"In Solidarity with Mother Earth"
Gender and Climate Justice in Indigenous Communities in the United States

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Chapter 1

Introduction

The modern environmental justice movement began with activism of communities of color in the United States in the 1980s. In 1982, the state sought to dump hazardous PCBs onto a landfill in a predominantly Black community, Warren County, North Carolina. The community’s direct action and protests were the first to spark a national conversation on issues of race and pollution and prompted the U.S. General Accounting Office to investigate such sitings nationwide. The resulting report found that 3 out of 4 commercial landfills were located in majority-Black communities[1]. The term “environmental racism” arose to describe this phenomenon after a 1987 report by the United Church of Christ Commission for Racial Justice showed that, even after accounting for class difference, race was still correlated with the presence of hazardous waste facilities[1]. Since then, the correlation has been backed up by other, more recent studies[2][3][4]. Issues of class—for instance, the lack of social and political clout needed to oppose pollutants in one’s community or the inability to move elsewhere due to lower rents in polluted neighborhoods—also factor into one’s exposure to environmental toxins[1]. So does the intersection between race and class—due to centuries of discriminatory policies, black Americans are still nearly three times as likely to live in poverty as white Americans[5].

More recently, activists and scholars in environmental justice have begun to address the topic of gender-based environmental justice[6][7]. Several recent environmental histories have focused on women’s contributions to the movement, women’s gendered and female bodies’ sexed interactions with the environment, and the role of women as mothers in shaping such contributions and interactions[8][6][9].
In the context of these developments in the field, and with inspiration from the ongoing #NoDAPL protests at Standing Rock against a pipeline near Native lands, I will discuss gender and the environment with a focus on indigenous communities in the United States. Chapter 2 introduces feminist epistemologies, specifically focusing on standpoint theory, and gendered and indigenous knowledge systems as examples of systems based on standpoints. In Chapter 3, I review some of the literature on gender and environmental justice, including gendered experiences of the environment and gendered standpoints in activism. Chapter 4 focuses on the #NoDAPL movement, analyzing the rhetoric used by indigenous activists and the importance of gender to their activism, concluding with a description of what I call “indigenous environmental exceptionalism.” Chapter 5 concludes by examining how gendered, indigenous, and scientific knowledges can interact with and learn from each other in science and activism.

First, a note on terminology: Issues of gender and environmental justice are complex to tackle, in part because of how our gendered and sexed interactions with the environment are linked but not identical. In this paper, I use the term gender to refer to the system of social constructions that categorizes people primarily based on their biological sex. I recognize and will discuss non-binary genders, though they are usually defined in relation to binary genders and implicitly to a binary idea of sex. I also recognize that sex and gender are different, but for many environmental activists, their experiences of sex and gender are inextricably linked, or seen as one and the same. Because the theoretical distinction between sex and gender is fairly recent, and because both the sex binary and the gender binary are socially constructed, I generally defer to the experiences of the activists I quote. This does not mean I agree with the views of sex and gender their statements implicitly endorse. This thesis explores in part how sex and gender influence one’s lived experience, and for some people, sex-based aspects such as motherhood are a vital part of an experience they perceive as their gendered one.

This also does not mean that men and women inherently have different relationships to the environment, or that we should essentialize and generalize people’s relationships to the environment based on gender. Rather, that gender socialization plays a large part in shaping people’s thoughts, experiences, and identities, in ways that can often be quite meaningful at the

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1. For the interested reader, I base these assertions on the work of historians of sex, gender, and sexuality, such as Jeffrey Weeks, John D’Emilio, and Nancy Cotto.
individual and community levels, creating some commonalities between all people of a certain gender. I argue for a critical view of gender roles and gender-based socialization, but one that nevertheless leaves room to appreciate lived experiences as gendered individuals.
Chapter 2

Gendered and indigenous forms of knowledge

In the United States, we are generally taught that the only way to produce scientifically valid knowledge is to use the Western scientific method, which focuses on empirical data and the separation of scientist from experiment as means to ensure objective truth. Science, in its search for truths about the universe, can be quite beautiful, but it can also be misleading in its self-assurance. Here, I discuss feminist critiques of Western science's claims to objectivity, then apply them to gendered and indigenous knowledges.

2.1 Feminist objectivity

Diagrams from a foundational statistics textbook[28], below, demonstrate the paradigmatic form of the scientific method\(^1\).

It owes much of its character to the work of Francis Bacon, a middle-class seventeenth-century English statesman who has been called the "father of modern science" for his introduction of the inductive method[31]. Ecofeminist Carolyn Merchant heavily critiques Bacon's ideas of objectivity and science and argues that much of Western science still follows his model\(^2\). According to Merchant, Bacon advocated the use of technology to

\(^1\)In my experience as a student of science, this method is certainly not followed step-by-step in real research facilities, but the general structure is, and it is certainly still taught as a rigid process even at the middle school level.

\(^2\)Leaving aside my disagreements with elements of ecofeminism, such as the nature-
capture, examine, and modify nature - to him, nature was most useful when “in constraint, molded, and made as it were new by art and the hand of man”[31]. By prescribing certain steps and rules, his method was intended to “level men’s wits and [leave] little to individual excellence”[30], separating scientific findings from the particularities of their finder. A basic principle of scientific study is the controlled experiment, for which scientists often must isolate a particular component of something to understand the whole. Bacon’s imagined research center anticipated this emphasis on mechanistic investigation. Separate parts of nature were studied in separate laboratories, and separate people executed separate steps in the investigations[31]. Though modern scientific institutions are not quite as piecemeal as Bacon’s ideal laboratory, the Western mechanistic worldview can be traced back to Bacon’s approach to science.

Feminist critiques of objectivity undermine several assumptions essential to the above conceptions of objectivity and science. Conventional objectivity strives to see truth as from a universal observer, one who has no race, no gender, no political or religious affiliation. Donna Haraway refers to this as the “god trick” - the illusion that there is some vantage point, above and distant from individual humans, from which everything can be seen. This way of thinking implies that the subject is distant from, and has power over, the object[29].

Bacon’s rhetoric helped to naturalize this distinction as well as make it gendered. Formed in a highly patriarchal society and amidst the fervor of the witch trials, Bacon’s descriptions of science echoed the values of their time, while simultaneously claiming to be value-neutral[31]. Bacon framed the scientist, the subject of knowledge, as active and male, and nature, the object of knowledge, as passive and female, restrained, interrogated, and

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gender link, in this paper, I find this critique in particular to be an illuminating one with respect to revealing the unspoken structures and assumptions behind what we call science.
ultimately obedient[31].

In addition to these epistemic consequences, a feminist perspective recognizes that objectivity’s lofty goal is impossible in practice. Science must be done by people, and people have beliefs and socializations that subconsciously affect their hypotheses and interpretations of data. Feminist critiques also challenge the idealization of value neutrality itself. Sandra Harding points out that "[d]emocracy-advancing values have systematically generated less partial and distorted beliefs than others"[30]. The traditional scientific method provides no way to account for this imbalance. Though processes of peer review and an emphasis on repeatability ensure that scientists verify other scientists’ findings, no process exists to systematically identify and question values held by the entire community or to question the particular viewpoints from which scientific problems and hypotheses arise[30]. When science was and is largely done by white men, and when the opportunities and education needed to join the scientific community result in most members being or becoming middle- or upper-class professionals[30], the viewpoint naturalized as scientific “fact” reflects only that of its privileged creators.

