assimilation that have left only nine fluent speakers remaining. She quotes an elder who sums up an even more important motivation for saving Potawatomi: "'It's not just the words that will be lost,' she says. 'The language is the heart of our culture; it holds our thoughts, our way of seeing the world. It's too beautiful for English to explain.'"[24]

Decolonizing Language Extinction through Recognition and Resistance

Having observed the parallels between the extinction of species and languages, we turn to the need for a decolonial approach with which to frame and resist. We start with the fact that the current mass disappearance of languages is the direct result of five hundred years of colonization. Following forcible seizure of Native lands through violence and enslavement, settler colonial governments initiated agendas for forced cultural assimilation to white European cultural norms, religions, and languages, usually with the stated aim of "instilling civilization" on Native peoples. Linguicide has been a distinctive characteristic of colonization, with ongoing effects. In Australia, mixed-race Aboriginal children in what is now known as the Stolen Generation were removed from their parents and sent into (often abusive) foster care. From the nineteenth century, churches and governments sent Native children to boarding and day schools in the United States and Canada. Until the twentieth century, evangelical churches in Alaska burned totem poles and continued to tell Native peoples that their traditional religion and languages were demonic; one Alaskan elder recalled, "whenever I speak Tlingit, I can still taste the soap."[25] In Central and South America, Catholic missionaries forcibly converted Indigenous people who were resettled onto missions, and churches and colonial governments banned Indigenous languages. In all of these areas, a majority of Indigenous languages are now moribund.

These examples show that the current spate of language extinctions is not the result of languages simply fading away by their own accord; rather they have been driven into global decline by an orchestrated set of colonial policies. Once disenfranchised from political and economic power, socially marginalized people are under pressure to stop transmitting minoritized languages to their children, instead encouraging them to learn the state language in order to gain access to educational, political, and legal infrastructure.

Colonization has led to the current decline in the world's languages; thus to document, maintain, and revitalize endangered languages or reclaim those no longer spoken is necessarily part of the process of decolonization. However, as Peter Mühlhäusler has

24. Kimmerer, *Braiding Sweetgrass*, 50.

25. N. Dauenhauer and R. Dauenhauer, "Technical, Emotional, and Ideological Issues," 65.

pointed out, the act of identifying, counting, and classifying languages as endangered (or extinct) can itself extend and entrench social and economic inequalities,[26] and Fernando Vidal and Nélia Dias problematize what they call the "endangerment sensibility" that prioritizes some languages and cultures, but not others, as in need of preserving.[27] Decolonial approaches to species conservation may provide models that can be extended to language. Drawing on her experience working in an orangutan sanctuary at the Lundu Wildlife Center in Sarawak, Juno Salazar Parreñas describes how in protecting endangered species like orangutans from extinction, humans often deny nonhuman animals agency, dignity, and self-determination, while imposing rigid colonial systems of management on "natural" landscapes in the name of conservation. She calls for a more imaginative approach to extinction that increases autonomy for humans and nonhumans alike. She asks, "How are we to live and die in this present age of extinction, when colonial legacies determine who and what is in better position to survive?"[28]

Indigenous communities may seek to reclaim their endangered or sleeping languages using documents or recordings, but documentary field linguistics has a colonial history of its own. Stories abound of non-Native linguists who arrived in a community to study a disappearing language, sometimes spending decades making recordings, collecting words and grammatical information, only to disappear with the entire record of the language on cards in a shoebox,[29] never to be published or returned to the community of speakers. In a particularly egregious example, the American linguist Frank Siebert spent over fifty years working with the few remaining speakers of Penobscot in Maine. He compiled a dictionary and collected enough stories and language data to take up forty-one square feet of shelving. When he died in 1998, around the time the Penobscot language was declared extinct in the media, he bequeathed his entire collection of language materials to the American Philosophical Society in Philadelphia, which now owns the copyright and restricts access to the documents. The Penobscot Nation are trying to reclaim their language while grappling with the reality that they do not legally own it.[30]

The case of Niʻihau Hawaiian raises other issues of Indigenous speaker agency.[31] As a result of US colonial language policies, Niʻihau is the only island of Hawaiʻi with a majority of native Hawaiian speakers, currently numbering around five hundred. Niʻihau is often held up as a model of Indigenous language preservation, but the circumstances derive from colonial history rather than Indigenous autonomy. Niʻihau island was bought in 1864 from King Kameameha by the Robinson family from Scotland along

26. Mühlhäusler, *Linguistic Ecology*.

27. Vidal and Dias, *Endangerment, Biodiversity, and Culture*.

28. Salazar Parreñas, *Decolonizing Extinction*, 8.

29. In the past, field linguists recorded their notes about the words and structure of a language on index cards stored in shoeboxes. A much-used piece of language documentation software is called Shoebox.

30. Gregory, "How Did a Self-Taught Linguist."

31. Cole and White, "That's Just How I Rule."

with its Hawaiian-speaking inhabitants, who were employed as workers on the island's cattle ranch and charcoal factory. The Robinson family still own the island, controlling all aspects of life: there is one church, one school, no electricity, no roads or cars, and the Robinsons chose Hawaiian to be the language of daily life. Visitors from outside are only allowed by invitation and until very recently, Ni'ihau islanders required permission from the Robinson family to leave the island. The Robinson family have constructed an enforced isolation of the islanders and preservation of spoken Hawaiian language as an extension of land ownership.

