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Climate change mitigation in English and German municipalities: Dynamic governance versus persistent government?

Peter Eckersley, Newcastle University

p.m.eckersley@ncl.ac.uk

Abstract

This paper illustrates the contrasting governance approaches of comparable 'post-industrial' municipalities in England and Germany – the twin towns of Newcastle upon Tyne and Gelsenkirchen. Drawing on Hooghe and Marks' (2003) characterisations of "Type I" and "Type II" multilevel governance systems, it uses data from over a dozen in-depth interviews with practitioners in each city to highlight how the council in Gelsenkirchen has been able to take a much more hierarchical approach to climate change mitigation than its counterpart in Newcastle. This is partly due to Germany's long tradition of local autonomy (Norton, 1994), which has helped Gelsenkirchen to develop its strategic capacity with support from the regional, state and federal governments. Although English municipalities have enjoyed greater *de jure* autonomy since the UK Government granted them a general power of competence in 2011, the study found that they are unable to punch at the same weight as their German counterparts in local governance arrangements.

Using the characterisations of Treib *et al.* (2007), the paper therefore places Newcastle towards the 'governance' end of the spectrum, whereas Gelsenkirchen lies closer to a more traditional 'government' model. It also argues that the concept of distinct "policy styles" for specific countries (Richardson, 1982), which previous studies have investigated almost exclusively at the national level, is also relevant for municipalities.

Introduction

The idea that states require input and support from a range of other actors in order to achieve their objectives is central to the idea of "governance" and the notion that governments are no longer able to govern alone – if indeed they ever could (Rhodes, 1997). Heritier and Lehmkuhl (2011) characterise the inclusion of private actors in decision-making as a "new mode" of public policy, and argue that it is a logical consequence of the process of state retreat that has occurred across the developed world since the 1970s (see also Mayntz, 2009). In addition, the "wicked" nature of environmental challenges, or indeed issues such as teenage pregnancy, obesity or smoking, has required governments to work together with other societal actors in order to try and achieve policy objectives (Rittel and Webber, 1973, Nilsson *et al.*, 2009). Wicked issues defy resolution "because of the enormous interdependencies, uncertainties, circularities, and conflicting stakeholders implicated by any effort to develop a solution" (Lazarus, 2009, p1157). These stakeholders may have significantly different perspectives on how to solve specific problems, or what the key concern may be, or may even disagree as to whether addressing it would be desirable. Yet they must be incorporated into the process if the policy is to have any degree of success. Any attempt to reduce pollution, for example, requires polluters to change their behaviour.

Climate change is an even more complex issue, because its direct relevance to the vast majority of human activities means that it encompasses a range of other social, economic and development issues (Bodansky, 2006). As Grunow (2003) has identified, this means that individuals across the world have become *subjects* as well as *objects* in public policy, because their everyday actions have implications for the rest of humanity. However, key stakeholders often disagree about the best way to reduce fossil fuel consumption, perhaps because they are reluctant to change their behaviour or they view a particular policy as being inimical to their interests. Furthermore, state and non-institutions need to act at all levels – from the global to the very local – in order to achieve this. There are many examples of subnational governments influencing national policy, as well as national perspectives cascading down to state and municipal administrations (Bechtel and Urpelainen, 2014). As such, climate change policy needs to embrace the idea of “multi-level” or “multi-tiered” governance (the notion that governance “happens” within local, regional, national and international jurisdictions). Thus far, greenhouse gas emissions increase unabated because governments, businesses and private citizens have been unable or unwilling to agree on (and implement) approaches to reverse their growth.

Therefore, it is clear that climate change is not a “typical” policy issue. Any attempt to address it will be disruptive and is likely to put pressure on existing systems and cause them to change. This paper, which provides the basis for one chapter of the author’s doctoral thesis, investigates whether municipalities in England and Germany – the twin towns of Newcastle and Gelsenkirchen – have adopted different policy approaches and structural arrangements in order to try and address climate change at a strategic level. It begins by sketching out the “traditional” regulatory policy styles of each country (Richardson, 1982), and then characterising their institutional design using Hooghe and Marks’ (2003) typology of multi-level governance. This characterisation is then complemented by the framework devised by Treib *et al.* (2007), to argue that England adopts more of a “governance” approach to policy, politics and polity, whereas Germany sits towards the “government” end of the spectrum. The paper then maps the development of climate change strategy in both cities against this theoretical framework and highlights how governance approaches may be shifting. Since Germany relies more heavily on traditional “government” compared to England and a range of stakeholders need to be involved to address climate change, it might be expected that Gelsenkirchen has had to change its *modus operandi* more than Newcastle. Alternatively, it may be the case that Newcastle’s governance arrangements have led to a lack of policy co-ordination and institutional capacity, which has caused the city to take a more hierarchical approach than might otherwise be expected.

