The institutionalisation of sustainable practices in cities: how sustainability initiatives shape local selection environments

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Abstract:
The ways in which institutions are reconfigured to change mainstream selection pressures to favour sustainability is central to research on sustainability transitions but has only recently begun to receive more attention. Of this existing work, empirical attention has mainly focused on the national level with less attention to local dynamics. Attending to this gap, we mobilise theory on institutionalisation processes and insights from the politics of transitions literature and take an actor perspective to investigate the agency of local sustainability initiatives to navigate local governance processes and reconfigure selection environments at the urban scale. Our work subsequently demonstrates the importance of diverse actor tactics, of networking for advocacy and of networking for the creation of informal, ad hoc governance arenas.

1. Introduction

One of the foundational ideas within the sustainability transitions literature is that existing dominant selection environments are discriminating against alternative, more sustainable practices. Selection environments include factors like user practices and preferences, technical standards as well infrastructural elements such as physical road networks or sewage systems (Smith and Raven, 2012). Selection environments are both products of and key constituents in institutionalised structures (market arrangements, the state, regulations and so forth), which coordinate and structure activities and that make up socio-technical regimes. It has long been argued that existing institutional structures and their associated selection environments are well aligned with incumbent practices and lock-out more sustainable alternatives (Dosi, 1982; Geels, 2004; Mitchell, 2008; Rip and Kemp, 1998). Understanding institutional stability and change (i.e. institutionalisation processes) is therefore key to understanding transitions (Fuenfschilling and Truffer, 2016, 2014; Raven et al., 2016).

How actors attempt to reconfigure selection environments in favour of their preferred more sustainable technology or practice has received increasing attention recently (Fuenfschilling and Truffer, 2016; Raven et al., 2016; Smink et al., 2015; Smith and Raven, 2012). Although promising this research is often exclusively focused on national level political processes and institutional change (e.g. Fuenfschilling and Truffer, 2016; Raven et al., 2016). This is the case even though local processes have been (implicitly) highlighted as being important within work on niche development (see for example Coenen et al., 2010) as well as being highlighted as being very important by the literature on urban sustainability transitions (e.g. Blanchet, 2015; Bulkeley et al., 2013; Hodson and Marvin, 2009; Späth and Rohracher, 2010). Quite how actors reconfigure urban selection environments to favour sustainability is not yet well studied (Bulkeley et al., 2011; Hodson and Marvin, 2009; Hoppe and van Bueren, 2015). To better understand how urban selection environments are being reconfigured Hansen and Coenen, (2015, 102) suggest more attention should be given "to the dynamics of agency and power - the

practices of governance on the ground".

In this paper we explore the institutionalisation of sustainable practices in cities. Studies of institutionalisation often take an 'outsider' or managerial perspective of change (Fuenfschilling and Truffer, 2014). Whilst analysing and theorising the process of institutionalisation is important such approaches need to be complemented by work that explores the embedded agency of actors navigating and working to change selection environments (Garud et al., 2010; Garud and Gehman, 2012; Smith and Stirling, 2007). Here, we seek an 'insider' ontology, take an actor perspective and hence investigate how local transition initiatives navigate local governance arrangements to reconfigure selection environments at the urban scale. Wider selection environments (e.g. national rules) clearly still play a role and influence local dynamics (Hodson and Marvin, 2010) but are not the explicit focus of this paper. We are especially interested in the agency of transition initiatives to influence urban governance processes and hence, seek to trace how and where local transition initiatives interacted with and altered urban governance. Governance has been defined as "the totality of interactions, in which public as well as private actors participate, aimed at solving societal problems or creating societal opportunities" (Kooiman, 2003, 4). This definition is very appropriate in the context of transition processes as they are aimed at solving problems of unsustainability and create opportunities for more sustainable configurations. In addition, much research has acknowledged that transitions are multi-actor processes and require action by both public and private actors. Nonetheless, precisely how actors navigate complex, evolving governance arrangements requires closer inspection. By explicitly addressing governance beyond formalised democratic processes, what Avelino et al. (2016, 563) call the "overlooked 'micro-politics' of transition processes", we contribute to the emerging politics of transitions literature by exploring the tactics of actors attempting to reconfigure selection environments and how they navigate local governance at the urban scale. The analysis is guided by the following questions:

- *How are local transition initiatives attempting to reconfigure selection environments at the urban scale towards sustainability?*
- *And what does this tell about the practice of governance on the ground?*

To investigate these questions, we examine the institutionalisation of sustainable practices in the urban context of Brighton and Hove, UK. Taking an actor perspective, we trace how and where three local transition initiatives interacted with local governance to alter local selection environments in favour of their preferred sustainable practice.

The paper is structured as follows. Section 2 introduces recent theorising on institutionalisation processes and how actors seek to alter selection environments. Our analytical framework is outlined in section 3, before section 4 introduces the research design and methods employed in our analysis. Section 5 analyses three instances where sustainable practices were institutionalized within the urban context of Brighton and Hove and the agency of actors involved. Reflections on actor tactics and their influence on local governance processes are discussed in section 6, before Section 7 concludes.

2. Institutionalisation and actor agency to reconfigure selection environments

To Fuenfschilling and Truffer (2014) institutionalisation and structuration are synonymous. Niches, regimes and landscape pressures are differentiated by their degrees of structuration (weak, strong and very strong respectively). Niches, often protected from normal selection environments by passive or active shielding (Smith and Raven, 2012), are conceived as alternative socio-technical configurations that are relatively fluid and require further institutionalisation to grow and diffuse widely. As the 'grammar' or 'glue' of the system, regimes are

highly institutionalised, although not necessary coherent, sets of interacting system elements constructed by and structuring the agency of actors in the system. Institutionalisation is conceived as varying from weak (i.e. shared by only a few actors within a niche) to strong (i.e. sedimented across a population of users over a significant period of time) (Fuenfschilling and Truffer, 2014).

As a process, institutionalisation explains how different socio-technical elements or structures (including regulations, norms, values, culture, actors or practices and so on) become increasingly sedimented in particular configurations throughout society (Fuenfschilling and Truffer, 2014; Grin, 2010). What gets institutionalised are the various components that make up a socio-technical system. In his seminal article, Geels (2002) outlines seven components of socio-technical regimes. Further extending the conceptualisation of protective space Smith and Raven (2012) outline six regime dimensions and associated section pressures, whilst Fuenfschilling and Truffer (2014), in their examination of the Australian water sector, mobilise eight components of an organizational field. Frantzeskaki and de Haan (2009), meanwhile, offer an understanding of transitions for policy makers which is useful here, because it narrows down what we might view as changing:
  (1) *ways of doing* (understood as a combination of materiality and practice),
  (2) *ways of thinking* (understood as cultures, conventions, values and perceptions that underpin and proceed rules and constitutions) and,
  (3) *ways of organising* (conceived as structures or institutions that "comprise the ground that enables, legitimizes as well as constrains human action and interaction" (Frantzeskaki and de Haan, 2009, 599)).

