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ENVIRONMENTAL JUSTICE

The third pillar of environmental communication research

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Environmental justice: the third pillar of environmental communication research

We write from the Salt Lake Valley in what is now called Utah, a name derived from the Ute people who lived here before European contact and continue to live here. Utah is the homeland of Shoshone, Paiute, Goshute, and Ute Indigenous peoples and continues to be a gathering place for Indigenous peoples. We open our chapter about environmental justice (EJ) this way to recognize the devastation that settler colonialism has brought to Indigenous land, lifeways, and relationality with more than humans is an environmental injustice (Whyte, 2018).

EJ is both a set of social movements and a program of research that seek to support and realize distributive, procedural, and recognition forms of justice, which include issues of equitable access to environmental decision-making, distribution of environmental benefits and harms, and respect and recognition for non-dominant environmental worldviews. Environmental injustices can take many forms linked to systems of power and oppression—including environmental racism, environmental colonialism, and environmental classism—but they are tied together in the painful truth that environmental benefits and burdens are not equitable.

While there has been a consistent stream of EJ research and praxis within environmental communication and media research (hereafter EC), it is by no means mainstream. Building from Cox's (2007) articulation of EC as a crisis discipline, and Pezzullo's (2017; Pezzullo & Cox, 2017) expansion to EC as a care discipline, we highlight the importance of justice as a key consideration for all EC research. We expand upon Raphael's (2019) urging for "environmental communication scholars to pay greater attention to environmental justice" by arguing that justice is an indispensable third plank of the ethical foundations of EC (p. 1088). This move highlights the foundations of justice already built into the composition of EC as a crisis/care discipline, but also posits that it is essential for planetary survival that justice is explicitly centered in EC's attempts to "enhance the ability of society to respond appropriately to environmental signals" (Cox, 2007, p. 15).

In 2005, J. Robert Cox gave a keynote address at the Conference on Communication and the Environment (COCE), which he later expanded into an article for the inaugural edition

of the *Environmental Communication* journal. Cox argued that EC scholars ought to conceptualize EC as a crisis discipline, analogous to conservation biology, with an ethical duty to attempt to ameliorate the many contemporary environmental and ecological crises (Cox, 2007). The essay is neither uncontroversial nor universally accepted, but nonetheless opens a foundational conversation about the purpose of EC research. Pezzullo (2017) offers that EC is also a care discipline, articulating a "dynamic and intertwined dialectic" relationship between crisis and care to open the possibilities for EC research (p. 11). She writes: "This means we not only have a duty to prevent harm, but also a duty to honor the people, places, and nonhuman species with which we share our world" (p. 11). Raphael (2019) further suggests that EC shows care "by building on existing examples of engaged communication scholarship on EJ" (p. 1102). In addition to crisis and care, we argue that justice is another important driver for EC research. While justice is implicit in the conceptualizations of crisis and care, we contend that it be made explicit by adopting an intersecting crisis, care, and justice frame for the discipline.

We begin this chapter by defining EJ and its origins. Next, we offer a review of EJ research within EC and lay out a series of future directions for EJ-centered EC research. The chapter concludes by arguing that to truly center EJ in EC involves not only changes to our research programs but also to our disciplinary practices.

Environmental (in)justice

EJ scholarship emerged as a branch of broader EJ activism, which itself rose out of broader civil rights, Indigenous, labor, and anti-toxics movements (Cole & Foster, 2001). The beginning of the EJ movement is popularly traced to Warren County, North Carolina, which gained national attention in 1982 when residents challenged the state's decision to establish a hazardous waste dump in their community (Pezzullo, 2001). However, some trace the roots to earlier civil rights struggles, particularly the Memphis sanitation workers' strike and the United Farm Workers' movement, which illuminated environmental racism (Puglisi, 2018; Zimring, 2015). As the movement developed, activists challenged the distributive injustices of environmental degradation and the overwhelming whiteness of the mainstream environmentalist movement (Sandler & Pezzullo, 2007). Activists in the 1990s called for attention to how environmental injustices are byproducts of larger systems of racist, sexist, and classist oppression (Bullard, 2005).

