The orchestration of global urban climate governance: conducting power in the post-Paris climate regime

Article *in* Environmental Politics · May 2017

DOI: 10.1080/09644016.2017.1320829

CITATIONS
26

READS
170

2 authors:

David Gordon
University of California, Santa Cruz
19 PUBLICATIONS **156** CITATIONS

SEE PROFILE

Craig Anthony Johnson
University of Guelph
48 PUBLICATIONS **1,075** CITATIONS

SEE PROFILE

Routledge
Taylor & Francis Group

Environmental Politics

ISSN: 0964-4016 (Print) 1743-8934 (Online) Journal homepage: http://www.tandfonline.com/loi/fenp20

The orchestration of global urban climate governance: conducting power in the post-Paris climate regime

David J. Gordon & Craig A. Johnson

To cite this article: David J. Gordon & Craig A. Johnson (2017): The orchestration of global urban climate governance: conducting power in the post-Paris climate regime, Environmental Politics, DOI: 10.1080/09644016.2017.1320829

To link to this article: http://dx.doi.org/10.1080/09644016.2017.1320829

Published online: 01 May 2017.

ENVIRONMENTAL POLITICS, 2017
https://doi.org/10.1080/09644016.2017.1320829

Routledge
Taylor & Francis Group

The orchestration of global urban climate governance: conducting power in the post-Paris climate regime

David J. Gordon [a] and Craig A. Johnson [b]

[a]Department of Politics, University of California Santa Cruz, Santa Cruz, CA, USA;
[b]Department of Political Science, University of Guelph, Ontario, Canada

ABSTRACT

Cities have come to play an important role in the global governance of climate change, and are increasingly recognized as a crucial component of the post-Paris climate regime. Based in part on their jurisdictional authority, shared commitment to action and disdain for negotiations, there is considerable optimism that cities can meaningfully contribute to the creation of an effective bottom-up global response. Focusing on the processes through which cities themselves are being steered towards particular actions and objectives, attention is directed towards the recent explosion of efforts to engender coordinated efforts and activities between cities through the conceptual lens of orchestration. The practice of orchestration is unpacked, and the importance of identifying who orchestrates, how, and in the service of which/whose objectives is highlighted. Thus, analysis is oriented towards the politics and power dynamics of orchestration, and a step is taken towards critically assessing the promise and potential of ongoing activities in the realm of global urban climate governance.

KEYWORDS Climate change; cities; orchestration; coordination; global governance

Introduction

Concerns about the ability of multilateral agreements to achieve meaningful progress on climate change have reinvigorated discussions about the role of cities, NGOs and other sub- and non-state actors in governing climate change (Hoffmann 2011, Bernstein and Cashore 2012, Abbott 2013, Bulkeley *et al.* 2014; Hale and Roger 2014; Betsill *et al.* 2015, Johnson *et al.* 2015, Hale 2016). As part of this phenomenon, cities have come to differentiate themselves from the states in which they are embedded, by emphasizing their commitment to action and disdain for negotiation. 'Cities act, while nations talk', as many a Mayor and city official is heard to proclaim and cities have wielded this motto in asserting for themselves a necessary, indeed an essential, role in the global governance of climate change (Bloomberg 2010, City of Paris 2015). Yet it is vital to recognize

CONTACT David J. Gordon dagordon@ucsc.edu

that this claim rests on the production of individual and collective effects; governance engagement not only *in* and *by* particular cities but, more importantly, the ability to engender coordinated efforts and activities *between* cities from across the globe.

Recent years have, in fact, witnessed an explosion in efforts to do just this. These range from the Non-state Actor Zone for Climate Action (NAZCA) and Lima–Paris Action Agenda developed within the ambit of the UN Framework Convention on Climate Change (UNFCCC) to the C40 city-network[1]; standardization schemes like the Global Greenhouse Gas Protocol for Cities (GPC) to third-party disclosure platforms like the Carbon Disclosure Project (CDP) Cities Initiative. These and other initiatives have captured a good deal of attention from policy actors and pundits as possible sources of innovation and experimentation within an expanded global climate governance regime.[2] What remains unclear is how we can make sense, and assess the governance potential, of this proliferation of activities.

In this article, we respond to this challenge and heed the call for theoretical innovation (i.e. Betsill and Bulkeley 2013) by developing a conceptual framework derived from recent work on orchestration as a means of understanding and assessing extant efforts to produce what we refer to as global urban climate governance. Orchestration, as developed by Abbott and colleagues (2015), is a mode of global governance distinguished by an attenuated relationship between governor and governed: the orchestrator works through an intermediary in order to govern a target audience. It is a mode of indirect governance well suited to the domain of global urban climate governance, which is characterized by voluntary participation, non-hierarchical relations and the absence of coercive sources of authority (Bulkeley and Kern 2009). Ontologically, it helps to capture the different frequencies of power that operate as actors of various sorts seek to produce transnationally coordinated urban climate governance activities and efforts (Allen 2010, Bulkeley 2012).

Our framework contributes to recent scholarship that extends and applies the concept of orchestration in the realm of global climate governance (Chan and Pauw 2014, Hale and Roger 2014, Bäckstrand and Kuyper 2017). The orchestration of global urban climate governance is a relatively new phenomenon, and as such there is a need to better understand its empirical manifestations, inner workings, governance potential and limitations. We unpack the practice of orchestration to identify the efforts of various actors to deploy orchestrating power and the particular intermediaries through which they do so.[3] Especially important is the need to consider who orchestrates, in the service of which/whose objectives, and how they orchestrate. We present an actor-oriented analytic framework,

parse out three distinct modes of orchestration and focus our analysis on assessing the different objectives towards which orchestration is pursued.

Doing so is an important first step towards identifying the politics taking place both within and between orchestration initiatives, and assessing the potential of orchestration to produce meaningful governance outcomes. Our central aim here is to provide a means of assessing the potential and prospects of global urban climate governance as part of the voluntary, bottom-up climate regime that was formalized at COP 21 in December 2015. Exploring efforts to orchestrate cities offers a window through which to assess the possibility that such an approach can in fact generate coordinated action and the production of meaningful and timely collective effects (Hermwille *et al.* 2015, Hsu *et al.* 2015, Jordan *et al.* 2015). Furthermore, by drawing out an analytic distinction between different modes of orchestration, we suggest the need to look for different types of politics and different sites and forms of political struggle.

We begin by providing a brief overview of the engagement of cities in processes of global climate governance. We then review the parameters of orchestration theory, place it in the context of other efforts to understand coordination in transnational governance and identify the need for further theoretical innovation so as to better account for the observation of multiple, overlapping initiatives in the domain of global urban climate governance. We then set out a typology, developed inductively from a comprehensive desk review of initiatives that seek to organize, coordinate or bring together urban activities related to climate governance, that delineates three distinct modes of orchestration. These are differentiated by the relationship between orchestrator and intermediary, and the objectives pursued by the orchestrator. In the subsequent sections, we apply our typology and advance a set of propositions with respect to whether and how cities might connect to the broader system of global climate governance. We conclude by reviewing the analytic value of our contribution and offer a series of provocations and questions for advancing this research agenda.