Even more apparent is the influence of funding on scientific research. While scientists ideally remain “objective” in their choices of which research to pursue and how to pursue it, realistically, they are constrained by what projects will receive funding from various university, state, and industry sources. The ramifications of this have come into sharp focus in recent years. In some cases, overt bribes bias scientific findings—in 2016, a review of internal industry documents revealed that the sugar industry had paid Harvard researchers to publish a biased review of dietary science, shaping the field for decades afterward[45][46]. In my own brief experience in scientific institutions, I have seen researchers rhetorically and literally shape their work to fit the desires of funders3. But even the most well-meaning and transparent scientists are subject to the pressures of the grant search, which itself is influenced by political climate. President Donald Trump’s proposed budget, as of this writing, slashes government funding for basic science grants and agency research, with climate and environmental sciences facing the broadest cuts, but deep-space programs receiving increased attention4[47]. Individual scientists themselves often claim to be apolitical, but the work they are able

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3As a student at a scientific institution, I certainly do not claim to be exempt from this phenomenon.

4A proposal that has scientists taking to the streets for the April 2017 March For Science!
to do, and thus the research produced by academia as a whole, is heavily influenced by the political realm, undermining the story we tell ourselves about an objective search for truth beyond sociopolitical concerns.

Feminist epistemologies range from those which openly recognize and seek to combat the various and sundry obstacles to a universal objectivity, to those which reframe subjective embodiment as an asset rather than an obstacle. Here, I draw particularly from Sandra Harding’s standpoint theory, first developed in *The Science Question in Feminism*, and Donna Haraway’s notion of situated knowledges, which critiques and extends Harding’s theory. Both of these theories, rather than seeking to minimize individual perspective, center on it. Their feminist objectivity makes no pretense of universality; rather, it actively uses partial perspectives as a ”systematically available scientific resource”[30]. For Haraway, this means recognizing one’s ”visual apparatus,” so to speak: just as physical view depends on eyes, so metaphorical view depends on positions in life. Locating our positions and particular modes of vision exposes them to examination, so that we are held responsible for what we see or know[29]. Harding’s standpoint theory prescribes several characteristics for the subject of knowledge, aside from being embodied: subjects are not different from objects, in that both are shaped by their social environment; knowledge is produced by communities, not individuals; and there exist multiple contradictory subjects, rather than a single universal one[30].

These multiple viewpoints, unlike in relativism, are not all equally preferable. Drawing from Marxism, Harding’s standpoint theory argues that the view from the top is partial and distorted, and it lacks the knowledge and ability to ask certain critical questions, let alone arrive at answers. Starting from the standpoint of the subjugated offers new research agendas and provides “more adequate, sustained, objective, transforming accounts” in its answers[30]. On the other hand, the ”universal standpoint” is incapable of this kind of objectivity, since it lacks the necessary embodiment. This does not mean that people in privileged groups cannot produce knowledge - all subjects ought to start by thinking from the marginalized standpoint, but both marginalized and privileged people contribute to the production of knowledge.

Haraway warns, however, that we must be wary of appropriating the vision of the marginalized or exempting that vision and its relations to power from critical inquiry. She describes situated knowledges as a ”power-sensitive conversation” between standpoints. Situated knowledges emphasize, rather than individual standpoints per se, the productive contradictions between
their knowledges: the value in partiality lies in its facilitation of webs of connections between varying positions, rather than a simplified linear logic of discovery[29].

The idea of a standpoint is echoed in many indigenous knowledge systems. While they existed long before Harding ever put pen to paper and do not explicitly draw on her theory, many of these systems similarly are structured based on the notion that certain people, by virtue of some facet of their identity, have access to specialized knowledge. In the sections that follow, I examine indigenous knowledges, particularly gendered indigenous knowledges, as a manifestation of a standpoint in scientific knowledge production and beyond.

2.2 Indigenous knowledge

Indigenous knowledge, or traditional ecological knowledge, lacks a formally agreed-upon definition, but is generally used to describe the knowledge an indigenous community holds, as opposed to that developed by a Western scientific institution. Roughly, it is knowledge developed by a community about their environment over time, as part of a “knowledge-practice-belief complex”[38][34]. The term is applied not only to indigenous peoples, but to any community producing knowledge about its local environment; sometimes non-indigenous local knowledges are classified under the broader term of local or traditional knowledge[38], but other authors treat these three terms as synonymous[34].

Because it is not developed according to the “scientific method” in an academic institution or industrial setting, a Western observer would not normally call indigenous knowledge “scientific”. Appleton et al argue that such knowledge “can be termed science, because it is generated and transformed through a systematic process of observation, experimentation, and adaptation”[34]. Berkes et al also note that scholars have disagreed over whether a dichotomy can be drawn between Western scientific and indigenous knowledges[38]. Regardless of whether a strict dichotomy exists, I believe that the two approaches to producing knowledge are different enough to warrant rhetorical separation, although the two are beginning to overlap through methods such as participatory action research. Here, I will use “scientific” to refer to knowledge produced in Western scientific institutions. I do not wish to imply that indigenous knowledges are not as valid as Western sci-
entific knowledges, simply to avoid rhetorical confusion and to recognize that
the current mode of doing “science” does not accept indigenous knowledges
unless they have been processed through one of said institutions.

I argue that indigenous knowledge can be read as an example of what
Harding calls the standpoint of the subjugated. Indigenous knowledge sys-
tems have existed since before colonialism, so they were not developed as a
subjugated standpoint; however, in the present context under various colo-
nial states, indigenous knowledge has become knowledge from a subjugated
standpoint. These knowledges are particularly critical with respect to envi-
ronmental and environmental justice issues. Because most indigenous cul-
tures and daily lives rely heavily on nature, as will be discussed in Chapter
4, they are “hurt first and worst” by environmental disasters. Indigenous
people are already facing the consequences of climate change, whereas most
of the United States, with the exception of areas hit by natural disasters, is
perhaps experiencing mild discomfort at present. Their firsthand experience
of the harms of climate change yields a firsthand knowledge of the prob-
lems and potential solutions. Their position allows them to ask questions
and arrive at answers that open up new and “more adequate, sustained, ob-
jective, transforming” knowledge about the climate and environment, with
implications not only for continued Native survival, but for global responses
to climate change. However, due to the legacy of colonialism, they often do
not have the resources to put these solutions into practice.