At its core, EJ is an approach that "holds that environmental burdens and benefits should be shared equally by all people" (Ammons & Roy, 2015, p. 1). EJ activists' calls for sustained attention to the relationship between environmental harm and social inequality have been taken up across the academy. One way of mapping the contours of EJ is to address a range of environmental topics, such as climate justice (Pezzullo, 2013), energy justice (de Onís, 2018b; Schneider et al., 2016), food justice (Gordon & Hunt, 2019; Zoller et al., 2020), and toxic justice (Pezzullo, 2007). EJ might also be categorized according to particular systems of oppression, focusing on the disproportional effects of environmental harm on BIPOC communities (Endres, 2009a; Sowards, 2012), women (de Onís, 2012; Murphy, 2017; Pezzullo, 2003b), low-income and homeless communities (McGreavy et al., 2020), and rural communities (Pellow, 2016). EJ can also be conceptualized through spatial scales. Environmental injustices are both local (e.g., lack of clean drinking water, poor air quality, and exposure to toxins) and global (e.g., the climate crisis and consumption in the Global North contributing to waste disposal in the Global South) (Ammons & Roy, 2015). Temporality is another factor in environmental injustices, such as the importance of "deep time" and "slow violence" in

environmental harm (Nixon, 2011). Finally, environmental (in)justice works at the intersection of symbolic and material practices. Environmental injustices have material embodied and emplaced consequences for people, more-than-human beings, and lands—such as toxicity leading to ecological and human health harms—but they are also justified and defended through communication.

This chapter is organized along three facets: procedural, distributive, and recognition justice (Martin, 2013). Procedural justice refers to how regulatory and participatory processes that contribute to EJ outcomes are structured to include or exclude particular concerns, amplify or silence certain voices, and create or deny opportunities for participation. Distributive justice attends more closely to environmental outcomes, emphasizing the disproportionate distribution of environmental harms in marginalized communities and benefits in more privileged communities. Recognition justice insists on the necessity of centering the cultures, knowledges, and values of communities affected by environmental decisions (Whyte, 2011). While there are significant areas of overlap between these three facets, they provide a useful analytic for discerning the primary foci of (in)justice in particular struggles.

Environmental justice research in EC

We locate one opening for sustained engagement with EJ in communication in Pezzullo's (2001) essay, "Performing Critical Interruptions: Stories, Rhetorical Invention, and the Environmental Justice Movement," which takes up Depoe's (1997) call to include more research about the EJ movement in EC's research agenda. Although some previous research engaged with concepts of justice or environmental campaigns sustained by Black, Indigenous, and People of Color (BIPOC) communities (Depoe, 1997; Muir, 1997; Ross, 1996), Pezzullo's essay and subsequent research represent a turn toward deeper engagement with the EJ movement and scholarship on their own terms. Pezzullo's essay not only theorizes "critical interruptions" as a rhetoric of invention within EJ movements, but also performs a critical interruption into EC research, challenging "taken-for-granted narratives and practices" within a field that still has not fully realized the value of EJ movements and research (p. 18). Pezzullo's (2001, 2003a, 2003b, 2004, 2007) long-term ethnographic participant observation with EJ activists is demonstrated in a ground-breaking research program dedicated to understanding the performative, rhetorical, and cultural practices of the EJ movement's challenge to mainstream environmentalism. While we highlight Pezzullo as a key figure in advancing EJ research within EC, she is joined by other early researchers, such as Peeples' (2003) analysis of place and identity in a community-level conflict over trash in Los Angeles, Cox's (1999) theorization of the indecorous voice of EJ activists within participatory processes, and Burch and Harry's (2004) examination of California newspaper coverage of pesticides and farm workers. Since these beginnings in the early 2000s, EC has seen a slow and steady increase in EJ scholarship. Yet, Raphael (2109) cites that only 7.8% of articles in *Environmental Communication*—the flagship journal for the field—focused on environmental and climate justice and that a 2015 forum in *Environmental Communication* written by leading scholars made no mention of EJ.

Themes in environmental justice communication

In this section, we consider the state of EJ scholarship across procedural, distributive, and recognition (in)justice. We conducted a literature review by searching past issues of the

Environmental Communication journal, EC books and edited volumes, and academic databases using communication and EJ keywords. This review provides our best effort at conveying the state of EJ research in EC.