The evolution of global urban climate governance

It is widely acknowledged that formal, top-down climate governance has proven incapable of producing a governance response commensurate with the complex nature of the problem (Rayner and Prins 2007, Victor 2011, Hale *et al.* 2013). Attention has correspondingly shifted to the diverse universe of governance initiatives undertaken outside of the formal process of interstate climate negotiations, by cities amongst a variety of other non-nation state actors (Hoffmann 2011, Green 2013, Bulkeley *et al.* 2014, Hale and Roger 2014, Abbott *et al.* 2016).

These initiatives have been characterized most broadly as 'governance experiments' taking place outside formal systems of political authority (Hoffmann 2011, Bulkeley and Castan Broto 2013, Bulkeley *et al.* 2014). Operating 'beyond' rather than inside the climate regime (Okereke *et al.* 2009), such experiments employ non-hierarchical levers of authority and influence in an effort to achieve collective efforts and produce collectively meaningful effects (Andonova *et al.* 2009, Bernstein and Cashore 2012). Governance experiments push beyond advocacy and lobbying and embody conscious efforts to 'steer' the interests and activities of a target audience in a particular direction. The experimental aspect is thus comprised of the novelty inherent in actors making forays into transnational terrain, while governance is operationalized through the making of rules, creation and diffusion of norms, development of standards, forging of partnerships and offering of incentives (Rosenau 1997, Hoffmann 2011).

Following the Paris Climate Agreement in December 2015, the multilateral framework has expanded to give much greater consideration to the efforts of subnational actors; Article 118 'welcomes the efforts of non-Party stakeholders (including cities) to scale up their climate actions, and encourages the registration of those actions in the Non-State Actor Zone for Climate Action'(COP21, 2015). We see a further, even stronger, indication of increased recognition in the broader discourse of global climate governance taking place around the COP21 meetings. Echoing the sentiment that '[m]uch of the power to reduce climate emissions lies now with *cities*, not national governments',[4] economist Nicholas Stern argued in the run-up to the conference that cities are not simply places that produce or experience climate change, but are a 'key part of the response'.[5] During the conference itself, a host of state representative and dignitaries, ranging from US Secretary of State John Kerry[6] to UN General Secretary Ban Ki Moon[7] to French President Francois Hollande, acknowledged the role of cities in the global governance of climate change. Such sentiments are reflected in recent reports by organizations including the OECD and the World Bank,[8] and in the inclusion of an explicitly urban component in the UN Sustainable Development Goals.[9]

Cities have been, from the early 1990s, sources of climate experimentation, both locally and increasingly as part of an emergent system of transnational climate governance (TCG) (Bulkeley and Castan Broto 2013, Bulkeley *et al.* 2014). Transnational city-networks established in the early 1990s, such as International Council for Local Environmental Initiatives (ICLEI) and the Climate Alliance, were largely focused on getting climate change onto the local government agenda. These networks were essential to encouraging and supporting local policy champions, as they provided a source of technical support, normative endorsement and (to varying degrees) material resources (Betsill and Bulkeley 2003, Selin and VanDeveer 2007).

While these early transnational city-networks aimed to establish the bona fides of cities as part of the broader global response, it is important to acknowledge the rather weak foundations on which they were able to base this claim. Early analyses clearly document a disconnect between commitments voiced by cities and city-networks and the actual governance activities undertaken. Put simply, scholars identified a wide gulf between a small number of cities taking concrete and aggressive local action and much larger groups of cities doing little more than making nominal commitments (Gore and Robinson 2005, Bulkeley and Kern 2009, Hakelberg 2014). Transnational city-networks, as Betsill and Bulkeley (2003) detail in their seminal work on the topic, were largely reliant on self-selection, and heavily dependant upon the motivations and self-mobilization of cities to generate active engagement. Global urban climate governance, as a result, was until the early years of the twenty-first century primarily symbolic with limited or narrow actual impact (Keiner and Kim 2007, Bulkeley and Kern 2009).

In recent years, however, observations have been made that cities are increasingly moving beyond such symbolic engagement and are in fact consolidating around a more substantial form of urban climate governance. A considerably larger number of cities are actively engaged in setting targets, developing plans, measuring emissions and undertaking concrete policy interventions (Arup 2011, 2014, CCR 2015, CDP 2014). There are also indications that climate considerations are being integrated into core elements of urban governance (Bulkeley 2010, Hodson and Marvin 2010, Aylett 2014), and that cities are coming to converge around particular norms and practices and a common understanding of their role in the global domain (Gordon 2013, 2016, Bloomberg 2015, City of Paris 2015).

This pattern has emerged in the context of what Bulkeley (2010) characterizes as the second 'wave' of urban governance that emerged around 2005, which has seen cities, both individually and collectively, become more assertive, ambitious and actively engaged. Broadly speaking, cities have reoriented themselves towards climate change, as illustrated, in the reframing of urban development and growth as inherently linked to the issues of sustainability and climate change (Rutland and Aylett 2008, Hodson and Marvin 2010) and the now widely held notion that climate change constitutes not only a risk but also an economic opportunity for cities (LSE 2013, Bloomberg 2015).

Aylett highlights, for instance, that a substantial majority of cities participating in ICLEI are now integrating climate change into core elements of urban planning and development, addressing issues of mitigation and adaptation, conducting local greenhouse gas (GHG) emissions inventories, dedicating local staff resources and making efforts to identify and quantify emissions reductions generated from local policy interventions (Aylett 2014). A similar pattern is evident in the C40. While there remains a great deal of variation with respect to the specific policies and projects

employed by individual cities, members of the C40 have come to converge around a common set of governance norms and practices (Gordon 2015).

If the observation that cities have augmented the scale and scope of their engagement in processes of global climate governance is the foreground, then the background observation is a concurrent increase in the number of global climate governance initiatives oriented towards cities. There certainly were, prior to 2009, numerous initiatives oriented towards the transnational coordination of urban climate governance. These were, however, largely confined to the activities of formal transnational city-networks such as ICLEI, the Climate Alliance, Metropolis and the C40. Between the failed COP15 negotiations of December 2009 and the 2015 COP21 held in Paris, a host of new initiatives were created, and existing ones modified in interesting ways, that sought to augment and demonstrate the global governance capacity of cities. Within the UNFCCC we have seen the creation of NAZCA and the Lima–Paris Action Agenda, both of which aim to include the climate governance activities of cities, as well as the increased provision of formal opportunities for cities to contribute to interstate negotiations.[10] City-networks like C40 and ICLEI have, over the same period, undergone meaningful transformations intended to increase their capacity to encourage and coordinate their constituent members (Acuto 2013, Lee 2013, Gordon and Acuto 2015). At the same time, new initiatives such as the Compact of Mayors (led by the newly created UN Secretary General's Special Envoy for Cities and Climate Change) have been created with the goal of augmenting the capacity for coordination across and beyond city-networks (Compact of Mayors 2014).

