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Empowerment and Disempowerment of Urban Climate Governance Initiatives
An Exploratory Typology of Mechanisms

JAMES J. PATTERSON AND NICOLIEN VAN DER GRIJP

Introduction

Scholars have increasingly argued over the last decade that there are compelling opportunities as well as persistent challenges for climate action in cities, yet the overall implications for designing and pursuing urban climate initiatives remain unclear. Urban climate initiatives may take many different forms, such as policy innovation, experimentation, and urban laboratories (Evans & Karvonen, 2014) – all of which involve novel forms of agency seeking to influence urban governance systems to drive climate action. However, the existing literature on these topics remains piecemeal and fragmented from the perspective of informing strategic action. There is a key need to synthesize insights about ways in which empowerment/disempowerment of climate action in cities occurs, in order to understand the potential success or failure of future urban climate governance initiatives.

Urban climate governance initiatives may be empowered or disempowered by many different factors across different contexts. For example, this may relate to the presence of complex infrastructure systems, heterogeneous actors with contested interests, and intersecting structures of power and authority in urban governance (Aylett, 2013; Castán Broto, Oballa, & Junior, 2013; Hughes, 2017). Urban governance systems are often open-ended and not clearly demarcated from broader societal governance systems. Earth System Governance (ESG) scholars commonly view urban governance systems as multilevel (Betsill & Bulkeley, 2007), observing problems in divorcing the city from other jurisdictional levels (e.g. subnational, national, global) (Bulkeley & Betsill, 2005a: 43), and a frequent 'lack of "fit" between the nature of the problem to be governed and the institutions undertaking governance' (Betsill & Bulkeley, 2007; 450). Urban governance systems are also increasingly viewed as transnational (Bulkeley et al., 2014; Gordon & Johnson, 2017) owing to the emergence of a new urban climate change politics

that blurs categories of authority and capability beyond those which can be easily captured by a traditional multilevel governance lens (Bulkeley & Betsill, 2013). In addition, urban governance systems are challenged by the differing scale of global problems (e.g. spatially, institutionally, temporally) contrasted against local capabilities to respond (Bai et al., 2010), leading some to argue for an 'open systems' view of cities (Bai et al., 2016). As a result, sources of agency for climate action are diverse, boundaries of urban climate governance systems are fuzzy, and factors causing empowerment or disempowerment of specific urban climate governance initiatives are multidimensional.

This chapter aims to critically review and synthesize the diverse ways in which urban climate governance initiatives may be empowered/disempowered. It develops an exploratory typology of mechanisms by which urban climate governance initiatives may be actively or passively empowered or disempowered. We consider urban climate governance initiatives as our unit of analysis. This reflects a collective (rather than individual) view of empowerment, where involved actors are linked through the common pursuit of an urban climate governance initiative. We focus on understanding the empowerment/disempowerment *of* an urban climate initiative within a complex urban governance system. The hypothesized logic of this approach is as follows: novel forms of agency (*causal conditions*) operate within structural contexts (*mediating conditions*) that may lead to shifts in power (*intermediate outcome*) and, ultimately, empowerment or disempowerment of the collective initiative over time (*outcome*). This causal logic differs from the way in which empowerment may be viewed from a vulnerability or social justice perspective, where the potential of urban climate governance to contribute to empowerment/disempowerment of certain social groups who have been marginal in conventional urban governance is scrutinized. In this chapter, we thus define empowerment as the process of enhancing the capability of a collective initiative to realize a desired outcome. Disempowerment is the inverse: the process by which the capability of a collective initiative to realize a desired goal is reduced.

The chapter first reviews existing literature based on the causal logic outlined in the preceding paragraphs, first considering forms of agency, structural conditions, and shifts in power, and then developing an exploratory typology of mechanisms of empowerment/disempowerment. We then present an illustrative case of empowerment/disempowerment in urban climate governance in Amsterdam, The Netherlands. Finally, we reflect on the lessons and next steps for scholars studying urban climate governance within the ESG network and beyond. The overall contribution of this chapter is a broad synthesis that can inform strategic action in urban climate governance, and lay a foundation for future studies

that seek to understand successful urban climate governance particularly from an ex ante perspective.

