WILEY Environmental Policy and Governance

Polycentric struggles: The experience of the global climate justice movement

Fernando Tormos[1] | Gustavo A. García-López[2]

[1] University of Missouri–St Louis, MO, USA

[2] Graduate School of Planning, University of Puerto Rico, Río Piedras, Puerto Rico

Correspondence
Fernando Tormos, University of Missouri–St Louis, Department of Political Science, 1 University Blvd. 347 SSB St. Louis, MO 63121-4400.
Email: fernando@scholarsstrategynetwork.org

Abstract

What is the relationship between social movements and polycentric governance? The concept of polycentricity has been at the center of recent debates in environmental governance. While most of this work has analyzed polycentric arrangements in relation to collaborative and adaptive governance, some have recently focused on how political conflicts shape these arrangements. In this paper we build on this work through Luther Gerlach's forgotten framework of polycentric social movements to undertake the task of politicizing polycentricity. This task entails expanding the analytical focus of institutional analyses of polycentricity and examining the social group politics of social movements. To this end, we present a case study of the climate justice movement and its relation to climate change governance. We analyze whether and to what extent the movement has embodied polycentric arrangements throughout its history, and to what effects. We show that show that, in seeking to address the multiscalar nature of environmental problems and the limits of existing institutional arrangements, climate justice groups are increasingly organized in a polycentric fashion. Climate justice groups mobilize multiple strands of environmental justice movements from the global North and South, as well as from indigenous and peasant rights movements, and it is organized as a decentralized network of semiautonomous, coordinated units. We find that this strategy generates new opportunities and challenges for the movement, and thus has important implications for its effectiveness in achieving these transformations. Lastly, we find that through these polycentric arrangements, movements such as that for climate justice are able to exert simultaneous influence on multiple sites of environmental governance, from the local to the global, furthering increased polycentricity in formal institutional arrangements.

KEYWORDS

climate justice, global environmental governance, polycentric governance, social movements

1 | INTRODUCTION

In the last decade, environmental policy and governance studies have shown an increasing focus on novel institutional arrangements which connect multiple levels and spheres of decision-making and multiple actors (stakeholders) across geographic scales, variously referred to as multilevel, networked, cross-scale and polycentric (e.g., Bixler, 2014; Jänicke, 2017; Jedd & Bixler, 2015; Newig & Fritsch, 2009;

Paavola, 2016; Poteete, 2012; Tynkkynen, 2013; Wyborn, 2015). The concept of polycentricity—"many centers of decision making that are formally independent of each other" (V. Ostrom et al., cited in Ostrom, 2010a, p. 3)—has been deployed by institutional scholars to analyze these emerging forms of environmental governance (e.g., Cole, 2015; McCord, Dell'Angelo, Baldwin, & Evans, 2017; Nagendra & Ostrom, 2012; Ostrom, 2010a, 2012; Pahl-Wostl & Knieper, 2014; Poteete, 2012).

In this body of work—as in institutional scholarship in general—there has been little or no attention to social movements (Villamayor-Tomas & García-López, 2017). In this article, we argue that the concept of polycentrism needs to be "politicized," and propose the concept of *polycentric struggles* to reflect the contentious politics and social mobilizations over the form and function of polycentric environmental governance. We argue that the task of politicizing polycentricity consists of two related projects. First, politicizing polycentricity entails expanding its tradition of institutional analysis by accounting for the role of social movements, and contentious politics more generally, in governance arrangements. Second, politicizing polycentricity consists of examining the internal social group politics and power relations that characterize polycentric social movement structures.

We undertake this task of politicizing polycentricity through an analysis of the climate justice movement (CJM) and its engagement in climate change governance. Our study traces the CJM's history, details its polycentric structure, examines the movement's internal social group politics, and discusses the processes by which the movement gained participation in instances of global climate change governance. Moreover, we discuss the benefits and challenges associated with the movement's polycentric structure. This project follows from previous calls for closer attention to the structure, function and effectiveness of polycentric governance and its challenges (Wyborn, 2015). It also draws on broader debates about a more critical/politicized institutional analysis that accounts for power-laden conflicts over environmental governance arrangements—who participates, who is heard, who wins and who loses—and related questions of democracy, participation and equality (Brisbois & de Loë, 2016; Clement, 2010; Gruby & Basurto, 2013; Jedd & Bixler, 2015; Kashwan, 2017; Klenk, Reed, Lidestav, & Carlsson, 2013; Paloniemi et al., 2015). Indeed, real participation, empowerment, accountability, and social and environmental justice are precisely the issues that many environmental social movements are demanding in our current context of socioecological crisis (Asara, 2016). Focusing on social movements thus helps advance our understanding of two central issues in environmental governance and polycentricity: (i) the role of different stakeholders (specifically nonstate actors) and the dynamics of cooperation and conflict between them; and (ii) how these dynamics influence the range of outcomes of such arrangements, beyond environmental sustainability.

Our analysis yields two main findings. First, movements have increasingly acknowledged the polycentric (multisited, cross-scalar, multiactor, multidimensional) nature of environmental problems and the limits of existing institutional arrangements—linking issues of democracy, social and economic justice, and ecological degradation—and are putting forth innovative proposals for transformative and just environmental policies and governance arrangements. Second, that as movements organize in a polycentric fashion, they are able to exert influence on multiple sites of environmental governance simultaneously, from the local to the global, furthering a move toward polycentricity in formal institutional arrangements.

In the next section, we review traditional institutional perspectives on polycentrism, their limitations and possible applications to social movements. We follow this review of polycentricity and social movements with an illustrative case study of a polycentric social movement—the CJM—and conclude with thoughts on the future directions of the study of the polycentric structure of movements and their political implications.

2 | FROM POLYCENTRIC GOVERNANCE TO POLYCENTRIC STRUGGLES

Autonomous self-organization and collaboration across levels and sectors is seen as the basis for the formation of a polycentric order. Multiple centers of power operate at multiple scales: every scale is a Janus with two faces, one facing down and one facing up (Ostrom, 2010a). Polycentricity follows the subsidiarity principle, according to which decisions should be taken at the lowest level of government at which they are effective (Cole, 2015). It departs from a critique of the "monocentric" state—a centralized, top-down entity with monopoly over authority—because it precludes "opportunities for regular citizens to engage in local problem-solving and politics" and thus undermines democracy (Ostrom, 2014a, p. 344). Polycentricity emphasizes diversity as a key principle: of organizational forms, spatio-temporal scales, ideas, values and actions. The multiple, "fragmented" (as opposed to centralized) decision-making arenas in polycentric arrangements increase the opportunities for face-to-face interactions and consequently levels of trust and cooperation, learning and innovation, while also diffusing power and authority, which generates more inclusive governance, that is, more opportunities for citizen/civil society participation and influence in decision-making (Cole, 2015; McGinnis, 2011; Ostrom, 1998). These multiple centers can also act as a system of checks and balances, reducing the opportunities for control by "opportunistic individuals"; hence "polycentric systems are more likely than monocentric systems to provide incentives leading to self-organized, self-corrective institutional change" (Ostrom, 1998; see also Ostrom, 2010a, 2010b).

