"What's the story? Competing narratives of climate change and climate justice"
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Abstract:
Climate change narratives in the United States have appeared in many genres: literary fiction and science fiction, literary nonfiction, children's environmental literature and film, environmental documentary films and science fiction films. Yet by shaping their narratives primarily with techno-science analyses and solutions, these narrative genres have not inclusively portrayed the additional facts of climate change--namely, the underpinnings of colonialism, neoliberalism, speciesism, and gendered fundamentalisms--and thus the activist and systemic solutions they present are partial an d ineffective. Moreover, mainstream U.S. ecocriticism has failed to notice the raced, classed, and gendered perspectives in these climate change narratives. A feminist environmental justice perspective can restore analysis of the additional features of climate change root causes and effects by expanding the genres and geographies of ecocritical analysis to include artists of color and of diverse sexualities, as well as by including the practices of animal food production and consumption that are exacerbating climate change. A feminist restor(y)ing of climate change narratives is one of ecocriticism's best strategies for confronting the root causes of climate change and suggesting solutions with real potential for enacting climate justice.

Key words climate change narratives; feminist ecocriticism; climate justice narratives; climate justice activism

Full Text:
Melting glaciers, shrinking ice sheets, fewer snow days; rising ocean temperatures, heat waves and droughts. Species relocations, vanishing coral reefs, and warmer climates for exotic diseases--ebola, malaria, dengue fever. The signs of earth's warming have become a mantra, repeated from the mouths of environmentalists such as Bill McKibben, politicians from John McCain to Al Gore, NASA scientist James Hansen, and the United Nations-sponsored Intergovernmental Panel on Climate Change (IPCC), a group of over 300 scientists and government officials whose reports in 1990, 1995, 2001, 2007, and 2013 confirm the fact that anthropogenic (human-created) greenhouse gas emissions could, if left unchecked, raise global average temperatures by as much as 5.8 degrees Celsius (or 10.4 degrees Fahrenheit) by the end of this century. Yet the United States business, government, and media have resisted these warnings, and global climate change is still the most pressing issue on the international environmental agenda.

In this context, what impetus toward increased understanding and action can ecocriticism--and specifically, feminist ecocriticism--contribute? I suggest this standpoint can illuminate the strengths and shortcomings of literary narratives in analyzing the problem of climate change from a (masculinist) technological-scientific perspective, exploring the rhetorical strategies in operation, and suggesting alternative rhetorics and narratives of climate justice and gender justice. Provided with a more complete restor(y)ing of climate change causes and effects, ecocritics have a greater potential to shape and contribute to activist and policy-making discourses around climate justice. Our work begins by noticing the disciplinary contexts of climate change discussions.

Ecocritics have already observed the disjunction between the environmental sciences and the environmental humanities (Buell; Garrard, Ecocriticism), noting the dominance of environmental sciences in defining environmental problems and controlling the discourse around their solutions. These enviro-science analyses offer incomplete descriptions without the perspective of the environmental humanities: fields such as ecopsychology, public health, environmental philosophy, environmental politics, environmental economics and ecocriticism provide critical information that augments and often transforms our understanding of environmental problems--particularly \ in the case of climate change. To illustrate my argument, I explore a variety of climate change narratives.

Climate Change Fiction and "Oi-fi" Stience Fiction

Currently, the best representative of climate change fiction is T. C. Boyle's A Friend of the Earth (2000), its title a reference to the U.S.-based international organization, Friends of the Earth, founded in 1969 by David Brower. Set somewhere around Santa Barbara, California, in the year 2025, this fictional narrative suggests that global warming is a consequence of economic, cultural, and political forces that have produced unsustainable population growth, irreversible loss of biodiversity, deforestation, species extinction, and an end to social supports such as health care and social security. Although the narrative ends on a comedic note, promising recreation of the heteronuclear family and thus the perpetuation of the human species, the overwhelming tone of A Friend of the Earth is one of cynicism and despair: its narrative solution is withdrawal from society, since civic engagement hasn't worked. Boyle's analysis of global warming includes the ecological, social, cultural, economic, and political causes and consequences, though with a focus on the white middle class; the book omits discussion of diversity such as gender, race, sexuality, and nation when addressing climate change problems or solutions. The presumed message is that ultimately, climate change is an equal opportunity disaster.