The role of Christian missionaries, implicated in so many cases of historical linguicide, continues to influence language documentation and description. Until the last decade or so, the most comprehensive source of information about the world's languages—including numbers of speakers, vitality, and so on—was the *Ethnologue* database.[32] *Ethnologue* was created by the Summer Institute of Linguistics (SIL), which trains field linguists in language documentation, runs university programs, and has funded hundreds of fieldwork expeditions around the world to document as many languages as possible. SIL is owned by Wycliffe Bible Translators, who describe their vision that "everyone will have access to God's word in the language that speaks to them best. . . . When people take the Bible's message to heart, they are brought to saving faith in Jesus and equipped for discipleship."[33] Some prominent linguists work for SIL, including Doris Payne and John Clifton, but others in the field are increasingly uncomfortable about SIL's underlying agenda and have worked to set up alternative databases.

The colonial legacy underlying both cause (the endangerment and extinction of many of the world's languages) and cure (documentation, revitalization, and reclamation)[34] drives the need to decolonize language extinction, starting with the term *extinct*. UNESCO and other Western organizations use this label to describe languages that are no longer spoken, and there is a long history in ethnography of fetishizing extinct peoples and cultures—what Hema'ny Molina Vargas and others call "white humanist melancholia."[35] Molina Vargas's grandfather was abducted from his parents in the Selk'nam community when the Chilean government genocidally removed Indigenous peoples from Karokynka (Tierra del Fuego) to make way for sheep farming. Molina Vargas, Camila Marambio, and Nina Lykke's multivocal article attempts to establish new ways to remember, mourn, and communicate with the dead and those still living:

32. Eberhard, Simons, and Fennig, *Ethnologue*. The online version of *Ethnologue* used to be free to access but is now behind a paywall.

33. Wycliffe Bible Translators (website), www.wycliffe.org (last updated 2022).

34. Following Rob Amery and others, we use the term *revitalization* for endangered languages with living speakers, and *reclamation* for languages with no remaining living speakers. See Amery, *Warraparna Kaurna!*, chap. 2.

35. Molina Vargas, Marambio, and Lykke, "Decolonising Mourning," 191.

> Today the Selk'nam people are scattered all along this state called Chile, but we are conscious of existing and anxious to meet, to look at each other, to face the past and to mourn our dead, but how can one mourn a dead person one did not know? How do you mourn those who are unrecognised as dead? . . . How to speak to the state and explain to it that the dignity of any human being lies primarily in their right to exist. El pueblo selk'nam sigue existiendo. The Selk'nam people exist. I exist.[36]

In order to counter these harmful narratives associated with the term *extinct* and to assert their right to exist, many Indigenous communities now use the labels *sleeping* or *dormant* for languages no longer spoken by living people. Linguists are now adopting these terms as well, alongside expressions like "languages no longer spoken."[37] Increasingly there are moves in universities and funding bodies, for example at SOAS University of London and MIT in the United States, to fund and train Native researchers to carry out language documentation and to ensure ownership of language data by the community of speakers.

While many endangered languages are now being revived, only a relatively small number involve cases where there are no living speakers. Manx and Cornish now have new communities of speakers in the United Kingdom. Other sleeping languages that are reawakening include Wôpanâak in Massachusetts, Baure in Bolivian Amazonia, and Barngarla and Kaurna in Australia. Kaurna, a language of the Aboriginal inhabitants of South Australia around the city of Adelaide, is being revived through a collaboration between Kaurna people and non-Indigenous linguist Rob Amery, who initially researched language archives and wrote a grammar and teaching materials. In the forward to the Kaura textbook *Warrabarna Kaurna!*, Lester-Irabinna Rigney outlines the challenges: colonization left no fluent speakers of the language for over a century; no sound recordings exist of Kaurna; and the Kaurna people are dispersed over several communities.[38] Kaurna now has a dedicated community of adults and children learning and using the language as part of a wider cultural revival. For the Kaurna people, reviving the language is an "act of identity"[39] to resist both the label and the notion of extinction.

These examples demonstrate the complex entanglement of language and identity as languages disappear, and how extinction can be interrupted and resisted by Indigenous people. Bringing language into extinction studies, we now turn to a specific example that shows that to reclaim a language and culture is to exercise a right to exist by undoing colonial processes of erasure.

36. Molina Vargas, Marambio, and Lykke, "Decolonising Mourning," 191. Mat Youkee describes the ongoing process of Selk'nam legal recognition and cultural reclamation in a recent piece. Youkee, "We Were Told."

37. This is the term chosen by Rob Amery for his work with Kaurna; for a detailed discussion of the terminology surrounding languages no longer spoken and their revival, see Amery, *Warrabarna Kaurna!*, chap. 2.

38. Rigney, foreword, xix.

39. Amery, *Warrabarna Kaurna!*, 250.

Reclaiming the Kariri-Xocó Language

This section will examine how the Kariri-Xocó of present-day Northeast Brazil are taking a unique path toward their own cultural and linguistic revival. As mentioned previously, the work here represents a collaboration between Indigenous and non-Indigenous researchers, where the non-Indigenous researchers aim to learn from and support their Indigenous collaborators rather than to offer guidance that might reinforce Western colonialist approaches. It is very much a preliminary report, and we hope to extend our collaboration as the Kariri-Xocó continue their journey to reclaim their language and culture.

