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Compounding barriers to environmental justice

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ABSTRACT

This paper examines how environmental justice (EJ) activists and scholars experience and think about the barriers to beneficial change. It reports findings from an international study that used Q methodology. We ask: how do activists and scholars view the barriers to realising environmental justice goals of movements? What insights from their political practice and research can extend contemporary theories of environmental justice? Our data reveals a broad consensus among scholars and practitioners about the forms of elite power that create injustice, particularly political and corporate corruption. Four primary categories of barriers to change were interpreted from the survey and interviews, each capturing different sites of EJ struggles and revealing distinct dimensions of environmental injustice. The first is the broadest: structural marginalisation, particularly historical and contemporary violence, which underpins the other barriers. The second is more specific institutional obstacles, particularly weak legal and political institutions. The third is exclusionary public policy processes which silence community and social justice concerns. And the fourth barrier includes the bureaucratic cultures facing the EJ movement, as well as internal strategic dilemmas. Overall, the results point to the multi-layered, compounding way that environmental injustice is embedded and perpetuated. Together, these dimensions illustrate the variety of ways injustice is manifest in environmental policymaking, and the complex barriers to be overcome. Barriers to practical EJ efforts are structured, institutionalised, related, and compounding in distinct sites, forming a web of challenges that requires a coordinated and multipronged EJ strategy.

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Environmental justice; barriers; institutions; structure; the state

Policy highlights

- Develops a multi-dimensional framework for theorising interacting barriers to environmental justice.
- Reports on findings from an international study that used Q methodologically to empirically examine the discourses of environmental justice circulating globally.
- Identifies four key arenas where barriers manifest: in the social realm generally, institutions, policy processes, and bureaucracies.

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This article has been corrected with minor changes. These changes do not impact the academic content of the article.

- Provides insight into environmental justice policy making with regard to the roles of exclusionary institutions, policy frameworks, bureaucratic cultures and strategic dilemmas facing campaigners and advocates.

1. Introduction

Environmental justice (EJ) is a multi-dimensional concept developed by diverse social mobilisations that strive for justice by linking environmental and social issues and foregrounding the voices and experiences of marginalised and vulnerable communities (Pellow 2017; Schlosberg 2007; Sze 2018). While environmental justice activists mobilise in relation to issues experienced in distinct situations and contexts across the globe, it is the common language, concepts, slogans, types of conflicts, and forms of mobilisation that align and create a global movement (Martinez-Alier et al. 2016). Ongoing environmental injustices combined with increasing efforts to prevent and resist them indicate that environmental justice initiatives across the world face formidable barriers. These barriers to realising EJ goals are complex, multi-dimensional, situated, and compounding. Corporate power that exploits and extracts resources in ways that do enormous social and ecological harm to marginalised communities is routinely documented by EJ scholars (Temper et al., 2015). EJ movements often struggle to gain traction in formal legal and policy processes given institutional and cultural biases (Harrison 2015, 2019). In the broader political sphere, EJ ideas may circulate widely, but struggle to influence popular opinion, electoral outcomes, and government decision-making (Carrillo and Pellow 2021).

Most advances in theoretical knowledge about barriers to EJ are generated from local case study research. These studies provide valuable insights into the unique challenges and dilemmas faced by EJ campaigns and coalitions. However, they often lack a synthesised conceptual framework to account for these barriers. Developing this conceptual framework is not without its complexities. Attempts to generalise EJ barriers can risk oversimplifying the diverse contexts and conditions in which different actors work for change. Potentially, this could overlook the unique factors shaping each struggle and the diversity vital to EJ movements.

Acknowledging this, we propose an approach that identifies common barriers reported by EJ activists and scholars while also emphasising the specific experiences of distinct contexts. Building this framework in collaboration with EJ activists and scholars, and drawing on perspectives across and within EJ movements, could illuminate key arenas and mechanisms that need to be addressed. This approach may also enhance collective communication, strategy development, and action. As we illustrate here, documenting shared understandings of barriers to EJ offers a way to advance a theoretical framework of the specific, varied, and interconnected injustices faced by EJ movements and their actors.

What follows is our analysis of the perspectives and experiences of activists and scholars from around the world, and the patterns found within those experiences. We used qualitative and quantitative methods including Q-methodology (Q) to capture the personal viewpoints of individuals on a specific subject. Q has three key features that make it helpful in identifying broad patterns without inhibiting or erasing diverse perspectives. First, Q's data collection requirements combine extensive analysis of the barriers identified within prior research and commentaries by activists and academics, with the personal experiences, opinions, and viewpoints of individual participants. Second, Q uses a sort technique that asks participants to choose between statements that originate from EJ scholarship and movements, so participant priorities can be interpreted, and the researchers can identify subtle distinctions in the prioritisation of EJ issues. Finally, Q allows researchers to identify specific areas of both consensus and difference in participants' selections. This allows for an analysis that can point to areas of general agreement as well as to the issues that exhibit more variation and diversity. This method provided a framework of perceived EJ barriers that was refined through interviews and consultation with participants and wider EJ stakeholders.

We proceed with an introductory section that summarises key insights from existing case study research on the nature of environmental justice. We illustrate some of the most significant barriers to change that emerged from our systematic literature review of EJ research. The remainder of the paper reports on our Q research results, beginning with the method used for content analysis, the Q analysis results, and follow-up interpretive interviews and focus groups. The core sections of the paper build a conceptual framework from the Q study. With this framework, we theorise the barriers to EJ in four multi-layered and compounding institutionalised dimensions and sites.

1.1. Environmental injustice and the barriers to change

Populations around the world continue to be harmed by exposure to environmental burdens and lack of access to environmental benefits. Acts of land appropriation through dispossession, resource extraction, natural resource management, land use, industrial activity, and waste management are among the sources of environmental injustice and conflict (Martinez-Alier et al. 2016). Global deaths from ambient and toxic chemical air pollution rose 66% between 2000 and 2021 (Fuller et al. 2022). Exposure to these and other harms is spatially and demographically uneven, concentrated in low and middle income countries and especially affecting groups such as children in socio-economically disadvantaged local areas (e.g. Chakraborty, Collins, and Grineski 2019). Further, the harms of climate change are now, and will continue to be, unequally distributed (IPCC 2021; UNDP 2007).

Since its inception, the environmental justice literature has consistently identified racism, empire, and capitalism as structural drivers of inequality and harm in various forms (Bullard 1996; Cole and Foster 2001). Among other things, these structures are global, for instance the international trade regime perpetuates ecologically unequal exchange (orgenson, Austin, and Dick 2009; Roberts and Parks 2007). Here, the ecological and social costs of production are shifted from the Global North to the Global South, enabling wealthier nations to benefit from the exploitation of the Global South's natural resources and labour, while the latter experiences environmental harm and poverty (Hickel et al. 2022; Hornborg and Martinez-Alier 2016).

Local communities and other groups around the world continue to fight and "put their lives on the line" against proposed and enacted environmental injustices as evidenced in conflicts over extraction of resources, industrial sites, and pollution as examples (Temper et al. 2018, 574). Efforts to resist injustice are often inhibited and shut down by processes of silencing including through secrecy, disinformation, narrow legal framings and violent policing. The resultant procedural injustice has long been appreciated as a source of environmental injustice in its own right.