In science fiction--sometimes called "di-fi" (1) to emphasize the pseudo-science beneath the writing--the message is sometimes reversed: according to skeptic Michael Crichton's State of Fear (2004), climate change is a hoax produced by environmentalists so determined to promote fear of climate change that they use exotic technologies to start natural disasters (crumbling a massive Arctic glacier, triggering a tsunami), and are willing to see innocent people die, just to make their case. Crichton's narrative portrays the "experts"--which include Ph.D.'s, scientists, intellectuals, and feminists--as spectacularly corrupt and terribly wrong. His heroic skeptic, John Kenner, is companioned by a trusty Nepalese sidekick, Sanjong, echoing the racist and not-too-subtle homoerotic pairing of John Wayne and Tonto from U.S. Westerns of the 1940s that celebrated the epic myth of Euro-American colonialism. In Crichton's novel, the pair work together to provide charts, graphs, and other "hard" data to disprove global warming. By the novel's conclusion, one environmentalist has been fed to cannibals, and the skeptics have become suddenly irresistible to women, all in nine

days. If the narrative itself isn't sufficiently alarming, ecocritics may find the book's popularity with the uncritical and unscientific public even more disturbing, and appalled by its use as a textbook for the honors seminar, "Scientific Inquiry: Case Studies in Science" at SUNY-Buffalo. (2)

Kim Stanley Robinson's climate change trilogy--Forty Signs of Rain (2004), Fifty Degrees Below (2005), Sixty Days and Counting (2007)--is a welcome counterpoint to Crichton's polemic, at least from an ecocritical standpoint. The first text in the series sets up the problem of global warming when Washington, D.C. is hit hard with two days of rain, portions of the city are flooded, and animals are released from zoos so they don't drown. The second text shows the more developed consequences of global warming: the Gulf Stream has stalled, causing frigid winter temperatures in the Eastern United States and Western Europe. As people starve, multinational corporations find ways of making a profit. Antarctica's ice shelves collapse, and low-lying nations sink under the waters. In Washington, D.C., environmental scientists must overcome government inertia to put in place policies that may save the world.

While the second novel focuses on the market failures of capitalism and democracy in the west, the third novel's narrative suggests that the world would be better if scientists took over politics. Scientists fill the White House, but the book does not explore the benefits and drawbacks of a scientocracy (science's false claims of objectivity and its universalizing tendencies, as well as the corporate control of science being chief among them), and seems to promote the idea that everything would be better if only the right man were President. Indeed, all of Robinson's main plots revolve around men, the main characters are men, and the proposal that a male-centered ecosocialist scientocracy will solve problems of climate change without addressing problems of social injustice, not to mention simple gender parity, seems limited at best.

A spate of "cli-fi" novels has appeared in the years 2011-2013, effectively defining this new genre. A review essay by Rebecca Tuhus-Dubrow (http://www. dissentmagazine.org/article/cli-fi-birth-of-a-genre) discusses seven of these novels, and a website on "Cli-Fi Books" (http://clifibooks.com/about/) run by a British Columbia micropress, Moon Willow, was launched in August 2013. Recent feminist ecocritical analyses of climate change narratives include Christa Grewe-Volpp's discussion of Octavia Butler's Parable of the Sower (1993) and Cormac McCarthy's The Road (2006) as climate change post-apocalyptic novels, and Katie Hogan's "queer green" analysis of climate change references in Tony Kushner's apocalyptic play, Angels in America (1994). As this ecocritical scholarship shows, these cli-fi narratives remain confined within the apocalyptic failure of techno-science solutions, and uninformed by the global climate justice movement. After reading such narratives, cli-fi readers take home the message that climate change is a failure of technology and science, not a failure of species justice or environmental justice, and thus their actions after reading these books might focus on individual carbon footprint reduction rather than lobbying for systemic eco-justice change.

Climate Change Nonfiction Writing

In the field of literary nonfiction, texts such as Tim Flannery's The Weather Makers (2006) and Elizabeth Kolbert's Field Notes from a Catastrophe: Man, Nature, and Climate Change (2006) provide narratives that make environmental sciences more accessible through the lens of environmental literature, yet offer little information about environmental politics, sociology, climate justice, or ecosocial strategies for response. Flannery's volume contains 36 short essays on the consequences of global warming, and in the final third of the book he poses solutions that involve individual, national, and international actions to reduce carbon dioxide. The core of his message explores how we can shift from fossil fuels to a hydrogen-based economy, and while he acknowledges that the U.S. administration has been influenced by coal-industry donations to the Republican party, thereby undermining political action, Flannery's environmental science solutions obscure the powerful influence of environmental economics, politics, and culture.

In refreshing contrast, Elizabeth Kolbert's work returns again and again to the view that human politics are at the core of our responses to climate change.Her essays provide international snapshots of how global warming is affecting people, places, and species. She interviews scientists and skeptics, bringing scientific data to a humanities audience, and exposing the fallacies of global warming skeptics. Yet her conclusion to the final chapter on the "Anthropocene" (a geological epoch) offers no solutions but despair: "It may seem impossible to imagine that a technologically advanced society could choose, in essence, to destroy itself, but that is what we are now in the process of doing" (187). While there is a wealth of nonfiction handbooks countering Kolbert's despair with suggestions for "what YOU can do to stop global warming," these too are limited by their focus on individual actions in the absence of environmental context: they fail to address strategies for countering the power of multinational corporations overriding democratic decisions at the level of community, state, and nation.