This approach to polycentricity tends to a pre-eminence of institutional design; questions of power, conflicts and structural political-economic conditions that shape social relations and the potential inclusiveness and fairness of governance arrangements are not very salient. This is not to say that the contested nature of power-sharing in polycentric arrangements is ignored (see, e.g., McGinnis, 2005). Ostrom's concern is for citizens' self-organization and direct participation in democratic governance (Ostrom, 2010a, 2010b, 2014). However, there is less attention to how power relations and conflicts shape the form and outcomes of polycentric governance (Gruby & Basurto, 2013). Neither inclusiveness nor socially just and sustainable outcomes are a given (nor necessarily more likely) under polycentric design. Key actors are often omitted from collaborative arrangements, in which powerful actors tend to prevail (Brisbois & de Loë, 2016; García-López & Arizpe, 2010). Outcomes are often unequally distributed, in ways that reproduce existing power inequalities and injustices (Martínez-Alier, Temper, Del Bene, & Scheidel, 2016). The language of collaboration present in polycentricity can be a depoliticizing force by obscuring the incompatibility interests of different actors as well as the systemic political-economic causes of environmental degradation and social injustice (cf. Swyngedouw, 2014). The persistent and deepening power inequalities and a concomitantly growing democratic deficit

that characterize national and international governance (e.g., Cook, Long, & Moore, 2016; Metzger, Allmendinger, & Oosterlynck, 2014; Swyngedouw, 2014) present additional challenges to polycentricity's main definitional goals of autonomous self-organization and multicentered cooperation. Indeed, it has been noted that multilevel/multistakeholder governance shows contradictions between the stated objectives of increasing citizen participation on the one hand, and authoritarian practices (Paloniemi et al., 2015) and the exclusion of the most contentious *political* issues (e.g., indigenous rights over territories) (Klenk, Reed, Lidestav, & Carlsson, 2013) on the other. As we will discuss in the case study, these are precisely the kind of challenges that are directly addressed by the CJM.

Recent scholarship has analyzed climate change governance through the polycentricity lens, from both institutional and environmental politics approaches. Nonstate actors—including nongovernmental organizations (NGOs), social movements, and economic players—are observed to be in intensified interplays with state and international actors [including the United Nations (UN)] for international climate cooperation (Bäckstrand, Kuyper, Linnér, & Lövbrand, 2017)[1] Ostrom (2010b, 2012) observed the multiple forms of self-organized mitigation actions taken by local utilities (e.g., initiatives to incentivize reduced household energy consumption), citizen organizations, municipal governments (e.g., the Mayors' National Climate Action Agenda) and state governments (e.g., California's carbon trading program), to bypass the failed international climate summits and make concrete impacts on energy consumption and carbon dioxide emissions.[2] Cole (2015) argues that these and other self-organized initiatives—he used the examples of the United States–China climate change working group and the World Business Council on Sustainable Development—could improve climate policy by increasing opportunities for experimentation and learning, and building trust and reciprocity. Jänicke (2017, p. 118) claims these polycentric arrangements are an opportunity for "climate-friendly technology, policy, knowledge innovation and lesson-drawing" (see also Jordan et al., 2015); while Gillard, Gouldson, Paavola, and Van Alstine (2017) suggest how emerging polycentric arrangements between climate policy actors and certain "gatekeepers" can overcome national political barriers to climate policy development.

Most of these studies focus on formal (collaborative) arrangements within government, or between government and some civil society actors; they highlight cooperative dynamics, rather than conflictive ones. They tend to omit potential incompatibilities between actions taken by different self-organized processes: for instance the World Business Council's positions are directly opposite to those of the CJM. As Gordon and Johnson (2017) critically observe, the promotion of self-organized intercity climate coordination (which they call "orchestration," and which resembles the examples of polycentric

arrangements above) leaves out crucial questions about who *orchestrates*, *how*, and for which/whose objectives. Indeed, in this fragmented polycentric regime, consensus-based multilateral negotiations give way to more exclusive minilateral and bilateral forms of decision-making which exclude civil society and more marginalized countries and which exclude considerations of equality (Ciplet & Roberts, 2017; see also Fisher, 2010). Moreover, while these works point to the central importance of civil society organizations in polycentric climate governance, there is little discussion of the role of environmental and climate justice movements in relation to this emerging polycentric or hybrid, apart from passing mentions (e.g., Bäckstrand, Kuyper, Linnér, & Lövbrand, 2017). This, we believe, is a crucial omission. In what follows, we elaborate on how social movements can help us advance our understanding of the politics of polycentric arrangements, including who is left out and who wins and loses; and how alternative, more just and ecological polycentric arrangements can emerge.

2.1 | Social movements as polycentric arrangements and as excluded stakeholders

Social movements are socially mobilized groups engaged in sustained collective action that seek some change in the existing social order (Tarrow, 1998). By definition, movements encompass collective actions that attempt to change the existing order of things, including existing values, norms and institutional arrangements; and promote—and often create—alternatives to these. Therefore, they almost always situate themselves outside and against existing state-sanctioned governance arrangements (be it polycentric or not), although they often develop alliances with key elites within and outside the state to help them advance their goals (Tarrow, 1998).

Movements are a type of self-organized collective action similar to those envisioned by polycentricity scholars, where a group is cooperating to change some institutions and devise new innovative ones. Stern, Dietz, Dolsak, Ostrom, and Stonich (2002, p. 476) observed that movements "have asserted the right to participate in institutional design," and could be crucial for both institutional functioning and innovation, because they are "linked across scale and place in ways which may help to spread design innovations." (p. 476). There is ample evidence on how social movements can lead to policy changes that promote more ecological and just governance (e.g., Bullard & Johnson, 2000; Weldon, 2011; Htun & Weldon, 2012), to improved cross-scale implementation of existing policies (e.g., Barnes, Lynham, Kalberg, & Leung, 2016; Hoogesteger, Boelens, & Baud, 2016), and to the strengthening of local commons governance (Villamayor-Tomas & García-López, 2017).

In analyzing movements through a polycentricity lens, the pioneering work of Gerlach (1971) and Gerlach and Hine (1970a, 1970b) is a necessary but forgotten starting point. Gerlach looked at various "revolutionary" movements such as black power, environmental, women's liberation and the new left, and concluded that they all were segmentary (range of groups or cells which are constantly changing, with some emerging and others dissolving), polycephalous (multiple and competing leaders with ideological diversity, instead of a central command), and reticulate or networked (a constantly proliferating network structure with "cross-cutting links"). In his more recent work,

[1]This fragmented bottom-up polycentricity is coupled with a strong role of the UN and its climate summits as facilitator, bringing different actors together to perform multiple policy tasks, and thus holding the polycentric arrangement together (Bäckstrand, Kuyper, Linnér, & Lövbrand, 2017; Lövbrand, Hjerpe, & Linnér, 2017). This is important because the climate justice movement has dedicated significant efforts to influencing this venue.

[2]A more recent example is the U.S. Climate Alliance, formed by U.S. states and territories to meet the Paris Agreement's commitments, in light of President Trump's potential exit from said Agreement (https://www.ft.com/content/27c5bad2-4895-11e7-919a-1e14ce4af89b).