Empowerment and Disempowerment in Urban Climate Governance

The theoretical approach in this chapter focuses on understanding how urban climate initiatives, which often begin on the margins of existing governance systems, become empowered or disempowered over time. This is important for understanding the potential success or failure of urban climate governance initiatives, as well as their impact on broader urban governance systems. Empowerment/ disempowerment is a novel lens that goes beyond traditional capacity or enabler/ barrier approaches, by bringing in a more dynamic and political perspective of processes of action and its effects in complex urban governance systems. The approach in this chapter defines empowerment/disempowerment analytically in relation to the interests of a group seeking to bring about a change in a governance system (i.e. an urban climate initiative seeking to promote greater climate action in a city). The approach is actor centred (and somewhat normatively agnostic) in that it can be applied to different initiatives working to different ends, which may not always align even within a single city. The approach is also 'action centred' in specifically seeking to understand how certain initiatives may be empowered/disempowered, which contrasts somewhat with a social justice or vulnerability perspective that typically focuses on understanding the empowerment/disempowerment of disenfranchised groups as an outcome of climate action.

The theoretical approach adopted involves ideas about agency, structure, and power. From a socio-economic development perspective, Alsop et al. (2005) developed a framework for studying empowerment centring on the dialectical relationship between agency and structure. They argued that looking at agency is not enough: it is also vital to examine the *opportunity structure* within which agency operates in order to understand whether desired change can in fact be realized. Following this approach, agency relates to the ability of actors seeking to take action (in our case, the actors involved in pursuing an urban climate governance initiative), and opportunity structure relates to the structural conditions within which action is pursued (in our case, the immediate urban governance system, as well as broader governance systems linked to it). Alsop et al. (2005) also pointed out that empowerment is a relational concept, and is closely linked to shifts in power between different actors. For example, Partzsch (2017) situated empowerment in the middle of a continuum of ways in which power may be mobilized in environmental governance: 'power with (cooperation and learning), power to (resistance and empowerment) and power over (coercion and manipulation)'. Therefore, understanding empowerment/disempowerment involves

considering whether there have been shifts in power towards those actors seeking to take action. Importantly, this attention to potential shifts in power is what distinguishes an empowerment/disempowerment analytical lens from a conventional enabler/barrier analytical lens which typically treats power relationships as static and given.

This section briefly reviews urban climate governance literature relating to three key themes from the foregoing theoretical approach and articulated in the causal logic in the Introduction: (1) *Agency* (i.e. in what ways do actors involved in urban climate governance initiatives collectively exert novel forms of agency?); (2) *Opportunity structure* (i.e. what types of endogenous and exogenous structural factors influence the realization of urban climate governance initiatives?); and (3) *Shifts in power* (i.e. in which ways do urban climate governance initiatives gain or lose power in attempts towards their realization?). The next section then presents a typology of mechanisms of empowerment/disempowerment. Literature reviewed centres particularly on the ESG community, also bringing in related research by scholars with indirect links to this community. This provides a snapshot of emblematic issues and insights in urban climate governance from across diverse global regions.

Agency

Scholars have studied a variety of urban climate governance initiatives across the globe in recent years, identifying different ways in which actors may exert collective agency. This encompasses initiatives identified as policy innovation, experimentation, and urban laboratories (Evans & Karvonen, 2014).

Sources of collective agency for *policy innovation* largely centre on municipalities taking various initiatives. For example, in a study of urban climate governance in three Canadian cities, Burch (2010) identifies a multiplicity of concurrent initiatives including corporate strategic plans for municipal operations, municipal green building strategy, community planning, and interdepartmental collaboration. Scholars also highlight the importance of collective agency internally within municipalities which typically possess significant internal fragmentation. For example, in a study of urban climate governance initiatives in Durban and Portland, Oregon, USA, Aylett (2013) looked at the challenges of developing and integrating climate change strategies within the 'municipal bureaucracy', emphasizing the significance of internal heterogeneity (i.e. multiple sub-actors with different positions and interests). In a meta-analysis of urban climate change adaptation planning in the USA, Hughes (2015) also highlighted the importance of internal governance dynamics within a municipality such as between different departments (e.g. water, planning) and with elected representatives for successfully

establishing urban adaptation planning initiatives. Looking outward, van Doren et al. (2016) conducted a detailed review of barriers to scaling up energy conservation initiatives for buildings, identifying various strategies that municipalities use to overcome barriers, which include informational (focusing on information and advice), cooperative (focusing on quality and efficiency of partnerships), financial (focusing on financial feasibility and attractiveness), and regulative (focusing on coercive measures to influence uptake) strategies.