On the ground, scholars frequently find institutionalisation to be a much messier process than early analytical frameworks suggested (Ingram, 2015; Smith, 2007). Multiple, further lenses have been proposed, including how niche practices or technologies 'translate' (Smith, 2007), 'adapt' (Ingram, 2015) or 'anchor' (Elzen et al., 2012) into regimes. Each conceptualization views institutionalisation as key because it involves the processes through which momentum for change is built (Scrase and Smith, 2009). A weakness is that each conceptualization tends towards a managerial or 'outsider' ontology to institutionalisation processes (Smith and Raven, 2012), whilst here we are particularly interested in developing an 'insider' ontology to understand agency and power, the practice of navigating local governance to reconfigure urban selection environments.

Taking an actor perspective on institutionalisation suggests studying how actors attempt to strategically shape selection environments in favour of their preferred practice or technology (Smith and Raven, 2012). In addition to the fore mentioned studies, the emergent literature on the politics of transitions is useful here. According to Elzen et al (2012) actors attempt to increasingly define the characteristics of the practice or technology, actors work to expand or deepen the actor networks or actors seek to shape the cognitive (beliefs and values), normative (what is desirable or right) and economic (concerning market arrangements) rules associated with the new practice or technology. Like Elzen et al. (2012) Fuenfschilling and Truffer (2016) also build on insights from institutional theory to describe the 'institutional work' actors undertake to disrupt, create or maintain institutions. To disrupt institutions actors can undermine associations and beliefs, undermine compliance within institutions or delegitimize institutions by, for instance, questioning moral foundations. To create institutions actors may advocate (mobilize political and regulatory support through persuasion), use mimicry (associating the new with existing institutions and practices), and theorize, define and educate (about new practices) (see also Ingram, 2015). Both Elzen et al. (2012) and Fuenfschilling and Truffer (2014) find that actors use a variety of different actions to strategically shape selection environments at different points in time.

Whilst these investigations reveal a variety of tactics to alter selection environments, Smith and Raven (2012) place emphasis on the role of collective action and power. For institutionalization to occur, they argue, what is required is "a sufficiently powerful coalition capable of bringing the changes about" (Smith and Raven, 2012, 1030). Following this strand of reasoning they argue that networking and narrative work – that is, developing

arguments about the past performance of the niche, its current reality and future possibilities – is central to understanding agency for change: what is said and by whom (i.e. different actor networks) can result in potentially very different outcomes in terms of changes to selection environments. To this, we note how advocacy requires actors to continually interpret and reinterpret current situations and options for action (Diaz et al., 2013), what we term here as instrumentalising and second, how successful linking of narratives depends on the composition of actors and their relative positions of power (Raven et al., 2016).

Collectively, these studies give us an idea about what actors do to reconfigure selection environments. They are less clear about how 'the practice of governance on the ground' plays out. Since most studies focus on national level institutionalisation processes, they also tell us little about how actors navigate local governance contexts in attempts to change selection environments towards more sustainable practices. To better understand how sustainable practices are institutionalized within cities we examine how actors attempt to reconfigure urban selection environments and pay particular attention to what this means for local governance processes. Before doing so, we briefly turn to the rapidly growing literature on urban sustainability and its governance to further situate and differentiate our work.

Work on urban sustainability and its governance has significant roots in urban studies, geography, environmental governance and regional studies (e.g. Bulkeley, 2006; Joss, 2011; Roseland, 1997), which have collectively informed a growing research focus on the governance of urban sustainability transitions (e.g. Bulkeley et al., 2011; Frantzeskaki et al., 2017; Hodson and Marvin, 2010; Wolfram and Frantzeskaki, 2016). Within this literature attention has been directed 'inwards', to the capacity of local governments to influence greenhouse gas emissions, to examples of local government action and the progress made (e.g. Betsill and Bulkeley, 2006; Castán Broto, 2017; Hoppe and van Bueren, 2015) and 'outwards', to the role of cities in transnational climate governance (e.g. Bulkeley et al., 2014; Gustavsson et al., 2009). More recently attention has focussed on experimentation as a new mode of urban governance (Bulkeley et al., 2015; Caprotti and Cowley, 2016; Evans et al., 2016). What emerges is a common focus on government as the actor guiding change. It remains the case that comparatively little is known about how local governance processes are changed to support particular sustainable practices (Hodson and Marvin, 2009). Therefore precisely how, why and with what effect urban selection environments are being reconfigured to favour sustainability requires closer examination (Bulkeley, 2010) which is the gap this paper is trying to address.

3. Analytical framework

Building on the research outlined above, we are particularly interested in the agency of 'local transition initiatives' (Gorissen et al., 2018) to support the institutionalization of sustainable practices, how they navigate the local governance context and the implications this has for our understanding of governance. We define transition initiatives as locally-based initiatives that aim to drive transformative change towards environmental sustainability of existing societal systems (i.e. through the renewal or replacement of infrastructures and technologies, rules and norms, routines and practices, and so on). By urban governance context we mean the politics, policies and structures of local governance arrangements and therefore include visions and targets, governance bodies and arenas as well as policies and programmes. Local governance shapes local selection environments, which enables and constrains local actors and overall progress to sustainability.

To investigate actor attempts to reconfigure urban selection environments we first combine Frantzeskaki and de Haan's (2009) understanding of transitions – here repurposed as 'what gets institutionalised' – with an explicit focus on urban governance. Henceforth, we understand the combination of the material and practice, conceived by Frantzeskaki and De Haan (2009) as 'new ways of doing', as relating to (inter alia) the material landscape or infrastructures and to the practices these infrastructures enable. The changes in conventions, values,

perceptions and cultures which comprise 'new ways of thinking' are, we suggest, embodied within the local governance context as local visions, policy debates, targets and organisational objectives. Finally, the rules, structures and institutions conceived as 'new ways of organising' are present, we suggest, within the local governance context as policies and regulations and through the actors and arenas that make up local governance structures. Second, we mobilise insights from the politics of transitions research on the agency of actors to alter selection environments in terms of the tactics they pursue. Table 1 summarises this approach.

Table 1: Operationalising transition elements within an urban governance context alongside forms of agency to alter selection environments

Transition elements	Operationalisation in an urban governance context	Actor tactics to alter selection environments
New ways of doing	Material landscapes and infrastructures (houses, roads, electricity distribution networks) and the practices these infrastructures enable	* Theorising, defining and educating about new practices[124] * (De)routinising behaviours[2] * Mimicy[2]
New ways of thinking	Local visions, policy debates, targets and organisational objectives	* Work to shape or undermine cognitive or normative institutions[1] * Political advocacy[123] * Narrative work[3]
New ways of organising	Policies and regulations, actor networks and arenas of local governance	* Work to expand or deepen the network of actors[13] * Regulatory advocacy[23]

[1] Elzen et al., (2012)
[2] Fuenfschilling and Truffer (2016)
[3] Smith and Raven (2012)
[4] Ingram (2015)

In taking this approach we recognize how the governance context provides opportunities and constraints (through rules) for local initiatives but also for local firms, social enterprises and local government actors. We focus our investigation on the agency of local transition initiatives. This is an analytical choice which aligns with prior transitions research: sustainability initiatives often emerge from local levels influenced by local problems and concerns (Feola and Nunes, 2014; Longhurst, 2015; Seyfang and Smith, 2007). Such initiatives may experiment with new governance arrangements and can explore technological, organisational and social innovations (Blanchet, 2015; Moss et al., 2015; Seyfang and Longhurst, 2013). They can be led by grassroots activists (Heiskanen et al., 2014; White and Stirling, 2013) or develop from more structured policy programmes (Frantzeskaki et al., 2014; Wolfram, 2016). In sum, they are viewed as promising sources of change for the reconfiguration of unsustainable systems.