The Kariri-Xocó (sometimes Kariri-Xokó) people are located in the state of Alagoas, their *aldeia* (village) lying on the outskirts of the town of Porto Real do Colégio. Until the first European colonizers arrived, many Indigenous peoples—including the Cropotó (Karapotó), Cariri (Kariri), Aconan (Aconã), Ciocó (Xocó/Xokó), and Prakió (Prak-ô)[40]—lived around the lower Opará river (known as the Rio São Francisco in Portuguese).[41] The area has a long history of colonial violence against Indigenous people, including forced conversion by missionaries and forced settlement in villages. For the next century around the lower Opará, Indigenous groups such as the Kariri and the Xocó intermingled with each other and with other members of the local community, both Black and white, becoming more miscegenated for sure, but also finding ways to resist total assimilation.

In 1873, in a very public assertion of settler-colonial power, the Brazilian Ministry of Agriculture, Business, and Public Works issued an edict formally declaring the Indigenous peoples, languages, and cultures of Northeast Brazil to be *extintos* (extinct). The rationale for this was that they were now all *índios misturados* (micegenated Indians) and no longer *índios de raça primitiva* (pure blooded Indians). Desiree Poets suggests that this was part of a larger process of cultural elimination in Northeast Brazil throughout the nineteenth and twentieth centuries.[42] The Indigenous people of the area were redesignated as *caboclos*, a derogatory term in Northeast Brazil used for Indigenous and mixed-race people—that is, for acculturated Indians who have no legal rights as Indigenous persons. Given the historical context of nascent Social Darwinism of the 1870s, the declaration of extinction and the imposition of caboclo identity by the Brazilian government on Indigenous people can be viewed as its ultimate act of colonial violence, which simultaneously facilitated a land grab.

40. The second set of names are how the communities are now known. Some groups have also combined names (e.g., Karapotó-Prak-ô and Kariri-Xocó), reflecting the legacy of forced settlement in villages around missions.

41. The historical information presented here is drawn from several sources, including N. Kariri-Xocó, *Nhenety Kariri-Xocó*; Socioambiental, "Kariri-Xocó"; Pacheco de Oliveira, "Uma etnologia"; Poets, "Citizenship and Settler Colonialism." For a more general overview of Indigeneity in Brazil, see Guzmán, *Native and National in Brazil*.

42. Poets, "Citizenship and Settler Colonialism."

The Xocó originally lived on an island in the Opará but were forced to join the Kariri on their side of the river when their land was invaded in the years following the Declaration of Extinction in 1873. The two groups lived together in the same *posto indígena* (Indigenous settlement), which was formally recognized in 1943, retaining aspects of their culture (for example, their secret rituals) despite the government edict. In 1978, as part of a *retomada* (reclamation) of Indigenous land, the Kariri-Xocó identity emerged. As of the 1990s between 1,500 and 2,500 people identified as Kariri-Xocó.[43]

Many Indigenous peoples in northeastern Brazil have gone through a similar process of land and cultural reclamation and continue to explore ways to perform Indigenous identities.[44] The vast majority have lost their languages;[45] the Fulni-ô are the only community to have maintained their language, known as Yatê. The Pataxó have received substantial recognition for their determination to revive their language, known as Patxohã. What is of note here is the fact that for these peoples, the process has involved the support of trained linguists and anthropologists, both Indigenous and non-Indigenous.[46] In contrast, the Kariri-Xocó have undertaken their language reclamation as a grassroots activity without significant input from academically trained researchers. As we explain below, this has had a fundamental impact on the way the language has emerged in the community.

An important strand of reemergence of Indigenous culture in Northeast Brazil began with the Fulni-ô *toré* (ritual song and dance) tradition, which was considered the sole marker of Indigenous identity by the Brazilian authorities during twentieth-century retomadas. Other Indigenous groups then reclaimed the *toré*, including the Kariri-Xocó, during their political struggles for land demarcation. *Toré* is itself an integral part of the Jurema Ritual Complex, a group of ritual activities unified by a common component—namely, the use of a drink made from the Jurema plant (*Mimosa tenuiflora*), known for its psychotropic properties and used to access the Indigenous supernatural plane and facilitate communication with ancestors.[47] Edwin Reesink and Desiree Poets locate the ritual use of Jurema as central to Indigenous identity in the Brazilian Northeast: "It is this Complex that, moving centrifugal and centripetal forces, interlaced the regional web of (re-)emergences to the inside and the outside, enabling belonging to a shared struggle and generalized identity (as Indigenous) and to a specific community, be it Kariri-Xocó, Pankararu, or Pankararé."[48] Among the Kariri-Xocó community the management, harvest, and preparation of the Jurema bark is ritually proscribed, carried out by elders and

43. Socioambiental, "Kariri-Xocó."

44. Poets, "Citizenship and Settler Colonialism"; Pitman, "Warriors and Weavers," 8–11.

45. Out of an estimated six hundred languages originally spoken at the time of European settlement, 75 percent are no longer spoken. In Brazil, only 0.5 percent of the population speaks an Indigenous language. Maia, "Current State of Indigenous Languages."