In the face of ongoing and worsening environmental injustice, the EJ movement has sought to reappraise strategies and identify barriers to more environmentally just outcomes (Suiseeya and Kimberly 2015; Pellow and Brulle 2005). Such a move is tightly linked to growing attention to not only the occurrence, but also the processes underlying these gross injustices. The related field of "critical EJ" has focused especially on the systematic misrecognition and dismissal of non-hegemonic groups. Associated intersectional approaches that help explain environmental inequalities along the lines of race, class, gender and other axes of social difference not only point to unjust correlations between patterns of harm and disadvantage, but draw attention to the processes of devaluation that are used to justify the production and imposition of environmental harms on certain groups and communities (as detailed by Mikulewicz et al. 2023; Schlosberg 2007; Schlosberg 2013; Walker 2009). These processes are recursive and self-reinforcing, often leading to a spiral of disadvantage as low quality environments undermine multiple domains of people's lives, compounding and entrenching patterns of relative disadvantage that are used to justify the further concentration of harm in already damaged areas (see Wolff and De-Shalit 2007).

Over the years, research has established how and why these structures present tangible barriers to community organising and justice action, and have tracked their effect at different scales and in specific dimensions. For example, social class and race have always played a critical role in the

emergence of environmental injustices (Mohai and Bryant 1992). The disproportionate exposure of historically marginalised groups, specifically people of colour and people living in low-income communities, to environmental harm and disruption has long defined environmental injustice. Pellow (2000) illustrates that these exposures arise from the capitalist endeavour to maximise profits being systemically prioritised and enabled over environmental and social justice concerns. Perkins (2022) illustrates more of the same within California's experience of environmental injustice and movement responses. The ability of communities to respond and resist their injustices is dependent on their own access to social and material resources, and their power to resist or challenge these practices; in other words, it too is socially and spatially patterned, leading to the procedural injustices mentioned above.

The power disparities between different communities are themselves enabled and exacerbated by capitalist and other hegemonic logics over time, and operate at different scales simultaneously. At the local level, Higginbotham et al. (2010) highlight how discriminatory land-use policies and zoning regulations emerge as barriers to environmental justice. A large literature documents how policies create a pattern of environmental injustice where particular groups are systematically excluded from and distrustful of the decision-making processes that impact their lives and health (e.g. Askland and Bunn 2018; Milbourne and Mason 2017; Wilson, Hutson, and Mujahid 2008). At the global scale mentioned above, the systemic exclusion of particular groups from deliberative power and authority continues to stem from entrenched colonial logics that exploit and extract resources from the Global South for the benefit of the Global North (Agarwal and Narain 1991; Parks and Timmons. Roberts 2010; Sultana 2022).

By analysing the ways in which state violence is deployed in environmental justice struggles, this work demonstrates how the state continues to systemically protect the interests of corporations and the wealthy at the expense of marginalised communities (Morales, Grineski, and Collins 2012; Whyte 2018). Researchers are increasingly interested in examining how state institutions, such as the judiciary, police, and regulatory agencies, contribute directly to environmental harm and social inequality (Harrison 2022). Harrison (2017) explores the ways such institutions and the stakeholders within them contribute to environmental injustice by limiting public participation in decision-making processes, and by placing undue burdens on marginalised communities. Shifts in these sites can also be discerned in response to EJ activism. While bureaucratic agencies have historically been resistant to environmental justice concerns, there has been a growing movement within these agencies (until most recently) to fight for greater equity and inclusion (Harrison 2019). Through case studies of several agencies, Harrison demonstrates how environmental justice activists have used a variety of tactics, including the litigation, coalition-building, and direct action strategies identified by Pellow, to push for more just and equitable policies. While acknowledging the breadth of injustices promulgated by the state, Harrison also notes the avenues of potential – and necessity – of state engagement.

With regard to engaging the state, EJ movements debate the extent to which their goals can be realised through legal-administrative processes or through participation in the politics of environmental policy making (see, for example, Perkins 2022). These strategic decisions are deeply political and personal for EJ practitioners, shaped by the diverse subject positions they occupy. A vital aspect of EJ "politics of mobilisation" (Bickerstaff and Agyeman 2009, 781) is that "the movement" includes not only affected or at-risk communities fighting back but an array of others, including volunteer supporters, not-for-profit organisations, and professionals of various sorts, including full time activists and academics of the sort we engaged with through this study.

This dynamic collective of EJ supporters cuts across occupational, institutional, social, and spatial boundaries, often with individuals occupying multiple roles simultaneously (including as members of disadvantaged groups). As Walker (2009, 627) notes, EJ is an "intrinsically involved field of study", in part because the increasingly prominent ideal of "procedural fairness' or justice requires "a fluidity of movement of people, ideas and perspectives across the boundaries of institutions and between differentiated elite and lay spaces, creating open rather than constrained networks of interaction and

deliberation". To be involved in these procedures of political contestation makes EJ activists and scholars intermediaries in a number of respects.

Professional campaigners, experts working in NGOs and academics working in the EJ movement act as intermediaries in the sense that they (including the current authors) attempt to mediate between threats of environmental injustice and material outcomes. Practices of intermediation include support and shielding, facilitating connections, exchanging information, generating knowledge and alternative visions, critiquing existing systems, and harnessing privilege and power to advocate for and drive change (Blomley 1994; Johnston and Goodman 2006). Early in the movement literature, Čapek (1993) demonstrated the links between activism at different scales against toxic pollution in the case of Carver Terrace, Texas, whereby national organisations supported locals in developing the language, frames, symbols, and actions for protest thereby amplifying the efforts of the local community. In principle, intermediaries both in and outside of the academy can have a positive effect on EJ outcomes, helping enable procedural justice and generate more just recognition and distributional outcomes. Yet the persistence of environmental injustice suggests that their intermediation has not been effective in practice.

Green movement studies are replete with debates about the difficulties and tensions over political compromises led by intermediaries (e.g. Andrée 2011; Berny and Rootes 2018; Doyle 2000; Pearse 2018). It is here we come back to barriers to EJ and the approach we take in this study. As seen above, there is strong understanding of the forces driving environmental injustice, including corrosive disadvantage and the effects of pernicious and acute suffering from injustice and constant defensive action. This work focuses on the groups leading EJ activism, the many local communities, First Nations, and marginalised groups. This research also draws attention to the wider circle of supporters who strive to use their often less-disadvantaged, and privileged, positions and different forms of agency to intervene in the systems generating environmental injustice to avoid or moderate negative outcomes. This group operates in an arena that is connected to but distinct from the local sites EJ tends to focus on. Whether as employees or visitors, this group extends the spaces of EJ work through their labours in a distributed array of offices and meeting rooms, parliaments and courts, laboratories and streets, libraries and virtual platforms.

Empirical work is needed to better understand the knowledge EJ activists and academics have produced from diverse movement campaigns. We focus here on the knowledge of barriers to positive social change that comes from combinations of activist practice and the intellectual labour of activists and academics (and activist-academics), who are often circulating between movement spaces and the academy. These intermediaries develop insights into barriers to change from a range of experiences e.g. protest events and collective meetings, exchanges on movement web platforms, and formal campaign evaluations. We understand the discursive claims made about barriers to EJ in our study as forms of practical knowledge generated from countless experiences and tasks undertaken. Maddison and Scalmer (2006) call this "activist wisdom" generated from many experiences and collective organising work.