Transition initiatives have agency where they engage in purposeful actions (even if the resulting outcomes do not always align with intentions). For Smith and Raven (2012) agency is viewed as "the result of a collective and embedded capacity and hence developed and reproduced through actor networks" (1031). Here we seek a finer-grained examination of agency to reconfigure urban selection environments. As such, we follow Fuenfschilling and Truffer (2014) as well as Elzen et al. (2012) to focus on the actions of individual actors. This also aligns with Smith and Raven's (2012) call for future research to take an 'insider perspective' to better understand the challenges, set-backs, dynamics and interactions that proponents of change encounter. In the following we examine the actions of transition initiatives, defined as collective actors, such as organisations, community groups or enterprises, that attempt to drive transformative change towards environmental sustainability.

4. Methodology

To study the institutionalisation of sustainable ways of doing, thinking and organizing into local selection environments, we conducted a case study of Brighton and Hove. The reasons for this case selection are threefold. First, Brighton and Hove is a small city (275,000 inhabitants) outside the 'premium' of world cities (on which there is much research, see Hodson and Marvin (2010)), but with significant sustainability ambitions: in 2013 the City Council pledged to achieve a zero carbon, 'One Planet City' by 2050 (BHCC, 2013a). Second, it remains the only UK city to have elected the Green Party to power (between 2011 to 2015), which provided an opportunity space for potential institutional change favourable to sustainability. Third, it has a vibrant and diverse network of sustainability-orientated initiatives, which allows us to study governance processes beyond focussing on public actors alone.

Using a variety of methods (interviews with key urban stakeholders, website searches, prior researcher knowledge and snowballing techniques) 98 local transition initiatives were identified[1]. 11 initiatives were then selected – on the basis of maximum variation, across empirical areas and led sectors (public, private and civil society-led) – for in depth analysis. Semi-structured interviews with key initiative members were undertaken, covering initiative origin, purpose and strategies for change, initiative progress, setbacks and achievements and initiative interaction with others as well as with local governance actors and governance processes. Interview material was complemented by a review of primary and secondary documentation from European, national, regional and local levels (e.g. local government documentation, urban strategy documents, national policy and planning and EU directives).

All initiatives studied in depth attempted to institutionalise sustainable practices into the city. In the following we concentrate on three specific instances (the promotion of cycling, the championing of sustainable development and the facilitation of the sustainable production and consumption of local food) where we can clearly identify specific corresponding changes in the selection environments at the urban scale. In all other instances studied as part of our project, initiatives struggled to achieve institutional change.

In adopting this approach, we take an actor-oriented perspective, focus on the work actors undertook to alter urban selection environments and thereby institutionalise their preferred practices. Thus, we frame our research as taking an 'inside-out' approach, allowing governance dynamics to emerge from the data where they had an impact on actor attempts to reconfigure selection environments. That is to say, we sought to understand local institutionalisation processes through focussing on the actions of local initiatives and the ways by which they are shaped by and shape local governance processes. In the following section, we take each instance in turn: we introduce what gets institutionalised (new ways of doing, thinking and/or organising), how this was achieved through the agency of local initiatives to reconfigure local selection environments and discuss associated local governance dynamics.

5. Institutionalising new ways of doing, thinking and organising within Brighton and Hove

5.1 Upgrading physical infrastructure to promote cycling
In 2013 public works to redevelop one of three key arterial routes into Brighton and Hove was completed: the redevelopment of Lewes road started a year earlier and introduced segregated cycle lanes and traffic lights, alongside floating bus stops (where cycle lanes pass behind the passenger boarding area of a bus stop so that

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[1] A Full list of initiatives can be accessed here: http://acceleratingtransitions.eu/transition-regions/transition-region-brighton/

the bus lane doesn't have to cross-over the cycle path) and dedicated bus lanes. It was funded by a £4 million national government grant alongside £2.25 million in contributions from local businesses and the two local universities. Since the completion of works, cycling has increased by 32% and bus use has increased by 7% along this route alongside a concomitant decrease (17%) in general traffic (DfT, 2016). The works further institutionalized a new way of doing, particularly cycling (along with bus usage), in the city through alterations to physical infrastructures and accompanying changes to city resident practices.

Driving this change was the Lewes Road Campaign for Clean Air, hence forth the Campaign, a loose collection of civil society activists campaigning for better air quality and more sustainable forms of local transport. In the following we retrace their actions to reconfigure urban selection environments in favour of cycling (Figure 1).
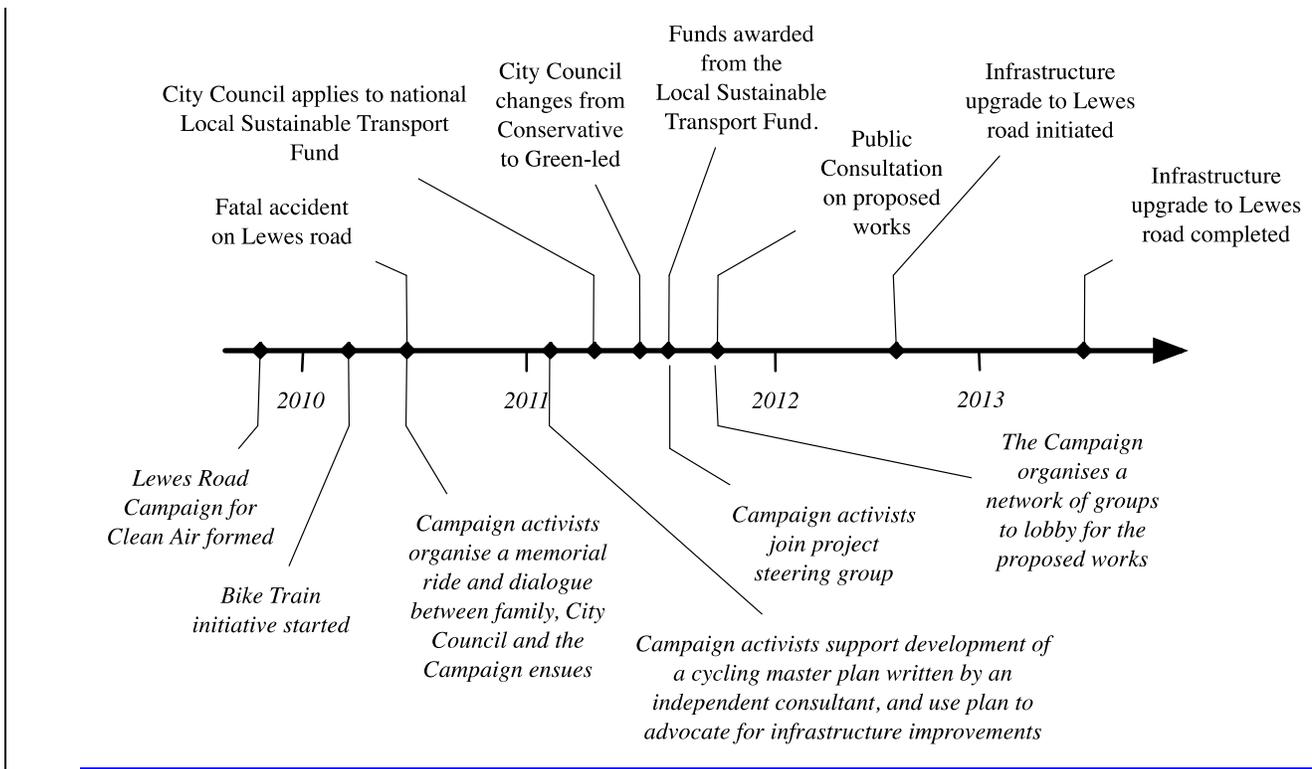
Figure 1: Key actions and events in the local institutionalization of cycling