Children's Climate Change Narratives

As I have argued (Gaard, "Toward an Ecopedagogy of Children's Environmental Literature"), children's environmental literature has tremendous potential for communicating messages about ecosocial justice, community empowerment, and strategies for ecodefense. As of 2013, children's climate change literature has not caught up to this potential. Several texts focus on climate change effects in the Arctic (Bergen; Rockwell; Tara), using polar bears or penguins as protagonists, and building on children's cross-species empathy to instill awareness. The solutions offered range from empathy to action, yet they articulate only environmental science's approach to climate change (i.e., switch energy sources, plant trees, bicycle, reduce consumption, and "write representatives in Congress"--but the letters' content is unspecified). And there is an eco-skeptic presence in children's literature as well. Holly Fretwell's The Sky's Not Falling: Why It's OK To Chill About Global Warming (2007) assures children that human ingenuity combined with an "enviropreneurial" spirit will lead to a bright environmental future, not one where people ruin the earth.

Children's films with climate change themes have not fared much better. Both "Happy Feet" (2006) and "Wall-E" (2008) use the narrative trajectory of heterosexual romance to tell stories framed by the consequences of climate change. In "Happy Feet" climate change and its root cause, elite humans' overconsumption of nature, manifest not just through ice cracking, but also through the absence of fish, the presence of garbage in the Arctic, and the fact of humans overfishing. In "Wall-E" the earth is completely covered with garbage, and the romance between robots Wall-E and Eve begins when the human spaceship sends a probe to see if earth can be reinhabitec by the refugee population of humans who have become obese chair-bound consumers, ruled and pacified by a single corporation. In both narratives, children are invited to identify with childlike and disempowered male heroes who succeed in ecodefense and heterosexuality alike. In both films, the human change of consciousness is magical--the penguin simply confronts the overfishing, garbage-throwing humans with the plastic ring from a six-pack; Wall-E befriends the chair-bound consumers' obese leader, who "speaks truth to power" and inspires the populace to return to earth. In fiction, simply learning the facts about environmental devastation is sufficient to inspire action; in reality, rationalism is rhetorically insufficient, climate change facts are distorted by narrative manipulation and a masculinist techno-science framework, and planetary elites (sometimes including ecocritics and our readers) are invested in current colonialist and neoliberal economic benefits and thus seem apathetic or reluctant to change.

Climate Change Documentary and Film

In Al Gore's "An Inconvenient Truth" (2006), a narrative synthesis of rationalism and empathy succeeded in bringing the topic of climate change to a popular audience. The film's impact can be seen in the fact that President Bush mentioned climate change in both his 2007 and 2008 State of the Union addresses, but not in 2006; and an internet search for the term "global warming" yielded only 129 articles for 2005, the year before the film's release, but 471 articles for 2007, the year after the film was produced (Johnson 44). Laura Johnson attributes Gore's popular success to his capacity for moderating apocalyptic rhetoric with scientific rationalism and constructions of audience agency: at the same time that Gore gestures toward present and future climate change disasters, he simultaneously endorses new technologies and political activism. His message offers no images of either the global elites and economics responsible for global warming, the ground-zero victims of global climate change, or the activist citizens who are leading the battles for climate justice; he makes no connections between a meat-based diet and its environmental consequences; thus, the film avoids invoking oppressor guilt, though still encouraging action. From a feminist and environmental justice standpoint, Gore's analysis is woefully incomplete. While narratives that inspire environmentally-minded action are surely laudable, Gore's limited solutions will not address or rectify all climate injustices.

Science fiction films build on Gore's apocalyptic tenor, but without its rhetorical balance, they actually undermine the credibility of climate scientists. "Waterworld" (1995), "The Day After Tomorrow" (2004), "Artificial Intelligence" (2001), and "Elysium" (2013) depict white male heroes working to restore life or love against a backdrop of climate change consequences (i.e., rising seas covering the earth, the next Ice Age, out-of-control scientific advances coupled with human alienation to create cyborg identities, or an impoverished and overpopulated earth colonized by elites living on a Biosphere II-satellite). The Mariner hero of "Waterworld" battles with evil pirates and eventually succeeds in his quest to bring an orphan girl, her female caretaker, and a male hydroelectric power expert, among others, to "Dryland" (Mt. Everest) while the Mariner returns to the sea/frontier; on "Dryland," one assumes, the mundane tasks of sustaining life are unsuited to heroic actions characteristic of the Mariner (aptly cast as Kevin Costner). "The Day After Tomorrow" offers a similar narrative of father-figure rescuing child, as paleoclimatologist Professor Jack Hall tries to save the United States from the effects of climate change and its rapidly returning Ice Age while also trying to save his son Sam, who has taken refuge in the New York Public Library, far north of the line of projected safety from freezing. (3) Both films present climate change consequences as too far-fetched to be credible: the entire planet flooded? the next Ice Age, in a week?