Generating a "general" theory about barriers to change across diverse EJ movements raises the question of whether the EJ discourses in movement writing reflect practical realities. We argue that discourses of EJ circulating in the movement and its scholarship effectively identify social structures that hinder positive change. Both activists and academics engage with abstractions to some extent in the political task of naming the forms of power that campaigns address. Developing shared language and understanding of the challenges faced by local campaigns is essential for building power and fostering global solidarity. The challenge for EJ activists, and studies like ours, is how to engage in necessary abstractions without losing the contextual and "local" foundation of practical knowledge. For example, the collaborating movement mapping project Global Atlas of Environmental Justice uses a co-design method to link local struggles and deal with a sense of fragmentation produced by global capitalism's tendency to create "disconnection between the diverse geographies of injustice" (Temper et al. 2018, 255).

This study takes a small step towards that goal by analysing both the texts produced within the EJ movement and perspectives of other EJ members on the ideas presented in those texts (see also Schlosberg et al. 2024). In selecting the latter sample, we intentionally avoided the typical national and institutional buckets and instead recruited a "population of interest" (intermediaries in the EJ movement) very widely. The result is an eclectic set of discourses but they offer, we argue, useful insights into the structural barriers EJ intermediaries, and the movement as a whole, face in their work to facilitate more just environmental outcomes. In the sections to follow, we outline our research approach to examining the perspectives held, by a range of EJ intermediaries, on the barriers to achieving environmental justice. We then discuss both a consensus, as well as a range of differing perspectives, that emerged from the Q survey, follow-up interviews and focus groups, and our interpretive analysis.

2. Method

Q methodology (Q) is a research method used to explore people's attitudes and opinions on a particular topic; it involves a series of steps that enables broad discourse analysis as well as granular engagement with individual perspectives on a topic (see Brown 1993; Watts and Stenner 2005). The Q process involves the development of a "concourse", a broad collection of statements from relevant sources that reflect known viewpoints. From this pool of statements, a representative set of statements is identified and presented to participants, who are asked to rank them into a bell-curve shaped Q-sort grid according to their own agreement and disagreement.

Individual participant Q-sorts are then statistically compared to each other using factor analysis to identify patterns of similarity and difference in how participants have prioritised statements. Participants with similar arrangements are grouped together and their statement patterns are interpreted by researchers as distinct "factors', shared perspectives, or discourses. We followed up with both individual interviews with participants, as well as collective focus groups, to gather additional information on rationales for ranking, interpretation of prioritised statements, and our initial interpretations. The researchers then drew on the factor analyses, interviews, and focus groups to name and characterise the identified factors, which are then reported as distinct collective viewpoints, perspectives, or discourses.

The use of Q enables a fine-grained understanding of people's perceptions and opinions, and is particularly helpful when there are multiple perspectives and a lack of consensus within a field of discourse (Webler, Danielson, and Tuler 2009). Q allows researchers to explore the complexity and contingency in how individuals orient themselves in a field of discourse (Eden et al., 2005), and identify patterns of thinking that might not be apparent in traditional surveys or interviews (Zabala, Sandbrook, and Mukherjee 2018). Like interview-based studies, it is the norm for Q studies to have small data sets representing a discursive field. In our research on the barriers of environmental justice, we developed a concourse of 36 representative statements from activist and academic EJ publications. These sources were identified using systematic Boolean searches to target every region in the world. The purpose was to support a representation of viewpoints from different areas in the world, and avoid overrepresentation from areas with a higher volume of EJ publications, such as the USA or Australia.

Participants were identified through the concourse research, as authors, and through further snowballing. Twenty-five participants completed Q-sorts, including 16 academics and nine activists. These participants were all working at different scales of EJ at the time of the study, ranging from grassroots organising to city-wide and even national policy development. Participants were working in Australia (11), Brasil (2), New Zealand (1), South Africa (2), Togo (2), Uganda (1), UK (1), USA (2), Thailand (1), Kenya (1) and Columbia (1). Our recruitment strategy aimed for equal numbers of activists and academics were invited to participate in this research, however the final participant pool had greater representation from academia. While not fully representative, as a group they represent a diversity of EJ intermediaries oriented in different combinations to:

campaigning, protest, policy and political debates in civil society, making formal representations to parliaments, government bureaucracies and courts, as well as academic research and writing.

The following sections of this paper will present our analysis of the shared and diverging perspectives of these participants on barriers to EJ. It is important to note that while the majority of participants (14) were statistically aligned with a single factor or viewpoint, 11 were statistically aligned to two or more understandings; we will return to this point in our discussion.

2.2. Barriers to environmental justice: multiple dimensions

Before describing the *differences* across the participants, it is important to note where there is a strong consensus on the barriers to achieving or implementing environmental justice. In short, the consensus among survey respondents is that corporate and elite power operating through formal institutions and informal networks are the main barriers to change for EJ movements. There was a broad consensus amongst all participants on the role of power as a central barrier, particularly around political and corporate corruption or influence in social and environmental outcomes, and the absence of explicit justice framings of environmental policies and state actions. This sentiment clearly aligns with a more critical environmental justice approach (e.g. Pellow 2017; Schlosberg et al. 2024).

The most highly ranked consensus statements focused on corporate power and institutionalised corruption between elites and private companies, as well as the inadequacy of environmental policy. The Q sorts saw the highest level of agreement about the following "positive" and "negative" statements.

The statements that received the highest level of positive consensus (agreement) were "Political connections and collusion between industry and government influence development approvals" (Leonard 2018a, 2018b), and "Issues of employment and financial gain may lead to competing priorities within communities located near ecologically harmful industries" (Leonard 2018a). The statements that received the highest level of negative consensus (disagreement) were "Corporations do not influence democratic processes at the macro state and micro community levels" (modified to the negative from Leonard 2018b), "Conventional environmental policy adequately includes diverse community experiences and knowledge" (modified from Méndez 2020) and "Resource sovereignty has not been impacted by local elites and predatory private companies" (modified to negative from Hamouchene 2020).

These statements all emphasise deep power disparities in decision-making and networks of political and corporate influence, drawing links between these forms of power and resource extraction, ownership, and development, undue influence at the community level, and consequent ecological risks and harms disproportionately falling on diverse and marginal communities. Such networks and power disparities also arise in analysis of the conflicts included in the EJAtlas (Martinez-Alier et al. 2016). This consensus is clear, substantive, and shared – and reflects the growth and influence of the discourse on critical environmental justice both in and out of the academy.

There are, however, some key differences about how such a consensus relates to movements themselves. Statements that received the highest rate of disagreement *amongst* participants were "The environmental movement historically has not been based on empire, colonisation and racial exclusion" (modified from Holden 2019), and "Environmental activists have failed to identify the racial and social injustices within their movements" (Reem 2019). These statements represent discussions, debates and critiques within and between environmental movements about the varied forms of oppression, racism and other forms of discrimination that prevail in society, and differences over how (and whether) movements should understand and organise around such intersectional concerns.

