DOI 10.17953/aicrj.44.3.montgomery

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A Rejoinder to Body Bags: Indigenous Resilience and Epidemic Disease, from COVID-19 to First "Contact"

Lindsay M. Montgomery

In March 2020, the Seattle Indian Health (SIH) board received a box of body bags after requesting personal protective equipment and coronavirus testing materials from the King County Health Department. Commenting on this incident, Abigail Echo-Hawk (Pawnee), the chief research officer at SIH, stated, "I really hope it was a mistake. But, in my heart, with all the work I've done around this area, it's really a metaphor for what's happening in Indian country right now. We are not getting what we need to address this."[1] This incident is a jarring material reminder of the high mortality rate from COVID-19 among Indigenous people and demonstrates how tribal nations have become "sacrifice zones" in terms of disease control.[2]

In the face of chronic underfunding and institutional neglect, tribal nations have coped with the ongoing pandemic by exercising strong forms of sovereignty, such as instituting roadblocks, issuing stay-at-home orders, and implementing mandatory testing. Tribal leaders and healers have also encouraged community members to use traditional remedies to help boost their immune systems, like bone broth, rosehip, and lemon balm tea.[3] Commenting on the efficacy of herbal medicines, physician Nicole Redvers (Deninu K'ue First Nation Band) noted, "that's why we're here today, because we thrived on our own medicines for thousands of years before the coming of Western medicine."[4] As Redvers's comment makes clear, Indigenous people have drawn, and do draw upon, a rich well of wellness practices to promote collective well-being in the face of disease.

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Indigenous responses to COVID-19 are situated within a long history of culturally grounded adaptation in the face of "virgin soil epidemics."[5] As successive waves of European colonization introduced crowd-borne diseases to North America, epidemics fundamentally reshaped Indigenous demography, straining traditional healthcare systems, severing genealogical ties, and undermining cultural knowledge systems. However, it is too often the case that Indigenous people are not given credit for being able to combat, survive, and persist through novel diseases. While tribal nations were, and continue to be, disproportionately impacted by infectious disease, this is not the only story.[6]

Inspired by current responses to the COVID-19 pandemic, this article uses the concept of *resilience* to document how Indigenous people explained and mitigated the physical and cultural effects of infectious disease from the seventeenth through the twentieth centuries. A resilience framework assumes that Indigenous systems are dynamic and therefore will adapt to structural, environmental, and/or social upheaval in ways that maintain their core ontological and epistemological features. In demonstrating the resiliency of Indigenous people, this study builds upon a growing body of scholarship in Native American history that challenges linear narratives of Indigenous disappearance in the wake of colonization.[7] This article's analysis of Indigenous persistence in oral, historical, and ethnographic records points to the particularly important roles played by dreams, dancing, social distancing, and herbal medicines in Indigenous responses to disease epidemics.

Resilience: An Alternative Approach to Epidemic Disease

Much scholarly energy has been spent enumerating the demographic impacts of crowd-borne pathogens on Indigenous people in the Americas, as well as the Caribbean.[8] Typically, these studies have discussed disease episodes in terms of cataclysmic social collapse while debating the degree to which this "collapse" occurred.[9] Estimates of Indigenous population decline in the face of smallpox, measles, bubonic plague, cholera, typhoid, diphtheria, scarlet fever, and malaria has ranged from as low as 2 million to as high as 7 million.[10]

The wide range in hypothesized death rates reflects debates over the total pre-1492 population. High estimators posit a relatively large initial Indigenous population ranging between 12.5 and 18 million, and argue that European-introduced diseases had a significant and early impact.[11] In contrast, low estimators assume that due to the limited availability of food resources, low fertility, warfare, and disease, prior to colonization the Indigenous population was much smaller, only 1 to 3 million.[12] For these low counters, the ensuing mortality rate was both less severe and delayed for several decades, and, in areas where colonial settlement remained minimal, sometimes centuries.[13] While scholars continue to debate the scale and pace of Indigenous population decline, most researchers agree that the year 1900 marked the absolute nadir of this demographic process, with a mere 375,000 Indigenous people calculated as living in what is now the United States, Canada, and Greenland.[14]

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Disease-based explanations for Indigenous depopulation have been critiqued for downplaying the concomitant negative effects of colonial policies and settler violence on Indigenous communities.[15] The "second-wave" effects of colonization, including forced migration, slavery, and labor regimes, as well as dietary changes caused by the destruction of traditional food sources and the introduction of commercially produced goods, significantly impacted the ability of Native populations to recover from disease.[16] Indigenous population resurgence was further constrained through systemic forms of cultural repression enacted by the Spanish mission system during the sixteenth to nineteenth centuries, as well as American laws forbidding traditional religious ceremonies and enforced assimilation within federally sponsored boarding and day schools in the nineteenth and twentieth centuries. The negative impacts of settler colonialism on Indigenous populations were exacerbated by episodic warfare and interpersonal violence between European settlers and Indigenous communities. These physical and structural forms of violence were undertaken with the expressed goal of removing Indigenous people from the colonial space in order to create a new ethnic and religious community in their absence. While this research has drawn critical attention to the active role of European colonizers and policies in Indigenous demographic decline, these studies typically stop short of challenging the dominant historical narrative in the Americas—the ultimate destruction of Indigenous people and cultural systems.