Sources of agency for *experimentation* largely centre on non-state actors. As Bulkeley and Castán Broto (2014: 395) argue, focusing only on traditional forms of policy-making potentially leads to an 'impoverished picture of the challenges facing urban climate governance'. Starting from the premise that there is a crucial need 'to engage with the ways in which government is accomplished through social and technical practices', these scholars conduct a systematic global survey of urban experimentation, finding a rich landscape of activity occurring in non-traditional ways, where municipalities are central but do not operate alone (Bulkeley & Castán Broto, 2013). For example, many diverse actors may be key drivers of collective agency including private actors, community-based organizations, and non-governmental organizations, but these processes are also political and contested. For example, Bulkeley and Castán Broto (2014) conducted an in-depth case study in Banglore of a private initiative for low-carbon housing development driven by a private housing corporation seeking to promote green housing for low-carbon living to middle-class residents, revealing a complicated picture of innovation and equity-related implications. In the context of African cities' responses to climate change, Castán Broto et al. (2013) argued that diverse forms of agency including not only that of municipalities and private actors, but also of citizens, needs to be recognized as having an active role in urban climate change responses. These authors urged recognition of both planned and ad hoc forms of agency even in seemingly 'low-capacity' contexts of African cities.

Sources of agency for *urban laboratories* are understood to be inherently multi-actor. Urban laboratories for climate governance are commonly understood as 'spaces designed for interactions between a context and a research process to test, develop and/or apply social practices and/or technology to a building or infrastructure' (Voytenko et al., 2016). They aim to bring together key actors (e.g. municipalities, universities, private companies) to, in some way, formalize knowledge production about the real-world application of an urban technology or practice, ultimately geared towards upscaling of the novel initiative (Bulkeley & Castán Broto, 2013; Evans & Karvonen, 2014). Evans and Karvonen (2014) observe that urban laboratories, and scientific knowledge production more broadly, can be seen as an increasingly important source of agency in urban climate governance.

Opportunity Structure

The opportunity structure within which urban climate governance initiatives are pursued is here broadly separated into endogenous aspects (i.e. those lying within an urban climate governance system) and exogenous aspects (i.e. those lying beyond an urban climate governance system). This is a coarse distinction and oftentimes such separation is not neatly possible, but it serves as a useful starting point for organizing diverse factors. These factors closely reflect the longstanding focus of ESG research on multilevel governance (Bulkeley & Betsill, 2005b, 2013). The novelty of bringing these factors together from an empowerment perspective is that it allows them to be mobilized in new ways to inform strategic action (i.e. moving towards a diagnostic approach).

Endogenous Aspects

The *internal structure of municipalities* (e.g. within and between departments) is an important factor (Aylett, 2013; Bai et al., 2016; Bulkeley & Betsill, 2013; Hughes, 2017). For example, 'achieving coordination among sectors and departments can be a daunting task for local governments' (Hughes, 2017), but is of key importance and may often specifically be recognized in urban climate change plans (Hughes, 2015). Creating organizational structures that support collaboration and innovation is necessary (Burch, 2010). This is a particular challenge for cities in the Global South where such challenges compound with other capacity and resourcing gaps (Hardoy & Romero Lankao, 2011).

Organizational positioning of climate change matters; that is, where responsibility for addressing climate change is located institutionally. For example, whether it is situated at a high strategic level within a municipality and/or backed up by high-level mandates (Burch, 2010), or is allocated to a department with little actual power to push such initiatives (Hardoy & Romero Lankao, 2011). Also, whether climate change is viewed as an issue that competes or aligns with other concerns (e.g. sectoral issues, economic priorities) matters (Hughes, 2017). This may be related to motivations for addressing climate change in the first place, and whether a city is motivated more by internal or external factors (following Anguelovski & Carmin, 2011).

Organizational culture influences the realization of urban climate initiatives. For example, whether or not there is a collaborative and innovative culture is likely to matter greatly when initiatives cut across roles and responsibilities of different departments (Burch, 2010). Ideological tensions can arise due to different perspectives between different departments or between operational staff and planning officers, or as a result of narrowly focused leadership from senior managers (Aylett, 2013).

Previous climate change responses may affect the realization of further initiatives. For example, whether or not a municipality has prior experience with urban climate initiatives may affect overall willingness and momentum. Anguelovski and Carmin (2011) discussed the institutionalization of climate change responses, and how in the long-term the legitimacy and stability provided by institutionalization of adaptation initiatives is likely to be important for ongoing implementation and success. Van Doren et al. (2018) identified the importance of stable policy frameworks to foster trust in institutional arrangements among potential investors in low-carbon urban initiatives.

Availability of resources critically affects the realization of urban climate governance initiatives, even if strong political support exists (Hughes, 2017), for example, whether or not new revenue sources can be found if conventional sources are not enough (e.g. internal through property rates or other levies). Resources also matter for demand-side actors who are expected to invest in new initiatives (e.g. households, businesses) (van Doren et al., 2016).