Case selection and methodology

The political science literature on policy styles and institutional structures focuses overwhelmingly on the national and international scales, despite the fact that many scholars recognise the crucial role that municipalities need to play in climate mitigation (Bulkeley and Betsill, 2005, World Bank, 2010). My focus on the city therefore fills an important gap in the literature and facilitates a greater understanding of the way in which public authorities are evolving in response to this vital issue.

The twin towns of Newcastle and Gelsenkirchen represent similar case studies, since they have both been recognised for their efforts in recovering from the decline of heavy industry (particularly coal-mining) and re-branding themselves as forward-looking, sustainable cities that rely on service industries, science and technology. The cities are also very similar in size and both municipalities have suffered serious financial difficulties in recent years, due primarily to reductions in central grant funding for Newcastle and a

fall in revenue from business taxes in Gelsenkirchen. By adopting a “most similar systems design” approach and focusing on a challenging and dynamic policy sector, the investigation increases the possibility of identifying whether an issue such as climate change results in different governing solutions at the local level.

Therefore, not only does this project investigate a policy sector where we might expect to find that governance approaches may be changing, but it also analyses two case studies where these arrangements are quite likely to be in flux. If there has been little or no change in decision-making styles or institutional structures where this is perhaps most likely, then this suggests that local policy-making has not been as affected by globalisation or Europeanisation as some scholars claim (John, 2001). Previous analyses of policy styles and structures have often assumed that approaches would be converging, yet their findings have been inconclusive (Richardson, 1982, Hanf and Jansen, 1998).

The research draws on over a dozen in-depth interviews with key actors in each city, as well as strategy documents and other municipal literature. The Newcastle fieldwork took place between January 2012 and June 2013, and the Gelsenkirchen interviews were conducted (in German) between June and September 2013¹.

Theoretical framework

This paper pulls together perspectives on multi-level governance, national policy styles and the governance-government spectrum devised by Treib *et al.* (2007) to develop a theoretical framework for the analysis of each city’s approach. The following subsections address each of these three points in turn and highlight their relevance for the specific case studies.

Multi-level governance

Multi-level governance perspectives aim to analyse the development and implementation of policy at various tiers – from the global to the very local. Gary Marks (1993) was the first to coin the term and, together with Lisbet Hooghe, he later developed the idea further by characterising two different types of multi-level governance: Type I, which consists of relatively static, multi-purpose jurisdictions, and Type II, where more *ad hoc*, specific governance arrangements are more common (Hooghe and Marks, 2003). Table 1 summarises the differences between these types.

Type I	Type II
General-purpose jurisdictions	Task-specific jurisdictions
Non-intersecting memberships	Intersecting memberships
Jurisdictions organized in a limited number of levels	No limit to the number of jurisdictional levels
System-wide architecture	Flexible design

Table 1: Types of multi-level governance (adapted from Hooghe and Marks, 2003)

Hooghe and Marks acknowledge that the two theoretical types overlap in the real world, and that neither is demonstrably more effective than the other, but they nonetheless provide a useful distinction for the purposes of comparative politics. As a federal country that allocates specific responsibilities to the multi-functional *Länder* (federal states) and municipalities, Germany operates in more of a Type I environment. In contrast, England

¹ All translations from the documentation and interviews pertaining to Gelsenkirchen are my own.

(though not necessarily other constituent parts of the United Kingdom following devolution to Scotland, Wales and Northern Ireland), has much more of a Type II unitary structure, whereby national policy-makers tend to view the local tier as local "administration" because it focuses largely on policy delivery, rather than acting independently as local "government" (Jones and Stewart, 1983). In addition, a range of other functional agencies, such as quasi-autonomous non-government organisations (quangos), have been established to play important roles in specific sectors – including the environment. This contrast has led Herrschel and Newman (2002) to characterise Germany and Britain as representing two extremes in terms of state structures: Types I and II respectively.