Rather than engage with demographic debates, however, the aim of this article is to expose the ways in which focusing on disease-induced change reinforces harmful notions about the disappearance and assimilation of Indigenous people. Such narratives are damaging not because they are false—certainly, colonization had devastating consequences for Indigenous societies—but because they support settler-colonial claims of an emptied landscape that Europeans occupied, rather than invaded. Among the critical responses to these engrained epidemiological narratives of Indigenous "disappearance" is the concept of *resiliency*. Resiliency refers to the dynamic and ongoing process of reorganization within micro- and macro-systems that helps individuals thrive and even increase capacity in the face of adversity.[17]

The management of kinship systems, ceremonial traditions, and moral values plays an important role in these culturally grounded adaptation processes, as individuals, families, and communities make informed decisions about what social aspects to change or keep.[18] Resilience and persistence have often been used in archaeology as parallel frameworks for documenting long-term processes of culturally situated adaptation in the face of environmental, economic, and social change.[19] While much of the scholarship on resiliency has focused on extraordinary instances of existential threat, research in developmental psychology has shown that resiliency occurs regularly as part of human adaption.[20] Rather than exceptional, Indigenous resilience in the past and present is actually normative. Significantly, Indigenous communities face a "toxic collection of pathologies" that threaten their health, such as poverty, unemployment, and domestic violence, with high rates of heart disease, diabetes, hepatitis, cancer, mental illness, and addiction.[21] As a clinical response to these stressors, Iris Heavyrunner and Joann S. Morris have argued, resilience should be cultivated among Indigenous people through storytelling, spirituality, childrearing, extended family

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relationships, veneration of wisdom and tradition, as well as respect for nature, generosity, and cooperation.[22]

Likewise, Michalyn Steele has proposed that underlying Haudenosaunee resilience is a similar list of principles that includes long-term planning and accountability, kinship and interconnectedness, shared responsibility, and cooperation in the commons.[23] The Haudenosaunee offer one example of the ways in which traditional lifeways, values, and ontological frameworks facilitate resilience in the face of ongoing attacks on their culture and sovereignty.[24] Prior to European colonization, the Haudenosaunee were bound together through Kainarea'kó: wa, the Great Law of Peace, connecting human, natural, and supernatural realms. The creation story orally transmitting this worldview outlines a moral system of care spanning seven generations. In response to the suppression of traditional cultural practices and political authority by Canadian and American governments, for example, the values and principles of the creation story and Kainarea'kó:wa direct the efforts of the Mohawk, one of the six nations of the Haudenosaunee, to reassert control over health services, education, and economic development.[25]

In asserting cultural values, norms, and notions of peoplehood, Mohawk revitalization and resilience emphasizes the role of communities in these processes. The presence of 574 federally recognized tribal nations within the United States today offers clear evidence that Native Americans successfully absorbed the legal, political, martial, and epidemiological disruptions brought on by colonization, "while preserving core identity and purpose without being fundamentally altered by it."[26] Although Indigenous communities have retained their unique purposes and identities as Indigenous peoples, their social institutions and cultural systems have not remained unchanged, nor have they (somehow) sprung back to precolonial forms. Indigenous strategies of resilience draw from traditional knowledge and values while "they also reflect ongoing responses to the new challenges posed by evolving relationships with the dominant society."[27]

This article uses the concept of resilience to describe the ability of Indigenous individuals and communities to adjust, adapt, and transform—in ways that maintain their core worldviews.[28] These mechanisms of resilience are situated within a shared set of ontological beliefs about power and the interconnectedness of the physical and spiritual realms. Resilience helps to explain how and why certain aspects of Indigenous systems have endured in the face of epidemic disease and ongoing settler colonialism. Specifically, Indigenous people have variously used ceremonies, dreams, physical distancing, herbal medicines, and familial support networks to combat the negative effects of infectious disease on communal mortality and stability. Oral tradition has been critical in preserving and passing down these principles and knowledge of collective resiliency. Ultimately, to focus on the culturally grounded transformation and persistence of Indigenous social systems brings forth narratives of Native presence that embrace Indigenous futurity and denies completion of the settler-colonial project.

Pathways to Resiliency: Explaining and Responding to Disease

Indigenous frameworks for rationalizing and methods of treating illness are grounded in a worldview that differs radically from Western medical models. In *The American*

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Indian Mind in a Linear World, Donald Fixico (Shawnee, Sac and Fox, Muscogee Creek, and Seminole) generalizes that an Indigenous worldview is premised upon a symbolic kinship which connects all beings in the universe and a cyclical concept of time rather than a linear one.[29] Similarly, Vine Deloria Jr. (Standing Rock Sioux) has shown that many Native American communities believe in an invisible life force or energy that permeates all things. Put another way, "the substance of the universe is relationships" between people, humans and nonhumans, and the physical and the spiritual realms.[30] The concept of balance—within oneself and with family, local community, and external communities—structures the choices and actions of Indigenous individuals within this relational universe.

