

## **Racializing Climate Justice in/for Education**

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### **Introduction**

In this essay, we argue for racializing approaches to teaching climate change to better understand and address climate injustices. The climate emergency and racial injustice have received a lot of attention in the past few years which highlights the intensification and merging of crises. Indeed, there has never been a greater concern in the twenty-first century for the state of the environment and for racial injustices. We give credit to the Black Lives Matter movement for being the megaphone for issues related to Black people. However, even the most passionate activists often view climate and racial injustices as distinct battles. This juxtaposition has left the climate justice movement disproportionately white and without a strong racial analysis that examines the ways people of color and poor people are impacted by climate change (Miles et al., 2021). Consider the historic Blizzard of 2022 in Buffalo, New York, where nearly 40 people died over a span of three days. Climate scientists have linked the intensity and frequency of storms to climate change (Pignotti et al., 2021), including extreme winter storms. In a city already fractured over racial and class segregation, over-policing of poor neighborhoods, and a city government that has a sordid history of ignoring racial injustices, Buffalo's blizzard has only added fuel to the fire (Haq & Schindel, 2018; Miles et al., 2021). Although Black people make up only 14 percent of the population of Erie County and 33 percent of Buffalo's population, they were overrepresented and accounted for 51 percent of the blizzard deaths in the county (Sacks, 2022). It should be abundantly clear that we need to improve how we educate, prepare for, and advocate for climate justice.

The disproportionate number of deaths in the Black community from Buffalo's blizzard highlights the ways in which climate catastrophes and racial injustices are inextricably linked. Why did the Buffalo blizzard claim the lives of a disproportionate number of members of our Black community? Community leaders contend that structural issues—such as food deserts, inadequate housing, poverty, limited public transit options, and government disinvestment—heightened the vulnerability of low-income Black and Brown communities during the storm (Sacks, 2022). Environmental and climate injustices have cultivated a disproportionate impact on low-income communities and communities of color, who pay the cost with their health and lives both locally and globally (Bullard, 1991; Schindel et al., 2022; Schlosberg and Collins, 2014). Responses to storms can reveal the community's resilience and preparedness, issues which are increasingly necessary due to the increase in climate-related severe weather events.

However, resilience and preparedness are also associated with historic legacies of housing segregation and neighborhood redlining (Cusick, 2020). For example, industries that release toxic air pollution have been intentionally situated in communities of color over decades (Bullard, 1991). In addition, historically redlined neighborhoods are associated with the prevalence of cancer, asthma and other poor health indicators (Nardone et al., 2020) and are hotter than those that were not redlined in nearly every city. As a result, extreme heat (Shandas et. al., 2019) and air pollution are leading causes of death in communities of color. Thus, viewing the disproportionately high death toll of the Black community in Buffalo's blizzard through a racialized lens of community disinvestment sheds light on the need to racialize the conversations and, as we argue in our essay, curricula, about climate change.

For too long we have discussed climate justice with race-neutral dialogue and the term climate change has been used to diminish the nature-human connection and our social interactions with the environment. As educators, we focus our attention on the racialization of climate change curricula to argue for climate justice education. We draw upon the growing body of climate justice education research (e.g. Damico et al., 2020; Eaton & Day, 2020; Nxumalo & Montes, 2021) and we argue for action-oriented climate change education (Mochizuki, 2016) to explicate what transformative and racialized climate justice learning might look like. We contend that teaching about climate change without teaching climate justice is at best inaccurate and at worst irresponsible. In what follows, we outline a critique and a way forward that aims to heal communities through building relationships and climate resilience.

### **Defining Climate Justice**

Climate justice involves recognizing that climate change has disproportionately impacted other living beings, communities of color, and those with low incomes all over the world—the people and places least responsible for the climate change crisis (Aygeman & Doran, 2021; Harlan, et. al., 2015). Climate justice is the enactment of justice-centered transitions and solutions that address the underlying causes of climate change and multi-faceted justice concerns, including racial justice (Mohai, et. al., 2009).