National policy styles

As will become much more apparent later, multi-level governance is more descriptive than analytical: it highlights the fact that numerous actors are involved in making and implementing policy, but does not act as a tool to help understand *why* things turned out the way they did (see Smith, 2003 for a more comprehensive critique). As such, it is a useful reference point when discussing the role of specific actors, but it is not an explanatory tool, and certainly not a comprehensive theoretical framework. Therefore, I have combined multi-level governance interpretations with the idea of national "policy styles", which suggests that countries have specific *modus operandi* of policy-making and governance. For example, Richardson (1982) showed that some countries were much more likely than others to involve interest groups in policy-making, adopt certain types of policy instrument ("hard" legislation or "soft" law), or ensure that policy is co-ordinated horizontally and vertically.

Following on from Richardson, analyses of different national styles in the area of environmental policy have identified clear distinctions between the British (or English) and German approaches, both of which are anchored in what might be labelled their typical style. Germany is often described as a *Rechtsstaat* (literally "rights state"), due to its reliance on formal legal instruments and uniform standards. In keeping with this, environmental policy in Germany has traditionally been made by high-ranking officials and legal experts, and resulted in laws that penalise polluters, most of which are enforced by the *Länder* and local authorities (Jänicke and Weidner, 1997, Pehle and Jansen, 1998). This contrasts sharply with the pragmatic reliance on "soft" law and discretion that is typically associated with the UK and England. Britain's more flexible and consensual approach involves a range of stakeholders – sometimes the very same polluters who are penalised in Germany – in policy-making processes to increase the chances that they will adhere to the resulting legislation (Weale, 1997).

The extent to which each country takes a legalistic approach also manifests itself in whether it focuses on measuring the *amount* or the *consequences* of pollution. For example, Héritier et al. (1994) and Wurzel (2002) have both distinguished between the traditional German focus on reducing *emissions* (the quantity of a pollutant released into the air, soil or water) and the British reliance on monitoring *immissions* (the environmental concentration of harmful pollutants in living organisms, in this case particularly humans). This difference is attributed partly to the geographic nature of the two countries: the UK is an island with fast-flowing rivers, rough seas and high winds, which means that pollutants disperse much quicker than in Germany and therefore the same level of pollution is likely to have a less severe impact on human health. Butt Philip (1998) describes the contrast in a different, though related way: that the German approach focuses on the need to reduce the "inputs" of environmental "bads" into the air, soil and water (by a reliance on uniform emissions standards, for example), whilst the UK has concentrated on the overall environmental "outcomes" of a combination of

different activities (which is demonstrated by a preference for environmental quality standards).

Table 1, which has been adapted largely from Knill and Lenschow (1998), but also incorporates some analysis from Weale *et al.* (1991), H eritier *et al.* (1994) and Wurzel (2002), shows some of the main contrasts between the typical policy style of each country.

There is a clear parallel between Knill and Lenschow’s interpretations of contrasting regulatory structures and Hooghe and Marks’ two typologies of multi-level governance. These similarities reflect the interdependence between a policy-making approach and the institutional and structural context: one is likely to influence the other, and vice-versa. As such, they are separated by a dotted line in Figure 1, which illustrates the theoretical framework adopted for this research project and the hypothesis under investigation. The hypothesis suggests that the typical institutional structures and policy styles associated at the national level in both countries may also be present in municipalities, and that these approaches could be converging towards a hybrid model.

	Germany	Britain
Regulatory style	Interventionist	Mediating
Traditional principles	<i>Sachlichkeit</i> (objectivity) <i>Ressortprinzip</i> (ministerial and departmental independence) Uniform standards	Professionalism Generalism Discretionary approach
Focus of concern	Level of pollution emitted (<i>emissions</i>)	Affect on human health of pollutants (<i>immissions</i>)
Preferred solutions	State of the art (“Best Available Technology”)	Flexible and cost-effective (“Best Practicable Means”, and “Best Available Techniques Not Entailing Excessive Costs”)
State intervention	Hierarchical Substantive Low flexibility/discretion	More self-regulation Procedural High flexibility/discretion
Consultative approach	Formal Legalistic (<i>Rechtsstaat</i>) Hard law More adversarial	Informal Pragmatic Soft law Consensual
Regulatory structure	Functional decentralisation Sectoral Hierarchical co-ordination	Sectoral decentralisation Sectoral Lacking hierarchical co-ordination of local activities