Indigenous people make sense of this enlivened world through both empirical observations of the physical realm and dreams or visions. By observing natural cycles and relationships, Indigenous people learn techniques for connecting to the continuous life forces structuring the universe. Alternatively, dreams provide insights into phenomena and relations that are verifiable, if not readily observed.[31] Knowledge gained through observations or dreams is passed from one generation to the next through oral tradition, which includes myths, legends, songs, prophecies, biographies, environmental information, and personal narratives accumulated from deep time into the present. Oral tradition facilitates resiliency by providing Indigenous communities and individuals with a cultural framework for understanding their origins, relationships, and values.[32] Healing practices—such as signing, storytelling, smudging, pipe ceremonies, dance, and the use of herbs—are situated within this relationship-oriented balance-seeking worldview.[33] Uniting these different practices is attention to the flows of energy or power connecting people to the spiritual and physical worlds. Many Native communities employ this framework for wellness to adapt to the physical and cultural effects of viral epidemics.[34]

How Indigenous people explain and treat disease is shaped by a shared belief that illness is caused by individual or collective behavioral transgressions that disturb the balance between humans and the physical world. The 1799 smallpox epidemic, for example, that killed large numbers of pregnant women among the Lakota Sioux was attributed by the community to an improperly performed Alowanpi (Making Relatives) ceremony, which offended the spiritual being Tatanka, associated with fecundity and childbirth, who subsequently withdrew spiritual protection from the community. Lakota communities stopped performing the Alowanpi ceremony for several years to redress this breach in protocol. Eventually a new ritual in which horsetail wands are waved over the heads of honorees in the dance circle revived Alowanpi ceremonial practice.[35] The successive waves of smallpox that Indigenous people living in the Southeastern United States experienced between 1696 and 1783 were also believed to be caused by collective social violations. The Cherokee, for instance, believed that evil spirits called Kosvkvskini unleashed disease upon the earth whenever community members disregarded tribal laws or failed to perform rituals correctly.[36] In response, Cherokee villages held a seven-day dance called the Itohvnv (Smallpox Dance) to cleanse their communities of impurities.[37] For both the Lakota and Cherokee, smallpox was attributed to breaches in

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cultural protocol and was remedied through performative acts of singing and dancing which bolstered communal well-being and restored balance.

The causal link between disease and human-induced imbalances, as well as the use of ceremonies to correct these imbalances, reflects an Indigenous worldview in which the spiritual realm is intimately connected to the physical realm and a reciprocal relationship exists between human beings and the natural and spiritual worlds.[38] The comments of Indigenous leaders reflect a shared understanding of disease as a marker of imbalance in the natural world that must be addressed through collective action. In discussing the COVID-19 epidemic during a "Covering Climate Now" event, Levi Sucre Romero, a BriBri person from Costa Rica, drew on these relational principles. Romero linked the pandemic to climate change and deforestation, stating, "the coronavirus is telling the world what Indigenous Peoples have been saying for thousands of years—if we do not help protect biodiversity and nature, we will face this and even worse threats."[39] Dallas Goldtooth (Mdewakanton Dakota and Diné), an organizer for the Indigenous Environmental Network, offered a similar framing of the pandemic: COVID-19 "is an exact consequence of our own behavior and very much a symbol of our own self destruction."[40] For Romero and Goldtooth, the novel coronavirus is the unfortunate but inevitable outgrowth of a capitalist system that has fostered unprecedented levels of environmental exploitation.

Archiving Resilience through Dreams, Dances, and Stories

Indigenous communities use an interconnected system of dreams and storytelling to explain and disseminate information about how to treat disease. Basil Johnson (Ojibwa) summarized the central role of dreams within Indigenous epistemology: "through dream or vision quest they elicited revelation-knowledge that they then commemorated and perpetuated in story and reenacted in ritual."[41] As Johnson notes, dreams, like other sources of knowledge, are archived using the oral tradition. These subconscious experiences are data sources which are synthesized and evaluated along with individual experiences, collectively accumulated wisdom, and ecological information received from birds, animals, and plants to make social, political, and economic decisions.[42]

Orally transmitted narratives incorporate disease epidemics into the community's cosmogeography, linking epidemiological events to places on the landscape. One such disease-oriented dream-story is told as a common bedtime story to Kiowa children and was shared in written form by Guy Quoetone (b. 1887).[43] Although Quoetone's bedtime story indicates no timeframe for the events, it likely references the experience of Indigenous people living on the Great Plains during the first major outbreak of smallpox in 1734.[44] According to Quoetone, the Kiowa say that Devil's Lake in Montana is possessed with underwater gods and that humans can secure these powers through fasting and praying for four days.[45] A young Kiowa-Apache man decided to attempt this power journey, but unlike other men who had tried and failed, he asked to be staked down with rawhide cord, saying: "put them across my legs and my body and my hands and put me down. In case these vicious animals come to eat me up, I won't

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run, I'll be tied up. I want to possess this power."[46] While the young man was staked to the ground the water began to rise and a giant alligator emerged with a warning from "the king" of the underwater gods, also referred to by Quoetone as grandfather. The alligator told the man that the grandfather did not have any powers or blessings to give him and that he should leave before he was killed. Because he was tied to the ground the man could not leave and so his courage was tested.