The climate crisis has been caused by historical and ongoing human activities that favor the development of capital and consumer-based lifestyles across the globe. The pursuit of capital and these lifestyle choices occurs only through the dual exploitation of humans and the natural world. Current teaching models on the climate crisis paint a woefully incomplete picture of the problem and ignore, hide, and whitewash the complexities that lie at the root cause of the crisis: namely, capitalism and imperialism (Eaton & Day, 2020). Notably, racial capital and capital accumulation are mutually constituted, and as Pulido (2017) articulates, the devaluation of nonwhite bodies that occurs and gets produced within capital production extends to devaluation through pollution. That is, both capital production and its byproduct pollutants are written onto the bodies and into the graves of nonwhite communities across the globe. A stark example of this is seen in the environmental racism of Cancer Alley wherein Black residents in southeastern Louisiana have been subjected to dangerous carcinogens from plastic refineries and other factories (Dykstra, 2022). Given the context of sidestepping the exploitative nature of capital production in climate education, we suggest a new approach to educating about the

climate crisis must highlight the interconnections across racism, capitalism, and our own cultures and realities and provide powerful and sustainable justice-centered solutions.

### **Climate Justice Education: Framing the Problem**

In order to help students comprehend the scope of the crisis, the underlying causes, and the ways in which they can address both climate and racial injustices, we propose a conceptualization of climate justice education as a place-based teaching pedagogy that incorporates an interdisciplinary approach focused on collective responsibility rather than individual accountability. We also support comprehensive state legislation that robustly funds and supports the development and implementation of climate justice education in all contexts and disciplines.

The current practice in the United States has too often been approached by teaching the climate crisis in general terms, such as: 1) teaching climate science through demonstrating the abundance of evidence that confirms climate change; and 2) encouraging children to care about the environment, which often occurs at a surface level through learning about distant adorable animals being harmed by humans' actions—usually polar bears or penguins. Ultimately, such teaching methods are driven by a similar goal: to convince individuals to engage in environmentally friendly habits such as recycling, buying energy efficient products, and taking shorter showers. Notably, teaching methods which primarily locate climate solutions on individuals' actions can also contribute to young people's climate anxiety, which is a growing mental health concern (Clayton, 2020; Wu et al., 2020). Further, recommending individualistic environmental actions to youth is reprehensible as they generally do not have purchasing power for their homes, nor do youth across socioeconomic status have equitable impacts on their environments (i.e. food diets, transportation, household size, and other carbon footprint indicators often lie outside of their control). In addition, many approaches to decreasing personal consumption and reducing carbon footprints are unattainable for most children and families, such as access to locally grown organic foods, energy efficient appliances, climate-resilient housing, reusable products, etc. Climate crises, such as the Buffalo Blizzard, demonstrate the pitfalls of positioning environmental issues, including climate resilience, as individualistic problems. In the city of Buffalo, for instance, the transportation authority pre-emptively suspended public transportation (Besecker, 2022), stranding those with transportation vulnerabilities to independently navigate a way home from work in hurricane strength winds and high intensity snowfall.

We believe a shift is needed in our schools and this shift involves teaching not just climate science but climate justice. Climate justice paints a more accurate picture of the climate crisis because: 1) it focuses on how the climate crisis is set to harm the most vulnerable populations on the planet (both humans and other living beings who have contributed the least to climate change); and, 2) it advocates for just responses and just transitions in communities' and countries' green economy responses to ensure the restoration and preservation of land, people, labor, and culture. In short, climate justice highlights how racism is impacting climate change and our children.