Recent years have also witnessed the creation of activities spearheaded by a variety of non-state actors that are oriented towards the harmonization and coordination of urban climate governance efforts. Initiatives such as CDP Cities[11] and the carbon*n* Climate Registry[12] are third-party disclosure platforms that encourage cities to render their characteristics, ambitions, activities and effects transparent to global publics. The World Bank has actively worked to augment the capacity of cities to secure favourable credit ratings and gain access to global pools of public and private climate finance[13] and global consulting firms such as Siemens have developed indices that rank cities along various dimensions of sustainability and climate governance (Siemens 2009).

How, then, to make sense of this flurry of activity? How effective might it all be, and towards what goals is it oriented? In what follows, we propose the conceptual framework of orchestration as a promising point of departure with which to answer these vital questions. Orchestration, premised on the notion of governance through indirect means, well-captures the fundamental challenge faced by all instances of global urban climate governance: the production of collective effects in the absence of hierarchical authority relations. We set out in the sections that follow what exactly we mean when we speak of orchestration, and how we extend and amend this framework

to account for the interaction of myriad actors and the politics of those initiatives observed in the domain of global urban climate governance.

Orchestration: a conceptual framework

Orchestration offers a potent means of theorizing governance relationships in instances where governors lack coercive authority or the capacity to assert 'hard control' over those of whom they seek to govern (Abbott *et al.* 2015). Orchestration is pursued by actors as a means of accomplishing governance objectives under such conditions, and relies on 'soft inducements', such as the provision of material or ideational resources as a means of steering actors towards particular objectives and actions (Abbott *et al.* 2015).

In this sense, orchestration is a subtype of the broader phenomenon of governance – it is a particular mode of authoritatively steering towards shared social objectives, to paraphrase Rosenau's (2003) standard definition. The distinguishing feature of orchestration – what renders it different from other forms of indirect governance such as delegation, from passive modes of governance that generate outcomes through processes of diffusion (Busch and Jorgens 2012), and from structural imperatives leading to emulation or mimetic adoption (DiMaggio and Power 1983, Dobbin *et al.* 2007) – rests on the attenuated relationship between the prospective governor and those to be governed. Orchestration is in this sense akin to Richard Thaler & Cass Sunstein's (2008) popularized notion of deploying structuring power (framing the way that choices are presented) to 'nudge' individuals into making 'better' decisions about what they eat, how much they save, how they live and so on. Transposed to the realm of world politics, orchestration recognizes the proliferation of governance domains in which coercive authority is limited or absent, and where relationships between actors are horizontal rather than hierarchical. At the same time, the notion of orchestration helps sensitize analysis to the intentionality and agency of actors, and the presence of power asymmetries, in ways that are partially obscured through the lens of other approaches such as policy learning and transfer (Stone 2004, Lee and van de Meene 2012). As a particular mode of governance, orchestration requires that three conditions be satisfied: the orchestrator seeks to influence the behaviour of a target via an intermediary; the orchestrator does not control the intermediary; and the intermediary does not control and cannot compel the target. There is neither delegation of formal authority nor contractual obligation, and both participation and adherence are nominally voluntary.

In recent years, the concept of orchestration has been applied to the domain of TCG, largely as a means of addressing and possibly overcoming fundamental problems inherent in bottom-up climate governance, namely fragmentation and a lack of coordination.[14] Abbott (2013) proposes a

functional need in the domain of TCG for what he terms 'regime entrepreneurs' – actors with authority and legitimacy required to orchestrate transnational governance initiatives towards coordinated action and collective effects. In so doing, Abbott takes a promising step towards opening analysis up to identifying and assessing the possibility and processes of effective bottom-up climate governance.

Hale and Roger (2014) pick up and amend this idea by differentiating types of orchestration (initiating and shaping) and specifying the sources of authority upon which orchestrators might draw (material, epistemic, moral, relational). They also suggest that orchestration is by its nature a bridging device that links top-down and bottom-up governance dynamics – a form of governance that emerges from the interaction between the two. This implies that to orchestrate is to do top-down governance by other means, a proposition illustrated in the presumption that orchestrators are likely to be either states or international organizations (Abbott 2013, Hale and Roger 2014).

While this conceptual approach holds a great deal of potential, we propose two amendments that address what we see as limitations. First, while we can appreciate the normative case for international organizations like the UNFCCC Secretariat to take on the mantle of orchestration (Chan *et al.* 2015, Hermwille *et al.* 2015), we see no reason to limit empirical analysis in this way. We propose that orchestrators can emerge endogenously within transnational governance initiatives, or from the broader firmament of non-nation state actors engaged in the process. Our proposition is that orchestration theory can be extended in a manner parallel to Avant *et al.* (2009) call for an enlarged conceptualization of *who orchestrates* the globe.

Second, we echo Pegram (2015) in suggesting the need for analysis that interrogates the relationship between orchestrators, intermediaries and targets. Whereas Pegram focuses attention on goal and interest congruence between orchestrator and intermediary, we raise three questions that must be addressed in order to better understand and assess instances of orchestration as a mode of global governance: who orchestrates, how do they orchestrate and towards what end(s).

Our core proposition is the need for agnosticism with respect to who is an orchestrator and what they want – to treat the identity (and thus the authority, interests and objectives) of the orchestrator as a potentially meaningful variable rather than a preordained given. In a manner similar to Bulkeley (2012), we approach the capacity to orchestrate as a contingent function of the particular relationships and contexts in which actors are embedded. There are, in other words, no objective 'orchestrators', and orchestration may be pursued by any number of actors, with varying degrees of success. Potential orchestrators may, as a result, include city-networks, private corporations, philanthropic organizations, environmental

NGOs, state governments, international financial institutions or international organizations, with each engaging in efforts to steer cities in particular directions and towards particular types of actions and objectives.

The challenge, then, is to distinguish between those actors (the orchestrators) who engage actively to steer some particular audience (the target) through a strategy of strategically enrolling some additional actor(s) (the intermediaries). The key distinction, an empirical one at that, rests on identifying those actor(s) who initiate particular attempts to steer. While this opens analysis up to the relationship (and potential tension) between orchestrator and intermediary, it also directs attention to the process through which these roles are ascribed and assigned in the first place. We assert the need to consider the resources that actors bring with them into orchestrating initiatives, whether material/financial, epistemic, moral or institutional, as these provide the basis on which claims to authority and influence are based. At the same time, we recognize the need to be sensitive to the social relational positions occupied by actors, and the manner in which these shape how those resources are acknowledged and granted status and standing by others. In both cases, our intent is to step back and think about the organization of orchestration in the first instance, and to consider the power relations that determine why some actors are seen to conduct while others are rendered to the orchestral pit.