The more complicated films of the four also seem more eerily plausible. "A.I." (for Artificial Intelligence) offers an eleven-year-old cyborg boy as a hero whose primary quest is to regain a mother's love. The film raises questions about human identity in a future affected by climate change, and suggests readings of humans as cyborgs, the earth as a rejecting mother, and climate change as the ultimate rejection from the earth/mother--a new twist on mother-blaming. "Elysium" provides a white male hero (Matt Damon) living on the impoverished Earth (crowded and overpopulated largely by people of color), whose poverty and romance with a Latina single mother compel him to infiltrate the elites on the Earth-satellite Elysium, to download the entire operating system for the elites' instantaneous health care, and through his suicide transferring that health care to an open democratic access that will save not only those suffering on earth, but immediately heals the dying daughter of his beloved Latina. The unabashed irony of all these narratives is their race and gender reversal: around the world, it is poor women, rural women, and women of color who are most affected by global climate change effects, and it is women who are working as grassroots heroes to mitigate and adapt to the results of a global environmental crisis created by the world's elites, largely, white men (Women's Environmental Network).

Has ecocriticism been unable to contribute to ongoing conversations about global warming, simply for a lack of worthy literary and cultural artifacts? The few ecocritics who have explored global warming believe so. "Literary writing has not kept pace with the developments in science and public policy pertaining to climate change, peak oil, population pressure, and the food crisis," writes Patrick D. Murphy (14). "American fiction writers have a rather dim track record on the topic of climate change," Scott Slovic concurs (109). But I wasn't ready to give up so easily. Still seeking narratives with an awareness of intersectionality, and an approach that could bridge the environmental sciences and the environmental humanities, I turned to ecofeminist theory, environmental justice analyses, critical animal studies, and feminist ecocriticism.

Getting the Full Story: From Environmental Sciences to Environmental Humanities and Feminist Ecocriticism

From the aforementioned intersectional standpoints of feminist environmental justice ecocriticism, climate change can be seen as an environmental justice problem with material consequences for the environmental sciences. In her essay, ecofeminist and vegan activist Marti Kheel develops her theory of the truncated narrative, a theory that foregrounds the rhetorical strategy of omission: "Currently, ethics is conceived as a tool for making dramatic decisions at the point at which a crisis has occurred. Little if any thought is given to why the crisis or conflict arose to begin with" ("From Heroic to Holistic Ethics: The Ecofeminist Challenge" 256). In Western ethics, values are debated on an abstract or theoretical plane, and problems are posed in a static, linear fashion, detached from the contexts in which they are formed: "we are given truncated stories and then asked what we think the ending should be," Kheel explains ("From Heroic to Holistic Ethics: The Ecofeminist Challenge" 255). Creating "ethics-as-crisis" conveniently creates an identity for the ethical actor as hero, an identity well-suited to what Val Plumwood defines as the Master Model. "Western heroic ethics is designed to treat problems at an advanced stage of their history," Kheel argues, and "run counter to one of the most basic principles in ecology--namely, that everything is interconnected.... By uprooting ethical dilemmas from the environment that produced them, heroic ethics sees only random, isolated problems, rather than an entire diseased world view. But until the entire diseased world view is uprooted, we will always face moral crises of the same kind" ("From Heroic to Holistic Ethics: The Ecofeminist Challenge" 258-59). As an alternative to truncated ethical narratives and heroic ethics, Kheel proposes retrieving "the whole story behind ethical dilemmas," uncovering the interconnections of social and environmental perspectives, policies, economics, and decision-making, including all those affected by the ethical "crisis." With the whole story restored, we can work more effectively for solutions to current ecosocial problems, and prevent others in the future, thereby eliminating the need for heroes--though as Kheel wryly observes, "prevention is simply not a very heroic undertaking" ("From Heroic to Holistic Ethics: The Ecofeminist Challenge" 258).

Kheel's theory describing truncated narratives helps illuminate the "story" of climate change causes and solutions--stories that surface in the popular media, in science, literature, and culture. Upon initial inquiry, the stories we receive about the causes of climate change are narrated by the environmental sciences, which suggest that climate change is primarily a problem of transportation and energy production; on further inquiry, environmental sciences and environmental politics reveal climate change is a problem exacerbated by processes of industrialized animal-based agriculture, as documented by the United Nations' Food and Agricultural Association report, "Livestock's Long Shadow"(Steinfield et al.). From environmental politics, we then learn the "subplot" of both these "cover stories" (4) is the deeper problem of first-world industrialized nations' overconsumption and waste of global nature and all those associated with nature--indigenous people, the "two-thirds" (or "developing") nations, nonhuman animals and ecosystems.An embedded subplot to the first-world/ two-thirds-world narrative is the powerful presence of multinational corporations, whose economic force and global trade agreements have the capacity to overpower democratic decisions made at all levels--city, state, and nation. Finally, at the bottom of these narrative hierarchies lie the inequalities of gender, race and species, which are present at almost every level of society and nation. (5) Inspired by Kheel's theory, I have compiled "Facts That Restore the Truncated Narrative

of Climate Change."

Facts That Restore the Truncated Narrative of Climate Change

Transportation, Energy Production, Animal-based Agriculture. Independent environmental scientists and the United Nations Intergovernmental Panel on Climate Change (IPCC) describe climate change as produced by an excess of greenhouse gases, primarily carbon dioxide, emitted as a byproduct of human industrialized activities--burning fossil fuels in cars, and creating energy with coal-fired power plants. The well-known focus on the social problems of transportation and energy production often obscures the fact that methane, another greenhouse gas that is twenty-three times stronger than carbon dioxide, also contributes to climate change, with industrialized animal agriculture playing a significant role in its production.