Gerlach (1999) modified the framework by changing the word polycephalous for polycentric, explaining that more recent movements were no longer as leader-centered but rather collective-centered. The dominant scholarship at the time saw these characteristics as weaknesses—for instance in the argument that movements had duplicating and inefficient structures, which was also espoused against other polycentric arrangements at that time (Ostrom, 2010a). Gerlach questioned this narrative, arguing that these characteristics actually enhanced these movements' success by "allowing them to be flexible and adaptive, and to resonate with larger constituencies through different tactics (for example, direct action versus lobbying and legal strategies)" (Gerlach, 1999, p. 95). Gerlach showed how these characteristics could facilitate movements' prevention of state suppression, their penetration into society, and variation in the face of environmental change. Interestingly, he did not engage with Ostrom's work, although he did cite Mancur Olson's ideas about the negative influence of group size on collective action: polycentric organizing, for Gerlach, allowed smaller groups of citizens to cooperate better.

More recently, some have described the structure of the World Social Forum (Smith & Doerr, 2011), its regional hubs (US Social Forum, 2014), the Global Justice Movement (Moghadam, 2009), the solidarity economy network and U.S. transition movement (Shawki, 2013), the Indymedia independent news movement (Pickard, 2006), and civic networks in British cities (Baldassari & Diani, 2007) as polycentric. Moghadam's (2009) study of the global Islamist, feminist and justice movements argues that today's global social movements organize "collective action. .. at local, national, and transnational levels in fluid and flexible ways; it is directed at states, corporations, and institutions of global governance; and it calls for alternative values, institutions, and relations." Maintaining a unity in movements' diversity is a crucial but challenging task.

Other analyses, although not using the concept of polycentricity explicitly, use similar concepts such as "transnational" or "counterglobal" networks of the transition and food sovereignty movements (Sage, 2014 on the transition, and Chatterton, Featherstone, & Routledge, 2013 on the CJM), "federated" (e.g., Bebbington, Humphreys Bebbington, & Bury, 2010 on peasant water movements in the Andes). These studies document how struggles over the commons often involve multilevel/cross-scalar processes of mobilization, solidarity and cooperation, which create "translocal spaces and identities" connecting local self-organized commons efforts to movements and broader structural critiques (Jeffrey, McFarlane, & Vasudevan, 2012, p. 8; also Boelens, Hoogesteger, & Baud, 2015; Chatterton, Featherstone, & Routledge, 2013; Featherstone, 2008; García-López & Antinori, 2017; Haluza-DeLay & Carter, 2014). Through these movements, marginalized resource-user groups challenge existing multiscalar arrangements to produce other scales, and they do so by organizing across scales—connecting *multiple actors, levels and issues*. As Stoltenborg and Boelens (2016) conclude: "by linking, for example, local village initiatives, women's groups, and journalists and newspapers with provincial indigenous and peasant federations, national ombudsman and civil rights offices, international research centers, and environmental and human rights NGOs, the negotiation forces (including access to research, information dissemination and possibilities for international arbitrage) can become more balanced and one-sided discourses can be challenged." In Canada, Neville and Weinthal (2016) document how an environmental movement strategically connected a local struggle against a liquefied natural gas plant to the more distant problem of extraction of this gas and thus to broader anti-fracking and climate justice struggles. In this way they showed the polycentric (multiscalar, multiactor, multi-issue) nature of energy projects. In Ecuador, Boelens et al. (2015) and Hoogesteger, Boelens, and Baud (2016) show how peasant and indigenous organizations—through their multiscalar connections to development, environmental, and human rights organizations—have been able to successfully claim rights over water in the face of threats from state policies.

Social movement scholars have also demonstrated the potential influence of polycentric organizing on state and transnational institutions—such as those of climate change. In the context of globalization of economic activities and of environmental problems and conflicts, the role of national governments in advancing justice and sustainability is not limited to responsibility within their own borders. States have a responsibility to coordinate with other states to solve problems that transcend national borders (e.g., environmental and climate degradation, immigration, sweatshop labor). Social movements (including environmental ones) can push nation-states to assume responsibility in instances in which the task of addressing an injustice has not been assigned to any specific supranational or subnational institution (Keck & Sikkink, 1998; Young, 2011, p. 167).

Taken together, this research shows that polycentricity is a useful concept for the analysis of social movements both internally and in their interaction within a given governance arena. It further suggests that movements seek to organize polycentrically to deal with the polycentric (multiactor, multi-issue, multilevel) nature of the environmental and "commons" problems they seek to redress and the institutions they seek to change. What is missing from this work is a more in-depth analysis of the internal workings of these polycentric movements, their challenges and opportunities, and how they relate to, and impact, formal polycentric governance arrangements.[3] Understanding the internal governance of polycentric movements is imperative because movements contain within themselves the substance of politics, that is, power relations among social groups and the norms and institutions that emerge out of these interactions. Indeed, social movements often reproduce internally the politics of social groups and power imbalances that characterize the societal relations that they aim to change (Keck & Sikkink, 1998). Moreover, social justice-oriented movements that self-identify as polycentric, such as the World Social Form and its regional hubs (US Social Forum, 2014), highlight how overcoming the challenges of polycentric organizing may make a more just, democratic and ecological world possible.

3 | DATA AND METHODS

This article aims to engage in theoretical innovation by politicizing polycentricity, a process that we argue consists of applying the concept to the study of social movements and examining the power relations among social groups engaged in mobilization. To the end of

---

[3]This article was first conceived as the result of a request from U.S. Social Forum organizers interested in our analysis of the concept of polycentricity and its application to their movement.

politicizing polycentrism, we present an exploratory case study on the CJM—a social movement that simultaneously engages in contention in multiple scales of environmental governance and mobilizes groups from a diverse spectrum of identities. In this section we briefly detail the processes by which we collected the data that allowed us to develop the case study and the process-tracing approach that informed our analysis.

The concept of a polycentric social movement can be operationalized as a movement that mobilizes social movement organizations that engage in collective action in multiple scales of governance and are embedded in decentralized interorganizational networks. We draw data for this case study from extant empirical work on the climate justice and environmental justice movements, news reports of climate justice activism, movement documents, movement organization websites, interviews with movement organizers, and observations of climate justice activism, including a participant observation of the 21st Conference of Parties of the United Nations Framework Convention on Climate Change. First, we reviewed newspaper coverage of environmental and CJM organizing (1980s to 2016) through the online newspaper archive LexisNexis. We used extant empirical work and newspaper coverage of the climate and environmental justice movements to assemble a timeline of the CJM. We use a snowball sample of interviews with CJM leaders and activists to fill in gaps in the data, confirm the validity of other sources of data, and gain additional insights on the movements' history and internal politics. Moreover, the lead author engaged in a participant observation of the CJM before, during and after attending the United Nations Convention on Climate Change 21st Conference of Parties (COP21) held in Paris, France in 2015, which culminated in the drafting of the Paris Accord on Climate.[4] Moreover, we use movement documents, organizational websites and their social media activity to further develop our timeline of the CJM, analyze its internal social group politics, and trace the process by which CJM groups engaged in mobilization in multiple instances of climate change governance. We collected movement documents, including social movement organization and coalition meeting minutes, internal movement agreements, press releases, and mission statements, through movement organizational websites, directly from movement activists, and through environmental movement history archives.