More broadly, the *infrastructure context* involving social and technical practices as well as the materiality of infrastructure itself matters. These can be seen as comprising 'infrastructure networks' which fundamentally condition possibilities for urban experimentation (Bulkeley & Castán Broto, 2013, 2014). This also affects opportunities for scaling up initiatives (van Doren et al., 2016), for example, dealing with locked-in urban form (Burch, 2010).

The level of *awareness and support of users and wider citizens* can condition possibilities for realizing urban climate initiatives. For example, whether or not these groups provide bottom-up political support for bold action, or are aware of new opportunities that might aid in generating buy-in, may condition the possibility for effective scaling up of initiatives (van Doren et al., 2016).

Exogenous Aspects

Broader governance levels within which cities are embedded strongly condition response opportunities within cities, because often necessary political and legal authorities are dispersed across levels (Anguelovski & Carmin, 2011; Carmin, Anguelovski, & Roberts, 2012). As Hughes (2017: 369) states: 'The challenges of coordination extend beyond urban bureaucracies . . . . A broader set of actors – from the private sector, civil society, and other levels of government – participate in urban governance and shape outcomes in the city.' Hughes (2015) finds evidence of longstanding awareness among US municipalities of the importance of linking with higher levels of government in urban climate adaptation planning, but also challenges with maintaining such linkages over time. Burch (2010) charts diverse ways in which policy at provincial and national levels supported urban climate

initiatives at the city level in several Canadian cities. This includes provincial planning and legal frameworks for climate change and energy, a carbon tax, emission standards and building codes, as well as general 'enthusiasm' that creates a supportive context locally.

Resourcing possibilities are critical in light of potential limitations at a local level. This may include possibilities for new funding streams from broader levels (e.g. investments, grants, allowance to create new levies). It is questionable whether exogenous sources should be relied on to fully close financing gaps on an ongoing basis. Yet urban climate initiatives are challenged by the long-term, open-ended nature of work often needed (Hughes, 2015). The interface with the market context matters for investment by private actors (e.g. capital costs, credit availability) (van Doren et al., 2016).

Broader political economic structures are directly relevant through impacting patterns of private investment linked to urban climate initiatives (e.g. linked to energy prices), as well as affecting the fiscal conditions of governments (e.g. domestic and global economies). More diffusely, these structures are connected to urban climate initiatives through the very expectation that cities take responsibility for dismantling deeply embedded systems of carbon-intensive production and consumption which are structural features of modern society.

The *socio-economic development context* is critical as there may be many pre-existing developmental and vulnerability-related challenges that urban climate initiatives must be sensitive to. For example, Hardoy and Romero-Lankao (2011) emphasize how Latin American cities 'are still faced with high levels of poverty, indigence and informality'. Hughes (2015: 17) observed that even in a North American context climate adaptation planning 'often lacks attention to equity issues, social vulnerability, and the influence of non-climatic factors on vulnerability'.

The role of various kinds of *crisis/shocks* is increasingly identified as a key factor influencing urban climate governance initiatives. This includes extreme weather events, but also crises/shocks of other forms. Aylett (2013) identified idiosyncratic interactions between various types of shocks which were conducive to urban climate initiatives, for example: (1) in Portland, Oregon, USA, a national financial crisis as well as public concern about domestic migration prompted by wildfires elsewhere in the country, and (2) in Durban, South Africa, a 'triple crisis' of energy shortages in the national electricity grid combined with food price increases linked to the global financial crisis and an extreme weather event which damaged infrastructure in the city. However, exactly under which conditions a crisis/shock is supportive or antagonistic to urban climate governance initiatives remains an open question.

Shifts in Power

It is hypothesized that urban climate governance initiatives gain or lose power through the interplay of agency and opportunity structure, as explained at the beginning of this section. Exactly how this plays out is likely to be subtle and highly case specific. Furthermore, shifts in power may sometimes be zero-sum, yet at other times they may be positive or negative sum. An example of a zero-sum shift is devolution, where new formal powers are conferred to municipalities from higher governance levels giving over authority (e.g. rule-making or revenue-raising capabilities). On the other hand, new forms of power may be created through bottom-up action within and among cities. For example, transnational municipal networks and private sector initiatives relating to cities (e.g. city rankings, sustainability/energy certification) create new patterns in roles and authorities with at least rhetorical or persuasive powers even if not formal.

More broadly, shifts in broader discourses (e.g. about the urgency of climate change, and the role of cities as global players) may open up new opportunities for cities to 'claim' new roles and authorities. However, there may also be practical limits on the creation of new formal powers at the city level, such as pushback by powerful political interests or constitutional limits on political authority. Understanding how the interplay between agency and opportunity structure leads to possible shifts in power, with consequences for the production of empowerment/disempowerment, is the topic of the next section.