This principle does not only apply to indigenous people, but to the var-
ious subjugated standpoints of oppressed peoples. It has guided researchers
to work directly with communities impacted by environmental justice issues
in America. And it is echoed at the international level by the Global South
countries that are also impacted “first and worst” by climate change. Presi-
dent Mohamed Nasheed of the Maldives, a small island nation expresses this
idea to the UN summit in Copenhagen in 2009, which was meant to set a
global commitment to respond to climate change:

[T]he Maldives, without waiting for the outcome of the Copen-
hagen summit, recently announced its intention to become carbon
neutral by 2020. And why are we actively formulating a national
strategy to put the political commitment into practice? Ladies
and gentlemen, as I have made clear, the Maldives is determined
to break old habits. From now on, we will no longer be content
to shout about the perils of climate change. Instead, we believe
our acute vulnerable[sic] provides us with the clarity of vision to understand how the problem may be solved. It's very crystal clear to us. The objectivity to say that it is in all of our interest to aggressively pursue that solution, and the current and the determination to lead by example to walk the path ourselves.

In return, we ask assembled world leaders to discard those habits that have led to twenty years of complacency and broken promises on climate change, and instead to seize the historic opportunity that sits at the end of the road to Copenhagen. Please, ladies and gentlemen, we did not do any of these things. But if things go business as usual, we will not live, we will die. Our country will not exist. We cannot come out from Copenhagen as failures. We cannot make Copenhagen a pact for suicide. We have to succeed and we have to make a deal in Copenhagen. Thank you very much. [32]

The UN agreements are dominated by the larger, more economically powerful countries that hold more political power and have contributed more to climate-change-causing emissions; these countries generally have the least to gain and the most to lose from stricter regulations on climate. Their “partial and distorted” standpoint leads them to less ambitious climate goals than the more objective, by standpoint theory’s definition of objective, view from the “bottom”—from countries like the Maldives, whose very existences are at risk.

2.3 Gendered dimensions of knowledge

Of course, nationality and ethnicity are not the only dimensions of power. Under a feminist objectivity framework, I will next naturally consider the effect of gender on one’s standpoint.

As I have previously stated, I do not believe that women inherently hold different values, such as being closer to nature. However, gender as a social construct has material outcomes, shaping our lives and psyches as gendered beings. Of course, our experiences in gendered and sexed bodies are influenced by other aspects of our identity as well as our individual life contexts. But just as we say that, in broad strokes, the patriarchy disadvantages women and gives certain privileges to men, I believe we can also say that, in broad
strokes, women and men might develop different ways of looking at the world. I believe that this is borne out by empirical evidence in both scientific and indigenous knowledge systems, as I discuss below.

As such, I argue that gendered standpoints are an important piece of any knowledge system. Awareness of gendered standpoint is necessary in order to understand the origins of the knowledge we create and use. Further, regardless of a researcher’s individual gender, we must be wary of only viewing knowledge from the distorted perspective of the oppressor under patriarchy. Any method of producing knowledge without women, whether it be in research, policy, nonprofits, or otherwise, will lack the standpoint of the subjugated and thus may not be able to ask the right questions or arrive at the most complete answers.

Western science and policy spaces are both traditionally dominated by men. Cecilia Martinez, an environmental justice researcher and activist, observes that the environmental field is dominated by men and a certain masculine notion of success which de-emphasizes the needs of and risks to women, children, and communities[36]. Instead, men scientists focus on specializing in their field[36]; this approach to research, which privileges the study of pieces of nature defined by human-imposed standards at the expense of a holistic perspective, has roots in the ideas of Francis Bacon critiqued in section 1 of this chapter.

Organizations with insufficient representation of women consequently may not address women’s issues or perspectives. A study of municipal waste management in the UK, Ireland, and Portugal found that waste management authorities headed by older men preferred technologically-based strategies such as incineration, which itself leads to pollution, whereas those that employed more women focused more on recycling[7]. The failure of mainstream environmental groups such as the Sierra Club to fight for issues of racial and gender-based injustice has been attributed to their own unequal structures. Man-headed NGOs were even outright dismissive of any possible value of a gender-based analysis when interviewed directly[7]. In at least these instances, women and men did approach environmental issues from different standpoints and arrive at different answers.

To my knowledge, there has been no more general study of men’s and women’s contributions to environmental groups; further, the question of why men prefer specialized to holistic science, or incineration to recycling, in these particular instances or otherwise, is far outside the scope of this paper. An interesting direction for future work would be to either zoom out, examining gender-based trends in environmental groups more gener-
By contrast, in many indigenous communities, different genders hold different but equally respected responsibilities. Vinyeta et al describe that in some cases, the gender follows the type of skill and knowledge a person has, rather than vice versa[18]. A project by the Intermediate Technology Development Group examined 22 case studies of women’s technology knowledge internationally. They found that women’s knowledge tends to be concentrated in the domestic sphere, and process-oriented rather than hardware-oriented, both of which contribute to their “invisibility” in discourses around indigenous knowledge[34]. Appleton et al list examples of situations in which indigenous women’s knowledge was either ignored or co-opted, to the detriment of the local community[34].

The following chapters will analyze the role gendered and indigenous standpoints have played in environmental justice movements, with a focus on #NoDAPL.

ally, or to zoom in, examining individuals’ perspectives and motivations and how they are shaped by gender. The fact that this gendered divide exists, and reflects general trends of gendered socialization in Western societies, indicates to me that at the very least that organizations that do not include a women’s standpoint run the risk of failing to see certain perspectives.
Chapter 3

An Overview of Gender and Environmental Justice

3.1 A brief history of gender in the environmental justice movement

While as discussed above, most of the modern environmental justice movement in the United States has focused on race/ethnicity and class, gender has been important to both the environmental justice movement and the mainstream environmental movement. The environmental movement of the 1960s was catalyzed by Rachel Carson’s book *Silent Spring*, and much of the mainstream environmental movement was driven by white, middle-class women. The connections between environmentalism and feminism gave rise to ecofeminism as an academic theory and an activist and community practice.

Within the environmental justice movement, gender has been important to activists in race/ethnicity-based struggles, and has, on occasion, motivated struggles based on gender. I focus on a few key cases and highlight how gendered standpoints have informed activism in these cases.

Women, whether rightly or not, have long been associated with motherhood and nature. Modern environmental activists have capitalized on this association, whether as a strategic choice or because of their lived reality as mothers; as those who spent the most time in the home, they were often the first to notice environmental problems affecting home and family. One woman, Hazel Johnson, was dubbed “Mother of the Environmental Justice
Movement” for her early activism. Johnson, an African-American woman, founded a community organization for residents of Altgeld Gardens, a low-income housing community built for African-Americans in Chicago in the 1940s. She founded People for Community Recovery, which advocated for repairs to leaky ceilings and contaminated water, trips for children, community parties, and other domestic affairs. In the 1980s, she and other community members were galvanized to wider action by the deaths of four children to cancer, eventually winning safer sewer and water lines and catalyzing a nationwide conversation around environmental racism[9].

Motherhood also played a prominent role in the Love Canal protests of the late 1970s and early 1980s, in which homeowners and families demanded relocation after discovering that their homes were built on a toxic waste site. Images of and quotes from Love Canal activists provide more insight into their often-maternal motivations.