Together our amendments redirect attention away from a focus on the potential to achieve governance *through* orchestration and instead towards the politics and power dynamics that operate within and between instances *of* orchestration. Doing so, we argue, offers a means of moving analysis beyond an emphasis on the efforts of 'city-networks' as discrete actors to steer their members in particular directions (Bulkeley and Kern 2009, Selin and VanDeveer 2007) and instead towards the often heterodox collection of actors involved in this domain and the various ways in which they attempt to produce coordination of a particular sort (Boutiligier 2012, Acuto 2013).

Orchestration in three forms

There is, as noted earlier, a great deal of interest emerging around the question of how to 'galvanize the groundswell' of non- and substate climate actions.[15] The sheer amount of activity is a source of much optimism, but a clear need remains for theoretical tools that may be used to organize, understand and assess these governance initiatives. In this section, we contribute to ongoing efforts to do so by identifying and organizing instances of orchestration in the domain of global urban climate governance. In what follows, we organize instances of orchestration into three distinct (though not necessarily exhaustive) modes: complementary, coordinating and emergent (Table 1). For each mode, we seek to identify who is

Table 1. Three modes of orchestration.

Orchestration mode	*Orchestrator*	*Intermediary*	*Logic*	*Objectives*
Complementary	UNFCCC Secretariat; UNSG; EU Commission	IPCC; ICLEI; Green Climate Fund	Inclusion; participation	Bolster regime capacity and legitimacy
Concurrent	Bloomberg Philanthropies; individual cities	C40; CDP; cCR	Autonomy; recognition; enhance capacity	Augment governance capacity, political capital
Emergent	Siemens; World Bank	ISO; GHG Protocol for Cities; City Credit Ratings	Competitive standing; development; trustworthiness	Enhance return on investment and impact of capital investments

orchestrating, through which intermediaries, through what logic of orchestration and towards which objectives. Underlying our conceptualization is an assumption that orchestration occurs in a broader context of global climate governance that produces (or possibly requires) different and competing forms of orchestration. Complementary orchestration, we argue, embodies actions and initiatives that are explicitly defined and aligned with the climate regime complex. Coordinating orchestration, in contrast, operates with an explicit objective of establishing autonomous effects. Finally, emergent orchestration suggests a wider set of norms, structures and expectations that render cities observable, comparable and governable in the context of climate change.

Differentiating orchestration on this basis, we argue, heightens our theoretical, empirical and methodological sensitivity to the ways in which orchestrators and intermediaries orient themselves in relation to the climate regime complex and to one another. At the same time, we recognize that actors occupy different positions within different orchestrating initiatives. The C40, for example, is both an orchestrator in efforts to position cities as alternative sources of global climate governance capable of producing meaningful collective effects, and at the same time an intermediary in efforts by the UNFCCC Secretariat to draw cities into the climate regime complex and enhance interstate efforts (Figueras 2014). We assert, nonetheless, that this analytic distinction provides a useful means of sensitizing analysis to different forms of political struggle taking place within instances of transnational orchestration.

Complementary orchestration embodies orchestration of the sort that is most prevalent in the extant literature. In this mode, orchestration is undertaken by actors who assert influence derived from their position in the global climate regime complex and the authority delegated to them from sovereign states. Orchestration of this sort is oriented towards the integration of cities within the broader governance regime, with the

expectation that actors will comply as a function of the legitimacy of the regime, not in a functional sense but rather as a result of the underlying norm of state sovereignty and location of authority in world politics. Orchestration operates in the 'shadow of the state' (Borzel 2010) and the underlying goal is to find ways to align city actions so that they can be made to fit with, or complement, those of states.

Illustrations of this kind of orchestration can be found in initiatives such as the UNFCCC NAZCA and the EU Covenant of Mayors. In both cases, orchestration is pursued by a delegated agent of the state (thus suggesting a blurring of the distinction proposed in Abbott *et al.* 2015) through intermediaries such as the Intergovernmental Panel on Climate Change (IPCC),[16] city-networks such as ICLEI and funding mechanisms like the Green Climate Fund, and cities are expected to acquiesce on the basis of securing formal participation and inclusion in the interstate process. Recent calls for a global climate action framework (Chan and Pauw 2014) or a more assertive UNFCCC Secretariat (Chan *et al.* 2015) are premised on this notion of complementary orchestration, and rely on the provision of material resources, information and transparency as a means of catalyzing and corralling city actions.

Concurrent orchestration on the other hand is undertaken with an eye to coordinating the activities and actions of cities so as to produce autonomous effects. Orchestration, in other words, is oriented towards shaping the actions of cities so as to produce collective effects, but this does not necessarily imply or require that they be undertaken with an eye to the interstate climate regime. We might think, in other words, of concurrent orchestration as organized around a different baseline approach to the task of global climate governance, one premised not on coordination amongst fragmented parts of a whole (Biermann *et al.* 2009) but rather on the autonomous activities of self-similar components of a complex governance system (Bernstein and Hoffmann 2016).

Concurrent orchestration is therefore employed (or at least pursued) by a heterogeneous set of actors – cities themselves, philanthropic foundations such as Bloomberg Philanthropies and the Children's Investment Fund for the Future (CIFF) – through a variety of intermediaries – city-networks such as the C40 and Compact of Mayors and disclosure platforms such as CDP Cities and carbon*n* Climate Registry – in an effort to orchestrate cities towards coordinated climate governance activities. The logic of concurrent orchestration itself operates on a different basis, with acquiescence premised on the pursuit and provision of collective benefits to those who submit to 'being' orchestrated. Cities, for instance, have a shared interest in the acquisition of material resources and jurisdictional authority – both necessary to address the functional needs facing municipal governments around the world. As a result, orchestrating power rests on the credibility

and capacity of actors to create a bridge between the external and collective demands of cities with the internal production of order and orchestration amongst cities (Sending 2015). Recognition provides one such bridge, in that the ability to secure recognition *for* cities from external audiences may offer potential orchestrators a means of securing acquiescence around a particular set of practices or actions *from* cities.

Evidence of this form of orchestration can be found in the internal consolidation of individual city-networks, most prominently the C40, whose member cities have come to converge around a common set of climate governance norms and practices (authors, Arup 2015). Such convergence has been produced within the C40 through a process of political contestation between a variety of actors – cities such as New York; philanthropic organizations such as Bloomberg Philanthropies, CIFF and RealDania; non-governmental organizations such as the Clinton Foundation; and international financial institutions such as the World Bank and Inter-American Development Bank – who have undertaken efforts at orchestrating cities towards particular kinds of actions and joint objectives (Gordon 2015, Gordon and Acuto 2015).