46. Bomfim, "Patxohã."

47. Mota and Barros, "Jurema."

48. Reesink, "O segredo do sagrado"; Poets, "Citizenship and Settler Colonialism," 11.

the initiated. The sacred rituals themselves take place in the Ouricuri, a forested area off-limits to outsiders. It is here that the words of the Kariri-Xocó language are spoken, sung, and received from the ancestors. Ethnobotanist Clarice Novaes da Mota notes that the Kariri-Xocó have retained a set of Indigenous names for plants with magical and medicinal properties as part of this sacred tradition.[49]

Jurema, *toré*, and the physical locus of ritual space (the Ouricuri) all underpin the inseparable links between land, nature, and culture for Indigenous peoples of the Northeast. This is all the more important for the Kariri-Xocó: like many Indigenous peoples who have reclaimed their land in the process of retomadas, they live on the outskirts of a built-up urban area. The surrounding biome is known as the Caatinga, characterized by the *sertão*, arid scrubland and forest that is bare in the dry season. Colonization has wrought ecological damage to the area, as centuries of overgrazing by cattle and goats and the planting of extensive sugar plantations have led to severe deforestation and erosion.[50] Only one permanent river flows through the area, the Opará/São Francisco, but irrigation and hydroelectric dams have reduced both water supply and riverine wildlife.

Going back to the correlations between species and languages discussed above, the *sertão* of Northeast Brazil is an area of threatened species diversity and almost zero linguistic diversity. Yet the Kariri-Xocó people's intimate relationship to nature and land has given momentum to the reclamation of their language and culture and allowed it to flourish. In the film *Mensagens da terra* (*Messages from the Earth*), Nhenety Kariri-Xocó contrasts the destruction of the environment by white people with the Indigenous relationship to the natural world that he characterizes as one of reciprocity and respect, in explicit opposition to the colonizers:

> What has surprised me about white people has been their power of destruction. They destroy forests, they destroy animals, they destroy cultures. . . . The earth is our Mother because she is the Cradle of Life. This is because the earth is where we find water, where we find forests, and forests are the maximum expression of biodiversity. They are full of life. Indigenous people collect fruit in the forests. They collect honey, they collect plant fibers to make clothes. And Indigenous people don't just take the things they need, but they also help the forest grow. They plant seedlings in the forest. So the forest is not just a work of Nature but also of the human beings who help it to grow.[51]

Before starting with active efforts to reclaim the language, Nhenety received training in the culture and secret rituals by the elders of the village from 1963 to 1992. On reaching the age of twenty-nine, the elders granted him the title of Guardian of the Traditions, a role that allowed him to act publicly and officially on behalf of the Indigenous Peoples of the Lower Opará. In 1984, Nhenety started to collate words from the

49. Mota, "As Jurema Told Us."
50. Woodward, *Biomes of the World*.
51. Thydêwá, *Mensagens da Terra*. Unless otherwise stated, all translations are our own.

Indigenous languages of the area. Some words were already known to him, preserved in the community's secret rituals, hidden from outsiders. Nhenety also interviewed Manuel Iraminõn, a Xocó elder who still spoke words of his language, and Nhenety collected words from archival material, including a list of Kariri (Cariri) words by Baptista Siqueira in the FUNAI collection at the Museu do Índio (Indian Museum) in Rio de Janeiro. He started to work with children and youth of the community to translate traditional *toré* songs from Portuguese to Kariri-Xocó and developed his own pedagogical approach to teach the language through song.

In 1995, Nhenety undertook what was essentially a retomada for the language. To fill gaps in the lexicon, he used words and morphemes from Kariri (Kipeá), Kiriri (Dzubukuá), Natú, Tupi, and other Indigenous languages to create lists of new terms. These include *ipoacró*, "glasses" (ipoa-cró, eyes-stone); *aerãkuara*, "book" (aerã-kuara, leaves-stripy); *dzutsáko*, "coffee" (dzu-tsá-ko, water-fire-plant); and *wyracrotã*, "drone" (wyra-cro-tã, bird-stone-hard). Nhenety publishes the word lists to his blog and distributes them to the community via a WhatsApp group.

For the Kariri-Xocó, revitalizing their Indigenous language is an essential step toward decolonization, not only because it stands as a rejection of Portuguese and its associated history of violence but because it allows them to reject the norms of the Western language classroom and instead approach language learning in a way that is holistic, enmeshed in Indigenous culture and the relationship to the land. Nhenety explains this pedagogical approach:

> Our goal is to strengthen our culture. When we work to strengthen our language we work together to strengthen our culture. The words and phrases that we choose for language teaching have to do with our view of the world, with our values. Our methodology for teaching and learning has to do with our history and with our identity. We work collaboratively, through fraternity and solidarity; we carry out our activities respecting the cycles of nature, following a cultural calendar that is attuned to the environment. For us everything is culture; and we don't teach or learn English in the same way as we teach and learn our own language. We learn English for the sake of our survival in a globalizing world, we learn to use this instrument in a technical fashion; in comparison, when we teach and learn our own language we do it in an integral, profound, complete way. Getting involved with our language is a way of affirming our identity, bringing our own history into perspective, and reappropriating our way of being. Our language brings us autonomy, freedom, power, pride, belonging, identity; it anchors us in our community, it strengthens our culture.