“I'm not saying that men can't do the job. But I think that women have an advantage in this case. We can look, not only with our eyes, but with our hearts. We know whose children have birth defects.... We have so much more personal contact day-to-day than the people who are on the [all-men] board now that we could do a superior job.”
- Barbara Quimby, Love Canal resident [9]

"Those government people are just walking all around that little girl. Lois [Gibbs] is just this little skinny girl and she can't handle it. She's got to get up there and tell them to go screw themselves... [That kind of assertiveness is] for a man to do”
- Charles Bryan, Love Canal resident [9]

Lois Gibbs, a working-class white mother, connected her son’s health problems to the toxic contamination of the land on which his school was built. She and other full-time mothers and homemakers rejected the feminist movement of the time as antifamily, instead using their own motherhood as a site of political activism[9]. Their connections to the community and their concern for their children, they argued, made them better leaders and activists, and they capitalized on media attention to their maternal rhetoric by holding a protest on Mother’s Day[9]. In one photo, Lois Gibbs and two of her children at a protest against the lack of safety measures for contaminated
land in the Love Canal neighborhood. Her daughter holds a sign reading “Will I be able to have a normal baby,” whereas her son’s asks “Will I live to see age 7”. Even at their young age, the children’s rhetorical place in the movement is assigned based on gender—the young girl’s future motherhood is threatened, whereas the young boy’s life is.

Men in the movement, on the other hand, were more concerned about economics, debating the efficacy of union-based picketing and remedies intended to fix property values. Most of these men were the breadwinners of their families and worked in the local chemical manufacturing industry; some
were concerned about the risk to their jobs that protesting posed. While maternal rhetoric united white and black women in concern for their children, it also encouraged white activists to gloss over the experience of poor African-American single mothers, who shared men’s concerns over economics.[9]

Just as mothers were often the first to notice environmental issues in the home, they were also often the first to be blamed. The Western gendered division of labor assigns autonomy to men and care for others to women; whether through natural differences or through socialization, women develop a greater affinity for caring for others, justifying their responsibility for the domestic sphere[10]. Poor urban homes in New York City became the site of conflict over the relationships between public and private, when, in 1997, a study published in a prominent journal found that cockroaches were the likely cause of children’s asthma, leading to the assumption that the mothers’ poor housekeeping practices were at fault. As a result, asthma prevention programs routinely involved home inspections to evaluate a mother’s housekeeping and gave her tips on how to improve. However, activists have called attention to the way in which this assumption relies on stereotypes about poor women of color as inadequate mothers and fails to recognize the role of pollutants outside the home[11].

We relate to and experience our environment in ways that are shaped by gender, and examining the rhetoric of the activists above shows clearly that gender and gender roles play an important part in their motivations for activism. As in the case of the New York housekeeping study, these gender roles can be used to place burdens and blame on women; however, as in the case of Love Canal, these roles can be used to benefit and empower environmental and other activism.

3.2 Gender and climate change

As the effects of climate change become greater, environmental justice expanding to not only include pollution and traditional point-source environmental harms, but also the differential local impacts of global climate change; climate justice is the term used to refer to ongoing work around the human impacts of climate change, and in particular, fighting the disproportionately high impacts of climate change on marginalized groups such as people of color, the Global South, and those living in poverty. The intersection of gender and climate justice is less well-studied; international policy organiza-
tions are increasingly recognizing that, due to gender roles and gender-based subjugation, women are more vulnerable to the effects of climate change[18]. Gender largely affects experiences of climate change—both vulnerability to its effects and agency to fight them—via its effect on other dimensions of privilege, such as gendered labor divisions, economic and political power, and vulnerability to violence.

Climate change directly impacts agricultural productivity, and because in most cultures women are responsible for farming, women’s livelihoods are endangered[44]. Women in developing nations also often bear the responsibility for fetching water for their families; as climate change spurs droughts and receding glaciers, water sources become fewer and farther between, reducing the amount of time women can spend on other responsibilities or on supporting themselves[44]. In many cultures, the responsibility of caring for the young and elderly also falls to women; during a natural disaster, they may protect their family members at the cost of their own safety[18].

Women also comprise the majority of the world’s poor[43]. Thus, more women lack the resources, both financial and information, to adequately adapt to climate change. In patriarchal societies where women hold less political power, they are also unable to influence adaptation programs to address their needs[43]. Lack of resources and power also exacerbate any pre-existing vulnerability to natural disasters[44].

The disparity in vulnerability between women and men appears to be entirely a secondary effect of women’s subjugation globally. The underlying problem in each of the above vulnerabilities is not unique to climate change and gender, per se; rather, it is a pre-existing gender role. When economic and social rights are fulfilled for both sexes, the same number of men and women die in disasters[44].

Women’s particular roles in society also offer them power in addressing climate change. The United Nations’ fact sheet on women and climate change, which argues for gender-sensitive responses to climate change, lists several types of climate change responses—energy, adaptation technology, financing, emergency measures during natural disasters—and the impact of gender-sensitive planning. The UN’s account of opportunities available to women in each of these gender-sensitive responses parallels that of their vulnerabilities: the benefits and potential for impact arise from their particular gendered roles: responsibility for agriculture and therefore biofuel, lack of access to information about technology, gender disparities in economic resources and social networks, and poverty and vulnerability to gender-based
violence, respectively.

Stacy Alaimo, in a critique of the vulnerability-based discourse around women and climate change, additionally argues that climate change is inextricably linked to masculinity in two ways: the aggressive, hypermasculine overconsumption of the United States, and the “masculine hegemonic subjectivity” through which both men and women claim agency over nature; Alaimo’s critique moves beyond the gendered roles of individuals and into the gendered ideologies that shape our actions regardless of individual role. While keeping a distance from the woman-nature association that has been “for the most part quite detrimental to women”, Alaimo argues that it is “commonsensical” that environmentalism needs to “forge nodes of agency that are not predicated on transcending ‘nature’”.

It is not necessarily “commonsensical”, as Alaimo asserts, that environmentalism ought to promote “ecosystems and natural creatures ... not as mere ‘resources’ for human use, but as truly valuable in and of themselves”.[42]. Further, it is not clear whether Alaimo, in critiquing “masculine” modes of consumption, implicitly argues for more “feminine” ways of viewing our relation with nature. While Alaimo specifically argues against “entrench[ing] gender polarities”, specifically in entrenching the idea that women are inherently more vulnerable and less agentive in climate change responses, they base their critique on explicitly gendering particular ideologies of consumption and relations to nature.