Such political contestation is also evident, more recently, in the creation of meta-networks such as the Compact of Mayors, the Global Covenant of Mayors for Energy and Climate or the Global Parliament of Mayors.[17] These meta-networks have emerged as a means of consolidation across the broader domain of transnational urban climate governance, but operate largely in parallel with the interstate climate regime.[18] Concurrent orchestration in these initiatives is oriented inwards, rather than outwards, towards the ordering of actors within and across the domain of transnational urban climate governance rather than fitting them into a larger interstate system.

Emergent orchestration captures efforts to produce order indirectly, through the voluntary adoption of technical standards, common methodologies or standardized measures. The key distinction rests on the notion that orchestration of this sort is not explicitly oriented towards global urban climate governance but instead produces it as a by-product. Emergent orchestration operates on a logic of interurban competition for economic standing and capital investment, and abstains from positioning cities as participants in, or alternatives to, the global climate regime complex. Orchestrating power thus rests on the ability to establish those standards that become widely accepted amongst all actors located within a common domain. In a manner similar to Barnett and Duval's (2005) characterization of structural and productive forms of power, emergent orchestration is located in the process through which such standards are developed, diffused and rendered dominant (Broome and Quirk 2015). Orchestrators include actors such as the World Bank; private transnational corporations such as Siemens, Honeywell and Veolia; and intermediaries such as the International Organization for Standardization (ISO).

Power, in this mode of orchestration, rests in the use of mechanisms such as benchmarking and ranking schemes, which render complex and contested political domains legible and logical, and at the same time serve to suppress political contestation through a process of 'objectification' and normalization (Barry 2002, Kuzemko 2015). Emergent orchestration resides in efforts to shape what is measured, how it is measured and how/to whom it is conveyed. The objectives towards which orchestration is oriented are largely dictated by a desire to establish, and maximize, return on investment underpins this mode of orchestration. Orchestrators are united in their goal of demonstrating the value of their investment, a shared interest that leads them to emphasize the importance of standardization, harmonization and homogenization so as to better evaluate and assess investment or business opportunities.

The logic of orchestration in this case relies on a combination of instrumentality and structural inescapability. Cities may acquiesce to being orchestrated as either a means of, ironically, differentiating themselves from one another (to render oneself comparable is to establish the conditions on which to achieve status versus others). They may come to see the adoption of particular standards, or of practices of quantification and disclosure, as portals through which to access material or epistemic resources, as is the case for gaining access to a World Bank direct funding window for cities, for example (Bloomberg 2011, Zoellick 2011).[19] And at the same time, willingness to be orchestrated may end up being taken-for-granted, as actors come to accept that climate governance requires (via cognitive presumption or norm-based appropriateness) adherence to particular practices of quantification (Kuzemko 2015).

Evidence of this mode of orchestration can be seen in standardization schemes such as the GPC, an emissions measurement methodology for city GHG emissions; the ISO 37120 series of technical standards for measuring and benchmarking city governance[20] and rating or ranking initiatives such as the Siemens Green City Index,[21] which renders cities comparable from a distance by rendering various aspects of local environmental, climate or sustainability governance legible and comparable.

Conclusion

Here, we have proposed an analytical framework for unpacking and critically assessing the engagement of cities in global climate governance. At the heart of the framework is an assumption that such initiatives can be usefully understood through the lens of orchestration, and that this lens can be adjusted to refract the various actors, intermediaries, logics and objectives involved.

Our central proposition is that disaggregating orchestration into these three modes offers valuable analytic leverage by providing a tool with which to identify and assess the plurality of efforts at orchestration and potential (or prospective) orchestrators, intermediaries and targets. In so doing, we offer a

means of considering orchestration oriented towards different audiences and reliant on different logics of acquiescence, how different types of orchestration might produce different kinds of governance outcomes, and how these might be brought into alignment. Orchestration thus lies at the intersection of experimentation and systemic effects. Cities offer both a unique vantage point onto the dynamics and politics of orchestration and an important site of orchestration itself. In each case, early work on orchestration and global climate governance constitutes an important toehold, from which we push off in the pursuit of broader and deeper questions with respect to who orchestrates, how orchestration works and what it might produce.

A related aim is to establish the outlines of a research agenda, with empirical, theoretical and normative elements oriented specifically towards the question of cities and their relationship to broader systems of global governance. The hybridity of cities – encompassed, as per Bulkeley and Schroeder (2011), in the fact that they are both state and non-state, private and public actors – and their centrality in global circuits of finance, infrastructure, travel and technology (Sassen 2001, Taylor 2004) render them an interesting and important unit of political analysis. The agency of cities, however, continues to be under-explored, leading to a consequent need for careful investigation into the politics of transnational urban governance (Alger 2010, Acuto 2013, Curtis 2016, Ljungkvist 2016).

Although beyond the scope of this discussion, distinguishing among these three modes of orchestration entails identifying the ways in which different orchestrators and intermediaries create new forms (and corresponding logics) of power and political control. Consider, for instance, recent initiatives oriented towards increasing the ability of cities to secure access to various sources of climate finance. Here we see efforts to orchestrate cities being undertaken by cities themselves such as the Cities Climate Finance Alliance,[22] from Intergovernmental Financial Institutions (IFIs) like the World Bank Program on City Creditworthiness Initiative[23] or the Global Environment Facility (GEF) Sustainable Cities Integrated Approach initiative,[24] and from a variety of ENGO and non-state organizations. How these various initiatives relate to one another, and what kind of effect they might have with respect to both their proximate (securing increased amounts of financial investment and funding availability for cities) and ultimate objectives, likely depend on their internal logics and the nature of orchestrating power that is employed in, and between, them.

In proposing this framework, we hope to open up these important questions. By stepping back to consider the politics and power dynamics of orchestration, and the competing efforts undertaken by various actors to exert orchestrating power, our framework opens analysis to considering how experimentation might connect to prospects for systemic transformation. Parsing different modes and logics of orchestration provides analytic tools

that can be used to consider the tension between contestation and reproduction in the broader system of global climate governance (Toly 2008). Instances of complementary orchestration, for example, appear at first glance to be premised on the preservation and reproduction of prevailing norms embedded in the global climate regime (Moncel and van Asselt 2012, Hermwille *et al.* 2015), as we might expect given the deeply structuring nature of these norms (Bernstein 2001). Whether concurrent or emergent orchestrating initiatives constitute possible sources of norm contestation is an open question that may help to assess the transformative potential of experimental governance broadly conceived. At the heart of our framework is an assumption that orchestration represents both a *conscious strategy* that incorporates and coordinates the actions, decisions and metrics being used to evaluate cities and city networks in urban climate governance, and *an orientation* that reflects the dissemination and diffusion of experimental norms, metrics and best practices. What makes it useful and attractive is its ability to incorporate the more subtle forms of power that underlie seemingly benign efforts to coordinate actions and metrics at multiple scales. At the same time, and partially as a consequence of the conceptual stretching that this implies, the idea that orchestration is a phenomenon that emerges organically (e.g. as a result of urban climate change experiments) and strategically (e.g. in response to the integrating efforts of UNFCCC) opens the analysis to new possibilities about the ways in which cities, city networks and multilateral institutions create the conditions for new forms of city power in the post-Paris landscape.