Table 1: Contrasting styles of environmental policy in Germany and Britain (adapted from Knill and Lenschow, 1998, Weale et al., 1991, H eritier et al., 1994, and Wurzel, 2002)

The oval shapes at the top of Figure 1 highlight the typical contrasts between England and Germany in terms of policy style and institutional structure. As Hanf and Jansen (1998) argue, to a certain extent policies are path-dependent, reflecting the institutions that “produced” them. Therefore, to recognise the fact that these concepts are not necessarily easy to distinguish (because institutional structures almost certainly influence policy style, and vice-versa), they are separated by a dotted line. The research hypothesised that policy styles could be affected by exogenous pressures such as the effect of EU regulations on the discretionary approach traditionally favoured in England, or the influence of interest groups and the media on Germany’s reliance on uniform legal standards. Similarly, an endogenous drive for improved performance could manifest itself through structural reforms – whether to ensure that environmental policy is better

integrated into sectoral institutions (which may be the case of England), or in an attempt to concentrate expertise in a particular area and introduce new public management-type reforms (as may be the case in Germany).

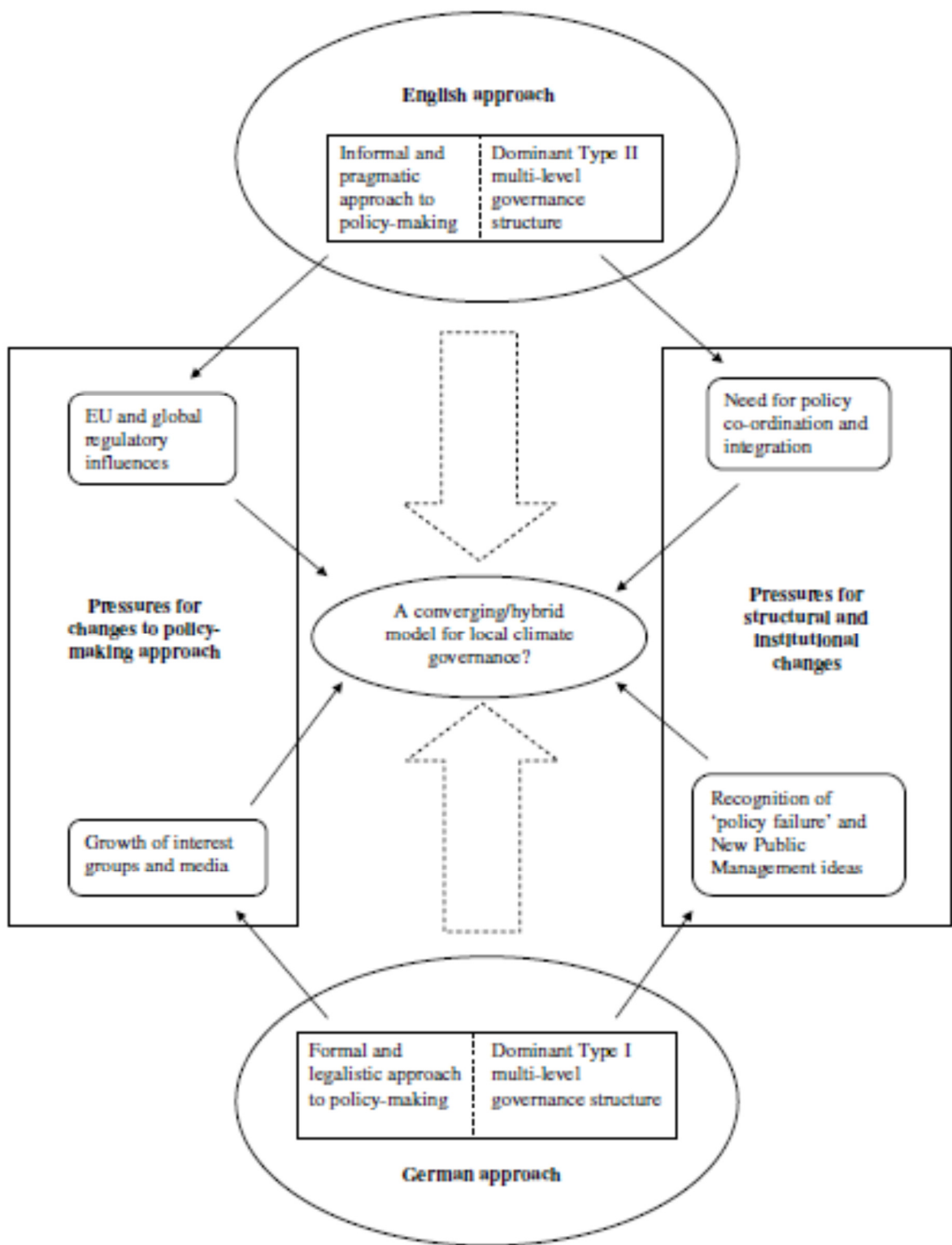


Figure 1: Converging pressures on traditional approaches to institutional and regulatory governance in England and Germany

As the diagram suggests, a regulatory style and “Type I” institutional structure on the one hand, and a pragmatic style and “Type II” institutional structure on the other, are generally considered to be relatively *foreign* to England and Germany respectively, but very common in the other case study country. As the following empirical analysis will show, some of these characteristics have been *imported* into the governance of climate change strategy in both Newcastle and Gelsenkirchen – something that could have research implications for those interested in the area of policy learning and transfer (Dolowitz and Marsh, 2000). However, the drivers for these changes in approach were not the reasons that were originally envisaged at the outset of the research and that feature in Figure 1. Moreover, many of the traditional arrangements have continued largely unaltered, or on occasions the municipality has tried to adapt to events to continue with the existing governance philosophy.

To expand on this hypothesis further, both the policy styles literature and conceptions of multi-level governance overlap with the analysis of Treib *et al.* (2007), who clarify how the idea of governance is often interpreted differently depending on whether it is analysed in terms of policy, politics or polity. Some academics have used the term in policy terms as shorthand for a particular “mode of political steering” (Heritier, 2002); others employ it to describe the *politics* of power relations between state and non-state actors (Rhodes, 1997); whilst still more perceive it to be a system of rules that shape behaviour (Mayntz, 2009), and thereby relate it to institutions or *polity*. Put simply, Treib *et al.