Procedural justice

Much EC research on procedural EJ is linked with scholarship on participation in environmental decision-making (Depoe et al., 2004; Hunt, Walker, et al., 2019). This research assumes that those affected by environmental decisions—particularly those negatively affected—ought to have a meaningful role in decision-making processes. Environmental decision-making research has demonstrated flaws in extant models of decision-making, such as public hearings and comment periods, that often use a decide–announce–defend (DAD) format (Hendry, 2004). Cox (1999), for example, argues marginalized voices are dismissed as "indecorous" as a way of justifying their exclusion from decision-making processes. Endres' (2009a) focus on Western Shoshone and Southern Paiute involvement in nuclear waste siting highlights how Indigenous people and governments are rhetorically excluded from the official participation process. Likewise, Johnson (2019a) notes that extant regulatory frameworks are insufficient to promote justice for Indigenous people and nations and that they may in fact encourage decision-makers to make unjust siting decisions. Cox (2006) contends that NAFTA and other neoliberal policies undermine meaningful participation in decision-making processes. These studies question whether official and institutionalized models of participation have the capacity for procedural justice.

Participation in environmental decision-making research also seeks to develop more just models to replace institutionalized DAD models (Daniels & Walker, 2001; Senecah, 2004). Yet, few of the models are specifically designed to address environmental (in)justice. More often, scholars argue to broaden the definition of participation to include modes of action undertaken by EJ activist groups (Delicath, 2004; Pezzullo, 2004, 2007), participatory media as a way to access decision-making spaces (Harris, 2018), and prioritizing local control over energy systems in the transition away from fossil fuels (Fairchild & Weinrub, 2017; Feldpausch-Parker et al., 2019). Others demonstrate the ways that EJ groups use subversion within formal institutionalized processes to meet their own needs. Hunt et al. (2019), for example, expand on Cox's concept of indecorous voice to show how it can be used tactically by participants to expose the radical potential of public hearings as spaces for growing movements. Finally, researchers advocate for community-based, participatory, or engaged research practices as a way to address procedural injustices and use collaboration to promote EJ as a goal and process (Chen et al., 2012; Raphael, 2019).

Beyond participation in environmental decision-making research, EJ scholars also use organizational communication as a way to attend to procedural justice. This is not to say that organizational communication scholars do not attend to EJ in environmental decision-making (e.g., Mesmer et al., 2020; Middlemiss, 2010). Part of this body of literature is concerned with how social movements disrupt hegemonic orders that sow environmental injustice. Ganesh, Zoller, and Cheney (2005), for instance, center collective "transformative resistance"—as opposed to individual resistance—to study globalization from below (p. 177). Ganesh and Zoller (2012) posit a shift from the traditional conception of dialogue—that privileges consensus over activism—to a multivocal conception that better attends to participation via activism. Other authors examine more discrete organizations like religious environmental groups (Middlemiss, 2010) and universities (Pavlich & Rose, 2010) to identify avenues for participation in efforts to promote EJ.

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Distributive justice

In this section, we focus on the distribution of environmental harms and benefits across a range of specific embodied and emplaced struggles for EJ. While we are attentive to a variety of local to international scales of distribution, we found that most of the research articulated itself within scholarly conversations about similar environmental issues as opposed to spatial or governmental scales. We begin with the broad categories of air, water, and land—a typical way of categorizing our planet's major ecological systems—followed by more specific categories of environmental hazards.

Air. Air is ubiquitous and key to sustaining life on the planet. Yet, half of the world's population are exposed to increasing levels of air pollution (Shaddick et al., 2020). Under-resourced communities—including Black, Indigenous, Latinx, Homeless, poor, and otherwise marginalized and underrepresented communities—are disproportionately harmed from the effects of air pollution (Collins & Grineski, 2019; Zou et al., 2014). While air can intersect with a variety of forms of toxicity and overlap with other categories in this section, we highlight a small set of research in EC that is specifically focused on air pollution. Kuchinskaya (2018), for example, examines how the seemingly invisible nature of air pollution can be made more perceptible through visualizations, in this case, a public art installation installed in Pittsburg, Pennsylvania. Further, Olofsson et al. (2018) analyze how news media and nonprofits in Delhi, India—home to some of the worst air pollution globally—frame the air pollution issue in relation to EJ.