The man then experienced a vision in which a mounted war party charged towards the lake, yelling, and singing songs. As the galloping horses approached, the man closed his eyes in fear. When he opened them, he saw the warriors transform into geese and fly over his body into the water. Successfully passing this test, the man was invited to the grandfather's medicine tipi to attend a council meeting of spiritual beings under water. At this gathering fish, reptiles, and waterfowl bestowed medicinal powers and knowledge upon the man. After a month under water, the man finally went home to his community, carried on the back of a whooping crane. Upon his return, he sought purification from the "Ten Grandmother Gods," a group of female healers. While in their medicine tipi, the man shared his story with them, saying, "I am possessed with every kind of power you could think of. I can bewitch people . . . I can heal any kind of disease[s] or ailment[s] that happen. I am possessed with all kinds of healing powers."[47]

For many years, he was an important medicine man among the Kiowa and Kiowa Apache until one day the whooping crane returned to his camp, bringing news of a dangerous disease and calling the medicine man home to Devil's Lake. After hearing this news, he told the people, "there's a terrible epidemic coming among our people. It's a plague. . .. And I don't know how to cure smallpox."[48] In the face of this impending smallpox epidemic, his community begged him not to leave. So, the man promised them that if they kept their eyes on his tipi that he would stay with them. Each day and night tribal members sat around the medicine man's tipi and watched him so he wouldn't break camp and leave. Eventually they became careless and stopped watching. On this same night the medicine man left, taking his wife, children, and dog with him to Devil's Lake. Although the man and his family remained under water from that time on, he told the people that they should continue to come to the lake, saying, "whenever you want to visit me, come to this lake and I'll talk to you."[49] According to Quoetone, tribal members reported that they could still hear the echoes of the medicine man's drums and the bark of his dog from the lake into the twentieth century.

Quoetone's story demonstrates how disease events, like smallpox, were incorporated into a broader set of Kiowa stories about underwater spiritual beings, healing knowledge, and Devil's Lake. The particular importance of landscape features in Indigenous forms of history-making is summarized by Vine Deloria Jr. in *God Is Red*: "what appears to have survived as a tribal conception of history almost everywhere was the description of conditions under which the people lived and the location in which they lived."[50] This place-based power quest story would have helped Kiowa people contextualize the appearance of smallpox among their community by incorporating it into an already populated cultural landscape inhabited by humans and powerful spiritual beings.

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In addition to incorporating smallpox into a place-based model of history, the Devil's Lake narrative also explains the existence of this new disease by using a worldview premised upon four ontological elements: (1) animacy that extends to nonhuman entities, as demonstrated by the alligator and whooping cranes who deliver messages to the man; (2) power that derives from the natural world, as exemplified by the underwater beings' gift of medicine powers; (3) collective breaches in social protocols that have negative effects on communal well-being, as seen by the medicine's man decision to leave when his community fails to be vigilant in watching his tipi; and (4) visions and dreams that are central sources of knowledge-power. Many Indigenous worldviews share these ontological facets—animacy, a powerful physical world, the danger of collective social breaches, and dream-knowledge—providing a framework for examining Indigenous understandings of the causes and effects of disease. Mandan villages were also hard-hit by a series of smallpox epidemics in 1780, 1837, and 1856, with William Clark noting they were particularly devastated: "the Smallpox destroyed the greater part of the nation and reduced them to one large Village and Some Small ones."[51] As with the Devil's Lake story, Mandan historians situate the arrival of smallpox in "mythic time," incorporating the disease into a series of place-based stories involving the culture hero Black Wolf and the acquisition of knowledge-power. This story was originally recorded by anthropologist James Brooks in 1989, from a Mandan woman named Marie. In the story, Marie shares how Black Wolf acquired the Snow Owl bundle, which contained arrow-making knowledge and bison-calling powers.[52] Black Wolf is captured by an elderly arrow-maker named Big Man, who tasks him with vanquishing a series of monsters. During one such trial, Black Wolf is sent towards the ocean in order to capture Big Man's enemy, Four Stripes. With the help of White-Tailed Deer Woman, he is transformed into Black Wolf Woman and successfully bests a series of snakes, one of which is described as "a massive creature whose body was covered in bloody sores and oozing pustules."[53] A Jesuit missionary stationed among the Flathead described similar abscesses: "the disease [smallpox] cause[s] the growth of large red and black pustules over the entire body, particularly on the chest."[54]