We use the traditional case study technique of process-tracing to (i) identify processes and mechanisms by which the CJM's polycentric structure participated in climate change governance across multiple scales and (ii) examine the power relations among social groups involved in climate justice organizing. Process tracing refers to "the analysis of evidence on processes, sequences, and conjunctures of events within a case" (Bennett & Checkel, 2014, p. 7). Following this approach allows us to develop new theoretical arguments about the societal implications of the formation and agency of polycentric social movements.

4 | POLITICIZING POLYCENTRICITY IN THE CONTEXT OF SOCIAL MOVEMENTS: THE GLOBAL CLIMATE JUSTICE MOVEMENT

Our study traces the history of the CJM and its longstanding relation to the environmental justice movement. Moreover, we provide further empirical support for conceptualizing the CJM as part of a tradition of environmental justice activism (Agyeman, Schlosberg, Craven, & Matthews, 2016; Schlosberg & Collins, 2014). This section discusses the polycentric arrangement of the CJM, its constituents and their social group relations, the ways in which they cope with their differences, and the challenges and opportunities associated with their polycentric movement organizing approach.

4.1 | The polycentricity of the climate justice movement

The CJM consists of coalitions of different organizations that deploy collective action repertoires in multiple scales of governance, ranging from the local to the global. As we detail in this section, the movement's structure is polycentric, given that its constituent organizations and coalitions function as centers of decision-making that coordinate collective actions. The CJM has followed a polycentric organizing approach as it has been a product of multiple strands of bottom-up collective organizations where different ideas, values and ways of life coexisted and evolved in competition and cooperation.

The CJM emerged in alignment with the environmental justice movement as challenges to both dominant environmental governance arrangements and the advocacy priorities of mainstream environmentalist organizations, also known as major green groups or the group of ten.[5] This new "environmental justice" coalition of groups emerged in the early 1980s, after local anti-toxic waste campaigns in communities of color led to the formation of new social movement organizations and environmental networks, such as the Indigenous Environmental Network, Southwestern Network for Environmental and Economic Justice, and the Southern Organizing Committee (Clark, 2002; Faber, 2005; Gerlach, 1999; Tormos, 2016).[6] Two social movement conferences in the 1990s allowed environmental justice groups to enact a polycentric approach to mobilization that facilitated coordination—the First National People of Color Environmental Leadership Summit held in Washington, DC, in 1991 and the Working Group Meeting on Globalization and Trade held in Jemez Springs, NM, in 1996. During these two meetings, activists in attendance drafted and adopted the Principles of Environmental Justice and the Jemez Principles for Democratic and Inclusive Organizing.[7] This new coalition of social justice and human rights-oriented environmentalist organizations pressured the

---

group of ten to transform their advocacy agenda to confront the ways in which environmental degradation and climate change predominantly affected disadvantaged groups and communities.

In 2002, groups that had participated in formation of the environmental justice movement (including the Indigenous Environmental Network and the Southwestern Network for Environmental and Economic Justice, and Oilwatch International) succeeded in exerting pressure on green groups (e.g., Greenpeace International and Friends of the Earth International, among others) to adopt the Bali Principles of Climate Justice.[8] The Bali Principles propose an alternative climate governance regime by making claims for increased democratic accountability in climate change decision-making processes, introducing the principles of ecological debt and common but differentiated responsibilities, and demanding that communities, particularly those directly affected by environmental change, play a leading role in *national and international* processes (emphasis added). The Bali Principles are seen as the first major movement statement of the idea of climate justice on the international stage (Schlosberg & Collins, 2014). Furthermore, the Bali Principles marked the movement's adoption of a polycentric organizing approach by making demands on transforming national and international instances of environmental governance and committing mobilizing local, national and international coalition partners to this end.

Since the adoption of the Bali Principles, climate justice activism has expanded globally and diffused locally to mobilize groups active around local, regional, national and international instances of environmental governance (Agyeman, Schlosberg, Craven, & Matthews, 2016; Schlosberg & Collins, 2014).[9] The products of climate justice coalition-building efforts were most clearly evidenced by the diverse and spatially dispersed amalgamation of groups that signed onto the 2004 Durban Declaration on Carbon Trading.[10] Signatories of the Durban Declaration committed to building "a global grassroots movement for climate justice." The drafting and adoption of norms of inclusivity, democratic organizing and justice marked the formation of an overarching institutional/cultural framework of rules and norms that coalesced these multisited organizations and their perspectives and initiated a process of sustained engagement between major international and national environmental groups and local and grassroots organizations mostly representing frontline communities and communities of color.

Despite transnational climate activism's emergence as an almost exclusively elite activity (O'Neill, 2012, cited in Schlosberg & Collins, 2014), locally and globally engaged climate justice groups mobilized a more diverse array of adherents and frontline communities. As we detail in the following section, by the late 2000s and early 2010s, climate justice groups had effectively pressured major green groups to transform their advocacy agenda to mobilize resources to support climate justice advocacy (Tormos, 2017). In the following sections we continue the project of politicizing polycentricity by examining the internal social group politics of the climate justice movement and its efforts to exert political influence. Specifically, in what follows we discuss the dynamics of conflict and cooperation among movement groups and the political outcomes of their cooperation under a polycentric organizational arrangement.

4.2 | Coping with difference to exert influence

Polycentric social movements face difficulties coordinating across social group differences and competing frames, and lobbying multiple instances of environmental governance around numerous issues. While movements are often unable to sustain mobilization around a large number of issues (Benford, 2005), they may adopt norms of inclusion that strengthen and lengthen the relationships among movement organizations, making the movement more likely to persist through time and exert policy influence (Tormos, 2017; Weldon, 2006). Norms of inclusion consist of prioritizing the demands of marginalized groups in advocacy agendas, providing spaces and opportunities for autonomous organization of marginalized groups, allowing for the expression of dissent, and promoting the leadership of marginalized groups within movements (Strolovitch, 2007; Weldon, 2006). When polycentric movements manage to cope with the challenges associated with adopting a polycentric organizing approach, they are able to seize opportunities that they might otherwise be unable to benefit from. These opportunities include the ability of engaging in coordinated advocacy efforts across multiple scales of environmental governance, ensuring the movement's persistence through time, hampering state repression, and embracing tactical diversity and innovations.

Growth of the CJM led to challenges associated with coordinating advocacy efforts across internal social group differences and lobbying multiple instances of environmental governance. These challenges have not created the conditions for the movement's demise nor its political irrelevance, but rather, the movement has been able to overcome the ongoing challenges that characterize polycentric organizations and use its structure to its advantage. At the same time, we find that a polycentric structure has presented the following opportunities for the movement: (i) hampering repressive efforts, (ii) opening up multiple battlefronts for climate justice activism and advocacy, (iii) tactical and ideational innovation, and (iv) movement persistence.