The campaign argued that to tackle poor air quality along this main road, a modal shift was required, away from cars and associated congestion to increased cycling, walking and bus use (narrative work, advocacy). Responding to local resident concerns about safety, narrow cycle lanes and fast traffic which was perceived as inadequate infrastructure to support sustainable practices, campaign activists set up a new initiative: *the Bike Train* functioned as a daily commute along Lewes Road in which a group of people cycled *en masse* at set times from the City Centre to the University of Sussex on the edge of town. Operating from 2010 until the improvement works were completed, the Bike Train became a means to support more people in cycling (routinizing, educating), to raise the profile of (in)adequate cycling provision (advocacy) and get more people talking, often antagonistically, about cycling (thereby challenging existing thinking about transportation). Overall, the Bike Train raised the political profile of cycling in the city, challenging accepted conventions about road use.

In mid 2010 a fatal cycling accident raised the public profile of cycling provision in the city further. A memorial ride was organised by the Bike Train and dialogue between the family, the City Council and Campaign activists

followed. Six months later, a cycling masterplan for Lewes Road was published by a sustainable transport planning expert and friend of the family (Mynors, 2011). The plan, supported by Campaign activist's roadside counting, made the case for reducing the flow of general traffic from two lanes in either direction down to one (narrative work, advocacy). This aspect was viewed as crucial by the Campaign, the external report allowing them to make the case with increased credibility. According to the Campaign activists, the masterplan was important for facilitating new ways of thinking, legitimising the idea and moving debate forwards.

In early 2011 and because of these actions, the City Council applied for funding from the 'Local Sustainable Transport Fund', set up in January 2011 by the national Department of Transport. The Lewes Road Campaign was invited by the Council to join the proposal as a delivery partner. Although concerned about the proposal's lack of ambition, the Campaign agreed. In May 2011, the City Council passed from Conservative to a Green-led minority administration. In July funds were awarded by the Department of Transport, in part because of the increased enthusiasm demonstrated by the new administration. Campaign activists joined the project steering group and subsequently helped advance project designs (advocacy). They were also instrumental in engaging local residents and campaigning for the changes within a subsequent public consultation: the Campaign mobilised a wide coalition, which included the Bike-Train initiative along with other cycling groups, environmental groups, universities and their student unions, to argue for the proposed changes (networking, advocacy). Of the 4,000 responses received to the public consultation, two thirds were positive (demonstrating a change in thinking, which was deemed sufficient for further action). Improvement works began the following year and were completed in September 2013. In the following 3 months cycling increased by 14 % (BHCC, 2013b). Two years later cycling was up by 34 % (DfT, 2016).

In summary, a variety of tactics were utilised to reconfigure urban selection environments to support a new practice, namely cycling (table 2). The Campaign deliberately sought to delegitimise existing infrastructures and practices and challenge conventions and norms around urban mobility. These actions sought to delegitimise existing selection environments (a form of deinstitutionalisation when viewed from a managerial perspective). At the same time the Campaign sought to promote, educate and routinize more sustainable practices through the associated Bike train initiative. They developed an understanding of the problem (safety, narrow cycle lanes) through dialogue with local people and developed a possible solution (reduced lanes for general traffic and dedicated cycle and bus lanes) through work with the transport planning expert. Through these interactions the Campaign created a narrative (a new way of thinking) and with a wider coalition advocated for policy and infrastructure change. The resulting actor network was informal, temporary and ad hoc, coming together for a specific purpose. It had 'sufficient strength' (Smith and Raven, 2012) to deliver change. But the network does not by itself explain how institutionalisation occurred. A wide range of tactics all contributed to help reconfigure selection environments.

Through the process the Campaign located the rules governing local practices as residing in local infrastructure. Road infrastructure formed a material selection environment requiring alternations to facilitate more sustainable practices. Reconfiguring selection environments was principally a local concern (facilitated by national funding): the initiative interacted with the general public, local businesses and the city Council. The latter being central to the process because of its control over local transport planning, capacity to leverage funding and as a key site through which decisions about infrastructure development had to pass.

Table 2: key activist tactics to reconfigure urban selection environments in favour of cycling

Tactics to reconfigure selection environments	Description

Theorising, defining and educating	Bike train daily rides used to support and educate new and existing cyclists
Routinising behaviours	Bike train daily rides used to create a safe space for regular cycling
Delegitimising or supporting new cognitive and normative values	Bike train used to challenge existing understanding of road use
Political advocacy	Lewes Road Campaign for Clean Air; Campaign mobilised around the public consultation
Narrative work	The Campaign developed an understanding of the problem (safety, narrow cycle lanes) and possible solution
Networking	The Campaign established a wide actor network in support of the proposed works

5.2 Fostering sustainable development ambitions through the formation of a new urban partnership

On June 11th 2014 *The Brighton and Lewes Downs Biosphere* received accreditation from the United Nations Educational, Scientific and Cultural Organisation (UNESCO) as an internationally designated Biosphere. With 669 biosphere reserves around the world, each reserve acts as a learning site for sustainable development. The Brighton and Lewes Downs Biosphere, hence forth the Biosphere, was led by a partnership of 40 public, private and civil society actors. It formed a non-statutory organization, which would "not impose any new regulation on land management or other practice but [would] instead incentivise higher standards in environmental policy, planning and practical delivery by local bodies working more closely together[1]" (BHCC, 2014). At the regional level the Biosphere created a new governance actor (a new way of organising), at a similar level to the Local Economic Partnership (LEP), in order to champion sustainable development (as a new way of thinking) (c.f. economic development as championed by the LEP). Overall, the Biosphere institutionalized Sustainable Development as a new way of thinking.