Mechanisms of Empowerment and Disempowerment

This section considers how the three variable categories in the previous section (i.e. agency, opportunity structure, shifts in power) interact to produce empowerment/disempowerment. The logic here is that *agency* and *opportunity structure* interact and lead to possible *shifts in power*, which leads to *empowerment/disempowerment* outcomes. Shifts in power may or may not occur; that is, this variable may take two possible outcomes: shift or no shift. This may be associated with two possible outcomes: empowerment or disempowerment. This can lead to four different scenarios: active or passive empowerment, and active or passive disempowerment (Table 3.1).

Within the framework of Table 3.1, we synthesize a variety of possible mechanisms of empowerment and disempowerment that might occur across different contexts. Mechanisms are considered propositions about causal relations, which make the thinking behind causal claims explicit and testable (Beach & Pedersen, 2016). Formulating mechanisms of empowerment/disempowerment helps to make sense of disparate literature in a way that allows empirical testing, further

Table 3.1 *Production of empowerment/disempowerment*

	Empowerment	Disempowerment
Active	Urban climate initiative gains power through shifts from other actors or creation of new sources of power.	Urban climate initiative loses power through shifts to other actors or undermining of sources of power.
Passive	Urban climate initiative gains power through changes in the broader urban governance context.	Urban climate initiative loses power through changes in the broader urban governance context.

theorizing, and potentially also informs strategic action. This is timely because the field of urban climate governance has been in a relatively exploratory phase for the last decade or so, both theoretically and empirically, and arguably now needs to move into a consolidation phase to synthesize insights gained. Identification of common mechanisms across diverse contexts supports this goal.

Table 3.2 shows possible mechanisms of empowerment/disempowerment based on the reviewed literature. This aims to capture important dynamics that produce empowerment or disempowerment of urban climate governance initiatives. These dynamics may arise in ways that are endogenous or exogenous to a city. Whether or not a shift in power occurs may not always be unambiguous. The basic test we suggest is whether other actors in the system (who are not the subject) would recognize a shift in power or not. Many of these mechanisms are 'opposites' in the sense that they can contribute to empowerment or disempowerment depending on their directionality. The overall set of mechanisms listed is not exhaustive, but is emblematic of those that tend to be frequently observed across diverse contexts and thus potentially have widespread resonance. This helps to lay a foundation for future scholarship to analyse processes by which empowerment/disempowerment occurs, in a way that can be contextualized, but also retain a level of generality to enable cross-case comparison and synthesis.

Illustrative Case: Initiatives for Energy Transition in Amsterdam, the Netherlands

Overview of Initiatives

The specific issue that this case involves is energy provision in a medium- to large-sized city within a developed country context. Amsterdam has a population of approximately 850,000 within the city proper, and up to 2.4 m within the broader metropolitan area. Since the early 1990s, the City of Amsterdam has pursued climate mitigation and energy policies, but overall left much of the initiative to

Table 3.2 *Possible mechanisms of empowerment/disempowerment*

	Empowerment	Disempowerment
Active	Endogenous: • Senior city leadership encourages climate action, which confers mandate to urban climate initiative. • Strategic coalition of actors mobilizes in support of urban climate initiative. • Cultivation of narratives of climate action which discursively supports urban climate initiative. Exogenous: • Policy/legal frameworks created at higher levels that support climate action in cities. • Resources for urban climate action provided from higher levels. • City participates in transnational networks/initiatives that create new imperatives for climate action in cities.	Endogenous: • Senior city leadership discourages climate action, which undermines mandate for urban climate initiative. • Strategic coalition of actors mobilizes against urban climate initiative. • Cultivation of narratives that conflict with climate action which discursively undermines urban climate initiative. Exogenous: • Policy/legal frameworks at higher levels constrain climate action in cities. • Resources for urban climate action withheld from higher levels. • Elite intervention from higher levels to block urban climate initiatives.
Passive	Endogenous: • Institutional voids provide space that is claimed by new urban initiatives. • Institutional dynamics create windows of opportunity to secure support (e.g. planning and political cycles). • Citizen awareness and support for climate action creates political support for urban climate action. Exogenous: • External crises/shocks generate broad support for climate action. • Municipal leadership participates in higher-level policy/planning forums. • Increasing prominence of transnational networks/initiatives that create new imperatives for climate action in cities.	Endogenous: • Institutional voids create difficulty for new urban initiatives to gain traction. • Institutional dynamics make it difficult to secure or sustain support (e.g. locked-in plans and political agendas). • Lack of citizen awareness and support makes it difficult to build political support for urban climate action. Exogenous: • External crises/shocks reduce broad support (e.g. narrow recovery focus). • Apathy in higher-level policy arenas towards municipal involvement. • National/global economic conditions hinder public and private investment in climate action.