Doing so, we argue, entails engaging more explicitly with the politics of struggle, domination, identity and power that are currently shaping and reshaping the role of cities in global climate politics. In its first guise, *complementary orchestration* suggests a politics of inclusion, conformity and representation that occurs within the formal rules and associated practices of nation-states within the multilateral climate regime. The second mode of *concurrent orchestration* is more autonomous, suggesting a politics of authority, legitimation and contestation that occurs outside or alongside the multilateral regime. Finally, *emergent orchestration* suggests a subterranean politics (Beck 1997) of social expectation, identity formation and structural domination that manifests itself in the norms, metrics and practices that render cities observable, comparable and governable.

Considering the central aims of this volume, the preceding therefore suggests important insights about the role of cities and city networks in framing and conceivably contesting the terms of orchestration. The introduction to this volume draws attention to the coexistence of a 'multilateral gridlock' that has hampered the establishment of effective policy outcomes and 'the proliferation of public, private and hybrid climate governance experiments beyond the international climate regime.' From the preceding, we can infer that city commitments, metrics and actions constitute their

own forms of power that operate and coexist both within and beyond the multilateral system. Such power is instrumental in framing the ways in which cities interact and engage with the multilateral system, with international investors, and with one another.

Notes

1. We use the term city-network rather than transnational municipal network (as do Bulkeley and Kern 2009, Lee 2013, others) as it connotes a broader category of transnational urban initiatives and opens analysis up to different forms of intercity initiatives.
2. Here the growing prominence of cities in global climate politics can be usefully understood as part of a wider, transnational phenomenon in which sub- and non-state actors have become increasingly engaged in global climate governance. NAZCA, the Under2MOU and the Compact of States and Regions, for instance, each recognize a role for subnational governments (including cities) in tackling climate change. Although the precise nature of this role goes beyond the scope of this article, it is worth noting that much remains to be known about the impact of sub- and non-state actors in this rapidly growing field. See, for instance, Hale (2016), Tavares (2016), Setzer (2015) and Bulkeley *et al.* (2014).
3. In this we echo Farrell and Newman's (2015) recent suggestion regarding the need to expand analysis of international political economy (IPE) from a focus on structural to that of *structuring* power.
4. http://bit.ly/2dHm1lw.
5. http://bit.ly/1Szf6pI, accessed 22 April 2016.
6. http://bit.ly/1Iouv9E, accessed 22 April 2016.
7. http://bit.ly/1jDLxHH, accessed 22 April 2016.
8. OECD 2015; http://bit.ly/2dTv0P4.
9. http://bit.ly/1DsQN3n.
10. COP19 in Poznan saw the UNFCCC Secretariat provide for the first time a 'cities day' that included a Mayoral-Ministerial Dialogue and formalized a position for cities in the UNFCCC process beyond that of a standard interest group.
11. https://www.cdp.net/cities.
12. http://carbonn.org/.
13. http://bit.ly/2dJ2foO.
14. An important exception is Hale and Roger (2014) who put forward propositions regarding when orchestration is likely to emerge, who is likely to be an orchestrator, and what forms orchestration might take.
15. http://www.climategroundswell.org/.
16. http://bit.ly/1p4VEIa.
17. Compact of Mayors (2014); http://www.globalparliamentofmayors.org/.
18. Although too recent to be included in our analysis, the Compact of Mayors and EU Covenant of Mayors formally merged in summer 2016, indicating a process of consolidation taking place amongst city-networks. See https://www.compactofmayors.org/globalcovenantofmayors/.
19. See also the World Bank City Creditworthiness Initiative, http://bit.ly/2dJ2foO.

20. http://www.dataforcities.org/wccd/.
21. http://sie.ag/1ssjWJX.
22. http://www.citiesclimatefinance.org/.
23. http://bit.ly/2dJ2foO.
24. http://bit.ly/2ep9Mvm.

Acknowledgments

Earlier versions were presented in Atlanta at the 2016 International Studies Association conference and at the Berlin Conference on Global Environmental Change in May of the same year. The authors acknowledge comments they received from participants at both these panels, and especially those from Matthew Paterson, Noah Toly, Michele Acuto, Stefan Aykut, Kristine Kern and Monika Zimmermann. We also thank Jonathan Kuyper, Karin Bäckstrand, Eva Lövbrand, Björn-Ola Linnér and two anonymous reviewers for their helpful suggestions. The authors assume sole responsibility for the text.

Disclosure statement

No potential conflict of interest was reported by the authors.

ORCID

David J. Gordon http://orcid.org/0000-0002-3034-1792
Craig A. Johnson http://orcid.org/0000-0002-3257-7280

References

Abbott, K.W., 2013. Strengthening the transnational regime complex for climate change. *Transnational Environmental Law*, 3 (1), 57–88. doi:10.1017/S2047102513000502

Abbott, K.W., *et al*., 2015. *International organizations as orchestrators*. Cambridge: Cambridge University Press.

Abbott, K.W., Green, J., and Keohane, R., 2016. Organizational ecology and institutional change in global governance. *International Organization*, 70 (2), 247–277. doi:10.1017/S0020818315000338

Acuto, M., 2013. The new climate leaders?. *Review of International Studies*, 39 (4), 835–857. doi:10.1017/S0260210512000502

Alger, C.F., 2010. Expanding governmental diversity in global governance: parliamentarians of states and local governments. *Global Governance*, 16 (1), 59–79.

Allen, J., 2010. powerful city networks: more than connections, less than dominance and control. *Urban Studies*, 47 (13), 2895–2911. doi:10.1177/0042098010377364

Andonova, L., Betsill, M., and Bulkeley, H., 2009. transnational climate governance. *Global Environmental Politics*, 9 (2), 52–73. doi:10.1162/glep.2009.9.2.52

Arup, 2011. *Climate action in megacities: C40 cities baseline and opportunities*. Available from: http://bit.ly/1dHnKn3 [Accessed 10 August 2015].

Arup, 2014. *Climate action in megacities: C40 cities baseline and opportunities volume 2.0*. Available from: http://bit.ly/1jfsIbJ [Accessed 10 August 2015].

Arup, 2015. *Powering climate action: cities as global changemakers*. Research report issued by C40 Cities and Arup. Available from: http://bit.ly/1KUzUrz [Accessed 16 August 2015].

Avant, D., Finnemore, M., and Sell, S., eds, 2009. *Who governs the globe?*. Cambridge University Press: Cambridge.