Nhenety fully embraces the use of digital technology as a tool for language pedagogy and cultural revitalization; he started this blog in 2008 and created a WhatsApp group specifically for language revitalization in 2017. Like other Indigenous language activists, Nhenety also recognizes the need for the language to keep pace with technological innovations: "Our words in the Kariri-Xocó language arise through an evolutionary

process, the world is changing, new words with different meanings are appearing. The Indigenous language also accompanies these transformations. So gradually we are updating our vocabulary." Nhenety adopts a dynamic view of language that resists the prescriptive norms of the colonizer. He and others in the community also embrace digital technology for disseminating information, for artistic expression, and to assist language learning pedagogy.[52] This assertion of modernity has echoes in Johannes Fabian's critique of the "denial of coevalness" implicit in much of Western anthropology—that is, the notion that Indigenous (or non-Western) cultures exist within alternative timeframes, typically in a static, nontechnological past.[53]

An important locus of cultural revival lies in the ritual space of the Ouricuri; as noted above, this is a forested area inside the Indigenous territory that is off limits to outsiders. The Kariri-Xocó spend many weeks each year together in the Ouricuri, participating in dance, song, and secret rituals with the sacred Jurema plant to enable communication with the ancestors. Members of the community receive words in the language from the ancestors during these rituals and also in dreams. Words received in this way are then added to the list and distributed to the community on the blog and WhatsApp group. A subset of the lexicon is secret; these words are used during the Ouricuri rituals and cannot be learned or used by people outside the community. The exclusive ownership of ritual space has enabled the Kariri-Xocó and other Indigenous people of Northeast Brazil to resist cultural assimilation for many years,[54] and it is in the context of these rituals that some of the original lexicon was preserved against language loss.

In 2018 Nhenety's niece Idiane took the initiative to start a language school for children in the village. This was a crucial step in language reclamation, as transmission to children is seen as the most important factor in the vitality of a language.[55] At first, she ran small classes from her home, then the school moved to her husband Kawrã's hairdressing salon, and later Idiane raised funds to build a purpose-built school. At the time of writing, the school has seventy students and runs beginners and advanced classes twice a week, alongside public schooling. During the COVID-19 lockdown, Idiane taught school classes online to children, and she continues to lead language lessons for adults, attended by members of her own and other Indigenous communities via WhatsApp. In the school, children learn speaking, reading, and writing in the Kariri-Xocó language, and Nhenety acts as pedagogical coordinator, leading study groups outside the classroom to learn about the links between language and the natural environment and to learn *toré* songs. Idiane and Nhenety design their own pedagogical materials, creating an alternative, Indigenous-led learning space independent from the Brazilian state curriculum.

52. Nhenety and others were involved in the Índios Online web portal (from 2004 onwards) as well as the Arco Digital (Digital Bow) educational project (2006–07), organized by the NGO Thydêwá (Pitman, "Warriors and Weavers," 6–14).

53. Fabian, *Time and the Other*.

54. Reesink, "O segredo do sagrado"; Poets, "Citizenship and Settler Colonialism."

55. Crystal, *Language Death*.

As described above, *toré* is a traditional song genre for Indigenous people in northeastern Brazil and is a core part of spiritual and ritual life for many communities. For the Kariri-Xocó, *toré* is an integral part of reclaiming Indigenous culture and identity, and by extension a vehicle for language reclamation and pedagogy. Nhenety works with teenagers and young adults who have formed various different singing groups, translating and writing songs in the Kariri-Xocó language. Teenagers (especially boys) and young adults have proven difficult to recruit to other Indigenous cultural revitalization initiatives, but *toré* singing groups provide an appealing, creative space for this age group to engage with the process, with great success, which Nhenety describes thus:

> I am the consultant / translator / agitator of the Soyré group, which is composed of around fifteen young people who sing and dance *toré*. Every day they sing more in our own language: more often, and with a wider repertoire of songs, and with greater enthusiasm, feeling, commitment, and pride. I work with them on translations and explain the meaning of the words of the *toré* and our culture and spirituality. I also support other Toré and Rojão groups that exist in the community.

The current state of the language itself can be described as emergent, its lexicon and grammar continuing to unfold and expand as more members of the community use the language more frequently and in more sociolinguistic settings. More than two thousand words are now listed in the language, enough to have everyday conversations. Idiane and her husband Kawrã speak mainly Kariri-Xocó at home to their children. Idiane and Kawrã have also worked hard to bring Kariri-Xocó into the literary domain, having published a Kariri-Xocó translation of a microstory by the author Renata Sieiro Fernandes.[56]

During a 2019 visit to the community, coauthors Nelson and Pitman had informal conversations with parents, young people, and community leaders about their use of and attitudes toward the language revival. Community members told us that increasing numbers of adults in the community now exchange WhatsApp messages using Kariri-Xocó words, teenagers and young adults now use Kariri-Xocó words in greeting or to rouse enthusiasm before a music session, and children come home from school and teach their parents the words they learned that day. One woman who sells crafts in the market told us that speaking the language is an important marker of identity, remarking that if she spoke the Kariri-Xocó language, she wouldn't need to wear body paint and feathers to show that she is Indigenous.

After being declared extinct by their colonizers, the Kariri-Xocó are now reasserting their identity and heritage, indeed their very nonextinction, in very public ways. The Kariri-Xocó community has a significant digital platform for its cultural revival. Alongside WhatsApp groups and Nhenety's blog, there are now Kariri-Xocó YouTube channels with pedagogical language and music videos, Facebook groups where an

56. Cruz and Florêncio, "Múworoy 11."

increasing number of speakers exchange comments in the language, and a new OKAX website[57] created in conjunction with the NGO Thydêwá and the University of Leeds to host language material. In November 2019 Idiane and her son Wmanamy traveled to Rio de Janeiro to present a coauthored talk at the Viva Língua Viva conference at the University of Rio de Janeiro. The audience was made up of delegates from around Brazil and beyond, including activists from many Indigenous communities. Idiane opened her talk with these words spoken in her language:

> Kanghy kieretú mó wohoyé. Yetçã ká Idiane, dubo-eri ayby nunú kariri xocó. Yetçã pidé moyghy mó ayby swbatekié ay wohoyé ey, karay ayby kanghy kerú andé yetçãmy moyghy corã. Tçohó karay dó mé dó yetçãndé ninhó kariri xocó. Kié tçohó nunú. Yetçandé tçohó nunú, nió. Yetçã ynhahó Eridzá swbatekié mó wohoyé ey.
>
> Hiwibaedé morochy crody anrá swbatekié ayby dzudé nunú. Yetçandé kariri xocó ybôà bihé tsohó buyõ crody ayby Nhenety. Tçohó yrasichy tçohó woroy. Ey saerae swbatekié, doró teró naté sembohó kariri xocó. Buyõ ynatekié.
>
> Good afternoon, everyone. My name is Idiane and I'm a Kariri-Xocó language teacher. I'm here to share my knowledge with all of you here today, kind-hearted white people and Indigenous brothers and sisters. There are white people who say that we Kariri-Xocó don't have a language. We most certainly do. I will share this knowledge with all of you.
>
> We must be firm and strong in our knowledge of our language. We Kariri-Xocó are a very strong, traditional people. We have culture, we have history. If you want to learn about it, come and work with the Kariri-Xocó. Thank you.

Most recently, in July 2021, Idiane was interviewed by the BBC for the Radio 3 program *The Verb*, where she spoke of the importance of reclaiming the language for her community:

> For us, reclaiming our language is first and foremost a matter of honor and doing justice to our ancestors, for the cruel and brutal way in which they were forced to stop speaking their language in public, leaving them only able to speak it in secret in the sacred ritual of the Ouricuri. The language for us is not simply a different language, our language has strength, it has direct connectivity with the Great Spirit, with Mother Nature, with Mother Earth, with our rivers, with our seas, in short, with everything that inhabits our Dé Raddá, our Mother Earth.[58]

Conclusion

The reclamation of Kariri-Xocó raises fundamental questions about the nature of language and the nature of extinction. Many mainstream linguists view a language as a set of conventions built by consensus around a community of native speakers who

57. OKAX (website), thydewa.org/okax (accessed May 10, 2022).
58. I. Kariri-Xocó, "Endangered and Indigenous Languages."

converge on a relatively monolithic set of forms, structures, and meanings that are transmitted from one generation to the next. A language whose forms and meanings are no longer transmitted this way and where there are no conventions or standards to which language usage can be measured is accordingly labeled *extinct* by non-Indigenous institutions.[59] In reclaiming their language the Kariri-Xocó are deconstructing and decolonizing the notion of language itself: it is performative, genuinely co-constructed, community-owned, and something that exists along a continuum of use. By approaching language in a holistic way, its learning and use embedded in the sacred space of the Ouricuri and the Jurema rituals, they resist the hegemony of the Western language classroom. This is the picture painted by ecological approaches to language: rather than a static set of conventionalized forms, language may be seen as "a dynamic, ever-changing set of interrelationships."[60] Free from the pervasive linguistic discrimination faced by speakers of nonstandard Brazilian Portuguese,[61] Kariri-Xocó speakers can revive their language to be whatever they want it to be, and this offers a way to assert agency in the interstices of dominant systems.

In negotiating the performance of Indigeneity, the Kariri-Xocó are part of a larger web of Indigenous cultural and linguistic revival in Northeast Brazil, and they share similar political momentum and challenges with the Fulni-ô and Pataxó. But their grassroots decolonial project and use of technology make them an interesting example. The revival of their language can be seen as a response to Aníbal Quijano's call for an "epistemological decolonization," "to clear the way for new intercultural communication, for an interchange of experiences and meanings" leading us all to the "freedom to choose between various cultural orientations, and, above all, the freedom to produce, criticize, change, and exchange culture and society."[62]

Reacting to the history of colonial violence and attempts at erasure, Nhenety's aims for this process of linguistic retomada look to the future. "We want more and more to teach the language in a joint way to our worldview. We want to have greater participation of adults and older people. We want to do more field activities, reforest, take care of Nature, perform rituals, all using our language." Idiane also ended her talk at Rio with a very simple statement of her aim for the future:

> Eridzá anderí erí ané yetçã ubí erí tsohó Kariri Xocó mé dzudé nunú ayby nhenety.
>
> This is my dream. I see my people, the Kariri-Xocó, speaking our traditional language.

By reviving their language, the Kariri-Xocó are creating alternative discourses around language extinction: discourses of renewal, strength, and hope.

59. Rob Amery makes a similar point in describing the reclamation of Kaurna, a "language without speakers." He notes that the symbolic functions of a language can be as important as the communicative functions to communities seeking to reclaim their identity. Amery, *Warraparna Kaurna!*, 48.

60. Fettes, "Stabilizing What?," 302.

61. O'Neill and Massini-Cagliari, "Linguistic Prejudice and Discrimination."

62. Quijano, "Coloniality and Modernity/Rationality," 177–78.

DIANE NELSON is senior lecturer in linguistics in the School of Languages, Cultures and Societies at the University of Leeds, UK.

NHENETY KARIRI-XOCÓ is guardian of traditions in the Kariri-Xocó Indigenous community, Brazil.

IDIANE KARIRI-XOCÓ is a language teacher at Subatekié Nhunú Kariri-Xocó (Kariri-Xocó Language School), Brazil.

THEA PITMAN is professor of Latin American studies in the School of Languages, Cultures and Societies at the University of Leeds, UK.