private actors, such as energy companies and local energy cooperatives (Hisschemöller, 2016). As a consequence, some positive results have been achieved but less overall progress than envisioned. However, around 2010 the city began to increase its engagement, publishing several policy documents aiming to provide a stronger impetus for change (van der Hoek, Struker, & de Danschutter, 2017). This led to investment in novel infrastructure including a district heating system utilizing surplus heat from municipal waste incineration, and the creation of a charging infrastructure for electric vehicles. However, overall these approaches were largely technocratic with little attention to citizen engagement.

Recently a renewed set of climate ambitions were set out by the municipality, formulating a strategy to phase out the use of natural gas for heating called the Amsterdam City Deal (City of Amsterdam, 2016). This involves a voluntary agreement between major stakeholders in energy and social housing, stipulating targets and actions for these participants, and involves business case development, pilot projects, and citizen engagement. It appears to be a significant step towards realizing an energy transition, marking a shift in climate policy in the city.

In parallel, citizens have become increasingly engaged in urban climate initiatives in the city, supported by environmental non-governmental organizations (NGOs) such as *Urgenda* and *Milieudefensie*. Around a dozen bottom-up citizen energy cooperatives are active in Amsterdam, stimulated by national economic incentives (such as the *Postcoderoosregeling* and *SDE+*). They initially focused on wind energy projects but subsequently became involved in solar energy and energy saving initiatives, and more recently district heating. Increasingly, these initiatives are joining forces, seeking to work together with the municipality, energy network operators, and private companies. This citizen energy movement and its partners recently began collaborating under the umbrella of 'Platform 02025' aiming for an ambitious urban energy transition by 2025 when the city celebrates its 750th birthday.

Recently the municipality has also cultivated a strong emphasis on knowledge coproduction through various projects and platforms. For example, the municipality is successful in acquiring European project subsidies, such as the City-zen project and the NEXT-Buildings project. It also has a well-developed cooperation with a broad range of stakeholders through its 'Smart City' initiative focusing on urban innovation, and with knowledge institutions such as the Amsterdam Institute for Advanced Metropolitan Solutions.

Empowerment/Disempowerment

Agency is being exerted by a range of actors towards policy innovation (e.g. Amsterdam City Deal), experimentation (e.g. citizen energy movement), and urban laboratories (e.g. knowledge coproduction initiatives).

The opportunity structure is conducive to these initiatives in various ways. Endogenously, the municipality has cultivated and responded to a city-wide agenda for energy system transition, and increasingly also frames its approach as part of a broader transition towards a 'circular city' in order to enhance its profile and appeal (Circle Economy et al., 2018; TNO et al., 2015). Outwardly, the municipality increasingly performs a strong role as an initiator and facilitator of climate action. Inwardly, it addresses the complex organizational structure of the municipality through the appointment of an alderman (councillor) for sustainability who is also responsible for climate policy. The city increasingly uses its strong legal position in land ownership as a catalyst for change (Savini et al., 2016). Almost the totality of urban land is owned by the city and leased to its users. This not only provides a stable source of income to the city but also allows the local government to directly control land use in order to pursue and implement municipal policies. Examples are the menu of sustainable building options from which project developers and real estate agents are asked to make a choice. Recently, the municipality issued a roadmap for the circular tendering of land which is meant as an instrument to stimulate, measure, and reward circular building and renovation, and which features energy issues prominently (Roemers & Faes, 2017). Exogenously, there is discursive alignment in agendas across municipal, provincial, and national governments in regards to an ambition for a transition towards sustainable energy systems ultimately by 2050. A major shared incentive is the rapid depletion of the finite Dutch natural gas resources as well as the increased occurrence of earthquakes in the northern part of the country, due to gas extraction. This has spillover effects on energy debates within Amsterdam among citizens, government, and industry; building awareness; and support of users and citizens.

Various active empowerment mechanisms are observed, including senior city leadership conferring a mandate for urban climate governance initiatives, strategic coalition of actors mobilizing in support of urban climate governance initiatives, cultivation of narratives of climate action which discursively support urban climate initiatives, and policy/legal frameworks created at higher levels that support climate action at the city level. At the same time, various passive empowerment mechanisms are also observed, including institutional voids providing space that is claimed by new urban initiatives, institutional dynamics creating windows of opportunity to secure support, and citizen awareness and support for climate action creating political support for urban climate action.