The United Nations Food and Agriculture Organization (Steinfield et al.) and the popular U.S.-based journal Scientific American (Fiala) concur that industrialized animal-based food production ("factory farming") contributes significantly to climate change. Moreover, industrial food production has hidden environmental costs in its use of insecticides and fertilizers, deforestation, water pollution and water consumption, feed given to cattle, fuel for farming, transportation and refrigeration. Scientific American (Fiala) concluded that worldwide meat production of beef, chicken, and pork emits more greenhouse gases than all forms of global transportation or industrial processes. The FAO report suggests that giving up the average 176 lbs. of meat consumed annually, per person in developed countries, is one of the greenest lifestyle changes individuals can make. "Why is vegetarianism still considered a personal lifestyle decision when it has such enormous global ramifications?" asks Marti Kheel ("Communicating Care: An Ecofeminist Perspective" 49). She concludes, "the impact of diet on the environment is the inconvenient truth that Gore and other environmentalists fail to voice."

Industrialized vs. Developing Nations. An environmental politics perspective emphasizes that climate change is a global environmental problem predominantly produced by industrialized nations, and suffered primarily by developing nations, along with the poorer classes, marginalized within the industrialized nations. For example, with only four percent of the world's population, the United States emits 25% of the world's carbon dioxide (Center for Progressive Reform). Yet climate change talks have been repeatedly stalled by finger-pointing and foot-dragging, as the more industrialized nations each refuse to lead the way in greenhouse-gas reductions. No one wants to be first in reducing what the elites see as their rightful standard of living.

While climate change will affect the entire global environment, its impacts will be felt hardest by those least able to make adaptations for survival. People living in poverty are more likely to live in unplanned, temporary settlements, which are erected on unsuitable land-prone to the risks of flooding, storm surges, and landslides. Most eke out a precarious economic existence through subsistence farming or fishing, and have no savings or assets to insure them against external shocks. Often, they lack sanitation and their limited access to clean water, poor diet, and inadequate healthcare provisions undermine their resistance to infectious diseases. Moreover, their lack of social status and the informal nature or remoteness of their settlements means that they do not receive adequate warnings of impending disasters, and relief efforts are least likely to reach them. Lack of education and official neglect means that they have little alternative after disasters but to remain in or return to the same disaster-prone areas, with diminished assets, and await the next, calamitous event.

Inequalities of Genders and Sexualities. A feminist environmental perspective confirms that women are the ones most severely affected by climate change and natural disasters due to social roles, discrimination, and poverty. Around the world, women's gender roles restrict women's mobility, impose tasks associated with food production and caregiving, and simultaneously obstruct women from participating in decision-making about climate change, greenhouse gas emissions, and decisions about adaptation and mitigation. In developing countries, women living in poverty bear the burden of climate change consequences, as these create more work to fetch water, or to collect fuel and fodder--duties traditionally assigned to women. As rural areas experience desertification, decreased food production, and other economic and ecological hardships, these factors prompt increased male out-migration to urban centers with the promise of economic gain and wages returned to the family; these promises are not always fulfilled. In the short-term, and possibly long-term as well, male out-migration means more women are left behind with additional agricultural and household duties, such as caregiving. These women have even fewer resources to cope with seasonal and episodic weather and natural disasters.

Gender inequalities mean that women and children are 14 times more likely to die in ecological disasters than men (Aguilar; Aguilar, Araujo, & Quesada-Aguilar). For example, in the 1991 cyclone and flood in Bangladesh, 90% of the victims were women. The causes are multiple: warning information was not sent to women, who were largely confined in their homes; women are not trained swimmers; women's caregiving responsibilities meant that women trying to escape the floods were often holding infants and towing elder family members, while husbands escaped alone; moreover, the increased risk of sexual assaults outside the home made women wait longer to leave, hoping that male relatives would return for them. Similarly in the 2004 Tsunami in Aceh, Sumatra, more than 75% of those who died were women. The deaths of so many mothers leads to increased infant mortality, early marriage of girls, increased neglect of girls' education, sexual assaults, trafficking in women and child prostitution. Even in industrialized countries, more women than men died during the 2003 European heat wave, and during Hurricane Katrina in the US, African-American women--the poorest population in that part of the country--faced the greatest obstacles to survival (Aguilar et al.).