The idea for the Biosphere first emerged from within the City Council's sustainability team and was publicly aired at a sustainability conference organised in 2008. The City Sustainability Partnership (CSP) – a cross sector partnership focussing on delivering sustainable development in the city – also formed in 2008, then championed the formation of the Biosphere and guided it, politically, from inception through to accreditation. The following section retraces the actions of the CSP in seeking to alter urban selection environments in favour of Sustainable development (figure 2).
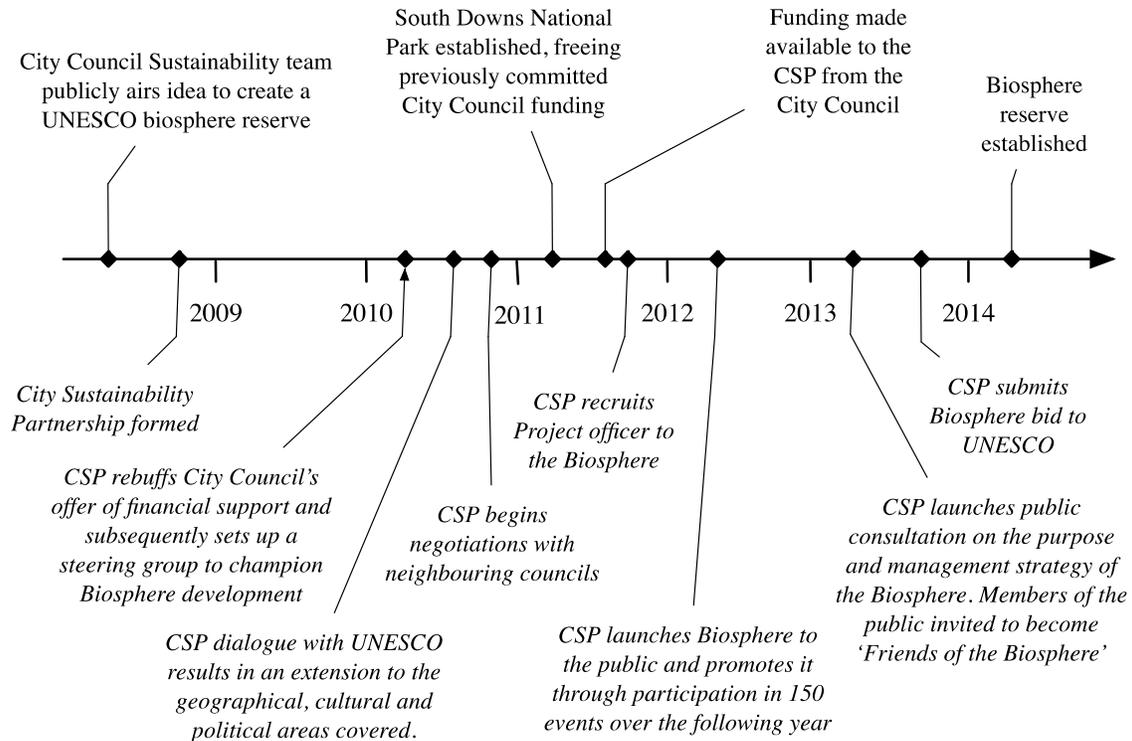
Figure 2: Key actions and events in the local institutionalization of Sustainable Development

The first opportunity to progress the idea arose in 2010 when the CSP was offered funding by the City Council to employ a project officer. The partnership declined the offer, arguing that utilising central council funding and siting the post within the Council's own institutional architecture would not create the foundations for a partnership model, which was believed to be required (narrative work, theorising). Moreover, the CSP was distrustful of the City Council's approach and ability to deliver a partnership structure. In 2011, a second opportunity arose: the designation of the South Downs National Park by central government and with it the allocation of central government funding, allowed previously committed City Council funding to be reallocated. A proportion of this funding was again offered to the CSP. It was accepted this time and a project officer recruited because a formative partnership structure (networking), which directly built upon the cross-sector partnership of the CSP, had been instigated over the previous year.

Such formative work, undertaken in dialogue with UNESCO, also revealed how the Biosphere region could not follow the administrative boundaries of the City Council. To comply with UNESCO rules, the proposed area had to comprise an ecologically and culturally significant region. Geographically, this meant incorporating coastal areas. Politically, this meant collaborating with surrounding local governments. To this end local governments were approached sequentially. Competing priorities subsequently arose. For instance, Lewes and East Sussex District Council viewed the Biosphere's development as a potential threat to its core priority of economic development. More broadly, the Biosphere was perceived as a 'Brighton initiative' that was expanding out, encroaching on the territory of other administrations. To navigate these concerns and enlist surrounding local governments, the support of one local government was used by the CSP to garner the support of the next: the more sceptical local governments were enlisted as 'the more willing' diluted the influence of Brighton and Hove City Council (advocacy). In time a coherent boundary was achieved assisted by governance boundaries from other initiatives such as the newly created South Downs National Park. Increasing the number of partners also had two distinct benefits from the position of the CSP. First, it reduced the dominance of one particular

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member, Brighton and Hove City Council. Second, it decreased the influence of party politics because no single party could dominate its development.

Whilst political manoeuvrings continued, the Biosphere bid was launched to the public (May 2012) and 150 engagement events were held with local stakeholders and the public. A public consultation was undertaken, receiving just over 2,000 responses of which 95% were positive. In late 2013, the bid was submitted to UNESCO and the Biosphere Reserve was established 9 months later, on 11th June 2014.

In this instance a narrow range of tactics were deployed to reconfigure urban selection environments, specifically ways of thinking and organising (table 3). Central to CSPs tactics was developing a strong narrative, political advocacy and the formation of an actor network, which acted as an ad hoc governance body around the project before its formal inauguration.

Here reconfiguring (political) selection environments involved interactions between the CSP and the City Council as well as between the CSP and surrounding local councils. The CSP's primary challenge was political manoeuvring, steering the formative Biosphere between urban and regional political parties and priorities. From the CSP's perspective the primary aim was to alter existing ways of thinking, the values and perceptions of actors in the wider urban context in terms of economic development and environmental conservation. Rather than locating and seeking to alter an existing, specific set of incumbent rules such as those under the LEP, the CSP sought to promote a new rule set. To achieve this the CSP chose to pursue the formation of a new governance structure (way of organising) that would put sustainable development at its centre: a new way of organising became the means to support new ways of thinking (and hopefully, subsequently leading to new ways of doing but this is too early to tell).

Table 3: Key CSP tactics to reconfigure urban selection environments in favour of sustainable development

Tactics to reconfigure selection environments	Description
Political advocacy	First against the City council and later with neighbouring councils
Narrative work	Over an extended period the CSP develops a narrative about what the new Biosphere is for and how sits alongside existing governance arrangements, particularly local councils
Networking	First, about the partnership structure leading and guiding the Biosphere bid, later networking to recruit diverse actors to the Biosphere proposal

5.3 Legislating sustainable food procurement policies

In July 2014 new food procurement contracts were adopted by the City Council. The revised contracts set out minimum buying standards for all catering contracts with a focus on healthy and sustainable, locally-produced food (such standards had previously been absent). All providers within the city are encouraged to follow the standards whilst those with an annual contract value of over £75k are required to apply for the Soil Association's nationally recognized Bronze Catering Mark within the first year of their contract. By September 2015 four contracts with a value over £75,000 were achieving this standard, whilst all meals served by local primary and special schools (approximately 6,000 per day) were reaching the silver Catering Mark standard (BHCC, 2015). In this instance, new public sector procurement contracts further institutionalised local sustainable food production and consumption (new ways of doing) by altering the rules by which contractors abide (the

organising structures).