Taken together, we can see a productive tension in EJ movement praxis beyond the very strong consensus on corporate and state power and corruption. On the one hand, there is a strong shared understanding of the historical legacies of empire and racialised oppression in the broader

environment movement (which EJ movements are a part), and a strong view that EJ movements have identified the racial and social injustices within their movements. But on the other hand, there is disagreement about whether inequalities and forms of oppression are evident in the actual practices and tactics of movement organisations, and what to do about that (which we return to below).

From within this general consensus about the role of power, a few clear emphases, or clusters of opinion, appear. What follows is our reading of those four distinct yet overlapping discourses, along with our interpretation of the insights participants have brought to the understanding of these multiple structural and institutional barriers to achieving environmental justice. See Table 1 for an overview.

2.2. Organised and targeted oppression

We found four unique, if interlinked, understandings of the barriers to EJ across study participants. The first approach is characterised by a strong critical EJ discourse including Indigenous, decolonial and racial critiques of the state and corporations, as well as the movement itself, and its own issues with racism, colonialism and capitalism. There was also a strong focus on issues of police brutality and criminalisation experienced by environmental defenders. Participants who aligned with this "Organised Oppression" approach were a mix of academics and activists from countries including Australia, United States and Zimbabwe.

The statements that distinguished this approach from other collective perspectives identified in this study were strong agreement with "Indigenous peoples have to fight both colonial and capitalist encroachment simultaneously" (Gilio-Whitaker 2019), and strong disagreement with "Activists of colour have rarely been systematically excluded or marginalised in environmental justice efforts" (Evelyn 2020), and "Indigenous people and communities of colour are rarely sidelined in campaigns to protect the environment" (Evelyn 2020). In short, in this perspective, there is a distinct focus on environmental injustices that are both complex and targeted on marginalised, and specifically Indigenous, populations including inside the environmental movement.

Participants also disagreed with the statement, "Corporations do not influence democratic processes at the macro state and micro community levels." (modified to the negative from Leonard 2018b). They expressed high agreement with the statement "Political connections and collusion between industry and government influence development approvals." (Leonard 2018b). The consensus on the power of industry to corrupt decision-making is high, and illustrates another form of organised and institutionalised exclusion.

There was also high agreement between participants aligned with this approach about violence and intimidation as the primary barriers to widespread and just engagement in actions for environmental justice. The statement that "Attacks and harassment may intimidate community members

Table 1. Four barriers to environmental justice.

Organised oppression	Institutional obstacles	Policy processes	Bureaucratic cultures
Key themes: • Systematic and structural racism • Indigenous, decolonial, and racial critiques of the state and corporations • Government, corporate, and movement level marginalisation and exclusion • Police Brutality and criminalisation of protest	Key themes: • Institutionalised oppression, colonisation, racism • Use of state institutions, including courts, as instruments of oppression and violence • Local Knowledges excluded in legal processes • Global alliances do not necessarily benefit local struggles	Key themes: • Barriers to inclusion in policy making and policy processes • Lack of inclusion of social justice concerns in policy development • Shallow policy implementation • Power imbalances in EJ movements, but global alliances as advantageous	Key themes: • Discriminatory bureaucratic and workplace culture • Biased impacts of decisions in states, corporations, agencies, movements • Gender discrimination • Generalised exclusion of community experiences and knowledges

who mobilise for environmental justice" (Human Rights Watch 2019) received a high level of agreement, while "Police violence and company tactics do not create an environment of fear for community rights defenders and EJ groups" (modified to the negative from Human Rights Watch 2019) received a high level of disagreement. The criminalisation of protest and the very real danger faced by environmental justice activists at the hands of both state and corporate-sanctioned "security" is clearly part of the understanding of the institutionalisation of exclusion and oppression.

In keeping with the broad consensus among all respondents, the statements emphasised by those who aligned in this discourse have an explicit emphasis on the operations of colonial and capitalist power at all levels and scales of the social order. Those aligned to this discourse also saw EJ movements themselves as struggling to break free from practices of oppression and discrimination they are fighting against. A strong sense of the breadth of collusion and influence of corporations over democracies comes through, as does state-sanctioned and long-institutionalised violence and intimidation of EJ activists.

2.3. Institutional obstacles

The next approach was similar to the focus on organised oppression, but characterised more specifically by the way that oppression, colonisation, capitalism and racism are institutionally manifest and experienced by movements. Participants who primarily aligned with this Institutional Obstacles approach were activists from the majority world, from Togo and Brazil.

The distinguishing statements for participations that grouped together in this approach were "Governments and companies are using countries' courts and legal systems as instruments of oppression" (Global Witness 2019), which received the highest level of agreement. Other key statements for this group were strong disagreement with the statement "Technical-scientific knowledge is not privileged over local knowledge in political and legal processes" (changed to the negative from Kojola 2019). This group also strongly agreed that "Policies to mitigate the impacts of environmental degradation frequently fail to consider disability rights" (Jampel 2018). These statements highlight how dominant forms of knowledge and policies exclude marginal groups specifically in the broad range of political and legal institutions and processes necessary for policy change.

This group is also distinguished from the others given participants' strong disagreement with the statement "Global alliances benefit local struggles" (Shah et al. 2021). And respondents that aligned with this approach strongly agreed with the statement "The environmental movement historically has not been based on empire, colonisation and racial exclusion" (Holden 2019) and strongly disagreed with the statement "Environmental activists have failed to identify the racial and social injustices within their movements" (Higginbotham et al. 2010). There is a clear defense of the ability of local movements, in particular, to acknowledge and understand issues of oppression and exclusion – and a suspicion of the benefits of global movements. One participant explained that:

> global alliances are not directly [of] benefit to those who are at [the] local level … . For example, if they go to their meeting to make decisions, normally those policies or decisions must be evidence-based made. But we notice that they don't come to the grassroots level to consult them, gather their point of view or what they think. They have local solutions [but] they don't ask … .

This position is particularly notable given that respondents who identified with this particular approach are from the majority world of the south.

Taken together, this group of participants emphasises the legal and socio-political barriers to change in the national institutions that EJ movements must engage with in their struggles for justice. The disagreement with the benefits of organising in global solidarity networks implies that this group is focused on local and national struggles – and their ability to address such barriers. The knowledge system and policies that create barriers to environmental justice are emphasised as exclusionary and marginalising. Unlike the first group, those aligned with this approach were adamant that movements are not sources of oppression and discrimination. Rather, EJ movements

were seen as organisations that were dealing with the legacies of extractive colonialism through their own practices.

2.4. Policy processes

A third emphasis or discourse on barriers was more specifically focused on the policy process arena, and was characterised by a focus on barriers to inclusion in policy making, including the absence of adequate community integration, and attention to social justice concerns, within environmental policy development and implementation. This arena was highlighted by both activist and academic participants from Uganda, Togo and Brazil.

Participants in this group expressed strongest disagreement with the statement that "Conventional environmental policy adequately includes diverse community experiences and knowledge" (modified from Méndez 2020). Similarly, very strong agreement was expressed with the statements "The term environmental justice is rarely present in environmental policies or policy frameworks, thus omitting the structural causes of injustice" (de Souza 2019), and "Governments can facilitate corporate investment in pro-environmental projects while simultaneously failing to protect local human rights" (Ramirez 2019).