The high mortality rates among Indigenous people associated with smallpox was in part because they suffered from a more rapidly fatal form of the disease associated with the sort of hemorrhaged blisters on the monstrous snake in Marie's narrative and described in the priest's account.[55] The Mandan story ends with Black Wolf Woman successfully conquering the smallpox-ridden snake and delivering Four Stripes's head to Big Man, who gives him arrow-making tools. Black Wolf then shares this arrow-making knowledge with the Mandan community. Black Wolf's victory can be read as a metaphor for the community's resilience in the face of epidemic disease—a message which stands in stark contrast to historical analyses of demographic collapse and radical cultural change among Missouri village communities like the Mandan, Hidatsa, and Arikara.[56]

Although the Mandan and Kiowa smallpox stories have different endings, several salient similarities offer insights into how some Indigenous people responded to disease. Much like the Kiowa, the Mandan incorporated the occurrence of smallpox into a story about the individual acquisition of power and knowledge. Furthermore,

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both stories indicate that Indigenous responses to episodic disease drew on traditional beliefs around reciprocity and the connection between the physical-spiritual worlds. Finally, in each of these narratives dreams play a central role in providing knowledge-power to the protagonist, who then uses those skills to ensure the collective well-being of the community.

In addition to disease, Indigenous communities living across the North American West were devastated by waves of settler violence, creating the extreme social conditions shaping Indigenous cultural adaptations. Many of these cultural responses involved social dances inspired by visionary experiences.[57] During the 1870s, for example, a northern Paiute leader named Wodziwob dreamed that spirits of the dead would return and change the earth into a paradise.[58] Wodziwob's dreamed dance and prophecy flows from the "Prophet Dance of the Northwest," in which performers would imitate the dead,[59] but is also grounded in preexisting beliefs and practices among Indigenous people living on the Plateau and Northwest Coast—such as oral histories documenting visitation of the dead, a material tradition of depicting the dead in anthropomorphic statues and rock art, and similar prophecies about the impending destruction and renewal of the world.[60]

The subsequent 1890 Ghost Dance movement, which spread from western Nevada onto the northern and southern Plains, also drew and elaborated upon beliefs and practices around dreaming, dancing, and the dead. This particular version of the dance was spurred by the visionary experience of Wovoka, a northern Paiute prophet, in the wake of infectious disease and the destruction of the bison population brought on by American colonization. As a remedy for communal strife, his dream prescribes that round dances be performed over five consecutive days.[61] Unlike previous iterations, the 1890 Ghost Dance prophecy specifically emphasized population resurgence in the form of the dead returning to life. According to James Mooney, "the great underlying principle of the Ghost Dance doctrine is that the time will come when the whole Indian race, living and dead, will be reunited upon a regenerated earth, to live a life of aboriginal happiness, forever free from death, disease and misery."[62] As Russell Thornton has argued, the 1890 Ghost Dance coincides with the lowest reported number of Indigenous people living in the United States, suggesting that the movement was popular because it was perceived to directly facilitate demographic revitalization, particularly among Native communities in the American west.[63]

Although the form and content of each Ghost Dance ceremony varied across those Indigenous communities adopting it, the movement itself was based on a shared belief in the power of collective dancing and singing to induce visions and enact societal change. Brenda Child's (Red Lake Ojibwe) recent research around the Jingle Dress tradition offers another compelling example of the connection between dreaming, dancing, and resiliency. Among the Ojibwe, the Jingle Dress dance can be traced to a curing vision experienced during the ravages of the Spanish flu pandemic of 1918 and 1919. During these years, Native Americans suffered mortality rates four times higher than the wider United States population. More than 3,098 of approximately 675,000 people killed by this pandemic between 1918 and 1920 in the United States were from the Pine Ridge reservation in South Dakota alone.[64] Reflecting on the effects of

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this pandemic, Myrtle Lincoln (Arapaho, b. 1888) lamented, "boy, there were lot of [tribal members] died then. Just dying like, you know, you poison ants. I don't know what happened."[65] A similar sense of disbelief and desperation was expressed by Pete Birdchief (Cheyenne, b. 1900): "you see, we didn't know, nobody knew how to combat that flu. We didn't know medicine at that time that could cure. My, we lost [a] lot of Indians then."[66]

As the Spanish flu swept across Indian country, many Indigenous people felt helpless to combat the growing mortality rate. In the face of a mounting death toll and feelings of powerlessness, an Ojibwe man turned to dreaming as a source of knowledge and power. According to Child, Ojibwe peoples

> often tell a story about a little girl who was very near death, and her father and her family became very worried about her. Her father had a dream, a vision, about a special dress and dance. He made the dress for his daughter and taught her the steps. The way folks at Mille Lacs tell the story is that there was a drum ceremony taking place that weekend, and the father brought his sick daughter to the drum ceremony. She was sort of lying on the side, taking it easy because she was so ill. And then later on in the evening, they started playing these songs, and the little girl got up and began dancing. And by the end of the evening, she had recovered.[67]

This oral history documents how information received in dreams spurred the creation of a new set of songs and dance movements that successfully cured a community member's sickness. Specifically, the lyrics of the songs associated with this emergent dance tradition speak of healing, while it is believed that the sounds of the tinkling jingles carry curative powers through the air (fig. 1).[68]

While the content of the Jingle Dress ceremony is unique, the use of dance, song, and sound as mechanisms for restoring balance in the physical-spiritual world and ensuring individual, familial, and communal health is an established aspect of Ojibwe culture. Much like the Ghost Dance traditions, the Jingle Dress tradition highlights the adaptive capacity of Indigenous people during times of social repression and immunological assault. Furthermore, as with the Kiowa and Mandan dream-knowledge narratives, the origins and features of the Jingle Dress tradition are preserved and passed down through the oral tradition, highlighting the central role of storytelling in Indigenous resiliency.