Transgendered persons and gay/lesbian/bisexual/queer persons (GLBTQ) already live on the margins of most societies, denied rights of marriage and family life, denied health care coverage for partners and their children, denied fair housing and employment rights, immigration rights and more. Climate change exacerbates pressures on marginalized people first, with economic and cultural elites best able to mitigate and postpone impacts; as a global phenomenon, homophobia infiltrates climate change discourse, distorting our analysis of climate change causes and climate justice solutions, and placing a wedge between international activists. For examples: at the First Worldwide Peoples' Conference on Climate Change and Mother Earth held in Cochabamba, April 19-22, 2010, Bolivian President Evo Morales claimed that the presence of homosexual men around the world was a consequence of eating genetically-modified chicken: "The chicken that we eat is chock-full of feminine hormones. So, when men eat these chickens, they deviate from themselves as men" (ILGA). This statement exemplifies a dangerous nexus of ignorance, speciesism, and homophobia that conceals the workings of industrial agribusiness. A second example is the invisibility of GLBTQ people in the wake of Hurricane Katrina, an unprecedented storm and infrastructure collapse which occurred just days before the annual queer festival in New Orleans, "Southern Decadence," a celebration that drew 125,000 revelers in 2003 (ecesis.factor). The religious right quickly declared Hurricane Katrina an example of God's wrath against homosexuals, waving signs with "Thank God for Katrina" and publishing detailing connections between the sin of homosexuality and the destruction of New Orleans. It is hard to imagine GLBTQ people not facing harassment and discrimination during and after the events of Katrina, given the fact that Louisiana, Alabama, and Mississippi lack any legal protections for GLBTQ persons and would have been unsympathetic to such reports. Yet in statements of Climate Justice to date, there is no mention of the integral need for queer climate justice--in a climate that is simultaneously material, cultural,

and ecological.

The 27 Bali Principles of Climate Justice (2002) redefine climate change from an environmental justice standpoint, using as a template the original 17 Principles of Environmental Justice (1991) created at the First National People of Color Environmental Summit. These principles restore many of the missing components of global warming's truncated narrative, connecting the unsustainable consumption and production practices of the North (first-world industrialized countries) and the elites of the South (two-thirds world, "developing" countries) with the environmental impacts felt most harshly by those in the South and the impoverished areas of the North. The principles address the categories of gender, indigeneity, age, ability, wealth and health; they provide mandates for sustainability in energy and food production, democratic decision-making, ecological economics, gender justice, and economic reparations to include support for adaptation and mitigation of climate change impacts on the world's most vulnerable populations. The missing pieces from this statement--the role of industrialized animal agriculture, and the specific climate justice impacts on LGBT people--still need inclusion. With these two additional elements completing the story by correcting its heterosexism and speciesism, the intersectional analysis provided by the Bali Principles offers the best articulation for restoring the truncated narrative of climate change.

Climate Justice Narratives: A Feminist Ecocritical Perspective

With the Bali Principles in hand, I pondered the absence of women, people of color, and eco-queers as authors of the literary and cultural narratives I had surveyed (though white women do figure more prominently as authors of children's books). To date, ecocritics have failed to ask this question: if global warming narratives in fiction, nonfiction, science fiction and film alike have been largely the domain of white men, what genre are queers and artists of color using to address global warming? In climate justice documentaries, short stories, music videos and popular songs, ecocritics may discover more inclusive and intersectional narratives of global warming, along with strategies for mitigating the effects of climate injustices.

Perhaps the first climate justice documentary to reach a global audience, "The Island President" (2011) offers an environmental justice (humanities) counterpart to the "inconvenient truth" of Al Gore's environmental science. This film traces President Mohamed Nasheed of the Maldives as he fights to compel industrialized nations to face up to the impact of their climate-changing emissions on the most low-lying countries in the world. While the people of the Maldives visit neighboring island countries to seek refuge and resettlement possibilities, Nasheed meets with global dignitaries who attend the Copenhagen Climate Summit in 2009 where, at the last moment, he makes a speech that salvages an agreement. Though the Copenhagen summit is widely regarded as a failure, it was the first time that India, China, and the US had agreed to reducing emissions. This documentary is all the more stirring in light of the fact that in February 2012, President Nasheed was forced to resign under threat of violence, in a coup d'etat perpetrated by security forces loyal to the former dictator, and the dictator's half-brother won the Presidential elections in November 2013. The links between democracy and climate justice are clear not just in the Maldives, but throughout the Two-Thirds world.

In the short story "Cayera" (2007) by Filipino writer Honorio Bartolome de Dios, a gay beautician, Bernie, and her friends join a movement against logging operations and the construction of an industrial plant in the agricultural village of San Martin. Although the town's elite know Bernie as a trusted aide, her inclusion in the movement is questioned on the basis of her sexuality. Although she and her friends are mocked by the eco-heterosexual marchers in the rally, Bernie later transforms her beauty parlor into a hiding place for rebels, whom she transforms into women to protect them from the military. "Pageantry and performance thus become sites of resistance," Nina Somera (83) concludes, arguing that climate change "aggravates longstanding inequalities and peculiar situations that strike one's layers of identities--as a tenant farmer, industrial worker, lesbian mother, landless widow, indigenous woman and so on."