On the other hand, there is a risk of active disempowerment due to resources for urban climate action being withheld from higher levels. Financing for the energy transition outlined in the City Deal is estimated at 5 to 6 billion euro, yet sources of funding are yet to be fully identified. Thus far, the national government has not pledged any direct financial support to help realize the climate ambitions of

Amsterdam. This means that at the executive level, the municipality is largely dependent on other parties such as project developers, businesses, and citizens to achieve concrete results. It has itself only a limited budget for such financing. If resourcing is not made available by national and/or provincial governments, this may reflect a form of active disempowerment by withholding resources at important moments, leading to missed opportunities. At the same time, there is a risk of passive disempowerment due to institutional dynamics that may make it difficult to secure or sustain support because of other simultaneous plans and political agendas. For example, Amsterdam has high ambitions for urban growth (50,000 new dwellings ultimately in 2025), and elaborate administrative procedures for city development as established in the so-called 'Plaberum' (Marselis & Hisschemöller, 2018).

Altogether, this exploratory case study analysis illustrates how an analysis of empowerment/disempowerment of urban climate governance initiatives, as outlined previously, can be conducted. Interestingly, it reveals multiple empowerment/disempowerment mechanisms operating simultaneously. This places a novel forward-looking emphasis on dynamics unfolding, and opportunities for strategic action to improve the prospects of success of these initiatives towards urban climate action.

Discussion and Conclusions

Understanding Empowerment/Disempowerment

The key contribution of this chapter is a systematic approach, including an exploratory typology, for analysing empowerment/disempowerment of urban climate governance initiatives. This is important because urban climate governance initiatives are pursued within a multidimensional web of linkages and interdependencies, including aspects that are both endogenous and exogenous to an urban climate governance system. Empowerment or disempowerment is shaped not only by agency (i.e. through urban climate initiatives), but also by the opportunity structure within which such initiatives are embedded. Mechanisms identified provide a starting point for contextualized investigation in any particular case. These mechanisms may need to be further adapted or unpacked in a specific context, but they provide a starting point that is likely to have general resonance. An empowerment/disempowerment lens helps to understand the performance of urban climate initiatives, as well as their effects on urban governance systems. Yet it does not fully explain the emergence of urban climate initiatives in the first place, which may arise from diverse motivations not covered here.

Multiple mechanisms acting in combination may be necessary for producing empowerment. For example, in Bangalore Bulkeley and Castán Broto (2014) found that two simultaneous mechanisms were important for the initiative they studied: the cultivation of discourses reinforcing the logic of the initiative, and the presence of a strategic coalition of actors mobilizing powerful interests to support the initiative. This was also evident in the illustrative case of Amsterdam, where multiple mechanisms contributing to empowerment were identified (albeit with risks of disempowerment looking forward). Yet the interaction of multiple mechanisms may also produce disempowerment. For example, Hardoy and Romero-Lankao (2011) identify the simultaneous occurrence of non-provision of resources, obstructive institutional dynamics, and lack of ability to address wider socio-economic developmental issues for urban climate governance in Latin America.

On the other hand, Anguelovski and Carmin (2011) indicate that empowerment and disempowerment mechanisms may coexist (e.g. non-provision of resources and institutional voids, alongside policy entrepreneurship), with mixed implications for realizing urban climate governance initiatives. Furthermore, there may be temporal patterns in ways that empowerment/disempowerment is produced. Carmin et al. (2012) argue that 'early adoption' may be explained more through endogenous factors owing to a lack of existing exogenous incentives, whereas 'late adoption' may be explained more by exogenous factors due to the intervening enactment of a variety of possible exogenous incentives (e.g. national climate policy, financial support from external organizations, and diffusion of knowledge and norms). Thus, the opportunity structure is not fixed but is itself dynamic, and potentially also indeterminate and contested.

Overall patterns of empowerment/disempowerment may vary for different types of urban climate governance initiatives. Policy innovation may be realized through either active or passive empowerment. Yet this may be at risk of active disempowerment through blocking by certain powerful actors. Experimentation may be realized through passive empowerment. Yet this may be at risk of passive disempowerment if it cannot become embedded or scaled up to change the broader governance system, or active disempowerment if it is perceived to threaten powerful interests. Urban laboratories may be realized through passive empowerment. Yet this may be at most risk of passive disempowerment if they struggle to demonstrate success to involved actors over time, or confront an inability to change broader structural forces (e.g. following Evans & Karvonen, 2014). In the case of Amsterdam, evidence for both active and passive empowerment was identified, as well as a risk of active disempowerment in coming years linked to resources.