Alaimo’s critique, in my view, raises not only the idea that women are, and should be portrayed as, agents of change in responding to climate crises, but also the idea that femininity as an identity and ideology, not simply as a role, can be a powerful source of that agency. It is indeed difficult to draw this connection without falling into essentialist rhetoric about women. I argue that gender roles are social constructs, but just because they are social constructs does not mean individuals cannot find them to be powerful forces, for bad or good, in shaping their identities, lives, and motivations. As such, I would extend Alaimo’s argument by claiming that a socially constructed feminine ideology around nature and consumption should replace the masculine one they critique. One example of the importance of femininity in individual activism is discussed above, in section 2.1, on the motivations of mothers in the environmental justice movement. Chapter 4, which discusses gender in the #NoDAPL movement, will provide a more detailed example of feminine ideologies as a motivation for individuals to protect the environment and their communities.
It is of course important to remember that this section addresses only extremely broad generalizations about women and climate change. A gender binary with men as the more powerful class exists in most societies, which leads to many of the disparities in vulnerability described above. Unfortunately, much less attention in policy and literature is paid to the possible vulnerability of non-binary or non-heterosexual people, even by feminist organizations[42]. However, any attempt to address these disparities, or to build resilience to climate change in general, must examine the local context for an intervention—gender roles, the impact of climate change, and their interaction vary from place to place and society to society. The remainder of this thesis will focus on indigenous communities in North America—while they are certainly a diverse and heterogeneous group, they share many common themes that are particularly relevant to issues of gender and the environment.

3.3 Gender and environmental justice in indigenous communities

Indigenous communities are also affected by environmental justice issues. Nearly a fourth of Superfund sites, the EPA’s designation for hazardous waste cleanup sites, are in "Indian Country"[18]. Many of the most egregious examples of environmental injustice involve extractive industry on Native lands. During World War II, the Navajo Nation welcomed the United States government and private corporations onto their land to open uranium mines, hoping for jobs for Native workers and a higher standard of living. Approximately fifteen thousand Navajo men worked in the mines, often pushed to do the most dangerous tasks by their white supervisors. These workers, and the families to whom they carried their radiation-contaminated clothes, suffered from high rates of lung cancer and other radiation-associated diseases[9].

A common thread among indigenous cultures in the United States is a closeness to and reliance on the natural environment. As climate change is already impacting these environments, indigenous communities are at the frontlines of climate change’s effects. Vinyeta, Whyte, and Lynn offer a comprehensive and current review, published in December 2015, of issues of gendered vulnerability and resilience to climate change in indigenous communities[18], which I feel no need to repeat. In the next chapter, I
focus on analyzing a recent indigenous environmental justice issue, the fight of the Standing Rock Sioux against the Dakota Access Pipeline.
Chapter 4
A Case Study of Standing Rock

4.1 Background on the NoDAPL movement

An ongoing, as of this writing, struggle over environmental justice and indigenous sovereignty, and the most high-profile in recent memory, is the fight of the Standing Rock Sioux tribe and allies against the construction of the Dakota Access Pipeline, or DAPL. This month marks one year since a protest camp was set up to block the pipeline’s construction. The pipeline’s planned route crosses under the Missouri River—depending on the account, either within 1,500 feet of Lake Oahe, the Standing Rock Sioux’s water supply[12], or directly underneath it[13]; protestors, or "water protectors", argue that a leak would thereby endanger the water supply of themselves and the 10 million people downstream[12], as well as crossing sacred burial grounds[13]. They argue that this plan was racially motivated, part of a larger devaluation of Native lives by the United States government—an earlier plan to route the pipeline through Bismarck, which is 92% white, was rejected by the US Army Corps of Engineers because of concerns that it could harm the municipal water supply[12], but that same entity has approved the current plan with a "Finding of No Significant Impact"[15].

The protest started with two women setting up an encampment on their land, the closest to the proposed pipeline, and eventually grew to be the largest gathering of Natives and allies in more than a century, with more than two hundred tribes and non-Native allies, including traditional environmental organizations, for a total of about fifteen thousand people[13][12][14]. While the “water protectors” are almost always peaceful, using nonviolent
direct action tactics that block construction, the National Guard, security contractors, and militarized state and local police forces have used pepper spray, attack dogs, rubber bullets, tear gas, tasers, and more physically violent methods to disperse protestors[12][13].

The Standing Rock protests garnered an incredible amount of national and international media attention, attracting supporters from all across the globe. However, I think it is regardless important to recognize here that the Native organizing at Standing Rock builds on decades of intertribal organizing in the past which was not visible in the mainstream. Nick Estes, a member of the Lower Brule Sioux, links the indigenous climate justice movement to the radical American Indian Movement of the 1960s and the International Indian Treaty Council in 1974, which was “fundamental” in the drafting of the UN Declaration on the Rights of Indigenous Peoples. Kyle Powys White, a Potawatomi scholar and activist, traces a “global indigenous movement” arising in the 1970s that is now the “largest non-State participating sector in the United Nations”, which has made possible some of the “heightened attention” on NoDAPL[13].

While individuals’ reasons for traveling to Standing Rock are many and varied, and this paper does not claim to be an exhaustive or statistically accurate study, the words of those on the ground at Standing Rock illuminate some general motivations.¹ Four common themes appear in many activists’ descriptions of the #NoDAPL fight—the historical and continuing oppression of indigenous people, the importance of spirituality, and the value of traditional gender roles, and the relationship between indigenous people and the environment.

¹I believe that the movement at Standing Rock is important and timely, but I am conscious of my own position as a non-Native person addressing these issues. As such, I rely heavily on quotes here in order to allow Native activists to speak for themselves as much as possible. However, I acknowledge that I am obtaining these quotes from interviews conducted by other people, and that I have selected these quotes based on my argument, and that there is no way to remove my own bias as a writer and researcher from this analysis. I aim to center the voices of indigenous activists, but the best way to do so is to direct my reader to the sources.
4.2 Connecting NoDAPL to the historical oppression of indigenous peoples

Many activists see the fight against an oil pipeline at Standing Rock as another battle in the continuing war by the American government and corporations on indigenous people. In a request to the Justice Department to investigate civil rights violations against activists, Dave Archambault II, Standing Rock Sioux tribal chairman, wrote: “This country has a long and sad history of using military force against indigenous people - including the Sioux Nation. When I see the militarization taking place in North Dakota against Indian people, I am genuinely concerned.”[12] Harry Beauchamp, a 63-year-old member of the Assiniboine tribe in Montana, said “I’m not going to let this be another Wounded Knee.”[12]

But this war against indigenous people constitutes more than physical force or military clashes. Many Native people conceptualize colonialism, attacks on the environment, the seizing of Native lands, and physical violence as different faces of the continuing oppression of indigenous people.