Marvin Gaye's 1971 popular hit, "Mercy, Mercy Me (The Ecology)" was remade in 2006 by the Dirty Dozen Brass Band, giving the song a New Orleans jazz flavor, and an album cover depicting a solitary, naked man pulling a canoe through a flooded urban landscape, unmistakably targeting this song to the events surrounding Hurricane Katrina. Gaye asks, "What about this overcrowded land? How much more abuse from man can she stand?" (6) In the context of global warming catastrophes and climate justice, Gaye's lyrics gain new resonance. Hurricane Katrina was an event that made visible the arrogance of culture's attempt to control nature, along with the indifference of urban planners and engineers to the structures of safety allegedly protecting poor people and people of color--particularly women of color (Seager 2-3) and the ways these social hierarchies affect the land, water, and nonhuman animals.

Another exemplary artist, India Arie produced two songs on her "Testimony" Volume 2 album (2009) that address global warming from an intersectional, climate justice perspective. The first song, "Better Way," contrasts the government's response to Hurricane Katrina and the politically-motivated war in Iraq against the media manipulation and sheer indifference of elected politicians, particularly then-President George W. Bush: "Is it democracy or is it the oil? It's in the news every day, we're a paycheck away, and the President's on the golf course." (7) In the tradition of black spirituals, Arie (like Martin Luther King) positions herself as both Moses figure and feminist lyricist with her refrain, "Let my people go!" Her proposed solution to these and other problems of social, environmental, and climate injustice is a reconception of human identity as interdependent, with inclusivity and care presented as the sole strategy for human survival: "I know there's gotta be a better way, and we gotta find it--we gotta stand together, or we can fall apart."

Another song on Arie's album,"Ghetto" argues for an interdependent self-identity that makes connections across nationality, class, and race. Her work persuasively articulates the problems of global justice to first-world listeners (the "you" of the lyrics) by exposing the third-world within the first-world: "to be hungry in L.A. is just like starving in Bombay. Homeless in Morocco is a shelter in Chicago." Contrasting definitions of the ghetto as "a place of minority, and poverty, and overpopulation," Arie insists

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We live on this earth together, ain't no separation. When you're looking down, From outer space We're just a human race
and the world is a Ghetto ... Do you see your brother when you Look around? It's a small world after all.
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Arie's lyrics playfully reverse the white supremacist erasure and commodification of difference through the Disneyland "small world" metaphor, and the disembodied "eye in the sky" techno-science metaphor of space exploration, whereby the blue ball of earth equalizes (and erases) all social hierarchies; instead, she uses these same metaphors strategically to draw listeners together, mindful of difference.

Another climate justice music video, Kool Keith's ("Dr. Octagon") "Trees Are Dying" (2007) presents an African-American boy age 11 or 12 as its rap narrator, dressed as a schoolteacher in a white shirt, black plaid bow tie, red plaid suspenders, white pants and converse high-tops. The boy poses as teacher and newscaster, standing in front of a blackboard where a map of the United States is chalked over with heat-wave temperatures--186 to 202 degrees Fahrenheit--and a hurricane spiral marking the Gulf of Mexico. The blackboard bursts into flames and his back catches on fire. As he dances and narrates, we see other women and children costumed

as trees, stiffly marching through a field of clear-cut stumps, falling backwards against headstones, and dancing a ring-around-the rosy circle of death in front of nuclear reactors spewing steam into the skies. A crew of children dressed as scientists mix smoking fluids and pour them into a planet earth bubble that explodes and rolls away; a frenzy of cars drives across the screen and onto a six-lane freeway, each car with a bull's horns strapped to the hood. A white, high-heeled shoe stamps down a building, introducing a robotic white woman wearing a business suit, acting the role of Godzilla; she attempts unsuccessfully to jam a tree branch into a copier machine, as children in white scientist coats mill around her working at other copying machines, and papers fly in the air. Significantly, the majority of the actor-dancers are black pre-teen children, the landscape and sky are persistently gray, and refrains such as "apathy kills" and "car-car-carbon dioxide" and "like the elephants, trees are dyin'" repeat in lyrics and in superimposed text. The music video's rich metaphorical twists on popular culture make clear connections among species extinction, deforestation, unsustainable transportation and energy production, corporate-driven colonization of nature, white supremacy, adult supremacy and an apathetic gerontocracy.

Along with an intersectional analysis of the root causes of climate change in social, economic, and global injustices, these hip-hop lyrics and music video offer a sensory reconnection that is unavailable via other media such as literature and cinematic narrative: they make viewers want to dance. In contrast to the immobilizing sense of futility, apathy, or denial often inspired by informational overkill from environmental science and cli-fi literature alike, climate justice musical narratives offer a more inclusive and a more popularly-accessible medium, one that energizes its audiences and invites movement toward action and activism alike.