### **Climate Justice Education: Moving Forward**

How should we approach teaching climate justice in ways that are not harmful, yet impactful? Many educators do not incorporate climate justice issues within their classes because they are unclear about the concept and what it can look like within their geographic context. Therefore, our approach to teaching climate justice involves: 1) learning what climate justice issues can be found within one's own community, explicitly extrapolating these understandings to global contexts, and exploring the ways climate issues are interrelated; 2) integrating local climate issues into school curricula; and 3) engaging in collective, transformative climate actions through classroom, schoolwide, and community climate justice activism. As educators, we utilize our local environments as the primary texts and resources for our students' learning in various ways, including online and in-person mapping tools and experiences (see e.g. EJScreen.com; Kuonen & Miles, accepted) and within community-situated learning and action (e.g. community and land (re)storying; Schindel et al., 2023). As an example, to learn about local climate issues, we introduce learners to the U.S. Climate Resilience Toolkit ([toolkit.climate.gov](http://toolkit.climate.gov)), a web-based user-friendly tool that provides information about local potential natural disasters—and examine how local concerns can be woven into curricula. While the toolkit was initially designed for state and local decision-makers to bolster capacity for resilience to climate-related hazards (Gardiner, et al., 2019), it is a helpful tool for educators and their students to learn about and potentially address local climate issues. As another example, we engage with young people in ecological restoration and action that acts as a crucial component in climate change restoration and response (Harris et al., 2006) and can also position students as contributors and originators in constructing local transformations. When youth utilize their scientific understandings to restore local landscapes, they learn to recognize the interdependence of humans and other living beings (Bang et al., 2014) and get firsthand experience with the environmental, relational, and economic impacts of ecological restoration within their communities (Schindel Dimick, 2016).

While it is important to understand global impacts, we suggest that climate understanding and action should begin in local communities. When children and youth engage in climate justice issues, they learn they can impact and influence their communities and they come to understand how local concerns take on a significant part of meaningful global change. This interdisciplinary, civic-minded approach outdoes the current practices illustrated above. Perhaps most importantly, the lessons young people learn when engaged in understanding and impacting the climate concerns for their own communities can cultivate relationships to place and instill hope for a brighter future. Taking the Buffalo Blizzard as an example, learning about the causes of the blizzard and its differential impact on vulnerable communities demonstrates for young people how their local extreme weather events are interconnected with extreme draughts, flooding, and wildfires globally and how these, in turn, impact global human migration, particularly for those whose occupations depend upon the weather. Ultimately, vulnerability gets disproportionately distributed to Black and Brown communities locally and globally—issues which are representative of the lingering histories of colonialism and imperialism.

### **Conclusion**

There are significant barriers to achieving the vision of climate justice education we have outlined. Barriers can begin to be overcome through educator preparation, professional

development, and the creation of curricular resources that not only address climate change but also center climate justice. The current context of climate change education across the United States shows growing interest in climate change education but rarely addresses climate justice (for timely information on state policies and implementation, see NAAEE, n.d.h). To date, New York state does not have explicit climate change education standards, nor is climate change integrated across school curricula for science or other disciplines. However, youth activists, grassroots organizers, and other organizations are taking the lead—and often learning from youth climate activism—to advance climate education. As one example in New York, the Climate and Resilience Education Task Force (CRETf) is working to build a coalition of stakeholders to create and implement a robust climate education platform through state policy change (see CRETf, n.d.). The burden for educating and implementing climate justice must not be borne by individual educators but instead be driven by systemic change that works towards just transformations (see e.g. Movement Generation, 2020) and that centers the voices of diverse and climate-vulnerable communities.

Climate justice is racial justice. The work of ecological restoration is interdependent with building racially just and climate-resilient communities (Movement Generation, 2020). Racializing approaches to teaching climate change will support communities to better understand and address climate injustices. Just transitions and just responses to climate crises are particularly critical during this crucial time in which communities are increasingly recognizing and planning for extreme weather events. Climate justice education provides youth with the knowledge and tools to envision futures in which the catastrophes and climate casualties of the Buffalo Blizzard do not get repeated. As educators, we must hold ourselves accountable for understanding how climate change impacts us locally and join in climate justice movements. There are no sustainable goals without justice (Clark & Miles, 2021). Educators at all levels should ensure they are teaching climate and racial justice in their classes, regardless of the content area, and are working to share actionable responses to local climate issues using antiracist pedagogy.

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