The Brighton and Hove Food Partnership – a public sector-civil society partnership organisation conceived in 2003 – played a central role in this process. Below we retrace their actions (Figure 3).
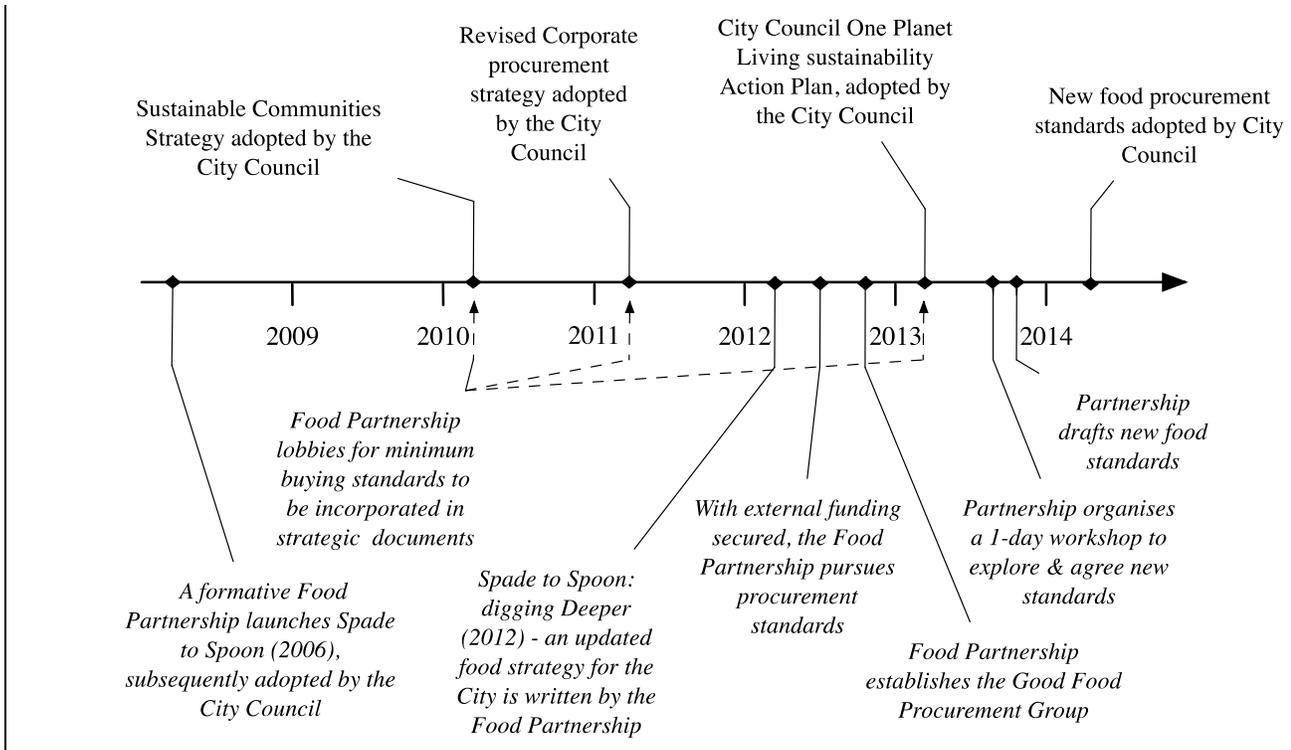

Figure 3: Key actions and events in the local institutionalization of Sustainable food production and consumption

Sustainable food procurement policies first emerged in the development of the city's sustainable food strategy: *Spade to Spoon* (BHFP, 2006), was supported by Food Matters, a national food policy and advocacy organisation based in Brighton and included, of 10 objectives, the introduction of sustainable food procurement policies within public institutions (advocacy). It was the first City food strategy to be adopted in the UK.

Over the following years, the Food Partnership lobbied the City Council for sustainable food procurement policies to be included in local government policy (advocacy). In 2010 sustainable food procurement ambitions were included in the Sustainable Communities Strategy (BHSP, 2010), followed by the City Council's corporate procurement strategy and the City Council's One Planet Living Sustainability Action Plan (BHCC, 2013a). In addition, the city's food strategy was revised and updated in 2012 (BHFP, 2012). With each inclusion, aspirations to alter procurement contracts (new ways of thinking) were reinforced within the local governance context.

In 2012, with a grant from the Esmée Fairbairn Foundation (one of the largest independent grant providers in the UK), the Food Partnership began researching national best practice (theorising), collating lists of local suppliers and holding workshops to share local approaches and connect organisations (networking). In doing so the Food Partnership was slowly challenging existing practices and ways of thinking. A Good Food Procurement Group was subsequently established (networking), bringing together 14 of the largest caterers within the city: the group included local NHS Trusts, universities, the City Council, local schools and major venues, who together were estimated as serving over 1 million meals a month.

In 2013, a further hurdle to institutionalising sustainable food contracts was removed when a previously hostile Corporate Procurement Manager at the City Council was replaced: utilising this change in management, the Food Partnership and supportive council officers successfully argued that minimum food standards warranted consideration and action (advocacy). Prior policy documents were mobilised in support. To agree and deliver new standards, the Food Partnership brought together all Council contracted caterers alongside key council staff (from procurement, planning and sustainability teams) at a one-day workshop (theorizing, defining and educating about new practices). In doing so, they challenged existing ways of thinking and helped create consensus around new values and approaches between the involved actors: three different minimum buying standards were presented and discussed with unanimous support being given to the Soil Association's *Bronze Food for Life Catering Mark.* The recent experience of local schools delivering catering to 'Food for Life standards' at no additional cost challenged existing values and understanding and were important in forming a new narrative supporting change. This example (of a new way of doing), proved influential in gaining contactor and later, city councillor support. A draft policy paper was written by the Food Partnership (representing a new way of organising) and presented to the City Council (advocacy). New standards were subsequently agreed at the Council's Policy and Resources Committee by all political parties in July 2014.

In sum, multiple tactics were used to alter selection environments (table 4). This included developing a strong narrative, repeated lobbying (advocacy) at a strategic level and the development of a new informal and ad-hoc governance body (the Good Food Procurement Group), that brought together the largest actors involved in food procurement in the city. The formation and composition of this group was pivotal because it provided a space in which all Council contractors built knowledge and understanding (new ways of thinking). It was also within this group that the extent and direction of change was agreed before it was formally adopted (new ways of thinking were largely agreed before new rules or ways of organising were adopted). Through this process the food Partnership theorized, defined and educated others about the proposed changes.