Feminist Ecocritical Responses to Global Warming

A recent branch of environmental feminist theory--variously called "material feminism" (Alaimo & Hekman), "eco-ontological feminism" (Blair), and "ecoontological social/ist feminist thought" (Bauman)--offers a strategy for building on key contributions of ecological feminist and environmental justice perspectives: the centrality of an interdependent self-identity and the value of embodied knowledge, present in issues of race, class, gender, sexuality, age and ability, as well as issues of environmental health. According to this branch of environmental feminist thought, the essentialism-social constructionism debates of the 1990s and the ascendancy of social constructionism have misrepresented ecofeminism and essentialism as synonymous categories, denouncing and discarding both in order to emphasize the shaping forces of culture in organizing human identity and experiences. (8) Twenty years later, feminists are acknowledging that the suspect term was essentialism, and are now arguing for a "feminist politics of the-body-in-place ... founded in an affirmation of our dependence on the earth" (Mann 129). Material feminism, write Stacy Alaimo and Susan Hekman, explores "the interaction of culture, history, discourse, technology, biology, and the 'environment,' without privileging any one of these elements" (Alaimo and Hekman7). Thus, "the potential for us to respond meaningfully to climate change," writes Jennifer Blair, will "depend on a re-conception of subjectivity and a re-conception of the ways in which humans perceive and effect change in the material world" (Blair 319). The problem is that "no matter what information about global warming the media communicates, people seem to need to feel the heat themselves in order to respond to the phenomenon in meaningful, change-driven ways" (Blair 320). I suggest that climate justice documentary, literature, and music offer narrative media capable of putting people in motion and feeling the heat.

What are ecocritics doing about climate change? Certainly, we are bringing our position as educators to serve the larger work of connecting literature with contemporary environmental issues, problems, and solutions. In our scholarship, our essay-writing and presentations, we can also address the truncated narratives of climate change, provide narrative data that bridge the environmental sciences with the environmental humanities to fill in these omissions, and interrogate western culture's preference for heroes and crisis over everyday citizen action and apocalypse-prevention. In our classes, we can expand our range of genre and media, ensuring that we include texts by women, eco-queers, and artists of color when we read narratives of global climate change and climate justice, and encouraging practices from service learning to creative writing exercises as avenues for students to gain experiential education that reconnects them with the beauty, the danger, and the ecosocial contexts influencing our material embodiment.

As environmentalists and ecocritics have noted, if everyone must experience the effects of global warming first-hand in order to take meaningful action, our actions will come too late to make a difference. In this context, narrative offers a powerful potential for creating an "entangled empathy" (Gruen 213-233), the affective mode that offers an avenue for understanding across differences. When the narratives of climate change are presented not just as a techno-science story but also as a matter of environmental justice that explicitly includes differences of gender, sexuality, and species with differences of race, class, and nation, our readers will have a more complete story of climate injustices, and a more effective road map for activist responses.

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Notes

(1.) A spate of "cli-fi" novels has appeared in the years 2011-2013, effectively defining this new genre, although at this point in time, their narratives remain confined within the apocalyptic failure of techno-science solutions, and uninformed by the global climate justice movement. A review essay by Rebecca Tuhus-Dubrow (2013) discusses seven of these novels, and a website on "Cli-Fi Books" (<http://clifibooks.com/about>) run by a British Columbia micropress, Moon Willow, was launched in August 2013. Recent feminist ecocritical analyses of climate change narratives include Christa Grewe-Volpp's discussion of Octavia Butler's Parable of the Sower (1993) and Cormac McCarthy's The Road (2006) as climate change post-apocalyptic novels, and Katie Hogan's (2013) "queer green" analysis of climate change references in Tony Kushner's apocalyptic play, Angels in America (1994).

(2.) Clyde Freeman Herreid reports on his use of Crichton's State of Fear as a primary text for his honors seminar in "Scientific Inquiry: Case Studies in Science" (10-11). The fact that Crichton's novel is a work of science fiction, not researched fact, does not preclude it from use in Herreid's University Honors Program course at The State University of New York, Buffalo.

(3.) There are some enjoyable moments to the film, from a progressive ecocritical standpoint: the students in the library are burning Nietzche's books to stay warm; there's a President who refuses to listen to global warming science, and a Vice President who says action will cost too much.

(4.) By "cover story" I mean the story that is on the cover of a rather thick stack of narratives about the causes and solutions to global warming. I do not mean that the "cover story" is covering all the narratives, only that it has gained so much prominence that it functions to obscure other intersectional narratives that are also accurate descriptions of experiential fact.

(5.) I qualify this claim about the omnipresent inequalities of gender and sexualities with the word "almost" to acknowledge the presence of traditional indigenous societies whose gender role differences are unmarked by differential valuations. Such societies are already quite marginalized in the global economy.

(6.) The complete lyrics to "Mercy, Mercy Me" can be found at <http://www.metrolyrics.com/mercy mercy-me-lyrics-marvin-gaye.html>

(7.) Complete lyrics to India Arie's "Better Way" can be found at <http://www.lyricsmode.com/lyrics/ i/indiaarie/better_way.html>

(8.) There are many branches of ecofeminist theory (Gaard, Ecological Politics; Sturgeon; Merchant), including branches that are liberal, socialist, anarchist, radical feminist, womanist, and cultural feminist; the latter is the branch most often charged with essentialism. Vegan and vegetarian ecofeminists are now arguing that the anti-essentialist backlash against ecofeminism is motivated by a deeper backlash against ecofeminism's defense of inter-species justice (Gaard "'Ecofeminism' Revisited.").

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