An important area requiring further work is to understand the nuances of shifts in power (e.g. specific ways in which this occurs, both formally and informally, and its consequences). This chapter starts to shed some light by clarifying differences

between active and passive forms of empowerment or disempowerment. For example, there are longstanding debates in multiple fields about devolution (e.g. in environmental governance, as well as community development and social policy), and its role in producing empowerment. This chapter suggests that it is important to distinguish whether changes in decision-making are operational (e.g. for specific issues and moments in time only, such as participation in multi-actor forums) or constitutional (e.g. more permanent changes in decision-making rules). Both can potentially produce empowerment (passive or active, respectively), but with different underlying implications about shifts in power. Hence through this lens, devolution would be a sufficient but not a necessary condition for empowerment.

Strategic Use of Mechanisms

A pertinent question is, to what extent can knowledge of these mechanisms be used to inform purposeful strategies to help better realize urban climate governance initiatives? This issue needs to be further examined. Mechanisms identified may be useful in thinking comprehensively about how urban climate governance initiatives may become empowered or disempowered, and which mechanisms may be most relevant to target in a particular case. The approach also brings attention to how agency plays out within a specific opportunity structure, and the implications for shifts in power.

Realizing urban climate initiatives may really require concerted agency to take action and persuade other actors rather than expecting public demands to drive it. For example, in a recent review from the USA, Hughes (2015) found 'little evidence that urban climate change adaptation planning is happening in response to bottom-up demands; instead local governments are often developing mechanisms for engaging the public and generating interest in and support for adaptation planning'. Based on comparative case analysis in the Global South, Carmin et al. (2012) implied that empowerment requires a certain agility on the part of involved actors to adapt their initiatives and ways they are pursued within dynamic circumstances, to find opportunities for empowerment that may be linked to both endogenous and exogenous factors.

This also raises questions about empowerment in the context of broader structural factors and socio-economic development challenges that may work against it. For example, Evans and Karvonen (2014) reflected on how some urban initiatives such as urban laboratories may replicate existing patterns of social power because privileged actors benefit from the production and circulation of new knowledge while the exclusion of less privileged actors is reinforced. In their study in Bangalore, Bulkeley and Castán Broto (2014) hinted at how a lack of attention to inequity in

a context marked by it could jeopardize the sustainability of the private urban initiative studied. More broadly, Hardoy and Romero-Lankao (2011) argue that the pervasive background condition of socio-economic disparity and chronic vulnerability is fundamentally disempowering to urban climate initiatives in a Latin American context.

This raises questions about how cities can seek to transform broader structural conditions in pursuing urban climate governance initiatives. In this light, an empowerment/disempowerment lens might help as a diagnostic in identifying key places where action is needed – in other words, as an entry point for targeting efforts towards transforming broader systemic structures that need to be addressed. A recent example from a high-capacity context is the case of New York City expressing its intention in January 2018 to significantly divest from pension funds investing in fossil fuel industries, and simultaneously pursue legal cases against large fossil fuel companies for climate impacts incurred in the city. This can be seen as a bold attempt at transforming broader structural conditions on urban climate action. Most cities across the world may not currently have the ability or willingness to take similar action, but this perhaps demonstrates what such purposeful attempts can look like.

Contributions to Urban Governance Scholarship

This chapter contributes to analysing the dynamics of agency and opportunity structure within urban governance systems, and the mechanisms by which specific initiatives aiming to bring about change in systems may be empowered or disempowered. The chapter contributes a critical but pragmatic analytical approach centred on urban climate initiatives. The approach is particularly oriented towards informing strategic action, in other words, ex ante efforts to design and pursue urban climate initiatives. This has potential to be further developed into a diagnostic approach in future work. However, it could also be used for ex post evaluation.

More broadly, the chapter relates to studies of power in environmental governance (e.g. Partzsch, 2017) by considering ways in which power may shift as a result of collective efforts of actors to realize new initiatives. It also relates to longstanding debates about the role of the state in environmental governance (e.g. Duit, Feindt, & Meadowcroft, 2016) which are re-emerging in recent years particularly through the frame of polycentric climate governance (Jordan et al., 2015). Urban climate governance has developed a rich body of thinking about the interplay between state and non-state actors, and provides an ideal conceptual arena for understanding change in polycentric systems as a result. Mechanisms of empowerment/disempowerment may be an important aspect of this issue. Lastly, it relates to the nascent topic of understanding transformations in governance systems (Biermann et al., 2012; Bulkeley

et al., 2016; Patterson et al., 2017), and the specific mechanisms by which this may be purposefully pursued in urban settings in practice.

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