Acknowledgments

Thanks to the Kariri-Xocó people. We are grateful to Dominic O'Key, Dolly Jørgensen, and two anonymous reviewers for their valuable comments. We also acknowledge financial support from Language Acts and Worldmaking (AHRC) and from the University of Leeds.

References

Abram, David. *The Spell of the Sensuous: Perception and Language in a More-than-Human World*. New York: Pantheon Books, 1996.

Amery, Rob. *Warraparna Kaurna! Reclaiming an Australian Language*. Adelaide: University of Adelaide Press, 2016.

Bendell, Jem. "Deep Adaptation: A Map for Navigating Climate Tragedy." Rev. ed. IFLAS Occasional Paper 2, July 27, 2020. lifeworth.com/deepadaptation.pdf.

Bomfim, Anari Braz. "Patxohã: A retomada da língua do povo Pataxó." *Revista linguística* (Rio de Janeiro) 13, no. 1 (2017): 303–27.

Cámara-Leret, Rodrigo, and Jordi Bascompte. "Language Extinction Triggers the Loss of Unique Medicinal Knowledge." *PNAS* 118, no. 24 (2021): e2103683118. https://doi.org/10.1073/pnas.2103683118.

Cole, Sean, and Adia White. "That's Just How I Rule." In "Vague and Confused," March 3, 2017. *This American Life*, episode 611. www.thisamericanlife.org/611/vague-and-confused.

Cruz, Idiane, and Kawrã Florêncio. "Múworoy 11" ("Microconto 11"). In *A donzela guerreira e outros microcontos*, edited by Renata Sieiro Fernandes, 60–61. São Paulo: Programa de Ação Cultural, Governo do Estado de São Paulo, 2019.

Crystal, David. *Language Death*. Cambridge: Cambridge University Press, 2000.

Dauenhauer, Nora Marks, and Richard Dauenhauer. "Technical, Emotional, and Ideological Issues in Reversing Language Shift: Examples from Southeast Alaska." In *Endangered Languages: Language Loss and Community Response*, edited by Lenore A. Grenoble and Lindsay J. Whaley, 57–98. Cambridge: Cambridge University Press, 1998.

Darwin, Charles. *The Descent of Man and Selection in Relation to Sex*. London: John Murray, 1871.

Eberhard, David M., Gary F. Simons, and Charles D. Fennig, eds. *Ethnologue: Languages of the World*. 25th ed. Dallas: SIL International, 2022. www.ethnologue.com.

Evans, Nicholas, and Stephen C. Levinson. "The Myth of Language Universals: Language Diversity and Its Importance for Cognitive Science." *Behavioral and Brain Sciences* 32, no. 5 (2009): 429–48. https://doi.org/10.1017/S0140525X0999094X.

Fabian, Johannes. *Time and the Other*. New York: Columbia University Press, 2014.

Fettes, Mark. "Stabilizing What? An Ecological Approach to Language Renewal." In *Teaching Indigenous Languages*, edited by Jon Reyhner, 301–18. Flagstaff: Northern Arizona University.

Gorenflo, L. J., Suzanne Romaine, Russell A. Mittermeier, and Kristen Walker-Painemillad. "Co-occurrence of Linguistic and Biological Diversity in Biodiversity Hotspots and High Biodiversity Wilderness Areas." *PNAS* 109, no. 21 (2012): 8032–37.

Gregory, Alice. 2021. "How Did a Self-Taught Linguist Come to Own an Indigenous Language?" *New Yorker*, April 19, 2021. www.newyorker.com/magazine/2021/04/19/how-did-a-self-taught-linguist-come-to-own-an-indigenous-language.

Guzmán, Tracy Devine. *Native and National in Brazil: Indigeneity after Independence*. Chapel Hill: University of North Carolina Press, 2013.

Hauser, Mark, Noam Chomsky, and Tecumseh Fitch. "The Faculty of Language: What Is It, Who Has It, and How Did It Evolve?" *Science*, no. 5598 (2002):1569–79.

Kariri-Xocó, Idiane. "Endangered and Indigenous Languages and the Natural World—Experiments in Living," produced by Ruth Thomson. Radio broadcast, July 9, 2021, *The Verb*, BBC Radio 3.

Kariri-Xocó, Idiane, Nhenety Kariri-Xocó, Diane Nelson, and Thea Pitman. "A retomada da língua Kariri-Xocó" ("Reclaiming the Kariri-Xocó Language"). *Cadernos de linguística* 1, no. 3 (2020): 1–13.

Kariri-Xocó, Nhenety. *Nhenety Kariri-Xocó: Cultural digital, cultura popular, blogs, historia . . .* (blog). 2008–. https://kxnhenety.blogspot.com.

Kimmerer, Robin Wall. *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants*. London: Penguin Books, 2020.

Krauss, Michael. "The World's Languages in Crisis." *Language* 68, no. 1 (1992): 4–10.

Lloyd, Geoffrey. *Cognitive Variations: Reflections on the Unity and Diversity of the Human Mind*. Oxford: Clarendon, 2007.

Loh, Jonathan, and David Harmon. "Biocultural Diversity: Threatened Species, Endangered Languages." Zeist, Netherlands: WWF Netherlands, 2014.

Maffi, Luisa. "Linguistic, Cultural, and Biological Diversity." *Annual Review of Anthropology* 34, no. 1 (2005): 599–617.

Maia, Marcus. "Current State of Indigenous Languages and Revitalization Efforts in Brazil." Paper presented at the roundtable "Language Rights for Indigenous and Tribal Peoples," Australian National Centre for Latin American Studies, Australian National University, Action ACT, July 2017.