Social Distancing and Traditional Healing Strategies

In response to disease, many Indigenous communities implemented physical distancing strategies through dispersion, migration, or isolation.[69] Indigenous communities living in the Southeastern United States practiced quarantining during the eighteenth century, closing their borders to trade and limiting inter-village travel in order to protect themselves from disease-inducing spirits believed to prowl out in public.[70] As Creek villages learned about quarantine protocols from the English, they incorporated this practice into their extant cultural framework, which used ceremonies and rituals intended to harness spiritual power and restore balance.[71] When combined

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Figure 1. Jingle Dress sculpture. *Artist: Maria Hupfield (Ontario Ojibwe). Paper, graphite, thread. National Museum of the American Indian, Smithsonian Institution catalog no. 26/9319. Photo by NMAI Photo Services.*

with "simple nursing" techniques, such as isolating sick individuals, providing them with regular food and water, and treating them with nontoxic herbal medicines, these communities successfully limited the spread of disease.[72] Population estimates bear out the effectiveness of these strategies, which suggest that between 1730 and 1790 the total population of Creek, Cherokee, Choctaw, and Chickasaw actually grew, from 24,810 people to 40,300.[73]

Quarantining exemplifies Jean Dennison's concept of colonial entanglement, the varied and dynamic ways in which settler colonial processes become interwoven into all facets of social life. English settlement among Southeastern communities introduced destructive viral diseases like smallpox into the region while also providing impacted villages with a new and effective strategy for minimizing disease spread.[74] As demonstrated by the Jingle Dress and Ghost Dance traditions, while colonial

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entanglements can cause ruptures, they also create opportunities for cross-cultural incorporation and the emergence of new social practices. Among highly mobile groups culturally accustomed to aggregation and dispersion, strategic diffusion appears to have been a common survival strategy.

A Yanktonai winter count documents that in response to the 1722 smallpox outbreak, "everybody fled to escape the disease," and in 1815, that "an epidemic caused the people to flee in all directions."[75] As a result of these dispersion techniques, more mobile Indigenous communities like the Lakota Sioux suffered lower smallpox mortality rates—only 14 percent—compared to village communities like the Mandan, Hidatsa, and Arikara, which, following a smallpox outbreak in 1780–1781, experienced a combined 68 percent mortality rate.[76] Similarly, statistical evidence from the nineteenth and early twentieth centuries indicate that the Diné, who lived for much of the year in small dispersed family units, experienced much lower infection rates of tuberculosis than more-nucleated Indigenous communities.[77] Comanche oral histories also record the use of dispersion as a means of limiting population loss in the face of disease. According to an oral history recorded by Waldo Wedel in 1933, the Comanche and Shoshone had been living together in a large aggregated encampment divided into eastern and western camps. Following the resolution of a dispute between the two camps, the "smallpox arrived. The Comanches split; two parts went west, one part went north, and one part stayed there. The people who went west mixed with Mexicans and now talk their language. Two groups mixed with pueblos. The group that went north were the Shoshones, now they call themselves Yapainuu."[78]

Instead of presenting smallpox as a destructive force, the Comanche narrative frames the impacts of colonization as culturally generative; smallpox set in motion the ethnogenesis of the Comanche and Shoshone as distinct tribal nations. Jesuit records from this period indicate that there were several early waves of smallpox and measles in the years 1593, 1601, 1607, 1612, 1617, 1623, and 1636 that moved north from Mexico City into the greater Southwest region via mission caravans.[79] Together with archival accounts of Comanche raiding, trading, and hunting activities on the southern Plains during the early 1700s, this evidence suggests that the Comanche-Shoshone split likely occurred sometime during the early seventeenth century.[80]

While the timing of this migration is of significant scholarly interest to archaeologists, the Comanche origin story is salient for this study because it normalizes migration as a culturally grounded response to pandemic disease. In other words, the Comanches' ontological commitment to social fluidity informed the use of mobility as response to novel diseases introduced through colonization. According to Comanche tribal member Kathryn Tijerina (b. 1950), "we are very flexible in the culture in terms of adapting to things, which is a nice part of the culture and helped us survive the colonial and post-colonial system."[81] It was precisely when Comanche mobility and social fluidity was constrained that the community was most negatively affected by infectious disease.