Water. The crisis over lead contamination in the water supply system in Flint, Michigan in the U.S.—a majority African American city plagued by economic downturn—drew significant attention to water as an EJ issue. Carey and Lichtenwalter (2020) and Congdon Jr. et al.(2020) highlight the lack of EJ in media framing of the Flint water crisis because media tend to blame poor government structures, shifting the focus away from racial and economic inequalities at the root of systemic issues. A common approach to community organizing in the face of the Flint water crisis was a flattened hierarchy of leadership, where mothers and children drew upon pre-existing networks to demand change (Thomas, 2020a, 2020b). Yet, many middle- and upper-class residents of the surrounding area, used various sense-making strategies to attempt to absolve themselves of responsibility toward action (Mesmer et al., 2020). Flint is not the only example of water injustice. Colonialism and capitalism intertwine with water sovereignty and access globally (Das, 2019; Schmitt et al., 2020). Since water spans large geographic regions and impacts people across borders and identities, multi-stakeholder initiatives (MSIs) have to come together to build resilient water systems (Mitra, 2018). Capitalism continues to exacerbate water injustice, as private actors gain more access to both water and shorelines (Thompson, 2020). These messy border spaces of shorelines lead us into the interconnected nature of water justice with land justice.

Land. Contentious struggles over land have been particularly important for highlighting the role that colonialism plays in producing environmental injustice. Indigenous people globally have survived amidst and resisted centuries of settler attempts to dispossess and target their land bases for harmful development practices (LaDuke, 1999; Teves et al., 2015). For example, the nuclear industry in the U.S. has been especially harmful for Native communities, both because of increased radiation exposure that Native people living near uranium mines and mills experienced and because uranium mining and nuclear testing have primarily taken place on lands that are sacred to many Indigenous people (Bears Ears Inter-Tribal Coalition, n.d.; Endres, 2018; Johnson, 2018). Others have argued that some apparently pro-environmental land movements are tied up with colonial discourses that erase

Indigenous presence and sovereignty (Ewalt, 2011; Spoel, 2018). Struggles over land also include disagreements about appropriate scales of governance. For example, controversies over public lands designations in the U.S. have often centered on "states' rights" or "wise use" discourses that call for limits to federal regulation over public lands or argue that federal restrictions on extractive development and grazing on public lands unfairly harm low-income rural communities (Peeples, 2005; Thompson, 2020). It is important to note, however, that some arguments about these harms are produced by corporate campaigns and astro-turf organizations (Bsumek et al., 2014; Perdue & Pavela, 2012). Further, unjust siting decisions reveal how more privileged communities have the resources to reject locally undesirable land uses, whereas more marginalized communities may be less able to fight against them (Johnson, 2019a; Solis, 2020). Thus, struggles over land often compound existing injustices, such that the most marginalized communities experience the most harm from development.

Toxins and Waste. Toxins and waste are a key starting point for the EJ movement and research. As discussed previously, early EJ movements in Warren County, Cancer Alley, Love Canal, and Navajo Nation focused on toxic and hazardous emissions, leaks, and waste from industries located near poor, BIPOC, and otherwise marginalized communities. As such, a focus on toxicity and hazardous wastes exceeds a singular focus on air, land, or water. Pezzullo's (2003b, 2004, 2007) research program theorizes the concept of toxic tourism (see also Bowers' 2013 application). Through participant observation with EJ groups offering "toxic tours," Pezzullo unpacks the communicative, performative nature of these events as modes for witnessing, being present with, and participating in challenging toxic environmental injustices. Peeples (2011, 2013) theorizes how people visualize and create the presence for toxins and toxicity that are often invisible (see also Barnett, 2015). Through analysis of Edward Burtynsky's *Manufactured Landscapes* photos of toxic places, Peeples (2011) conceptualizes a toxic sublime that grapples with tensions between the horror and awe inherent in toxic sites. Moreover, a body of research has focused specifically on nuclear waste from the perspective of environmental injustice, environmental racism, and environmental colonialism for which Indigenous peoples and nations experience disproportionate harm from the nuclear production process (Clarke, 2010, 2017; Endres, 2009a, 2009b, 2012, 2013; Peeples et al., 2008). Additional research on injustices in the distribution of toxicity and waste includes the military waste in Guåhan (Na'Puti, 2016), nuclear weapons waste (Johnson, 2018; Pezzullo & Depoe, 2010), and trash (Peeples, 2003, 2011).