Table 4: Key Food Partnership tactics to reconfigure urban selection environments in favour of the sustainable production and consumption of food

Tactics to reconfigure selection environments	Description
Theorising, defining and educating	Researched best practice and used local examples to educate others.
Political advocacy	Lobbying to incorporate sustainability within local food procurement policies, later using these documents to argue for further change
Narrative work	About problem (procurement contracts) and solution
Networking	Worked to establish connections and later a network around sustainable procurement (i.e. the Good Food Procurement group)
Regulatory advocacy	Produced draft policy paper and advocated for its adoption

To reconfigure (regulatory) selection environments the Food Partnership predominantly interacted with incumbent local actors and the City Council. Existing rules were located within the City Council's jurisdiction. Altering the selection environment thus required creating an advocacy network capable of changing these procurement rules. City policy documents created the groundwork, the procurement group acted as an informal

and ad hoc governance body whilst management changes within the City Council unlocked progress, before City Council policy was altered as an outcome.

6. Discussion: actor tactics and the practice of governance on the ground

The three instances of institutionalisation analysed above provide a window into the agency and tactics employed by local transition initiatives to reconfigure selection environments at the urban scale. They demonstrate how altering selection environments requires multiple tactics, calibrated to the task at hand (Tables 2, 3 and 4). They demonstrate how transition initiatives can play multiple roles in reconfiguring selection environments at the local level and they demonstrate that institutionalisation takes time and what Meadowcroft (2011) has labelled 'the politics of persistence'. In the following discussion we examine two actor tactics (instrumentalising and networking) that were salient across our empirical analysis and use them as entry points to reflect on our second question, what our analysis of local transition initiatives' attempts to reconfigure selection environments at the urban scale tell us about the practice of governance on the ground. This leads us into a discussion of horizontal and vertical forms of governance, that is to say contemporary understanding of multilevel governance (e.g. Marks and Hooghe, 2004). In the following we also note how these three cases were the only instances where we could identify progress in terms of altering selection environments across the 11 cases selected for in depth study as part of our project. Again, this points to how hard (and therefore rare it is) for such initiatives to be successful in changing selection environments. This is what one might expect, but also makes us ask, why initiatives were successful in these instances?

First, common across the cases but not overtly recognised in the existing literature, we observe how initiatives instrumentalised multiple events and changes in governance to reconfigure selection environments. Focal initiatives strategically built on events – e.g. the cycling fatality – and governance developments from both within the city – such as the successive policy statements made for sustainable food procurement practices - and from beyond the city - such as mobilising financial support from the Department of Transport and the Esmee Fairbairn Foundation as well as building upon the introduction of a National Park. Through instrumentalisation initiatives were able to raise the profile of (un)sustainable practices. In some cases, politicising previously marginal issues. The careful and strategic utilisation of events and governance dynamics demonstrates an interplay between initiatives and their urban context, of initiatives being shaped by and shaping developments gradually over time. Such instrumentalisation appears a critical factor for success because in doing so focal initiatives were able to increase their agency. This included securing financial support (e.g. from Esmée Fairbairn), using external narratives to strengthen and foster local narratives (e.g. moves towards sustainable transport) and building on alternative structures (e.g. UNESCO) and rules (e.g. food standards).

Instrumentalisation as an actor tactic, has important implications for the study of urban governance. Within centralised unitary political systems such as the UK, the mobilisation of resources from the national level can be crucial. This means that to some extent the successful reconfiguring of selection environments is dependent on the vagaries of national politics and the availability of national or European level funding for sustainable action (see Ehnert et al., 2018). Yet, the extent of instrumentalisation beyond financial support, indicates that reconfiguring selection environments at the urban scale involves mobilising governance dynamics across multiple scales. Governance scales are interlink and can only be separated analytically. This implies research into the governance of urban sustainability transitions cannot be studied in isolation. Where Hodson and Marvin (2010) challenged prior sustainability transitions thinking – of cities as simply being receivers of wider (national) selection environments – our work extends this by demonstrating the myriad ways in which actors mobilise different levels of governance to reconfigure selection environments at local scales. Here, transition initiatives

play a role linking up different levels of governance to create narratives that challenge existing and suggest new selection environments.

Second, also common across the cases was the use of networking (work to establish, expand or deepen actor networks) (Geels and Deuten, 2006; Hoogma et al., 2002; Kemp et al., 1998; Smith and Raven, 2012). In each case focal initiatives developed actor networks with sufficient power to advocate for change. This supports Smith and Raven's (2012) thesis of institutionalisation requiring actor coalitions with sufficient power to challenge incumbent selection pressures. The existence of extensive networking provides one possible answer to why these cases were successful. Nonetheless, we can also note the creation and development of actor networks worked alongside the use of multiple other tactics. This included extensive narrative work (about the problem framing and its solution), theorising and defining as well as challenging existing thinking and routinising new behaviours. Networking, then, is not an isolated tactic and requires being packaged with other tactics to be effective. The value of networking as an actor tactic to alter selection environments appears more critical when considering the resulting impact on local governance processes or as Hansen and Coenen (2015) put it, *the practice of governance on the ground.*

Governance, can be defined as the "totality of interactions" of various actors aimed at solving societal problems (Kooiman, 2003) and it is in the formation and expansion of networks that a totality of interactions with a capacity to alter selection environments, can be seen to emerge. By coalescing within networks actors move from having individual agency (within a local governance context) and begin influencing the collective governing of problem formation and response. Thus, from a governance perspective these new actor networks appear critical to successfully reconfiguring local selection environments because they create space for new shared narratives and new shared visions to be developed (new ways of thinking) before being converted into either policies and regulations (new ways of organizing) or infrastructures and practice (new ways of doing). Here initiatives played an important role, initiating and orchestrating new networks to form. New actor networks subsequently opened up the rationalities of a given institutional field and created space for innovation in governance arrangements. The actions of the Good Food procurement group exemplify this, creating space for actors to coalesce, develop new ways of thinking before a new way of organising (in this instance new procurement rules) were enacted. Such actor networks can be understood as *ad hoc* governance making bodies – in this instance formed to discuss the adoption of new food procurement rules – but in effect, legitimising the reconfiguration of (local) rules before the jurisdictional body of the City Council implemented the change. In many instances, initiatives can be thought of as playing pragmatic intermediary roles, taking marginal ideas and helping mainstream them by reconfiguring selection environment through mediating between the novelty and incumbent actors as well as local government within new actor networks.

This dispersion of power and policy making ability away from formal state institutions, supports an understanding of governance as comprising a fluid patchwork of horizontally linked new governance arenas, comprising a variety of public, private and civil society actors. To urban and regional scholars this type of governance represents new horizontal, networked forms of authority (e.g. Bulkeley, 2010; Corfee-Morlot et al., 2009; Marks and Hooghe, 2004). When approached from the lens of institutionalisation of sustainable practices, these new governance arenas create opportunities for progressive actor networks to form and new narratives to emerge. In many case focal initiatives were responsible for their development.

In sum, we find that moves towards more horizontal, networked and informal governance-making aids the reconfiguration of urban selection environments towards sustainability because it disrupts incumbent governance arenas and networks (ways of organising) and existing visions, policy debates, targets and objectives (ways of thinking). Together, this disruption creates space in which new ways of doing (their materiality and practice) can be forged. Networking is therefore an important first step in this direction.