Aylett, A., 2014. *Progress and challenges in the urban governance of climate change: results of a global survey*. Cambridge, MA: MIT.

Bäckstrand, K. and Kuyper, J. 2017. The democratic legitimacy of orchestration: the UNFCCC, non-state actors, and transnational climate governance. *Environmental Politics*, 26 (4).

Barnett, M.N. and Duval, R., 2005. Power in international politics. *International Organization*, 59, 39–75. doi:10.1017/S0020818305050010

Barry, A., 2002. The anti-political economy. *Economy and Society*, 31 (2), 268–284. doi:10.1080/03085140220123162

Beck, U., 1997. Subpolitics: ecology and the disintegration of institutional power. *Organization & Environment*, 10 (1), 52–65. doi:10.1177/0921810697101008

Bernstein, S., 2001. *The compromise of liberal environmentalism*. New York: Columbia University Press.

Bernstein, S. and Cashore, B., 2012. Complex global governance and domestic policies: four pathways of influence. *International Affairs*, 88 (3), 377–403. doi:10.1111/j.1468-2346.2012.01090.x

Bernstein, S. and Hoffmann, M., 2016. *The politics of decarbonization: a framework and method. Munk school of global affairs*. Environmental Governance Lab Working Paper. Available from: http://bit.ly/2o1OdBq [Accessed 7 April 2017].

Betsill, M., *et al*., 2015. Building productive linkages between the UNFCCC and the broader global climate governance landscape. *Global Environmental Politics*, 15 (2), 1–10. doi:10.1162/GLEP_a_00294

Betsill, M. and Bulkeley, H., 2003. *Cities and climate change: urban sustainability and global environmental governance*. New York: Routledge.

Betsill, M. and Bulkeley, H., 2013. Revisiting the urban politics of climate change. *Environmental Politics*, 22 (1), 136–154. doi:10.1080/09644016.2013.755797

Biermann, F., *et al*., 2009. The fragmentation of global governance architectures: a framework for analysis. *Global Environmental Politics*, 9 (4), 9–40. doi:10.1162/glep.2009.9.4.14

Bloomberg, M., 2010. *Keynote address at 2010 Hong Kong C40 cities workshop*. Available from: http://on.nyc.gov/1Hay9ST [Accessed 10 August 2015].

Bloomberg, M., 2011. *Opening remarks by C40 Chair Michael Bloomberg at C40 Cities Climate Leadership Group Summit 2011*. Sao Paulo, Brazil. Available from: http://bit.ly/1bBh1mK [Accessed 19 November 2013].

Bloomberg, M., 2015. City century: why municipalities are the key to fighting climate change *Foreign Affairs* September/October. Available from: http://fam.ag/1Lho60h [Accessed 3 March 2016].

Borzel, T., 2010. European governance: negotiation and competition in the shadow of hierarchy. *Journal of Common Market Studies*, 48 (2), 191–219. doi:10.1111/j.1468-5965.2009.02049.x

Boutiligier, S., 2012. *Cities, networks, and global environmental governance: spaces of innovation, places of leadership*. New York City: Routledge.

Broome, A. and Quirk, J., 2015. Governing the world at a distance: the practice of global benchmarking. *Review of International Studies*, 41 (5), 819–841. doi:10.1017/S0260210515000340

Bulkeley, H., 2010. Cities and the governing of climate change. *Annual Review of Environment and Resources*, 35, 229–253. doi:10.1146/annurev-environ-072809-101747

Bulkeley, H., 2012. Governance and the geography of authority: modalities of authorisation and the transnational governing of climate change. *Environment & Planning A*, 44, 2428–2444. doi:10.1068/a44678

Bulkeley, H., *et al*., 2014. *Transnational climate change governance*. Cambridge University Press: Cambridge.

Bulkeley, H. and Castan Broto, V., 2013. Government by experiment? Global cities and the governing of climate change. *Transactions of the Institute of British Geographers*, 38, 361–375. doi:10.1111/j.1475-5661.2012.00535.x

Bulkeley, H. and Kern, K., 2009. Cities, Europeanization and multi-level governance: governing climate change through transnational municipal networks. *Journal of Common Market Studies*, 47 (2), 309–332. doi:10.1111/j.1468-5965.2009.00806.x

Bulkeley, H. and Schroeder, H., 2011. Beyond state/non-state divides: global cities and the governing of climate change. *European Journal of International Relations*, 18, 741–764.

Busch, P. and Jorgens, H., 2012. Governance by diffusion: exploring a new mechanism of international policy coordination. *In*: J. Meadowcroft, O. Langhelle and A. Ruud, eds. *Governance, democracy and sustainable development: moving beyond the impasse*, 221-248. Northampton, MA: Edward Elgar.

cCR, 2015. *Carbonn climate registry: 2014-2015 digest*. Available from: http://bit.ly/1R1pNRv [Accessed 22 September 2015].

CDP, 2014. *Protecting our capital: how climate adaptation in cities creates a resilient place for business*. Available from: http://bit.ly/1UrINvz [Accessed 5 July 2015].

Chan, S., *et al*., 2015. Reinvigorating international climate policy: a comprehensive framework for effective nonstate action. *Global Policy*, 6 (4), 466–473. doi:10.1111/1758-5899.12294

Chan, S. and Pauw, P., 2014. *A global framework for climate action: orchestrating non-state and subnational initiatives for more effective global climate governance*. German Development Institute Discussion Paper 34/2014. Available from: http://bit.ly/2dJCNTw [Accessed 15 August 2015].

City of Paris, 2015. *Paris city hall declaration: a decisive contribution to COP21*. Available from: http://bit.ly/1NWtTH4 [Accessed 28 May 2016].

Compact of Mayors, 2014. *Cities: mayors compact action statement*. Available from: http://bit.ly/Y5Gl4l [Accessed 10 August 2015].