Population density has been linked to the emergence and diffusion of infectious disease. In regions where Indigenous settlements were nucleated, or were forcibly pulled into mission complexes or reservations, respiratory infections were particularly

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widespread and virulent.[82] During the mid-nineteenth century, as their population was consolidated onto reservation lands in Oklahoma, Comanche movement was restricted, rendering them susceptible to rapid spread of disease. Furthermore, legal bans on traditional ceremonies constrained their ability to employ established disease mitigation strategies. These colonial policies, along with a series of devastating smallpox and cholera epidemics, caused the Comanche population to dramatically decline from an estimated 12,000 in 1846 to a mere 2,000 in 1875.[83]

While colonial policing often undermined disease mitigation strategies based in movement, Indigenous peoples continued to engage in smaller-scale interpersonal health care practices using herbal medicines. For example, cedar was one of many plant-based treatments, along with horehound and spice wood (sassafras) tea, used by Southeastern communities to treat smallpox, measles, and hives.[84] During the Spanish flu outbreak, many Indigenous communities drew on these plant-based medicines to treat their symptoms. For example, Mary Burge (Cherokee, b. 1899) shared the following story about her grandmother:

> I said, "Grandma, what you got that cedar on there for?" She said, "You burn cedar in the house and won't ever have the flu or bad cold." So, I decided I'm gonna burn it. So, I come back through the woods on way home. And I got some cedar and put it on the stove. So, everybody around had the [Spanish] flu that winter but us.[85]

Burge's personal narrative shows that cedar was part of an established set of medicinal practices used by successive generations of Cherokee people to treat various iterations of the flu.

This account also indicates that burning and inhaling smoke activated the healing aspects of cedar, a practice based on an understanding that power moved through the air, the concept that also explained the healing power of jingles. The important connection between air, smoke, and healing is echoed in a personal narrative shared by Kiowa tribal member Eugenia Mausape (b. 1882). In this account, Mausape describes how a traditional healer named Conklin Hummingbird used sweetgrass smoke to treat a community member who was sick during the Spanish flu pandemic:

> and he [Hummingbird] got these feathers with the hooks on [rattle or fan from the buffalo medicine kit with the buffalo hoof rattles]. He took it out and he put those grass, I showed you (the sweetgrass) and make smoke.... "Now, I'm gonna cut you right here (on his breast, just about the nipples).... It's real. You white peoples don't know. Indian know it. Pooh. Like that. He suck[s] him right here. [Makes gasping sound] Like that. He takes all the pain out. He said, "I took all the pain out, all sides." And he was laying down. And he said, "inhale it," he said. "Inhale it, brother." And he said, "Whew." Like that. He couldn't hardly breathe. "Inhale it." "Whew." "He's all right, now." See, he's good medicine.[86]

Burge's and Mausape's accounts demonstrate that elders and traditional healers play an important role as experts, despite colonial efforts to undermine Indigenous knowledge structures.

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Mausape's account of doctoring, in particular, speaks to the centrality of songs and prayers for healing. Unlike Western forms of medicine, which target the biophysical system, Indigenous remedies are part of a holistic treatment complex, which involves an auditory performance in the form of song or prayer accompanied by herbal medicines. Premised on a belief in the interrelatedness of all things, Diné leader Hosteen Tso exemplifies this integrative approach. Hosteen Tso used these methods to heal family members suffering from the Spanish flu: "He collected plants and cedar berries, boiled them with water in coffee pots, and administered doses to his wife and children. As he served them, he sang healing song, and when the medicine was gone, he gathered more berries and plants and repeated the process."[87] Diné individuals who took on communal healing responsibilities, like Hosteen Tso, were accorded a special status in society. According to Tiana Bighorse (Diné), "in Navajo, a warrior is the one that doesn't get the flu when everyone else does, the only one walking around, making a fire for the sick, giving them medicine, feeding them food, making them strong to fight the flu."[88] Bighorse's comments demonstrate how Diné people drew on an established cultural framework that emphasized the connection between collective responsibility and individual power—in this case the ability to survive the flu—to rationalize and treat the Spanish flu.

The importance of communal care in facilitating resilience is evident in many Indigenous narratives of the Spanish flu pandemic. For instance, when discussing the 1918 outbreak, Jess Rowlodge (Arapaho, b. 1885) talked about how all of his relatives and friends came to his aid: "they heard that I was sick. They give me six peyotes. Next morning a lot of cars, my brother, and some people from El Reno, came up, four or five cars came out. Brought food to eat. They heard I was sick. Friends, relations."[89] Rowlodge's account speaks to the connection between smoke, plant-based medicines, and healing, while demonstrating the central role of familial and communal relationships in ensuring survival in times of distress. Underlying the various healing practices documented by Burges, Mausape, and Rowlodge is a cultural framework centered on the redistribution of resources and social relations. This ethos is described by many Indigenous people as "a responsibility to care for all of our relatives."[90]

Reflections on Indigenous Resilience in the Covid-19 Era

This article has demonstrated that it is simply not the case that Native American "belief systems were not strong enough to cope with the social and psychological disruption brought about by the onslaught of European diseases."[91] Indigenous people drew on culturally grounded practices to ensure communal resiliency in the face of disease epidemics, including dreaming, dancing, singing, physical distancing, and medical treatment. While the ways in which Indigenous people responded to new diseases varied across communities and over time, these strategies share a common emphasis on communal responsibility, the animacy of the spiritual world, and a belief in the human capacity to access power and intervene in the physical world. The examples discussed throughout this article also demonstrate the role of the oral tradition in archiving disease episodes and communal responses.