We’re in a war. How did this happen? I did nothing wrong. I have a right to say “no.” I have a right to live in my own country, on my own land.
- LaDonna Allard, owner of the land on which Sacred Stone Camp is built[12]

But it’s okay if it poisons Natives’ water, right? It’s disgusting what happened to my people, bro, and we’re still being treated that way.
- Chanse Adams-Zavalla, 22-year old man who grew up on the Maidu reservation north of Santa Barbara, CA[12]

So many of us got into our cars and just drove to North Dakota because we all know what it feels like to see this massive oil industry and what they can do to our communities. No matter where you are in the world, indigenous people talk about the same problems. They talk about fossil fuel projects coming in and destroying their homelands, threatening their drinking water, threatening their future, again, and again, and again ... Standing Rock has become for indigenous people this moment where they
are all standing together because they all know what happens when something like this is allowed to happen to them.
- Tara Houska, Fond du Lac band of Lake Superior Chippewa, national campaigns director of Honor the Earth (indigenous women-led group)[13]

A lot of my youth was spent trying to understand why native people represented every negative statistic in Canadian discourse, why we were so marginalized in our homeland. And all the pathways led to the same story: the economy is fundamentally based on the subjugation and dispossession of indigenous people.
- Clayton Thomas-Muller, Colomb Cree First Nation, Stop it at the Source campaigner with 350.org[13]

Some observers argue that the protestors have no right to interfere with pipeline construction, and thus that militarized force is a necessary and justified response; others say that the protestors initiated violence. Those at Standing Rock, however, have a more expansive view of what constitutes violence. The United Nations’ definition of genocide includes “Forcibly transferring children of the group to another group”[48]; some Native activists expand this to the general destruction of culture and way of life:

Genocide is the killing off of our race of people and that’s what it’s doing by eliminating the buffalo, by eliminating the salmon, by eliminating our way of life, by taking and kidnapping our children and putting them into child services, so they’re not raised with their - with who they are.
- Kanahus Manuel, at Standing Rock women press conference[17]

Dakota Access knowing and intentionally and willingly got the GPS coordinates for a sacred site and went out there and skipped over 15 miles to destroy that sacred site - on Friday it was there and on Saturday it was gone. And they did that to us. They are the violent aggressors.
- Kandi Massett, at Standing Rock women press conference[17]

Others draw a direct link between fossil fuel infrastructure, pollution, and potential fatal health impacts as violence:

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[W]hat happens when you’re left with nothing and the choice is a pipeline goes through this waterway and we all know every day there are hundreds of spills. What does that mean? What kind of violence is that to the people who need to drink that water to live? it means there is death, and that’s violence.
- Palmater [13]

Under this view, even the occasional violent act or equipment destruction by protestors is a response to ongoing colonial violence against Native peoples. Native organizers in Boston are quick to remind us that if we support Standing Rock, we should also be supporting local Native activism.

### 4.3 Spirituality at Standing Rock

Spirituality is deeply integrated into the Standing Rock camps and protests. As the leader of the Rosebud camp, Clarence “Curly” Eagle Hawk, describes the gathering: “These are all prayer camps. All the songs you hear are prayer songs.” [14]. Miles Allard echoed the stance of many others on the power of prayer, stating that “The only way we’re going to win this is by prayer. If we use violence, we will lose.” [12] Meetings of the Medicine Wheel Solidarity Network, the Native-led group organizing #NoDAPL solidarity efforts in Boston, always start with a prayer led by one of the Native organizers; so do their street rallies.

Many refer to the “black snake” prophecy, a Lakota or Sioux prophecy that predicts that “a black snake will come to destroy the world at a moment of great uncertainty” [12][13]; “black snake” has essentially become synonymous with “pipeline”. The “seventh generation” prophecy predicts a turning point when indigenous people, led by young people free of the colonial mindset, take back rightful stewardship of the land [13].

The pipeline itself, activists claim, runs through a sacred burial site. LaDonna Allard expresses the shock and outrage of many: “They buried medicine in this ground, this is a sacred site. This is where we had our sun dances … This is a very sacred place, how can you do that?” [17]

Visitors to camp often find spiritual meaning in their experiences. Teenager Darren Cross recalls that “A couple nights ago we had a chanupa ceremony in our tent … (I witnessed) the power of prayers”; a middle-aged African-American woman, Dinea Evans, also says that she “got back in touch with [her] spiritual roots” [22].
4.4 Gender at Standing Rock

Similarly to Western environmental activists, Native activists and allies at Standing Rock draw meaning from gendered roles and relations to the environment, but also must contend with the way in which those roles and conflict with Western conceptions of gender. Activists see the pipeline's construction as particularly harmful to women, but gender influences the activism of people of all genders.2

At a press conference of women activists at Standing Rock, many of the panelists addressed the specific impact of the pipeline on women, often close to tears as they described gendered violence. Tara Houska, national campaigns director with Honor the Earth as well as an indigenous rights attorney, argues that “[Women] bear the brunt of the human costs of these projects. There are several man camps right around this [...] Because of the system in place, we’re actually unable to prosecute and protect our people just like any other citizen of this country.”[17] “Man camps” is a term used for the temporary housing for pipeline construction workers; these have been associated with increased violence on Native reservations. Kandi Mossett, the panel’s moderator and a member of the Indigenous Environmental Network, later tearfully recounts her tribe’s experience with said “man camps”:

I don’t think a lot of people understand where this oil is coming from, in the Bakken formation. The shale that is here in North Dakota that started in my community where, when it came around 2008, we saw violence against women increase by 168%. And I don’t even know if you can wrap your mind around what that means but like, women started getting raped, there was sex trafficking happening, when all of these man camps came, thousands of men from around the world came and camped in our backyard, and some women, some kids, twelve, thirteen, fourteen, fifteen, sixteen year olds willingly went into man camps thinking that they would, maybe get paid for services, and most of them were just raped with no way to help them legally. And then they,

2In this discussion, for the most part, I will not separate gender and sex, because many of the activists emphasize giving birth as part of their experience as a woman. I do not wish to imply that only women can give birth or vice versa, simply to accurately reflect the rhetoric used by these Native activists on the ground. I also recognize the vast gender diversity in many Native cultures; however, I did not see it mentioned in these accounts.
they got even more crazy, they started trying to kidnap our kids from our elementary schools... [17]

Mossett is at once warning those at Standing Rock what could happen to their community, and afraid that DAPL’s construction will exacerbate the violence in her community. She also connects this violence to Native poverty. More than 1 in 4 Native people live in poverty[12], which Houska attributes to “constructs that [the United States government] placed on us [that mean] we cannot economically develop in the way that others can,” the seizure of ancestral lands, and a continuing lack of funding from the federal government[17]. Mossett’s story highlights the desperation of women and children who tried to turn to sexual services as a means of making an income.

In a statement read to the panel by Mossett, Jaslyn Charger, founder of the International Indigenous Youth Council, connects gendered violence to violence against the earth:

We have a direct connection to what is happening to the earth, we face it every day, having things forced upon us in our daily lives. We know how she feels and we can, sorry, we know how she feels and we can have the connection with her. We know what it feels like to have things pushed upon us without asking. and we stand in solidarity with her, Mother Earth, because we had enough”[17]).

Many theorists and activists, particularly ecofeminists, have linked women’s vulnerability to that of the earth. Charger uses this link as a motivation for activism and for women’s special place in environmental work.