Since their emergence, climate justice groups have built on the legacy of early environmental movement organizations while pushing major green groups to transform their advocacy agenda. In the 1970s, environmental movement organizations gained new opportunities for participating and influencing global environmental governance. An important instance of these new opportunities was the Earth Summit in 1972, held in Stockholm, which held a parallel NGO forum, which became a feature of most UN Conferences and preparatory meetings after the 1972 Earth Summit (Friedman, Hochstetler, & Clark, 2005, p. 27). By the 1990s, a new and unprecedented wave of UN conferences, the creation of the United Nations Framework Convention on Climate Change (UNFCCC) and the increasing salience of climate issues created new opportunities for transnationalizing climate justice advocacy efforts. Environmental movement organizations gained international recognition when they were identified as major groups and stakeholders of global environmental governance in Agenda 21, adopted at the Río de Janeiro Earth Summit in 1992. The opening of these opportunities allowed groups of women,

---

[8]Anonymous phone interview (12/8/2017). Climate justice activist. The text of the Bali Principles is available at https://www.ejnet.org/ej/bali.pdf

[9]Anonymous phone interview (12/6/2017). Climate justice activist

[10]The text of the 2004 Durban Declaration on Carbon Trading, including its signatories, is available at: http://www.fern.org/sites/fern.org/files/media/documents/document_3614 _3622.pdf

workers, children and youth, Indigenous Peoples, and farmers to gain entry into international policy-making processes as stakeholders. However, these opportunities also created challenges for these groups, which had to decide whether and how to coordinate across their geographic regions, different mobilizing frames, social cleavages and policy concerns.

Divisions among different groups are characteristic of polycentric organizing arrangements. The continuity and degree of political influence of advocacy efforts may be shaped by movement efforts to broker alliances and coordinate action across social group differences. Climate justice groups have secured support for their polycentrically organized advocacy work at the grassroots and international level from well-funded major green groups, despite their differences around issues of carbon trading. These differences became particularly salient in the late 1990s, when climate justice groups that had been involved in the Climate Action Network (CAN) alongside major green groups formed an equity caucus (Carpenter, 2001; Hadden, 2015).[11] Ultimately, climate justice groups began to leave CAN in 2008 and formed the climate justice groups Climate Justice Action (2008) and Climate Justice Now! (2007). While major green groups saw carbon trading schemes as a politically viable approach to addressing climate change, climate justice groups decried these policies as flawed policy instruments that allowed further emissions and, ultimately, failed to curb the detrimental impacts of climate change.[12] Despite these divisions, two major green groups, which also have a polycentric organizational structure, continued to broker alliances and coordinate action between these two sectors of climate advocacy—Friends of the Earth International and Greenpeace International. In doing so, different climate advocacy groups have engaged in deliberations that allowed them to find areas of consensus and deploy coordinated collective action repertoires. Moreover, major green groups supported the advocacy work of climate justice groups by creating a fund that prioritizes meeting the funding needs of small grassroots organizations that represent local frontline communities and marginalized groups. Representatives from climate justice groups were appointed to coordinate a new coalition that would administer this fund, known as Building Equity and Alignment for Impact (BEA).[13] At the 2013 BEA meeting in Washington, DC, member groups agreed upon the following goals: (i) to break down historical barriers between big green, grassroots and funding sectors, building authentic partnerships toward greater alignment and solidarity; (ii) to support the philanthropic field to elevate a base-building, bottom-up, collaborative approach; (iii) to expand the pool of resources available to the environment and overlapping progressive issues; and (iv) to shift that growing pool of available resources to more equitably service the grassroots organizing sector.[14]

4.3 | Outcomes of polycentric environmental movement organizing

A polycentric organizing arrangement has allowed the CJM to simultaneously exert pressure locally on the domestic institutions of powerful states (e.g., United States), and transnationally on parties of international negotiating bodies (e.g., UNFCCC) through a diverse range of tactics. A polycentric organizing approach has also secured the continued participation of local community and Indigenous Peoples leaders in instances of global environmental governance, such as UNFCCC COP meetings. Moreover, polycentricity enhanced the influence of marginalized groups and frontline communities over UNFCCC climate negotiations, leading parties to the convention to adopt language in the Paris Accord that recognized the role of traditional knowledge of Indigenous Peoples for the implementation of climate change adaptation policies. Throughout subsequent COP summits since COP21, Indigenous Peoples have been able to lead a process of designing a platform on traditional knowledge and have gained entrance into climate negotiations, a claim that had been denied before the adoption of the Paris Accord.[15]

At the international level, a polycentric structure and the adoption of norms for democratic and inclusive organizing allowed for the coordination between grassroots environmental justice-oriented and major green groups and promoted the leadership of groups representing frontline communities in international advocacy campaigns. Such inclusive organizational practices have been found to increase the legitimacy of transnational environmental advocacy efforts (Keck & Sikkink, 1998). Today, scholars have argued that the dimensions of the environmental justice movement, also consisting of climate justice groups, are global (Martínez-Alier, Temper, Del Bene, & Scheidel, 2016) and it has transformed the agenda of major green groups to orientate them toward prioritizing policy demands that address the ways in which environmental issues affect marginalized groups.

5 | DISCUSSION AND CONCLUSIONS

In this article we proposed to politicize the concept of polycentricity in the context of the contentious, multisited collective actions of social movements. Observing that institutional perspectives of polycentrism have yet to take up the role of conflicts and power, we argued that its politicization provides a lens through which to document the limitations of existing environmental governance arrangements, as well as the potentials and challenges of transforming such arrangements. We further posited that social movements are suitable arenas for such a politicization because they contain the substance of politics and governance and a transformative potential. The case study of the environmental justice movement documented its

---

[11]While CAN has not ignored broader social issues of equity and fairness, it has tended to address these issues less frequently and in a more technical manner (Hadden, 2015).

[12]Anonymous phone interview (12/6/2017). Climate justice activist.

[13]Anonymous phone interview (12/6/2017). Climate justice activist. For more information about the coalition visit the coalition's webpage at: http://www.bea4impact.org.

[14]See http://www.bea4impact.org/ for more information on the coalition's goals and organizing principles.

[15]Anonymous phone interview (12/6/2017). Climate justice activist. See the UNFCCC's announcement of the creation of the platform at http://newsroom.unfccc.int/paris-agreement/new-un-platform-to-boost-indigenous-peoples-and-local-communities-climate-action/. See the draft proposal on the local communities and indigenous peoples platform at: Local communities and indigenous peoples platform at https://cop23.com.fj/wp-content/uploads/2018/01/Local-and-Indigenous-Peoples-Platform-.pdf.

polycentric nature, and the challenges and opportunities associated with polycentric organizing that it has faced. We find that the main challenges of polycentric organizing are coordination between organizations operating in different contexts, acting with different strategies and around multiple issues, and lobbying multiple decision-making bodies at various levels of government in a sustainable (persistent) way.

At the same time, we find that a polycentric structure allows certain opportunities for the movement to persist through time, coordinate action across different locations, open avenues for participation by groups that have been historically underrepresented in movements, facilitate experimentation and innovation, overcome institutional blockages in particular levels of governance ("bypassing" opposition), and apply pressure on targets at these different levels. Through its polycentric structure, the climate justice movement has led to conceptual innovations, in particular in expanding our understanding of the concepts of justice to the environmental domain, relating human rights to environmental problems, while at the same time expanding the concept of environment to include issues related to food, energy and climate change (Agyeman, Schlosberg, Craven, & Matthews, 2016), urban living (Anguelovski, 2013), and territorial sovereignty of indigenous groups (Anguelovski & Alier, 2014). The movement has also generated substantive tactical innovations. An analysis of the CJM during COP15 in Copenhagen argued that the movement developed a prefigurative political activity (practising the ideas proposed) that enacted the inclusive, just and transformative governance arrangements that they sought to bring about in instances of global climate change governance (Chatterton, Featherstone, & Routledge, 2013). Chatterton, Featherstone, and Routledge (2013) find that the internal social group politics of climate justice groups generate solidarities between differently located struggles, which have the potential to shift the terms of debate on climate change and forward frames that counterefforts to construct climate change as a technocratic issue to be solved with green technologies and markets.