Climate Justice. Climate justice integrates EJ with approaches to climate change. Sze and London (2008) contend that climate justice expands EJ to attend to global places and constituencies by examining the relation between global and local with a focus on complex articulations of manifold actors (i.e. workers, social movements, private capital, government, and residents). The Climate Justice Alliance (2021), for example, brings together "frontline communities and organizations into a formidable force" to fight for just climate transitions (n.p.). Frontline communities generally contribute less to climate change yet face disproportionate burdens from the climate crisis and its threat multiplication of disasters (e.g., hurricanes and wildfires), refugee migration, and resource conflicts (de Onís, 2018a; Pezzullo, 2013). While climate change communication is a significant and robust area of environmental (and science) communication (e.g., Moser & Dilling, 2007), EC research that explicitly engages with climate justice is less prevalent. In the realm of media, Moernaut and Mast (2018) examine the framing of climate change in relation to EJ and Monani (2008) examines how two films about the Arctic National Wildlife Refuge (ANWR) express different visions of EJ. Na'puti et al. (2018) evaluate the enabling and constraining aspects of "climate math" framing in relation to climate justice movements calling for energy democracy. Pezzullo and

de Onís (2018) lay out the urgent need for more communication research on climate justice, noting:

> Climate change stretches us to feel the presence of the interconnection between subterranean fossil fuels and the atmosphere far beyond the Earth's surface, among ourselves and every other being on the planet, amid the voices of government and those on the frontlines of climate research and disaster.

(p. 116)

Energy Justice. Energy communication—a sub-area of EC—can also be a vehicle for EJ research (Endres et al., 2016). Energy communication not only relates to climate change as an ongoing global phenomenon that intensifies unequally distributed harms and benefits but also relates to interdisciplinary research on energy justice (Sovacool & Dworkin, 2014). Cozen et al. (2018) call for energy communication scholars to extend their inquiry to "transitional colonialism and environmental justice" as well as energy democracy specifically (p. 291). de Onís's (2018a, 2018b, 2016) foundational research on energy coloniality examines ongoing energy injustices in Puerto Rico based on several crises that link coloniality, sociotechnical systems, and material and cultural systems of power. Scholars have also created a performance about fracking (Bodkin & Collins, 2017), examined how EJ is framed in discussions of oil extraction in ANWR (Monani, 2008), focused on the injustices in the Dakota Access Pipeline process (Johnson, 2019a), and analyzed energy utopia and energy poverty from the lens of energy justice (Schneider et al., 2016).

Reproductive Justice. Environmental issues overlap with reproductive justice in terms of discussions of population control, fertility, and "under what conditions one can exercise the right to *not* have children or the right to *have* children" (Di Chiro, 2008, p. 284). While only a handful of studies have unpacked this connection, EC scholars are increasingly interrogating how "women's bodies literally reside at the intersection of climate and reproductive justice" (de Onís, 2012, p. 9). Issues related to social reproduction such as infertility and miscarriages often remain invisible due to stigmatization, meaning that activists connecting these issues to environmental causes often have a harder time proving their connectedness (Murphy, 2017). Because of the often hidden nature of these issues, particularly in already marginalized communities, coalition building becomes key for pushing for systemic change to address reproductive injustices (Thomas, 2020b).

Food Justice. Food justice research typically engages tensions between individual changes and systemic changes in food production and consumption. Common issues, such as animal agriculture/big agriculture (Broad, 2019), access to nutritious food (De Souza, 2019; Guthman et al., 2014), and farm worker rights (Burch & Harry, 2004; Zoller et al., 2020), tend to favor one side of the continuum over the other. Highlighting individual advocacy, while Garner (2014) describes shopping at a farmer's market as food justice advocacy, Hahn and Bruner (2012) analyze "buying organic" in comparison with food justice practices such as eating vegan or vegetarian. Food documentaries can also contribute to delinking individual actions from food justice by failing to engage in justice conversations (Pilgeram & Meeuf, 2015). Broad (2016) describes the problems with individual approaches to food justice and analyzes how campaigns can be more effective in broadening their scope to avoid inadvertently blaming food injustice victims for their situation and make sure that food justice movements are targeted at those most in need. Gordon and Hunt (2019) contend that one cannot link food to EJ without a focus on food systems. Such efforts include decentering whiteness in the Dietary Goals for Americans (Broad & Hite, 2014) and placing stricter

regulations on the agricultural industry to protect workers and nonhuman animals (Broad, 2018). Schnurer (2012) points out how farm subsidies in the Global North continually lead to dumping excess crops in the Global South, which impairs local food suppliers who cannot compete with the unpredictable influx of free food. Effective food justice projects embrace hybridity (Seegert, 2012) and use community-based approaches that use community assets instead of focusing on deficits (Villanueva et al., 2016).