Despite their vulnerability to violence, women are also empowered by their gender. Kanahus Manuel, who introduces herself as “an indigenous land defender, a mother of four”[17], uses birth as a form of resistance against a colonial government: “As a mother, I have given birth to four freedom babies, I have delivered all four of the babies myself at home, I trained myself in traditional midwifery and I never registered my children with the Canadian government,” she says to loud cheers from the audience[17]. Motherhood also is a motivator to activism for LaDonna Allard, who says the pipeline’s route would place it right next to her son’s grave. As a mother, she feels a duty to stop the pipeline because of this: “I’m a mom, and so just like any mom, I gotta go to my children ... who would build a pipeline next to my son’s grave?”[17]
Paula Gunn Allen, a self-described “half-breed” American Indian woman, writes about the differences between the Western or Christian ideals of women that dominate in the United States, and those from her own upbringing as a Native woman. In her experience, Western ideals constitute a domestic housewife ideal—quiet and subservient to her husband, but taking pride in her work as a homemaker—whereas images of women in Native cultures, and women in her own family, were all powerful in various ways[16]. She writes separately that “In many tribes, the nurturing male constitutes the ideal adult model for boys, while the decisive, self-directing female is the ideal model to which girls aspire.”[18]. LaDonna Allard echoes this sentiment: “The first thing I’m going to say, I want everyone to know that I come from a long line of big-mouthed women. (audience cheers) I come here with my mom and my grandmother and my great grandmothers and so I do not come alone. And I have my granddaughter with me.”[17]

Women, in their role as “caretakers of our nation”, also connect the issues surrounding DAPL to other struggles they fight in their communities. According to Manuel, “It’s all connected, and we’re dealing with child apprehension issues, we’re dealing with meth in our communities, alcohol in our communities, addiction, abuse, displacement from our territories, being stripped of our homelands. Those are the frontlines that many of us battle in our communities just by being mothers and being caretakers of our nation.”[17]. Kandi Mossett, when talking about the “man camps” as quoted above, moved directly into a discussion of the heroin addiction in her community: “I buried two friends that got addicted to heroin because we have organized crime in our community. Organized crime follows the money, so there’s all of the social impacts that people don’t necessarily know about.”[17] To her, the sexual assaults and the addiction problems are not unrelated problems—they are both caused by the disruption of the oil industry in her community.

Women in Native cultures are said to have a special connection with the earth and with water in particular, because they give birth. Several panelists drew this explicit connection:

I would like to take everybody back to the beginning of contact, when the Taino people, the Taino territories in the Carribean, when the Spaniards came, they would cut the babies out of the womb of the mother. And this is continuing to happen and has continued to happen since contact. And now we are fighting
the same battle against resource extraction, again, cutting and ripping the babies out of the womb of the mother. Life, our life force, our water, it’s the spiritual connection that indigenous women and women in general around the world will feel for the earth because we birth babies. We have a direct connection to this baby, to the beginning of time.

- Kanahus Manuel[17]

When you destroy the water and contaminate the water, there’s no way of getting it back to the pristine state that it once was since the beginning of creation, since we were gifted with that sacred medicine of the water. I’m a traditional midwife as well so I know the sacredness behind the water that the babies will live in. The first times of their life is in water.

- Kanahus Manuel[17]

The water, the water is female, the water is us. We have to protect the water. Just like the women who bring children into this world, we bring children into this world to live. If we stop bringing children in this world, we die. If we stop protecting the water, we die.”

- LaDonna Allard[17]

It is something that I’ve just been drawn to as a woman because of our connection to the earth as a life giver.

- Jaslyn Charger (in a statement read during the press conference)[17]

Women are the keepers of the water, men are the keepers of the fire, we have that balance between us and that balance is something that this government is trying to destroy.

- Kandi Mossett[17]

Whether it’s about the Keystone XL pipeline, [proposed Canadian pipeline] Energy East, uranium mining, mountaintop removal, it all affects water. We start life in water, in the womb.

- Joye Braun[19]

In fact, many accounts of Standing Rock emphasize that women activists are in the lead. Allard, who with another woman founded the Sacred Stone
Camp on her land, recalls that “I listened to the chairman and all the men talk, and when everybody was done talking, this woman stood up and said you know, we fought XL pipeline, what do you guys think about building a camp?”[17]. Charger recounts a Native activist run from Omaha to Washington DC in which “it was mostly women and young children and grandmas running for their lives. There were almost no men. Why was that? It’s because we women understand what’s going to happen. We understand what is going to happen because it’s going to happen to the children and to the women first”[17]. Mossett recalls the first conflict at Standing Rock, in which women led a charge to shut down construction machinery:

The very first altercation that we have, you can see all the flags all along the fence. That was where they first came in and tried to build this line and it was women who ran through the fence. I remember there was a woman, she was like ‘lalalalalala’ and she ran out into the field and I was like oh my god look at her go and she jumped up on the machinery and the guy was like ‘whoa whoa hold on let me shut down’ and he shut down and walked away from his equipment and pretty soon a bunch of women and children came in through the fence! It wasn’t like that was planned but it happened.[17]

Gender also provided a way for Native activists to (attempt to) connect with non-Natives outside the camp - Mossett, laughing, mentions an eventually unsuccessful petition asking Ellen DeGeneres to join the gathering at Standing Rock because “she has a huge audience and she’s a woman”[17].

The way men experience activism and the struggle at Standing Rock is also colored by gender. Michelle Garcia examines the manifestations of Western and Native concepts of the “warrior” among men at Standing Rock. In Western culture, the warrior is associated with violence, particularly for non-white men, a stereotype that Native men must contend with—Sonny Ironclad, a 25-year-old Standing Rock Sioux member, recounts a time in which he and other Native men rode on horseback to a law enforcement barricade and police felt nervous and threatened despite their lack of weapons. This messaging is also internalized by Native men; Chris Hardeen, a 27-year-old Navajo, describes how he joined the Marines searching for a way to become a warrior, but realized he was merely a “warrior for the government”, returned home, and discovered a more spiritual warrior life through prayer and speaking with elders. At a water ceremony celebrated by women, men
participated by giving their presence and support, not physical strength or help[20]. Manny Lieras, a part Dine’ and Comanche Native youth organizer, notes that he saw many young men develop a “new sense of self and purpose”; in particular, those who had been living in mainstream white society previously had a “lack of instruction or guidance about what being a warrior means, but out there, it was very clear”[21].

While of course gender dynamics differ from tribe to tribe, these accounts align well with Vinyeta et al’s description of common concepts of gender in indigenous communities: men, women, and two-spirit or non-gender-binary people held different roles in society—for instance, the concept of women as water protectors—but were treated with equal worth[18]. As mentioned above in a quote from Kandi Mossett, women’s role as keepers of water was balanced by men’s as keepers of fire. Part of European colonialism involved stripping indigenous women of their power in order to fit indigenous communities into European models of the family and society[18], just as Mossett says the government is trying to upset the balance between water and fire.