However, for these advantages to materialize, polycentric movements must strategically develop institutionalized ways of confronting the challenges of polycentric governance and fully taking advantage of polycentricity's opportunities. There is a need to mindfully address internal power imbalances through the integration of processes of open deliberation, learning and adaptation where movements can come together regularly to discuss differences, reach agreements, identify shared goals and coordinate strategies. There is also a need for using movement resources (e.g., funds and activist labor) strategically to push for policy change at multiple levels of governance (state and local, federal and national, international and global). One way to do so is by taking advantage of the "movement spillover" that polycentricity creates, that is, the involvement of activists in more than one movement. Cultivating ties among social movement organizations helps these groups develop their resources and exchange information. In turn, this strategic exchange prolongs each group's ability to advocate for change over time at the various levels at which they operate.

Finally, we show how the climate and environmental justice movements' polycentric structure—once institutionalized within the movement—has served to influence changes in environmental governance, in particular to exploit alternative openings for exerting political influence at different levels from local to global. We do not claim that polycentric arrangements will always make movements more inclusive, politically influential or democratic, but they *can* be, through strategic polycentric organizing that consciously addresses the challenges of such arrangements. Overall, our article contributes to identifying pathways through which environmental justice groups can achieve their desired outcome of transformative environmental governance (cf. Chaffin et al., 2016).

The points raised in this article should be further explored in future research. Mixed method investigative approaches are particularly promising, as they would combine the analytical leverage of both qualitative and quantitative analytical techniques. Such projects would be feasible because of the recent emergence of cases of polycentric movements (e.g., World Social Forum, climate justice movement, among others) that would allow for in-depth case studies and comparative analyses. We also find fertile ground for the further methodological development of the study of polycentricity in the adoption of quantitative analytical techniques for the study of polycentric social movements. Extant records on social change-oriented international nongovernmental organizations (INGOs), also known as transnational social movement organizations (TSMOs), enable the adoption of quantitative approaches and provide a rich source of data for the study of the effect of polycentric organizational structures of social movements on theoretically relevant outcomes.[16]

REFERENCES

Agyeman, J., Schlosberg, D., Craven, L., & Matthews, C. (2016). Trends and directions in environmental justice: From inequity to everyday life, community, and just sustainabilities. *Annual Review of Environment and Resources*, *41*(1), 321–340. https://doi.org/10.1146/annurev-environ-110615-090052

Anguelovski, I. (2013). New directions in urban environmental justice: Rebuilding community, addressing trauma, and remaking place. *Journal of Planning Education and Research*, *33*(2), 160–175. https://doi.org/10.1177/0739456X13478019

Anguelovski, I., & Alier, J. M. (2014). The 'Environmentalism of the Poor' revisited: Territory and place in disconnected glocal struggles. *Ecological Economics*, *102*, 167–176. https://doi.org/10.1016/j.ecolecon.2014.04.005

Asara, V. (2016). The Indignados as a Socio-Environmental Movement: Framing the Crisis and Democracy. *Environmental Policy and Governance*, *26*(6), 527–542. https://doi.org/10.1002/eet.1721

Bäckstrand, K., Kuyper, J. W., Linnér, B.-O., & Lövbrand, E. (2017). Non-state actors in global climate governance: From Copenhagen to Paris and beyond. *Environmental Politics*, *26*(4), 561–579. https://doi.org/10.1080/09644016.2017.1327485

Baldassarri, D., & Diani, M. (2007). The integrative power of civic networks. *American Journal of Sociology*, *113*(3), 735–780.

[16]The Union of International Associations publishes the *Yearbook of International Organizations*, which includes self-reported data on organizational structure (centralized vs. decentralized) and interorganizational linkages. Similarly, the European Registry of NGOs provides a rich source of data for future studies on polycentric movement structures. The aforementioned sources have proven to be particularly valuable sources for the study of movements but have yet to be used for the study of polycentricity. This gap and data sources present an opportunity for timely contributions to both social movement and collective action bodies of literature.

Barnes, M. L., Lynham, J., Kalberg, K., & Leung, P. (2016). Social networks and environmental outcomes. *Proceedings of the National Academy of Sciences*, 113(23), 6466–6471.

Bebbington, A., Humphreys Bebbington, D., & Bury, J. (2010). Federating and defending: Water, territory and extraction in the Andes. In R. Boelens, D. Getches, & A. Guevara-Gil (Eds.), *Out of the mainstream: Water rights, politics and identity* (pp. 307–327). London, UK: Earthscan Publications.

Benford, R. (2005). The half-life of the environmental justice frame: Innovation, diffusion, and stagnation. In D. N. Pellow, & R. J. Brulle (Eds.), *Power, Justice, and the Environment: A critical appraisal of the environmental justice movement* (pp. 37–53). Cambridge, MA: MIT Press.

Bennett, A., & Checkel, J. T. (Eds.). (2014). *Process tracing*. Cambridge University Press.

Bixler, R. P. (2014). From community forest management to polycentric governance: Assessing evidence from the bottom up. *Society and Natural Resources*, 27(2), 155–169. https://doi.org/10.1080/08941920.2013.840021

Boelens, R., Hoogesteger, J., & Baud, M. (2015). Water reform governmentality in Ecuador: Neoliberalism, centralization, and the restraining of polycentric authority and community rule-making. *Geoforum*, 64, 281–291.

Brisbois, M. C., & de Loë, R. C. (2016). Power in collaborative approaches to governance for water: A systematic review. *Society and Natural Resources*, 29(7), 775–790. https://doi.org/10.1080/08941920.2015.1080339

Bullard, R. D., & Johnson, G. S. (2000), Environmentalism and Public Policy: Environmental Justice: Grassroots Activism and Its Impact on Public Policy Decision Making. *Journal of Social Issues*, 56, 555–578. https://doi.org/10.1111/0022-4537.00184

Carpenter, C. (2001). Businesses, green groups and the media: The role of non-governmental organizations in the climate change debate. *International Affairs*, 77(2), 313–328.

Chaffin, B. C., Garmestani, A. S., Gunderson, L. H., Benson, M. H., Angeler, D. G., Arnold, C. A., … Allen, C. R. (2016). Transformative environmental governance. *Annual Review of Environment and Resources*, 41(1), 399–423. https://doi.org/10.1146/annurev-environ-110615-085817

Chatterton, P., Featherstone, D., & Routledge, P. (2013). Articulating climate justice in Copenhagen: Antagonism, the commons, and solidarity. *Antipode*, 45(3), 602–620. https://doi.org/10.1111/j.1467-8330.2012.01025.x

Ciplet, D., & Roberts, J. T. (2017). Climate change and the transition to neoliberal environmental governance. *Global Environmental Change*, 46, 148–156. https://doi.org/10.1016/j.gloenvcha.2017.09.003

Clark, B. (2002). The indigenous environmental movement in the United States: Transcending borders in struggles against mining, manufacturing, and the capitalist state. *Organization & Environment*, 15(4), 410–442.