Overall, this policy process perspective aligned on views about the role of government policy and the failure to facilitate environmental justice, as well as the practice of excluding communities (see also OECD 2024). Rather than focus on generalised oppression and racism, or institutional obstacles such as the exclusion of peoples or perspectives, this group's more specific focus was on barriers within the policy process itself.

One activist participant who aligned highly with this view noted that policy becomes a barrier not only when it is absent or insufficient, but also when policy is followed in shallow or ineffective ways around genuine community engagement:

> They have community meetings set up. And whether people attend the meeting or not they check off a box so that they can say 'we had community meetings' when in reality no community showed up. So it's now based solely on checking a box as opposed to genuine community engagement.

More introspectively, with this approach there is a clear concern about the lack of attention to both power and issues of social injustice in movements themselves. Participants that aligned with this approach strongly disagreed with the statement "Power imbalances do not exist in environmental justice coalitions" (modified to the negative from Lyra 2019). They also strongly disagreed with the statement "Environmental activists have failed to identify the racial and social injustices within their movements" (Reem 2019). This combination of foci – obstacles in both the policy process and in environmental movements' approach to them – is unique to this particular group.

As opposed to the previous approach, there was also a focus on the *benefits* of alliances; a distinguishing statement that received a high level of agreement was that "Global alliances benefit local struggles" (Shah et al. 2021). Given the general concerns about movement groups, as well as concerns about inauthentic inclusion, this finding was surprising – but it does illustrate the perceived benefit of such global alliances in responding specifically to the deficits and barriers to policy processes at the heart of this approach.

2.5. Bureaucratic cultures and strategic dilemmas

A fourth approach emphasises how the bureaucratic cultures of government, corporate and civil society organisations can also undermine EJ efforts. It also provides big-picture recognition of the competing priorities among communities and decision-making bodies that influence environmental actions and outcomes. Specifically, this approach prioritised a recognition that every decision made within mainstream corporations, government agencies, or activist organisations may have hidden, unrecognised, or unacknowledged harmful repercussions on different communities that are

implicated but not centred in those decisions. The approach was populated by academic participants working in Australia and South East Asia.

On the one hand, this approach aligns with crucial work done by Harrison (2019) on the discriminatory culture within environmental decision-making agencies. Participants that aligned with this approach were distinguished by strong disagreement with the statement "There is a deep workplace culture that supports EJ advocacy within government environmental agencies" (modified to the negative from Harrison 2019). Gender discrimination was also a significant issue with this group, as they strongly disagreed with the statement "Female activists do not have to grapple with gender discrimination within their communities" (modified to the negative from Coulson and Milbourne 2021). More generally, those aligning with this discourse also strongly disagreed with the statement "Conventional environmental policy adequately includes diverse community experiences and knowledge" (modified to the negative from Méndez 2020), though unlike the other perspectives outlined above, the critique of policy was linked to bureaucratic cultures and discriminatory structures.

In addition to this focus on institutionalised bias, there was a concern about the strategic trade-offs of environmental justice campaigns and politics. Participants in the group strongly agreed with the statement "Environmental activism that averts harms in one location can redistribute the focus and effects of that harm elsewhere" (Garnett 2018). They also strongly disagreed with the statement "Issues of employment and financial gain may lead to competing priorities within communities located near ecologically harmful industries" (Leonard 2018a). This group had a strong sense of the dilemmas facing EJ movements regarding the spatial and distributive aspects of their struggles, particularly when it comes to local fights to stop projects in one place that may displace harm to another and local debates over the financial benefits that extractive industries promise.

Taken together, the statements prioritised by people aligned with this approach highlighted barriers from the operation and cultures of government agencies as well as the structural processes they operate in.

3. Discussion and Conclusions

This study has identified different emphases in activist and academic thinking about the barriers to achieving environmental justice that contribute to a multi-dimensional account of key arenas of struggle for EJ activists. While one consensus area emphasises the general oppression faced by the movement, others more specifically note political processes broadly, the policy process more specifically, and the discriminatory cultures of bureaucratic agencies. The multi-site, multi-scalar character of structural barriers is dominant and pervasive, in particular around race, gender, colonialism, ableism, and the power of capital to corrupt political decision-making, was confirmed (Pellow 2017; Pulido, Kohl, and Cotton 2016). The significant degree of consensus among participants and overlap between the dimensions underscores three core findings: (1) barriers are rooted in structural conditions, institutions, policies, and bureaucratic contexts, (2) these categories of barriers are experienced simultaneously in diverse localities, and (3) these barriers interact in situated and compounding ways, creating a web of challenges for EJ movements. While we describe the arenas as ontologically distinct, many of our participants (11/25) emphasise more than one in their outlook, as illustrated in Figure 1.

Further, the results confirm differences in experience and opinion about the key structures hindering change, indicating that each EJ practitioner brings specific experiences to their understanding of the barriers to change. While finding both consensus and differentiation, our methodology did not explore the differences between participants, to examine, for example, the potential impact of class or gender difference, or other structural inequalities like North/South distinctions. On reflection, this was a missed opportunity, and a shortcoming of the research design that should be a topic for further inquiry.

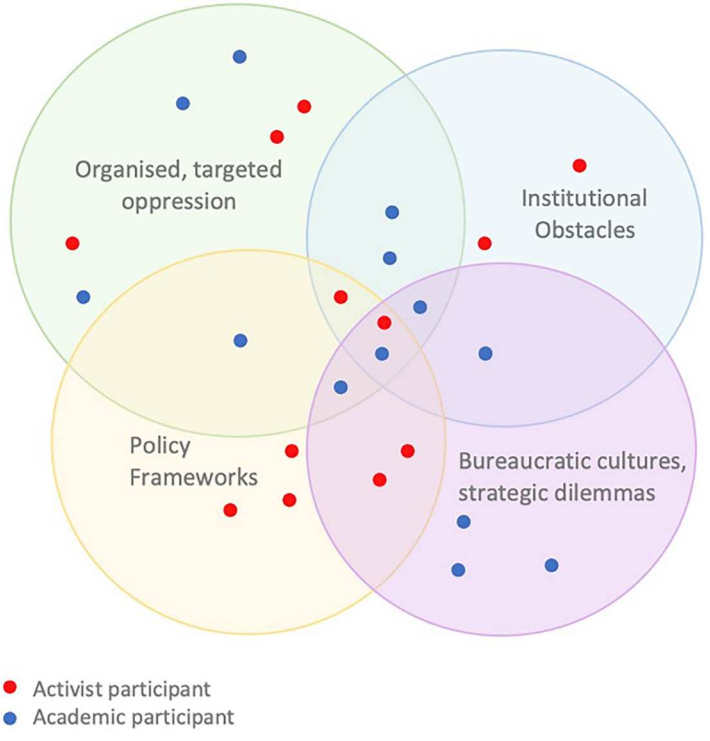

Figure 1. Venn diagram of relative participant alignment as indicated by individual Q-sort results. Note: circle size is an indicator of how significant each approach was in overall participant responses.