4.5 Indigenous environmental exceptionalism

While many indigenous activists connected women to water, above, they also assert that indigenous people generally have a strong connection to the earth compared to other peoples, a mindset I will call “indigenous environmental exceptionalism”. As Eriel Deranger, member of the Athabasca Chipewyan First Nation in Canada and founder of Indigenous Climate Action, explains:

[W]e occupy 80 percent of biodiverse regions that are left on the planet, and we are also on top of, or adjacent to, 85 percent of the world’s conservation or protection zones. None of this is a coincidence. This has to do with the fact that our very existence, our values and cosmology as indigenous people, is intrinsically linked to the land, to the water, to the air, to the biodiversity, to the flora and fauna. It’s our connections to those things that allow us to have solutions to how not only to protect and preserve them, but also to ensure the future will always have them. And those things are critical and essential for climate stabilization.[13]

This view is in opposition to the Western view of nature, which, according
to theorists like ecofeminist Carolyn Merchant, seeks to divide nature into parts in order to understand and utilize its resources. According to Robin Kimmerer, member of the Powatomi tribe, plant ecologist and director of the Center for Native Peoples and the Environment at the State University of New York, Syracuse:

Native people are catalyzing a very critical examination of the mechanized industrialized worldview. This is a long time coming. People are starting to pay attention, because they are starting to understand that these questions about how to live sustainably or deal with climate change are bigger than what policy and technology can solve.[13]

Explaining the Native worldview, he continues:

[I]nstead of talking of natural resources we talk about gifts and how we can pay back for those gifts. Is land really a source of materials, of property and natural resources? Or is there another way of looking at it, in which land is understood as a living entity, as the place where we enact our moral responsibility? I think many people are asking similar questions now.[13]

Others portray the connection as a spiritual one. Kanahus Manuel’s activism at Standing Rock and otherwise, she says, is motivated by Native peoples’ continuing loss of this spiritual connection to nature.

I come here because I cry, I cry for beasts, I cry for the buffalo, I cry for the buffalo nation, I cry for the people that have lost something so powerful and strong, that soul food that nourishes the nation, and I think about our salmon...[17]

Because of this mindset, some Native people argue, as Deranger does above, that Native people are in a special position to protect and preserve the environment. Some activists claim that Native people have always been at the forefront of environmental movements. Pam Palmater, member of the Eel River Bar First Nation in New Brunswick, spokesperson for the Canadian indigenous rights group Idle No More, and the chair of Indigenous Governance at Ryerson University in Toronto says that when it comes to protecting the environment, “indigenous peoples have always been in the lead;

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3 See chapter 5 for a more detailed discussion.
it’s just that mainstream media didn’t cover it unless there was a dramatic blockade or protest”[13]. At Standing Rock, Kandi Mossett echoes the same view: “Native people have never changed our story, we’ve been saying it for over five hundred years, this is how we need to live on the planet so listen to us!”[17]

I believe that it is undeniable that indigenous cultures, as a whole, promote a more healthy and equitable relationship with the earth than modern Western culture. However, I would like to respectfully contend that it is inaccurate and harmful to generalize the Native relationship with the environment as uniformly harmonious. In doing so, we prevent ourselves from addressing the many times in which Native people were at odds with the environment, and from critically examining the potential essentialism in portraying Natives as closer to nature.

For instance, uranium mining on Navajo lands during the 1960s, as referred to in Chapter 2, is one of the most common examples of environmental and ethical abuse on Native land. It is often portrayed as a story of a greedy United States government and industry versus the environmentally conscious Native protestors and victims of radioactive waste[39][40][9]. However, this narrative glosses over the conflicts between various Native groups, some of whom welcomed the mining as an opportunity to boost the local economy. By 1970, mineral leasing and extraction accounted for 45 percent of Navajo tribal revenues[37]. It is not surprising, then, that the tribal government saw natural resource extraction as an opportunity for funding and jobs in a historically weak tribal economy[37][21].

This is not to say that the United States government bears no blame—it is certainly responsible for the history of colonial policies that weakened tribal economies and societies, and for continuing to develop uranium sites on Native lands even after the public health risks of radiation exposure were discovered[40]. And it has been continuing Native activism and resistance that has slowed extractive development. In 2005, the Navajo Nation instituted a ban on uranium mining on its land[39]. Ignoring the role that tribal governments played in expanding this development, however, both ignores the diversity of opinions and actions among people and tribes, and prevents us from understanding the root causes of its expansion—the economic hardships in the tribes.

Further, treating indigenous people as a homogenous, earth-loving tribe may inadvertently play into racist and essentialist narratives about indigenous peoples as primitive. European colonialism and the enslavement of
Native Americans was supposedly justified by the need to civilize indigenous people. By being closer to nature, they were, by extension, farther from intelligence and civilization, and inherently inferior to the white colonists.

Of course, a key difference in the case of #NoDAPL activists is that these are indigenous activists speaking about how they interpret their own culture, not Europeans imposing definitions of civilization upon indigenous people. I have no intention of policing how indigenous people speak about their own heritage. Like all issues of race and representation under white supremacy, there is no easy rule to say what is okay or what is not. I simply wish to invite a critical eye to the way this kind of discourse can uphold harmful stereotypes about Native people. Activism is inherently public; it asks for the attention of allies and enemies around the world. It is worth being aware what impact our words might have on a casual observer.

Finally, continuing to assume that indigenous people, as closer to nature, know how best to work with and preserve it, may simply be an incorrect assumption at times. Chapter 5 will explore how we can balance the contributions of indigenous and scientific knowledge as we move forward in protecting the environment, climate, and communities.
Chapter 5

Conclusion: Combining gendered scientific and indigenous knowledges

Alaimo’s critique of climate change discourse, discussed in Chapter 3, applies the feminist standpoint theory critique of Western scientific objectivity to the United States government’s climate change websites, which promote a view of the Earth and climate from a “free-floating, transcendent” perspective, rather than attaching it to any individual, community, or experience[42]. Local indigenous knowledge does the reverse, emphasizing the local experiences of climate change, while deemphasizing the global. This does not mean indigenous knowledge has no global relevance—in fact, local knowledge is necessary to truly understand global systems, and indigenous people have formed transnational and translocal relations in order to respond to climate change[18]. Both standpoints, in my view, are necessary in order to address the problem of climate change, one that is both global and local in its causes and effects.

A telling example comes from a study by Weatherhead et al combining Inuits’ local knowledge with global climate data. While Arctic Inuit residents had been reporting unpredictable weather since the 1990s, climate data seemed to disagree. After conducting interviews with Inuit elders, the atmospheric scientists were able to find that pattern in the data, leading to the discovery of a global weather pattern: at that latitude, day-to-day persistence of weather was dropping, whereas in the rest of the world it was largely growing more stable.
In this case—and, I expect, in many more cases yet to be solved—scientists had the correct data, but they lacked the perspective to ask the right question about that data. In the authors’ words, “[e]xamination of environmental measurements have not, until now, helped describe what the local inhabitants have been reporting, in part because prior studies did not focus directly on the persistence aspect of weather” [41]. It was the Inuits’ local knowledge, or their standpoint as those directly affected by these weather patterns, that was the necessary place from which to examine the data. The local observations had global implications, only uncovered through a combination of both local and global insight.

Even if the #NoDAPL movement fails to stop the Dakota Access Pipeline, as is seeming increasingly likely, the environmental movement and environmental sciences have much to learn from the activists at Standing Rock. The indigenous ecological worldview, which places humans as one part of an interconnected natural ecosystem, is at odds with the Western mechanistic interpretation of nature as a resource to be divided. It is this indigenous worldview, and the standpoint of women and men within indigenous communities, that provides both a spiritual root for activism and a base for advancing scientific knowledge. Combining the insights of indigenous knowledge with the large-scale data and resources of Western scientific institutions will be crucial to creating a more equitable and sustainable future.
Bibliography