Clement, F. (2010). Analysing decentralised natural resource governance: Proposition for a "politicised" institutional analysis and development framework. *Policy Sciences*, 43(2), 129–156. https://doi.org/10.1007/s11077-009-9100-8

Cole, D. H. (2015). Advantages of a polycentric approach to climate change policy. *Nature Climate Change*, 5(2), 114–118. https://doi.org/10.1038/nclimate2490

Cook, J., Long, N. J., & Moore, H. L. (Eds.) (2016). *The State we're in: reflecting on democracy's troubles*. New York, NY: Berghahn Book Company.

Faber, D. (2005). Building a transnational environmental justice movement: Obstacles and opportunities in the age of globalization. In J. Bandy, & J. Smith (Eds.), *Coalitions across borders: Transnational protest and the neoliberal order* (pp. 43–70). Lanham, MD: Rowman & Littlefield Publishing Group.

Featherstone, D. (2008). *Resistance, space and political identities: The making of counter-global networks*. Oxford, UK: Blackwell Publishing.

Fisher, D. R. (2010). COP-15 in Copenhagen: How the merging of movements left civil society out in the cold. *Global Environmental Politics*, 10(2), 11–17. https://doi.org/10.1162/glep.2010.10.2.11

Friedman, E. J., Hochstetler, K., & Clark, A. M. (2005). *Sovereignty, democracy, and global civil society: State-society relations at UN world conferences*. SUNY Press.

García-López, G. A., & Antinori, A. (2017). Between grass roots collective action and state mandates: The hybridity of multi-level forest commons in Mexico. *Conservation and Society*, 16(2), 193–204. https://doi.org/10.4103/cs.cs_16_115

García-López, G. A., & Arizpe, N. (2010). Participatory processes in the soy conflicts in Paraguay and Argentina. *Ecological Economics*, 70(2), 196–206. https://doi.org/10.1016/j.ecolecon.2010.06.013

Gerlach, L. (1999). The structure of social movements: Environmental activism and its opponents. In J. Freeman, & V. Johnson (Eds.), *Waves of protest: Social movements since the Sixties* (pp. 85–98). Lanham, MD: Rowman & Littlefield Publishing Group.

Gerlach, L., & Hine, V. (1970a). *People, power, change: Movements of social transformation*. Indianapolis, IN: Bobbs-Merrill.

Gerlach, L., & Hine, V. (1970b). The social organization of a movement of revolutionary change: Case study, Black Power. In N. E. Whitten, & J. F. Szwed (Eds.), *Afro-American anthropology: Contemporary perspectives* (pp. 385–401). Free Press.

Gerlach, L. P. (1971). Movements of revolutionary change: Some structural characteristics. *American Behavioral Scientist*, 14(6), 812–836. https://doi.org/10.1177/000276427101400604

Gillard, R., Gouldson, A., Paavola, J., & Van Alstine, J. (2017). Can national policy blockages accelerate the development of polycentric governance? Evidence from climate change policy in the United Kingdom. *Global Environmental Change*, 45, 174–182. https://doi.org/10.1016/j.gloenvcha.2017.06.003

Gordon, D. J., & Johnson, C. A. (2017). The orchestration of global urban climate governance: Conducting power in the post-Paris climate regime. *Environmental Politics*, 26(4), 694–714. https://doi.org/10.1080/09644016.2017.1320829

Gruby, R. L., & Basurto, X. (2013). Multi-level governance for large marine commons: Politics and polycentricity in Palau's protected area network. *Environmental Science and Policy*, 33, 260–272. https://doi.org/10.1016/j.envsci.2013.06.006

Haluza-DeLay, R., & Carter, A. V. (2014). Joining up and scaling up: Analyzing resistance to Canada's "dirty oil". In J. Bencze, & S. Alsop (Eds.), *Activist science and technology education* (pp. 343–362). Dordrecht, the Netherlands: Springer Netherlands.

Hadden, J. (2015). *Networks in contention*. Cambridge University Press.

Hoogesteger, J., Boelens, R., & Baud, M. (2016). Territorial pluralism: Water users' multi-scalar struggles against state ordering in Ecuador's highlands. *Water International*, 41(1), 91–106. https://doi.org/10.1080/02508060.2016.1130910

Htun, M., & Weldon, S. L. (2012). The civic origins of progressive policy change: Combating violence against women in global perspective, 1975–2005. *American Political Science Review*, 106(3), 548–569. https://doi.org/10.1017/S0003055412000226

Jänicke, M. (2017). The multi-level system of global climate governance–the model and its current state. *Environmental Policy and Governance*, 27(2), 108–121. https://doi.org/10.1002/eet.1747

Jedd, T., & Bixler, R. P. (2015). Accountability in networked governance: Learning from a case of landscape-scale forest conservation. *Environmental Policy and Governance*, 25(3), 172–187. https://doi.org/10.1002/eet.1670

Jeffrey, A., McFarlane, C., & Vasudevan, A. (2012). Rethinking enclosure: Space, subjectivity and the commons. *Antipode*, 44(4), 1247–1267. https://doi.org/10.1111/j.1467-8330.2011.00954.x

Jordan, A. J., Huitema, D., Hildén, M., van Asselt, H., Rayner, T. J., Schoenefeld, J. J., ... Boasson, E. L. (2015). Emergence of polycentric climate governance and its future prospects. *Nature Climate Change*, *5*(11), 977–982. https://doi.org/10.1038/nclimate2725

Kashwan, P. (2017). *Democracy in the woods: Environmental conservation and social justice in India, Tanzania, and Mexico*. Oxford, UK: Oxford University Press.

Keck, M. E., & Sikkink, K. (1998). *Activists beyond borders: Advocacy networks in international politics*. Ithaca, NY: Cornell University Press.

Klenk, N. L., Reed, M. G., Lidestav, G., & Carlsson, J. (2013). Models of representation and participation in Model Forests: Dilemmas and implications for networked forms of environmental governance involving indigenous people. *Environmental Policy and Governance*, *23*(3), 161–176. https://doi.org/10.1002/eet.1611

Lövbrand, E., Hjerpe, M., & Linnér, B.-O. (2017). Making climate governance global: How UN climate summitry comes to matter in a complex climate regime. *Environmental Politics*, *26*(4), 580–599. https://doi.org/10.1080/09644016.2017.1319019

Martínez-Alier, J., Temper, L., Del Bene, D., & Scheidel, A. (2016). Is there a global environmental justice movement? *The Journal of Peasant Studies*, *43*(3), 731–755. https://doi.org/10.1080/03066150.2016.1141198

McCord, P., Dell'Angelo, J., Baldwin, E., & Evans, T. (2017). Polycentric transformation in Kenyan water governance: A dynamic analysis of institutional and social-ecological change. *Policy Studies Journal*, *45*(4), 633–658. https://doi.org/10.1111/psj.12168

McGinnis, M. D. (2005). Beyond individualism and spontaneity: Comments on Peter Boettke and Christopher Coyne. *Journal of Economic Behavior and Organization*, *57*(2), 167–172. https://doi.org/10.1016/j.jebo.2004.06.014

McGinnis, M. D. (2011). An introduction to IAD and the language of the Ostrom workshop: A simple guide to a complex framework. *Policy Studies Journal*, *39*(1), 169–183. https://doi.org/10.1111/j.1541-0072.2010.00401.x

Metzger, J. P., Allmendinger, P., & Oosterlynck, S. (Eds.) (2014). *Planning against the political: Democratic deficits in European territorial governance*. New York, NY: Routledge.