Recognition justice

Recognition justice demands respect for and adherence to affected communities' values, traditions, and epistemologies rather than mere inclusion in processes (Hoover, 2017). This necessitates attention to unique ecocultural identities and the role of positionality in knowledge production (Milstein & Castro-Sotomayor, 2020). In this section, we review recognition-based EJ research that highlights models for centering non-dominant epistemologies in EJ research, including research on environmental colonialism and aesthetic-based research methods.

Indigenous Knowledges and Environmental colonialisms. Whyte (2018) argues that settler colonialism is a form of environmental injustice, not only because of the disproportionate devastation of Indigenous lands and people from nuclear production, fossil fuel production, and mining but also because it imposes a worldview of land, ecology, and beings that is incommensurable with Indigenous lifeways and relationships with land and places. While procedural and distributive environmental injustices are certainly experienced by Indigenous peoples and nations, focusing on recognition turns our attention to how the ecological worldview of dominant groups, particularly when imposed through settler colonialism, silences Indigenous knowledges. Within EC, researchers have focused on how nuclear colonialism denies Indigenous knowledges (Endres, 2013; Johnson, 2018), environmental decision-making processes undermine Indigenous sovereignty and participation (Johnson, 2019a), news media problematically cover Native American environmental issues (Moore & Lanthorn, 2017), climate fiction functions as a genre of settler colonialism (Pierrot & Seymour, 2020), and Indigenous activists in Guåhan resist militarism's impact on the environment (Na'puti, 2019a; Na'puti & Bevacqua, 2015). However, much of the scholarship in this area remains focused on analyses of settler colonial practices of environmental injustices to Indigenous lifeways and land. An emerging area that merits more attention is research that focuses on Indigenous epistemologies and futurities as modes of resurgence, survivance, and decolonization (Simpson, 2017; Tuck et al., 2014; Vizenor, 2008). Usha Sunda Harris (2018) highlights stories of Pacific Islander communities about climate change as form of self-representation in media. As this research continues to grow, Indigeneity as an analytic (Na'puti, 2019b) and Indigenous knowledges frameworks challenge the reliance on non-Indigenous frameworks as the default for EJ research. This allows researchers to, for example, engage with Indigenous criticisms of new materialisms and use Indigenous peoples' ways of describing their work, such as using water protectors, not protestors.

Another line of research has characterized the environmental colonialisms that impact communities in many forms and across a variety of spatial and temporal relations with colonialism (e.g., postcolonialism, neo colonialism, settler colonialism, etc.). For example, de Onís (2018b) illuminates "the interrelationship and roles that [colonial] systems and their discourses play in fueling both everyday and exceptional emergencies" (p. 4). The field would benefit from expanding its focus from the many environmental colonialisms that perpetuate injustices to forms of environmental decolonization.

Art-based, Aesthetic, and Performance-based Approaches to EJ. Our experiences with environmental injustices are not solely rational but are also affective. Through aesthetic and art-based approaches to EJ research and advocacy, researchers can broaden their audience, call attention to how bodies materially experience environmental harms, and embrace diverse epistemologies and ontologies. Pezzullo (2003a) highlights this connection, describing the "Cancer Alley" toxic tour in Louisiana as a performance-based approach to EJ activism. Unfortunately, most performance literature in EC does not explicitly engage EJ. For example, in Besel and Blau's (2014) edited volume, only a few chapters explicitly consider injustice (Blau, 2014; Del Gandio, 2014; Willard, 2014). However, this trend has started to change, as demonstrated by Bodkin and Collins' (2017) performance of "Fractured," which highlights the ugliness and injustices of hydraulic fracturing through a humorous depiction of a beauty pageant.