However, despite the importance of these forms of ad hoc governance making, our empirical analysis also shows the frequent engagement and importance of local government. This stems from the fact that to alter selection environments, initiatives had to locate incumbent rules, plus those actors with power over them. In two of our instances (cycling and food) this meant engaging the city council (with power over local transport infrastructure and food procurement rules respectively). This positions local governments as important points of passage when altering selection environments at urban scales, where they have control over local material infrastructures (ways of doing) and local rules and regulations (ways of organising). In addition, local governments comprise traditionally important sites for politics and vision-making (ways of thinking).

Local governments play a strong role within nested understandings of governance, in which authority is dispersed to a limited number of relatively distinct 'levels'. This is what multi-level governance scholars refer to as 'vertical' governance (e.g. Bulkeley, 2010; Corfee-Morlot et al., 2009). Our exploration draws attention to local governments where they have formal, jurisdictional power and supports notions of vertical governance as being important. For instance, local government has power over some local infrastructure improvement works. Nonetheless, our exploration also suggests that in practice these formal powers are often hard to locate (as the attempt to institutionalise sustainable development attests), may not reside with local government and in any case, are often constrained by powers at other levels. For instance, urban infrastructure planning (known as 'Local Plans' or 'City Plans') is constrained and heavily guided by nationally set guidelines and scrutiny (the National Planning Policy Framework in the UK). Moreover, the ability to reconfigure local governance arrangements is likely to differ across domains. A central argument of urban and regional scholars who follow a vertical governance approach, is that national governments cannot effectively implement national climate strategies without working closely with city and regional governments as agents of change (Corfee-Morlot et al., 2009). In contrast, our focus asks if local governments have meaningful powers over local selection environments that enable progress towards sustainability. In this, we find that local governments are important sites for contestation and in some cases reconfiguration of local selection environments but that there are often limits to how far urban and regional policies can run ahead of national policies. More broadly, we find initiatives can play an important role searching for and challenging incumbent rules.

7. Conclusion

This paper contributes to recent debates in the sustainability transitions literature about how urban selection environments are altered in favour of sustainability. A better understanding of how institutions are reconfigured, selection environments are altered and momentum for change is established is key to understanding transitions (Fuenfschilling and Truffer, 2016, 2014). Such institutionalisation processes have begun to receive increased attention but whilst national scale institutional change has dominated empirical investigations, there has been a relative neglect of analysing local reconfiguration processes and the governance dynamics involved. In this paper we adopted an actor perspective to investigate how local transition initiatives are attempting to reconfigure selection environments at the urban scale towards sustainability.

Our approach builds on a broad, networked understanding of the urban governance context, as the totality of interactions between actors addressing a societal problem at a particular (urban) scale (Kooiman, 2003) and combines a novel understanding of the governance context with an actor-centred perspective of agency. We argued that tracing how initiatives seek to shape selection environments provided one means to examine contemporary urban governance processes from the 'inside out'. A clear drawback of our approach is how labour intensive it is. Where the approach fares well (providing an insider understanding of the tactics for reconfiguring selection environments at the local level and more specifically, insights into the practice of

governance on the ground) it sacrifices breadth: the approach does not and cannot say which selection environments can be change at the local level nor where power over different selection environments lies. This limits the potential of the approach to analysing past instances where selection environments have been altered. Nonetheless, from this work we can make a number of recommendations for the practice of transitions, which we address below.

Our findings' contribute to recent work on the politics of transitions and have particular implications for our understanding of urban sustainability transitions and their governance. To the broader politics of transitions literature (e.g. Avelino et al., 2016) our investigation shows that reconfiguring urban selection environments towards sustainability requires locating where formal, jurisdictional power lies and those actors who have power over them. Here, we find that, in practice, such powers are often hard to locate and once found, are frequently constrained by dynamics at other levels. In this sense our work provides a counter point to the work of urban and regional scholars, as well as existing research on national institutionalisation processes: rather than focussing on how national processes trickle down our approach highlights if and where local governance has the power to reconfigure selection environments at the local scale. We contend that both analytical perspectives (top down and bottom up) need to be pursued to gain a rounded understanding of the opportunities for and challenges of changing urban selection environments towards more sustainable configurations.

Our work also clarifies how networking plays an important role in seeding the governance capacity to reconfigure selection environments. Forming and expanding actor networks are critical because they create institutional spaces for new narratives and new visions to emerge before being potentially converted into policies and regulations or infrastructures and practices. New actor networks, particularly those that form ad hoc governance making bodies, disrupt incumbent governance arenas opening up the rationalities of a given institutional field and thereby creating space for contingency and alternatives. From a governance perspective, networking, therefore, appears to form a crucial actor tactic to reconfigure selection environments. To strengthen this conclusion future research could weigh the value of networking against broader and alternative 'spaces for interaction' (such as urban experiments or urban living labs). Here, there remains an open question as to what extent networks or spaces for interaction interact, overlap or fulfil similar functions for the reconfiguration of selection environments at the local scale?

For research on urban sustainability and its governance, our work further challenges the possibility of studying the urban governance of sustainability in isolation. As our analysis testifies, many relevant dynamics and institutions are located outside of what can be called the urban sphere. Some dynamics shape selection environments manifested at the local scale from afar. Other dynamics can be mobilised to shape selection environments at the local scale. This implies that future research needs apply the concept of multi-scaler processes more seriously: the urban governance of sustainability is intimately linked to developments at other (governance) levels. Tracing actors in their attempts to reconfigure selection environments is one means to do this. Future work will need to be more creative methodologically, to trace interactions in a conceptually coherent manner across multiple levels of governance (see for instance Ehnert et al., 2018).

From our work a number of implications for sustainability initiatives and 'on the ground' sustainability transitions governance also emerges. First, actor strategies need to be diverse and include multiple tactics to challenge and reframe existing ways of doing, thinking organising. A central complement to these tactics is the ability to interpret current situations and options for action and instrumentalise developments (both local and elsewhere) that may further support initiatives' actions. Second, our work also highlights the importance of acting in concert with others. To reconfigure urban selection environments local governance actors and sustainability initiatives need to support the formation of new actor networks. Such networks can be informal and ad hoc but crucially provide spaces in which to challenge contemporary practices, ideas and knowledge as

well as existing policies, regulations and arenas of local governance that make up contemporary ways of organizing. Actor networks are crucial in effective advocacy work (when talking to power). Networks also build momentum and traction in and of themselves and in some cases may actually lead to the creation of (in)formal governance arenas. Conversely, our work suggests that local policies would do well to foster local transition initiatives because they can play a variety of important roles, from politicising sustainability issues to forming new governance arenas, that aid the reconfiguration of selection environments at the local scale.

Finally, with increasing emphasis placed on how to speed up or accelerate contemporary transition processes it is increasingly important to investigate how actors attempt and, in some cases, succeed in reconfiguring selection environments to favour sustainability. Further work to combine insights on system level institutionalisation processes with insights on the embedded agency of actors to alter selection environments will be central to creating a fuller appreciation of transition processes.

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