Curtis, S., 2016. Cities and global governance: state failure or a new global order?. *Millennium-Journal of International Studies*, 44 (3), 455–477. doi:10.1177/0305829816637233

DiMaggio, P.J. and Power, W., 1983. The iron cage revisited: institutional isomorphism and collective rationality in organizational fields. *American Sociological Review*, 48 (2), 147–160. doi:10.2307/2095101

Dobbin, F., Simmons, B., and Garrett, G., 2007. The global diffusion of public policies: social construction, coercion, competition, or learning?. *Annual Review of Sociology*, 33, 449–472. doi:10.1146/annurev.soc.33.090106.142507

Farrell, H. and Newman, A., 2015. Structuring power: business and authority beyond the nation state. *Business and Politics*, 17 (3), 527–552. doi:10.1515/bap-2015-0007

Figueres, C., 2014. *Keynote speech given at 2014 C40 summit*. Johanessburg, RSA (5 February). Available from: http://bit.ly/1isMyxg [Accessed 20 April 2016].
Gordon, D., 2013. Between local innovation and global impact: cities, networks and the governance of climate change. *Canadian Foreign Policy Journal*, 19 (3), 288–307. doi:10.1080/11926422.2013.844186
Gordon, D., 2015. *From global cities to global governors: power, politics and the convergence of urban climate governance*. PhD Dissertation. University of Toronto.
Gordon, D., 2016. The politics of accountability in networked urban climate governance. *Global Environmental Politics*, 16 (2), 82–100. doi:10.1162/GLEP_a_00357
Gordon, D. and Acuto, M., 2015. If cities are the solution, what are the problems? The promise and perils of urban climate leadership. *In*: C. Johnson, H. Schroeder, and N. Toly, eds. *The urban climate challenge: rethinking the role of cities in the global climate regime*. New York: Routledge, 63–81.
Gore, C.D. and Robinson, P.J., 2005. Barriers to Canadian municipal response to climate change. *Canadian Journal of Urban Research*, 14 (1), 102–120.
Green, J., 2013. Order out of chaos: public and private rules for managing carbon. *Global Environmental Politics*, 13 (2), 1–25. doi:10.1162/GLEP_a_00164
Hakelberg, L., 2014. Governance by diffusion: transnational municipal networks and the spread of local climate strategies in Europe. *Global Environmental Politics*, 14 (1), 107–129. doi:10.1162/GLEP_a_00216
Hale, T., 2016. "All Hands on Deck": the Paris agreement and nonstate climate action. *Global Environmental Politics*, 16 (3), 12–22. doi:10.1162/GLEP_a_00362
Hale, T., Held, D., and Young, K., 2013. *Gridlock: why global cooperation is failing when we need it most*. Polity: London.
Hale, T. and Roger, C., 2014. Orchestration and transnational climate governance. *Review of International Organizations*, 9 (1), 59–82. doi:10.1007/s11558-013-9174-0
Hermwille, L., *et al.*, 2015. UNFCCC before and after Paris – what's necessary for an effective climate regime?. *Climate Policy* 17 (2): 150-170.
Hodson, M. and Marvin, S., 2010. *World cities and climate change: producing urban ecological security*. Milton Keynes: Open University Press.
Hoffmann, M.J., 2011. *Climate governance at the crossroads: experimenting with a global response*. Oxford, UK: Oxford University Press.
Hsu, A., *et al.*, 2015. Towards a new climate diplomacy. *Nature Climate Change*, 5, 501–503. doi:10.1038/nclimate2594
Johnson, C., Toly, N., and Schroeder, H., eds, 2015. *The urban climate challenge: rethinking the role of cities in the global climate regime*. Routledge: New York.
Jordan, A., *et al.*, 2015. Emergence of polycentric climate governance and its future prospects. *Nature Climate Change*, 5, 977–982. doi:10.1038/nclimate2725
Keiner, M. and Kim, A., 2007. Transnational city networks for sustainability. *European Planning Studies*, 15, 1369–1395. doi:10.1080/09654310701550843
Kuzemko, C., 2015. Climate change benchmarking: constructing a sustainable future?. *Review of International Studies*, 41 (5), 969–992. doi:10.1017/S0260210515000418
Lee, T., 2013. Global cities and transnational climate change networks. *Global Environmental Politics*, 13 (1), 108–127. doi:10.1162/GLEP_a_00156
Lee, T. and van de Meene, S., 2012. Who teaches and who learns? Policy learning through the C40 cities climate network. *Policy Sciences*, 45 (3), 199–220. doi:10.1007/s11077-012-9159-5

Ljungkvist, K., 2016. *The global city 2.0: an international political actor beyond economism?*. Routledge: London.
LSE Cities, 2013. *Going green: how Cities are leading the next economy*. Available from: http://bit.ly/1HaytkF [Accessed 5 July 2015].
Moncel, R. and van Asselt, H., 2012. All hands on deck! Mobilizing climate change action beyond the UNFCCC. *Review of European Community & International Environmental Law*, 21 (3), 163–176. doi:10.1111/reel.12011
Okereke, C., Bulkeley, H., and Schroeder, H., 2009. Conceptualizing climate governance beyond the international regime. *Global Environmental Politics*, 9 (1), 58–78. doi:10.1162/glep.2009.9.1.58
Pegram, T., 2015. Global human rights governance and orchestration: national human rights institutions as intermediaries. *European Journal of International Relations*, 21 (3), 595–620. doi:10.1177/1354066114548079
Rayner, S. and Prins, G., 2007. *The wrong trousers: radically rethinking climate policy*. Oxford, UK: Institute for Science, Innovation and Society.
Rosenau, J., 1997. *Along the domestic-foreign frontier: exploring governance in a turbulent world*. Cambridge University Press: Cambridge.
Rosenau, J., 2003. *Distant proximities: dynamics beyond globalization*. Princeton University Press: New York.
Rutland, T. and Aylett, A., 2008. The work of policy: actor networks, governmentality, and local action on climate change in Portland, Oregon. *Environment and Planning D*, 26 (4), 627–646. doi:10.1068/d6907
Sassen, S., 2001. *The global city: New York, London, Tokyo*. Princeton, Oxford: Princeton University Press, 2 ed.
Selin, H. and VanDeveer, S.D., 2007. "Political Science and Prediction: What's Next for U.S. Climate Change Policy?" *Review of Policy Research* 24 (1): 1-27
Sending, O., 2015. *The politics of expertise: competing for authority in global governance*. Ann Arbor: University of Michigan Press.
Setzer, J., 2015. Testing the boundaries of subnational diplomacy: the international climate action of local and regional governments. *Transnational Environmental Law*, 4 (2), 319–337. doi:10.1017/S2047102515000126
Siemens, 2009. *European green city index: assessing the environmental impact of Europe's major cities*. Available from: http://sie.ag/1ssjWJX [Accessed 4 June 2015].
Stone, D., 2004. Transfer agents and global networks in the 'transnationalization' of policy. *Journal of European Public Policy*, 11 (3), 545–566. doi:10.1080/1350176041000169429 1
Tavares, R., 2016. *Paradiplomacy: cities and states as global players*. Oxford: Oxford University Press.
Taylor, P., 2004. *World city network: a global urban analysis*. London: Routledge Press.
Thaler, R. and Sunstein, C., 2008. *Nudge: improving decisions about health, wealth, and happiness*. Penguin Books: New York.
Toly, N.J., 2008. Transnational municipal networks in climate politics: from global governance to global politics. *Globalizations*, 5 (3), 341–356. doi:10.1080/14747730802252479
Victor, D., 2011. *Global warming gridlock: creating more effective strategies for protecting the planet*. Cambridge University Press: Cambridge.
Zoellick, R., 2011. *Opening remarks at the C40 large cities summit*. Available from: http://bit.ly/1HHJWcQ [Accessed 5 July 2015].