Marder, Michael. *Plant Thinking: A Philosophy of Vegetal Life*. New York: Columbia University Press, 2013.

Molina Vargas, Hema'ny, Camila Marambio, and Nina Lykke. "Decolonising Mourning: World-Making with the Selk'nam People of Karokynka/Tierra del Fuego." *Australian Feminist Studies*, no. 104 (2020): 186–201. https://doi.org/10.1080/08164649.2020.1774865.

Mota, Clarice Novaes da. "As Jurema Told Us: Kariri-Shoko and Shoko Mode of Utilization of Medical Plants in the Context of Modern Northeastern Brazil." PhD diss., University of Texas, 1987.

Mota, Clarice Novaes da, and Jose Flávio Pessoa de Barros. "Jurema: Black Indigenous Drama and Representations." In *Ethnobiology: Implications and Applications; Proceedings of the First International Congress of Ethnobiology*, edited by Darrell A. Posey, William Leslie Overal, and Museu Paraense Emílio Goeldi, 171–80. Belém, Brazil: The Museum, 1990.

Muehlmann, Shaylih. "Languages Die Like Rivers: Entangled Endangerments in the Colorado Delta." In *Endangerment, Biodiversity, and Culture*, edited by Fernando Vidal and Nélia Dias, 41–61. London: Routledge, 2017.

Mufwene, Salikoko. *The Ecology of Language Evolution*. Cambridge: Cambridge University Press, 2001.

Mühlhäusler, Peter. *Linguistic Ecology: Language Change and Linguistic Imperialism in the Pacific Region*. London: Routledge, 1996.

Nettle, Daniel. "Explaining Global Patterns of Language Diversity." *Journal of Anthropological Archaeology* 17, no. 4 (1998): 354–74.

Nichols, Johanna. *Linguistic Diversity in Space and Time*. Chicago: University of Chicago Press, 1992.

O'Neill, Paul, and Gladis Massini-Cagliari. "Linguistic Prejudice and Discrimination in Brazilian Portuguese and Beyond: Suggestions and Recommendations." *Journal of Language and Discrimination* 3, no. 1 (2019): 32–62. https://doi.org/10.1558/jld.37344.

Pacheco de Oliveira, João. "Uma etnologia dos 'Indios Misturados'? Situação colonial, territorialização e fluxos culturais." *Mana*, no. 4 (1998): 47–77.

Pinker, Stephen, and Ray Jackendoff. "The Faculty of Language: What's Special about It?" *Cognition* 95, no.2 (2005): 201–36.

Pitman, Thea. "Warriors and Weavers: The Poetics and Politics of Indigenous Appropriations of New Media Technologies in Latin America." *Modern Languages Open* 2018, no. 1 (2018): 14. https://doi.org/10.3828/mlo.voio.207.

Poets, Desiree. "Citizenship and Settler Colonialism in Brazil: The *Toré* Ritual as a Decolonial Indigenous Practice in the Northeast Region." *Citizenship Studies*, October 25, 2021. https://doi.org/10.1080/13621025.2021.1984504.

Quijano, Aníbal. "Coloniality and Modernity/Rationality." *Cultural Studies* 2, no. 2–3 (2007): 168–78. https://doi.org/10.1080/09502380601164353.

Reesink, Edwin. "O segredo do sagrado: O Toré entre os Índios no nordeste." In *Índios do Nordeste: Temas e problemas*, vol. 2, edited by Luiz Sávio de Almeida, Marcos Galindo, and Juliana Lopes Elias, 359–406. Maceió, Brazil: EDUFAL, 2000.

Rigney, Lester-Irabinna. Foreword to *Warraparna Kaurna! Reclaiming an Australian Language*, by Rob Amery, xix. Adelaide: University of Adelaide Press, 2016.

Rose, Deborah Bird, Thom van Dooren, and Matthew Chrulew. "Introduction: Telling Extinction Stories." In *Extinction Studies: Stories of Time, Death, and Generations*, edited by Deborah Bird Rose, Thom van Dooren, and Matthew Chrulew, 1–18. New York: Columbia University Press, 2017.

Salazar Parreñas, Juno. *Decolonizing Extinction: The Work of Care in Orangutan Rehabilitation*. Durham, NC: Duke University Press, 2018.

Socioambiental. "Kariri-Xocó." https://pib.socioambiental.org/pt/Povo:Kariri-Xokó (accessed July 21, 2021).

Thydêwá. *Mensagens da Terra*. YouTube video, 13:40. April 8, 2020. www.thydewa.org/mensagensdaterra.

Tomasello, Michael. *Origins of Human Communication*. Cambridge, MA: MIT Press, 2008.

UNESCO. "Atlas of the World's Languages in Danger." www.unesco.org/languages-atlas (accessed July 30, 2021).

UNESCO. "Endangered Languages." www.unesco.org/new/en/culture/themes/endangered-languages/faq-on-endangered-languages (accessed July 30, 2021).

Vidal, Fernando, and Nélia Dias, eds. *Endangerment, Biodiversity, and Culture*. London: Routledge, 2017.

Woodward, Susan L. *Biomes of the World*. https://php.radford.edu/~swoodwar/biomes (accessed May 22, 2022).

Youkee, Mat. "We Were Told Our Brothers Were Dead: Chile's Lost Tribe Reclaims Identity." *Guardian*, May 3, 2022. https://www.theguardian.com/world/2022/may/03/chile-indigenous-selknam-not-extinct-constitution.