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The various ways that Indigenous communities have addressed infectious disease outbreaks over time demonstrates the important role of collective solidarity in resilience. On a communal scale, social dances, and ceremonies like the *Itohvnv*, Ghost Dance, *Alowanpi*, and the Jingle Dress tradition were used to engender healing and heighten morale during disease epidemics. Traditional healers and relatives who made house calls to treat sick individuals with prayers, songs, and herbal medicines reinforced communal safety nets as well. Reflecting on these strategies of resiliency contextualizes the responses of tribal nations and Indigenous-led organizations to COVID-19.

There are a growing number of solidarity-building activities taking place during the current pandemic. For instance, in April of 2020 the Eastern Band of Cherokee Indians sent 5,000 N95 masks and approved $100,000 in funds for medical support to the Navajo Nation. Explaining these aid efforts, Principle Chief Richard G. Sneed stated, "we are blessed to not have many active cases in our community, and we are blessed to have the resources necessary to share with those not as fortunate as us. The Navajo Nation needs our help, and it is our duty to provide it."[92] Sneed's comments reference a shared ontological commitment to reciprocity and the importance of caring for the broader community.

Similarly, Pat Northrup (Dakota) has used Facebook to promote communal healing by hosting virtual Jingle Dress dances. Commenting on the role of the Jingle Dress tradition in engendering collective well-being, Northrup stated, "this isn't just an Annishinabe prayer. This is an 'all-people' prayer."[93] Invoking this now widespread powwow dance form, the #jinglehealing movement has drawn together Indigenous people from across the United States and Canada, creating an important sense of community in a time when physical distancing has strained social ties. This social media-based movement deliberately invokes the communal ethos that underpinned the dances' origins in the early twentieth century. As Brenda Child has argued, the jingle dress tradition was intended to rally "a communal spirit among Ojibwe people," a spirit that "sustains Indian people of diverse tribal backgrounds today."[94]

As the effects of the novel coronavirus on Indigenous communities continue to unfold, striking similarities in the location of the most susceptible communities are emerging. A public health service study conducted in 1919 indicates that Indigenous people living in remote areas of the American Southwest died from the Spanish flu at a rate of 4 to 6 percent. As reported by the Indian Health Service in February 2021, COVID-19 infection rates among Indigenous peoples document a comparable pattern, with the highest numbers of positive cases across the Great Plains, particularly Oklahoma and Kansas, as well as in Arizona, Utah, and Nevada.[95] These epidemiological patterns demonstrate the continued and heightened vulnerability of Indigenous populations living in largely rural states.

Historical parallels in infection rates draw attention to the past and present role of colonialism-induced poverty in intensifying the impact of pandemics on Indigenous populations. The deaths caused by the smallpox outbreaks of the seventeenth through nineteenth centuries were exacerbated by policies targeting the socioeconomic frameworks of tribal nations. For instance, in the contiguous United States the lowest population of Indigenous people as well as bison occurs at about the same time.

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Over-hunting and environmental degradation led to the demise of the two remaining buffalo herds on the Great Plains, decreasing the bison population to a mere 800 animals in 1896 from roughly 60,000,000 prior to 1800. Widespread starvation ensued across the region and constrained the ability of Indigenous people to cope with disease physically and socially.[96]

Settler colonialism has continued to negatively impact the socioeconomic well-being of Indigenous people into the twentieth and twenty-first centuries. Although originally perceived as a "socially neutral" disease, subsequent research on the Spanish flu has demonstrated that significant factors in determining survival were poverty and related effects such as malnutrition.[97] Much like the Spanish flu, Indigenous people are particularly vulnerable to COVID-19 due to higher rates of co-morbidities, malnutrition, chronic underfunding for health care, as well as the lack of adequate sanitation and in-home water services on many reservations.[98] Reflecting on the impacts of the novel coronavirus on the Navajo Nation, Council Delegate Amber Crotty stated, "this pandemic is shedding light on the disparities that have already existed and also the lack of federal funding to meet the demand of the health needs."[99] Crotty's comments draw stark attention to the need to augment and intensify existing public health efforts in order to address long-standing inequalities in health care caused by settler colonialism.

This broader history of infectious disease in North America reveals the various ways in which settler colonialism has created long-term disparities in health outcomes for Indigenous people. While this history should galvanize efforts to redress systemic public health issues, the disease response strategies documented in this article also demonstrate the resiliency of Indigenous communities in spite of structural forms of violence.

Acknowledgements

I thank the Radcliffe Institute at Harvard University for providing the fellowship time to write this article and Caleb Simons for his insightful comments and suggestions in its development.

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