Moghadam, V. M. (2009). *Globalization and social movements: Islamism, feminism, and global justice movement*. New York, NY: Rowman & Littlefield Publishing Group.

Nagendra, H., & Ostrom, E. (2012). Polycentric governance of multifunctional forested landscapes. *International Journal of the Commons*, *6*(2), 104–133. https://doi.org/10.18352/ijc.321

Neville, K. J., & Weinthal, E. (2016). Scaling up site disputes: Strategies to redefine 'local' in the fight against fracking. *Environmental Politics*, *25*(4), 569–592.

Newig, J., & Fritsch, O. (2009). Environmental governance: participatory, multi-level–and effective?. *Environmental policy and governance*, *19*(3), 197–214. https://doi.org/10.1002/eet.509

Ostrom, E. (1998). A behavioral approach to the rational choice theory of collective action. *American Political Science Review*, *92*(1), 1–22. https://doi.org/10.2307/2585925

Ostrom, E. (2010a). A beyond markets and states: Polycentric governance of complex economic systems. *American Economic Review*, *100*, 1–33.

Ostrom, E. (2010b). Polycentric systems for coping with collective action and global environmental change. *Global Environmental Change*, *20*(4), 550–557. https://doi.org/10.1016/j.gloenvcha.2010.07.004

Ostrom, E. (2012). Nested externalities and polycentric institutions: Must we wait for global solutions to climate change before taking actions at other scales? *Economic Theory*, *49*(2), 353–369. https://doi.org/10.1007/s00199-010-0558-6

Ostrom, E. (2014). A frequently overlooked precondition of democracy: Citizens knowledgeable about and engaged in collective action. In E.

Cole, & M. G. McGinnis (Eds.), *Elinor Ostrom and the Bloomington School of Political Economy: Polycentricity in public administration and political science* (pp. 337–352). Lanham, MD: Lexington Books.

Paavola, J. (2016). Multi-level environmental governance: Exploring the economic explanations. *Environmental Policy and Governance*, *26*(3), 143–154. https://doi.org/10.1002/eet.1698

Pahl-Wostl, C., & Knieper, C. (2014). The capacity of water governance to deal with the climate change adaptation challenge: Using fuzzy set qualitative comparative analysis to distinguish between polycentric, fragmented and centralized regimes. *Global Environmental Change*, *29*, 139–154. https://doi.org/10.1016/j.gloenvcha.2014.09.003

Paloniemi, R., Apostolopoulou, E., Cent, J., Bormpoudakis, D., Scott, A., Grodzińska-Jurczak, M., ... Pantis, J. D. (2015). Public participation and environmental justice in biodiversity governance in Finland, Greece, Poland and the UK. *Environmental Policy and Governance*, *25*(5), 330–342. https://doi.org/10.1002/eet.1672

Pickard, V. W. (2006). United yet autonomous: Indymedia and the struggle to sustain a radical democratic network. *Media, Culture & Society*, *28*(3), 315–336.

Poteete, A. R. (2012). Levels, scales, linkages, and other "multiples" affecting natural resources. *International Journal of the Commons*, *6*(2), 134–150. https://doi.org/10.18352/ijc.318

Sage, C. (2014). The transition movement and food sovereignty: From local resilience to global engagement in food system transformation. *Journal of Consumer Culture*, *14*(2), 254–275. https://doi.org/10.1177/1469540514526281

Schlosberg, D., & Collins, L. B. (2014). From environmental to climate justice: Climate change and the discourse of environmental justice. *Wiley Interdisciplinary Reviews: Climate Change*, *5*(3), 359–374. https://doi.org/10.1002/wcc.275

Shawki, N. (2013). Understanding the transnational diffusion of social movements: An analysis of the US solidarity economy network and transition US. *Humanity & Society*, *37*(2), 131–158.

Smith, J., & Doerr, N. (2011). Democratic innovation in the U.S. and European social forums. In J. Smith, S. Byrd, E. Reese, & E. Smythe (Eds.), *A handbook of the world social forums*. Taos, NM: Paradigm Publications.

Stern, P. C., Dietz, T., Dolsak, N., Ostrom, E., & Stonich, S. (2002). "Knowledge and questions after 15 years of research." In E. Ostrom, T. Dietz, N. Dolsak, P.C. Stern, S. Stonich, and E.U. Weber (Eds.) *The drama of the commons* (pp. 445–489). Washington, DC: The National Academies Press. https://doi.org/10.17226/10287

Stoltenborg, D., & Boelens, R. (2016). Disputes over land and water rights in gold mining: the case of Cerro de San Pedro, Mexico. *Water International*, *41*(3), 447–467.

Strolovitch, D. Z. (2007). *Affirmative advocacy: Race, class, and gender in interest group politics*. University of Chicago Press.

Swyngedouw, E. (2014). Where is the political? Insurgent mobilisations and the incipient "return of the political". *Space and Polity*, *18*(2), 122–136. https://doi.org/10.1080/13562576.2013.879774

Tarrow, S. (1998). *Power in movements: Social movements, collective action, and politics*. New York, NY: Cambridge University Press.

Tormos, F. (2016). Building transnational social movements: The challenges and consequences of activist organizing beyond borders. Paper Presented at the Annual Meeting of the International Studies Association.

Tormos, F. (2017). Mobilizing difference: The power of inclusion in transnational social movements. Purdue University, ProQuest dissertations publishing. 10615375.

Tynkkynen, N. (2013). The challenge of environmental governance in the network society: The case of the Baltic Sea. *Environmental Policy and Governance*, *23*(6), 395–406. https://doi.org/10.1002/eet.1621

US Social Forum (2014). Draft USSF3–2014 – 2016 PLAN #6 3.8.14. Retrieved from: http://wiki.ussocialforum.net/images/4/4b/USSF3draftplan63.8.14.pdf

Villamayor-Tomas, S., & García-López, G. A. (2017). Environmental justice movements and CPR management. Paper presented at the 2017 International Association for the Study of the Commons (IASC), July 11.

Weldon, S. L. (2006). Inclusion, solidarity, and social movements: The global movement against gender violence. *Perspectives on Politics*, *4*(1), 55–74. https://doi.org/10.1017/S1537592706060063

Weldon, S. L. (2011). *When protest makes policy: How social movements represent disadvantaged groups*. Ann Arbor, MI: University of Michigan Press.

Wyborn, C. (2015). Co-productive governance: A relational framework for adaptive governance. *Global Environmental Change, 30*, 56–67. https://doi.org/10.1016/j.gloenvcha.2014.10.009

Young, I. M. (2011). *Responsibility for justice*. Oxford, UK: Oxford University Press.