What we have developed is a synthetic account of the multiple and compounding barriers to change noted by a range of EJ intermediaries, operating across geographic space. As discussed, our participants are not all necessarily the actual *victims* of environmental injustice – though some indeed identified as such. All, however, are *intermediaries* attempting to bring about environmental justice through activism, scholarship, and various forms of community and governmental engagement. Our findings suggest that even though they may be distinct from the victims of injustice they are working to serve, EJ intermediaries are hampered by the same forces. In turn, this underlines the broadly systemic nature of the challenge.

Some important variations in EJ praxis emerged. As Pulido, Kohl, and Cotton (2016, 12) argue, the difficulties faced in realising EJ outcomes illustrates the limits of action within the more formal legal, policy, and administrative processes. Participants emphasised both broadly institutionalised oppressions and more specific obstacles, including exclusionary policy processes and organisational cultures rooted in racism, misogyny, and colonialism. One way to understand this is that the barriers to EJ are seen as nested within a globally harmful eco-social structure (Bacon 2019; Fraser and Jaeggi 2018) with four key arenas where barriers manifest: in institutions, policies, workplaces, and on the streets. The interactive and overlapping nature of these barriers suggests that focusing on a single dimension may oversimplify the complexity of achieving EJ.

More constructively, the findings of such diverse barriers reinforces the value of Wolff and De-Shalit's (2007) discussion of the reality of complex, pluralistic "disadvantage", and their calls to address the compounding and corrosive nature of its construction. Recent EJ research is moving in this direction, for example, in Goodling's (2021) documents how houseless individuals face hazardous conditions and criminalisation – what we term organised oppression – driven by capitalism, housing speculation, and exclusionary policies. Such findings underline the structural and

intersecting nature of EJ barriers and the need for a systemic approach that recognises how organisational logics maintaining environmental injustice may also create openings for change.

EJ activists and intermediaries operate at the frontline of resistance while negotiating with the state. The political challenge lies in interpreting how barriers compound to stymie justice while identifying opportunities arising from state in/action (Perkins 2022). As Harrison (2022) observes, engagement with the state (at any level) is necessary for EJ movements because public agencies, policy processes, and bureaucracies are all tasked with "managing" interactions between EJ groups and the extractive industries. However, the state itself is an institutional ensemble – historically aligned with capital and imperialist interests (Pulido 2017) – whose contradictory objectives create openings for social movements (Jessop 2008; O'Connor 1998; Barry and Eckersley 2005). Efforts to dismantle the state's roles in environmental injustice must address its market-facing agencies, regulatory systems, and valuation processes, such as environmental impact assessments that justify extractive projects and industries.

The findings also highlight internal contestation within the EJ movement regarding priorities and tactics. Debates about addressing racial and social injustices within the movement, or the marginalisation of Indigenous communities, underscore the need for reflexivity. Activists must critically assess their practices and organisations to align their methods with the structural changes they seek to achieve.

Environmental injustice needs to be contested on multiple fronts as it is driven by the dynamics of an eco-social structure operating through complex organisational forms (Bacon 2019). Our findings provide a means to think through the arenas of EJ praxis to be prioritised for collective action. Insights behind our data come from consistent and relational engagement with people and potential in those spaces of state in/action on EJ. This raises further questions about how intermediaries with a foot inside or access to the halls of power operate and relate to those parts of EJ movements unable or unwilling to engage the state. Another part of our study (Schlosberg et al, under review) focused on the enablers of environmental justice, where there were no positive notions of the state as a vehicle for environmental justice – and, rather, a focus on "disruption" in engagement with state institutions. Here, we point to the importance of EJ praxis that goes beyond general structural critique and aims to understand the finer-grained, plural and interactive character of institutional barriers to change.

In addition to the broader critique of power and institutions, EJ movement debates about what policies and bureaucratic procedures are fertile ground to engage with will be important here. Intermediaries of this study potentially have important roles to play in both understanding and facilitating the development and coordination of strategy capable of seeing off the dilemmas of state engagement. Deepening communication and debate about shared strategy across many arenas of EJ campaigning is difficult but vital work necessary for tackling the complexity and scale of the task.

Finally, while this study identified key barriers to EJ, it acknowledges that these are not exhaustive. The dynamic nature of EJ struggle means new barriers are constantly emerging, as is the co-optation of the phrase "environmental justice" for cynical purposes amid the rise of financial capitalism (O'Neill 2023). Future work must remain attuned to these developments, centring the experiences and discourses of EJ actors to generate actionable strategies for confronting compounding challenges.

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References

Agarwal, Anil, and Sunita Narain. 1991. *Global Warming in an Unequal World*. New Delhi: Centre for Science and Environment.

Andrée, Peter. 2011. "Civil Society and the Political Economy of GMO Failures in Canada: A neo-Gramscian Analysis." *Environmental Politics* 20 (2): 173–191. doi:10.1080/09644016.2011.551023

Askland, Hedda Haugen, and Matthew Bunn. 2018. "Extractive Inequalities: Coal, Land Acquisition and Class in Rural New South Wales, Australia." In *Energy, Resource Extraction and Society*, Routledge.

Bacon, Jules M. 2019. "Settler Colonialism as eco-Social Structure and the Production of Colonial Ecological Violence." *Environmental Sociology* 5 (1): 59–69. doi:10.1080/23251042.2018.1474725

Barry, John, and Robyn Eckersley. 2005. *The State and the Global Ecological Crisis*. Cambridge: MIT Press.

Berny, Nathalie, and Christopher Rootes. 2018. "Environmental NGOs at a Crossroads?" *Environmental Politics* 27 (6): 947–972. doi:10.1080/09644016.2018.1536293

Bickerstaff, Karen, and Julian Agyeman. 2009. "Assembling Justice Spaces: The Scalar Politics of Environmental Justice in North-East England." *Antipode* 41 (4): 781–806. doi:10.1111/j.1467-8330.2009.00697.x

Blomley, Nicholas K. 1994. "Activism and the Academy." 12 (4): 383–385.

Boutilier, Robert G, and Leeora Black. 2013. "Legitimizing Industry and Multi-Sectoral Regulation of Cumulative Impacts: A Comparison of Mining and Energy Development in Athabasca, Canada and the Hunter Valley, Australia." *Resources Policy* 38 (4): 696–703. doi:10.1016/j.resourpol.2013.02.006

Brown, Steven R. 1993. "A Primer on Q Methodology." *Operant Subjectivity* 16 (3/4): 91–138.

Bullard, Robert D. 1996. "Environmental Justice: It's More Than Waste Facility Siting." *Social Science Quarterly* 77 (3): 493–499.

Čapek, S. M. 1993. "The "Environmental Justice" Frame: A Conceptual Discussion and an Application." *Social Problems* 40 (1): 5–24. doi:10.1525/sp.1993.40.1.03x0069q

Carrillo, Ian, and David Pellow. 2021. "Critical Environmental Justice and the Nature of the Firm." *Agriculture and Human Values* 38 (3): 815–826. doi:10.1007/s10460-021-10193-2

Chakraborty, Jayajit, Timothy W Collins, and Sara E Grineski. 2019. "Exploring the Environmental Justice Implications of Hurricane Harvey Flooding in Greater Houston, Texas." *American Journal of Public Health* 109 (2): 244–250. doi:10.2105/AJPH.2018.304846

Cole, Luke W, and Sheila R Foster. 2001. *From the Ground Up: Environmental Racism and the Rise of the Environmental Justice Movement*, 34. New York: New York University Press.