Addressing EJ issues through aesthetic approaches is not limited to performances. Architectural design (Crowe, 2020), product design (Sackey, 2020), photographs (Barnett, 2015; Peeples, 2013), and "cli-fi," or climate-change-themed fiction (Pierrot & Seymour, 2020), can communicate in different ways to new audiences. Moreover, autoethnographic (Thompson, 2020) and poetic forms of expression (Collins, 2020) can provoke readers to consider injustices through imagery, figurative language, and storytelling. Arts-based research may also be especially helpful in centering non-Western epistemologies and challenging settler colonialism (Charlie, 2016). Takach (2017) argues that art is uniquely helpful in teaching EJ, as it "offer(s) enormously effective potential to provide highly expressive, nuanced representations of the world and life on it; to cast fresh eyes on entrenched perspectives, inviting questions and conversations; and to engage, inspire, and activate audiences" (p 102). When done effectively, arts-based approaches can expand and recognize epistemologies outside of dominant or technocratic ways of knowing environmental issues. However, Stewart and Johnson (2018) caution that aesthetics alone without a justice orientation do not translate to better practices and policies.

Future directions

Despite the research we have reviewed in this chapter, EJ research remains marginal in the broader field of EC. As such, the first future direction is simple: we need more. EJ spans the many topical areas typically considered in EC from media representations to participatory processes, to more-than-human communication to climate change to energy communication. We join the chorus of calls for more EJ research by arguing that if the field seeks to have any hope of having an impact on the many ongoing environmental crises, EC scholars and practitioners must center justice, equity, and systems of oppression that intersect with anthropocentrism and the destruction of people, water, air, land, and more-than-human beings. Centering the role of communication, media, and rhetoric is essential for imagining new models of participation and organizing; supporting and amplifying the worldviews, values, and humanity of underrepresented peoples; and constituting new possibilities.

One such possibility—and our second future direction—is building models of participation in environmental decision-making that value BIPOC epistemologies and ontologies and genuinely involve those who have the most to lose in decision-making. As Aikau noted in a panel discussion, this involves rethinking some of the basic communicative patterns that guide research on participation, such as shifting from the metaphor "giving people a seat at the table" to "a place at the mat" to center Pacific Islander positionalities (Hinkley Institute Radio Hour, 2021; see also Cordes, 2020 on metaphors). Likewise, we deliberately

use "participation in environmental decision-making" here as opposed to "public participation in environmental decision-making" to decenter settler norms of publicity and recognize that Indigenous participation is not always public-to-government, but instead government-to-government (Johnson, 2019b). This sort of thinking allows for attention to both procedural and recognition justice. In addition, we encourage EC scholars to delve into the questions of: (1) what role does communication play in more just and equitable models of participation? (2) how can models of participation center BIPOC knowledges? (3) What modes of communicating across difference and conflict offer our best tools for making truly just, equitable, and anticolonial decisions?

Third, there is a dearth of research focusing on international and borderlands environmental injustices, despite notable exceptions (Castro-Sotomayor, 2019, 2020; Chirindo, 2016; Sowards, 2012; Tarin, 2019; Tarin et al., 2017, 2020). This reflects a strong U.S.-centrism in EC research (Castro-Sotomayor & Pérez-Marín, 2015). We follow Banerjee and Sowards' (2020) advocacy that "the field of environmental communication needs to do more intercultural/international/decolonial research even as we need to take greater ethical consideration of how such research work plays out" (p. 16). One example encourages a move toward considering whether and how research about Indigenous communities, particularly sovereign Indigenous governments in the U.S and Canada, is international and intercultural communication.

Fourth, and relatedly, we align with Sowards' (2019) call to see more integration of publications written in languages other than English to build internationalization and celebrate the many languages spoken. This, of course, challenges the dominance of English-language scholarship and journals/publishers centered in the U.S., Canada, the U.K., and Western Europe. As Banerjee and Sowards (2020) note: "English has been considered the lingua franca of academic scholarship for many years, and for the foreseeable future is likely to continue to be the primary language of research and publication" (p. 2). Yet, Castro-Sotomayor's (2011; Naranjo & Sotomayor, 2011) Spanish-language publications about EJ struggles in Columbia and Ecuador and de Onís et al.'s (2020, forthcoming) Spanish-language publications about energy coloniality in Puerto Rico are notable exceptions. EC scholars need not be limited to these examples and welcome publications across a variety of languages. We agree with Banerjee and Sowards (2020) "that rethinking how research is conducted in non-white, non-English language, non-dominant cultures is one way to advance environmental justice, particularly through engaged scholarship that includes deliberation, participation, and decolonization" (p. 4).