Coulson, Helen, and Paul Milbourne. 2021. "Food Justice for all?: Searching for the 'Justice Multiple'in UK Food Movements." *Agriculture and Human Values* 38 (1): 43–58. doi:10.1007/s10460-020-10142-5

de Souza, Marcelo Lopes. 2019. "Urban Environmental Activism in Latin America." In *Urban Environmental Activism in Latin America*. Oxford: Oxford University Press.

Doyle, Timothy. 2000. *Green Power: The Environment Movement in Australia*. Sydney: UNSW Press.

Eden, S, A Donaldson, and G Walker. 2005. "Structuring Subjectivities? Using Q Methodology in Human Geography." *Area* 37: 413–422.

Evelyn, Kenya. 2020. "'Like I Wasn't There': Climate Activist Vanessa Nakate on Being Erased from a Movement." *The Guardian*, 29 January.

Fraser, Nancy, and Rahel Jaeggi. 2018. *Capitalism: A Conversation in Critical Theory*. Polity: Cambridge.

Fuller, Richard, Philip J. Landrigan, Kalpana Balakrishnan, Glynda Bathan, Stephan Bose-O'Reilly, Michael Brauer, Jack Caravanos, et al. 2022. "Pollution and Health: A Progress Update." *The Lancet Planetary Health* 6 (6): e535–e547. doi:10.1016/S2542-5196(22)00090-0

Garnett, Johanna. 2018. "Your Place or Mine? Environmental (in)Justice in Myanmar and Australian Activism." *Environmental Justice* 11 (6): 228–232. doi:10.1089/env.2018.0009

Gilio-Whitaker, Dina. 2019. *As Long as Grass Grows: The Indigenous Fight for Environmental Justice, from Colonization to Standing Rock*. Boston: Beacon Press.

Global Witness. 2019. *Enemies of the State? How Governments and Business Silence Land and Environmental Defenders*. London: Global Witness.

Goodling, Erin. 2021. "Urban Political Ecology from Below: Producing a "Peoples' History" of the Portland Harbor." *Antipode* 53 (3): 745–769. doi:10.1111/anti.12493

Hamouchene, Hamza. 2020. "Environmental and Climate Justice in North Africa." *Review of African Political Economy*, 20 March.

Harrison, Jill Lindsey. 2015. "Coopted Environmental Justice? Activists Roles in Shaping EJ Policy Implementation." *Environmental Sociology* 1 (4): 241–255. doi:10.1080/23251042.2015.1084682

Harrison, Jill Lindsey. 2017. "We do Ecology, not Sociology: Interactions among Bureaucrats and the Undermining of Regulatory Agencies Environmental Justice Efforts." *Environmental Sociology* 3 (3): 197–212. doi:10.1080/23251042.2017.1344918

Harrison, Jill Lindsey. 2019. *From the Inside Out: The Fight for Environmental Justice Within Government Amit Gencies*. Cambridge: MIT Press.

Harrison, Jill Lindsey. 2022. "Environmental Justice and the State." *Environment and Planning E: Nature and Space* 6 (4). doi:10.1177/25148486221138736

Hickel, Jason, Christian Dorninger, Hanspeter Wieland, and Intan Suwandi. 2022. "Imperialist Appropriation in the World Economy: Drain from the Global South Through Unequal Exchange, 1990–2015." *Global Environmental Change* 73:102467. doi:10.1016/j.gloenvcha.2022.102467

Higginbotham, Nick, Sonia Freeman, Linda Connor, and Glenn Albrecht. 2010. "Environmental Injustice and air Pollution in Coal Affected Communities, Hunter Valley, Australia." *Health & Place* 16 (2): 259–266. doi:10.1016/j.healthplace.2009.10.007

Holden, Emily. 2019. "'A Lot at Stake': INDIGENOUS and Minorities Sidelined on Climate Change Fight." *The Guardian*, 10 March.

Hornborg, Alf, and Joan Martinez-Alier. 2016. "Ecologically Unequal Exchange and Ecological Debt." *Journal of Political Ecology* 23 (1): 328–333.

Human Rights Watch. 2019. "South Africa: Activists in Mining Areas Harassed: Government, Companies Should Protect Environment Defenders," Human Rights Watch, 16 April.

IPCC. 2021. *The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge: Cambridge University Press.

Jampel, Catherine. 2018. "Intersections of Disability Justice, Racial Justice and Environmental Justice." *Environmental Sociology* 4 (1): 122–135. doi:10.1080/23251042.2018.1424497

Jessop, Bob. 2008. *State Power: A Strategic Relational Approach*. Cambridge: Polity Press.

Johnston, Josee, and James Goodman. 2006. "Hope and Activism in the Ivory Tower: Freiean Lessons for Critical Globalisation Research." *Globalizations* 3 (1): 9–30. doi:10.1080/14747730500502811

Jorgenson, Andrew K., Kelly Austin, and Christopher Dick. 2009. "Ecologically Unequal Exchange and the Resource Consumption/Environmental Degradation Paradox:A Panel Study of Less-Developed Countries, 1970—2000." *International Journal of Comparative Sociology* 50 (3-4): 263–284. doi:10.1177/0020715209105142

Kojola, Erik. 2019. "Indigeneity, Gender and Class in Decision-Making About Risks from Resource Extraction." *Environmental Sociology* 5 (2): 130–148. doi:10.1080/23251042.2018.1426090

Leonard, Llewellyn. 2018a. "Bridging Social and Environmental Risks: The Potential for an Emerging Environmental Justice Framework in South Africa." *Journal of Contemporary African Studies* 36 (1): 23–38. doi:10.1080/02589001.2017.1412582

Leonard, Llewellyn. 2018b. "Mining Corporations, Democratic Meddling, and Environmental Justice in South Africa." *Social Sciences* 7 (12): 259. doi:10.3390/socsci7120259

Lyra, Mariana G. 2019. "Pursuing a Voice in the Extractivism Debate in Brazil." *Environmental Sociology* 5 (2): 207–218. doi:10.1080/23251042.2019.1620091

Maddison, S., and S. Scalmer. 2006. *Activist Wisdom: Practical Knowledge and Creative Tension in Social Movements*. Sydney: UNSW Press.

Martinez-Alier, J., L. Temper, D. Del Bene, and A. Scheidel. 2016. "Is There a Global Environmental Justice Movement?" *The Journal of Peasant Studies* 43 (3): 731–755. doi:10.1080/03066150.2016.1141198

Méndez, Michael. 2020. *Climate Change from the Streets: How Conflict and Collaboration Strengthen the Environmental Justice Movement*. New Haven: Yale University Press.