Fifth, we hope that EJ scholars will continue to debate, discuss, and push the boundaries of the question: justice for whom? EC scholars and practitioners must pay attention to the web of connections across types of injustices, problematize the white-centeredness of much environmental work, and center race in EC research (Anguiano et al., 2012; Chiu & Arreglo, 2011; De Souza, 2019; Endres, 2020). In order to do so, we need "new voices, new thinking, and new strategies" that involve relationships with areas of communication scholarship-focused topics including race, ethnicity, and borders (Agyeman, 2007, p. 120). For example, Cisneros (2008) describes how media perpetuates the metaphor of immigrant as a pollutant, which could have profound connections with EJ EC research. Further, emerging scholarship focuses on justice for more-than-human others, in line with Indigenous worldviews that affirm the agency of animals, plants, and the earth (Broad, 2013; Endres, 2018; Schmitt et al., 2020; Whyte, 2018). As such, we call for more analyses and theorizing that engages with the multiplicities, relationalities, and intersectionalities of oppression (e.g., Crenshaw, 1991). We are not interested in proscribing which modalities or intersections of oppression need

focus. Rather, there is value in a variety of approaches depending on the context or site of research. There is value in looking at a discreet concept like anti–Black environmental racism or Indigenous resistance to environmental colonialism. There is also value in enhancing focus on environmental injustices that are intersectional, involving multiple compounding forms of oppression.

Conclusion

In this chapter, we have presented one mapping of EJ work in EC. It is not the only possible mapping, but one that allows for tracing EJ work in the field along the facets of procedural, distributional, and recognition justice. We contend that all EC work should attend to EJ by expanding the crisis/care disciplinary framing to a crisis/care/justice framing, which centers justice in all of the work EC scholars do seeking to ameliorate environmental crises. This does not mean that justice or inequity has to be the main focus of all research projects, but it should be an underlying ethical consideration in the same way that crisis and care are. Systems of oppression are at the root of all environmental crises. As such, EC scholars cannot solve environmental problems, including the climate crisis which is already disproportionately affecting marginalized communities, without attention to justice and equity.

EJ should infuse not just EC research, but all of the everyday and extraordinary scholarly practices and performances of EC scholars, practitioners, and organizations. This might include: decolonizing methods (Smith, 2006), rewriting mission statements, and changing review processes (e.g., annual reviews and RPT) to value community-based research in collaboration with frontline EJ communities. As the climate crisis worsens, EC educators need to teach about climate justice in our classrooms (Louis, 2016; Milstein & Griego, 2017; Stack & Flower, 2017; Takach, 2017; Typhina, 2017; Walker, 2017). EC as a discipline should also consider changes in its practices as a scholarly community, such as prioritizing more support for diverse BIPOC, poor, and marginalized communities; funding research, teaching, and service that is aligned with EJ; devoting special issues and providing publishing opportunities for scholars researching EJ topics; celebrating the ongoing engagement with EJ groups through participatory methods; and changing our conference practices. While there are scholars in the field who have been pushing for and enacting these changes (for which we are grateful), we hope that the entire field of EC will commit to rethinking and revising our institutions, structures, policies, and cultures to center EJ.

Further reading

de Onís, Catalina M. (2021). *Energy Islands: Metaphors of power, extractivism, and justice in Puerto Rico.* University of California Press.
This new book came out just as we were completing final revisions on this chapter. It offers a deep and nuanced analysis of local community groups in Puerto Rico (a territory of the United States) that are working for energy justice as a way to create alternatives to extractivism, capitalism, colonialism.

De Souza, R. (2019). *Feeding the other: Whiteness, privilege, and neoliberal stigma in food* pantries. The MIT Press.
This book homes in on food justice through an analysis of the communication in two food pantries in a mid-sized city in North America. It highlights how food insecurity is linked with discourses of neoliberalism, blaming, and economic productivity and argues for elevating the voices of the hungry in a move towards justice and equity.

Pezzullo, P. C. (2007). *Toxic tourism: Rhetorics of pollution, travel, and environmental justice*. University of Alabama Press.
This award winning book presents the results of fieldwork with environmental justice groups hosting toxic tours as a mode of publicity and activism. In doing so, it analyzes discourses of tourism, toxicity, and resistance to environmental injustices.

Sandler, R., & Pezzullo, P. C. (2007). *Environmental justice and environmentalism: The social justice challenge to the environmental movement*. The MIT Press.
This interdisciplinary edited volume examines the tensions between environmental justice and environmentalist perspectives and practices. It offers a series of case studies that examine whether and how environmental justice and environmentalism might work together in alliances and coalitions that benefit both.

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