Mikulewicz, Michael, Martina Angela Caretta, Farhana Sultana, and Neil JW Crawford. 2023. "Intersectionality & Climate Justice: A Call for Synergy in Climate Change Scholarship." *Environmental Politics* 32 (7): 1275–1286. doi:10.1080/09644016.2023.2172869

Milbourne, Paul, and Kelvin Mason. 2017. "Environmental Injustice and Post-Colonial Environmentalism: Opencast Coal Mining, Landscape and Place." *Environment and Planning A: Economy and Space* 49 (1): 29–46. doi:10.1177/0308518X16665843

Mohai, Paul, and Bunyan Bryant. 1992. "Environmental Injustice: Weighing Race and Class as Factors in the Distribution of Environmental Hazards." *U. Colo. L. Rev.* 63:921.

Morales Jr, Oscar, Sara E Grineski & Timothy W Collins (2012), Structural Violence and Environmental Injustice: The Case of a US–Mexico Border Chemical Plant, *Local Environment*, 17(1): 1–21. doi:10.1080/13549839.2011.627321

O'Connor, James. 1998. *Natural Causes: Essays in Ecological Marxism*. New York: The Guilford Press.

OECD. 2024. *Environmental Justice: Context, Challenges and National Approaches*. OECD Publishing, Paris. doi:10.1787/57616eb4-en

O'Neill, Brian F. 2023. "Water for Whom? Desalination and the Cooptation of the Environmental Justice Frame in Southern California." *Environment and Planning E: Nature and Space* 6 (2): 1366–1390. doi:10.1177/25148486221102377

Parks, Bradley C., and J. Timmons. Roberts. 2010. "Climate Change, Social Theory and Justice." *Theory, Culture & Society* 27 (2-3): 134. doi:10.1177/0263276409359018
Pearse, Rebecca. 2018. *Pricing Carbon in Australia: Contestation, the State, Market Failure*. Abingdon: Earthscan/ Routledge.
Pellow, David N. 2000. "Environmental Inequality Formation: Toward a Theory of Environmental Injustice." *American Behavioral Scientist* 43 (4): 581–601.
Pellow, David Naguib (2017), What is Critical Environmental Justice?, Cambridge: Polity.
Pellow, David N, and Robert. Brulle. 2005. "Power, Justice, and the Environment: Toward Critical Environmental Justice Studies." In *Power, Justice and the Environment: A Critical Appraisal of the Environmental Justice Movement*, edited by D. N. Pellow, and R. J. Brulle. Cambridge: MIT Press.
Perkins, Tracy E. 2022. *Evolution of a Movement: Four Decades of California Environmental Justice Activism*. Oakland: University of California Press.
Pulido, L. 2017. Geographies of Race and Ethnicity II: Environmental Racism, Racial Capitalism and State-Sanctioned Violence. *Progress in Human Geography* 41 (4), 4: 542–533. doi:10.1177/0309132516646495
Pulido, Laura, Ellen Kohl, and Nicole-Marie Cotton. 2016. "State Regulation and Environmental Justice: The Need for Strategy Reassessment." *Capitalism Nature Socialism* 27 (2): 12–31. doi:10.1080/10455752.2016.1146782
Ramirez, Jacobo. 2019. "Impacts of Neoliberal Wind Energy Investments on Environmental Justice and Human Rights in Mexico." In *Business and Development Studies*, edited by P. Lund-Thomsen, M. W. Hansen, and A. Lindgreen. Abingdon: Routledge.
Reem, S. 2019. Kevin Patel: Environmental Justice Activist, Medium.com.
Roberts, J. T., and Bradley C. Parks. 2007. "Fueling Injustice: Globalization, Ecologically Unequal Exchange and Climate Change." *Globalizations* 4 (2): 193–210. doi:10.1080/14747730701345218
Schlosberg, David. 2007. *Defining Environmental Justice: Theories, Movements, and Nature*. Oxford: Oxford University Press.
Schlosberg, David. 2013. "Theorising Environmental Justice: The Expanding Sphere of a Discourse." *Environmental Politics* 22 (1): 37–55. doi:10.1080/09644016.2013.755387
Schlosberg, D., L. Rickards, R. Pearse, H. D. Bosca, and O. Moraes. 2024. "Critical Environmental Justice in Contemporary Scholarship and Movements: Consensus and Plurality of the Discourse." *Environmental Politics* 1–22. doi:10.1080/09644016.2024.2362573
Shah, Esha, Gert Jan Veldwisch Jeroen Vos, Rutgerd Boelens, and Bibiana Duarte-Abadía. 2021. "Environmental Justice Movements in Globalising Networks: A Critical Discussion on Social Resistance Against Large Dams." *The Journal of Peasant Studies* 48 (5): 1008–1032. doi:10.1080/03066150.2019.1669566
Suiseeya, Marion, and R. Kimberly. 2015. "Displacing Difference and the Barriers to Environmental Justice." *Politics, Groups, and Identities* 3 (4): 697–702. doi:10.1080/21565503.2015.1093950
Sultana, Farhana. 2022. "The Unbearable Heaviness of Climate Coloniality." *Political Geography* 99:102638. doi:10.1016/j.polgeo.2022.102638
Sze, Julie (2018), *Sustainability: Approaches to Environmental Justice and Social Power*, New York: New York University Press.
Temper, Leah, Daniela Del Bene, and Joan Martinez-Alier. 2015. "Mapping the Frontiers and Front lines of Global Environmental Justice: The EJAtlas." *Journal of Political Ecology* 22 (1). doi:10.2458/v22i1.21108
Temper, Leah, Federico Demaria, Arnim Scheidel, Daniela Del Bene, and Joan Martinez-Alier. 2018. "The Global Environmental Justice Atlas (EJAtlas): Ecological Distribution Conflicts as Forces for Sustainability." *Sustainability Science* 13 (3): 573–584. doi:10.1007/s11625-018-0563-4
UNDP. (2007). *Fighting Climate Change: Human Solidarity in a Divided World, Human Development Report*. New York: United Nations Development Program.
Walker, Gordon. 2009. "Beyond Distribution and Proximity: Exploring the Multiple Spatialities of Environmental Justice." *Antipode* 41 (4): 614–636. doi:10.1111/j.1467-8330.2009.00691.x
Watts, Simon, and Paul Stenner. 2005. "Doing Q Methodology: Theory, Method and Interpretation." *Qualitative Research in Psychology* 2 (1): 67–91. doi:10.1191/1478088705qp022oa
Webler, Thomas, Stentor Danielson, and Seth Tuler. 2009. "Using Q Method to Reveal Social Perspectives in Environmental Research'." *Greenfield MA: Social and Environmental Research Institute* 54:1–45.
Whyte, Kyle. 2018. "Settler Colonialism, Ecology, and Environmental Injustice." *Environment and Society* 9 (1): 125–144. doi:10.3167/ares.2018.090109
Wilson, Sacoby, Malo Hutson, and Mahasin Mujahid. 2008. "How Planning and Zoning Contribute to Inequitable Development, Neighborhood Health, and Environmental Injustice." *Environmental Justice* 1 (4): 211–216. doi:10.1089/env.2008.0506
Wolff, Jonathan, and Avner De-Shalit. 2007. *Disadvantage*. Oxford University Press on Demand.
Zabala, Aiora, Chris Sandbrook, and Nibedita Mukherjee. 2018. "When and How to Use Q Methodology to Understand Perspectives in Conservation Research." *Conservation Biology* 32 (5): 1185–1194. doi:10.1111/cobi.13123