* (2007) argue that the state-society relationship can be mapped against various dimensions that relate to each of these three categories, in order to identify the extent to which a particular jurisdiction relies on hierarchical *government* or horizontal *governance* approaches (see Table 2).

	State intervention ("government")	Societal autonomy ("governance")
Policy dimensions	Legal bindingness	Soft law
	Rigid approach to implementation	Flexible approach to implementation
	Presence of sanctions	Absence of sanctions
	Material regulation	Procedural regulation
	Fixed norms	Malleable norms
Politics dimension	Only public actors involved	Only private actors involved
Polity dimensions	Hierarchy	Market
	Central locus of authority	Dispersed loci of authority
	Institutionalised interactions	Non-institutionalised interactions

Table 2: The government-governance spectrum as it applies to policy, politics and polity (Treib et al., 2007)

When these dimensions are mapped onto the typical policy styles highlighted above, it becomes apparent that the UK/England relies more heavily on a *governance* approach, whereas Germany is positioned towards the *government* end of the spectrum. Thus far however, the vast majority of comparative research into these perspectives have focused at the national level – as might be expected, given that the concept of policy styles assumes that countries adopt different approaches to addressing similar policy problems². This paper complements and builds on this body of work by taking the city as

² Analysis by Bulkeley and Kern (2006) did find that three local authorities in England and three in Germany were relying increasingly on an “enabling” mode of governance, which involves facilitating and encouraging action through partnerships, engagement, incentives and persuasion, rather than hierarchical regulations or the direct provision of services. This would suggest that municipalities in both countries are situated towards the ‘governance’ end of the spectrum developed by Treib *et al.*

the main unit of analysis and identifying whether similar national characteristics are evident at the local level, and whether any forces are causing them to converge. Studies of national governments have been somewhat inconclusive about the extent to which convergence is taking place (see for example Richardson, 1982, Hanf and Jansen, 1998): it may be that we can draw clearer conclusions from what is happening in local authorities.

Multi-level governance and climate change strategy

This subsection maps the development and implementation of climate change strategies in Gelsenkirchen and Newcastle on to Hooghe and Marks' (2003) typologies of multi-level governance. It addresses each of the contrasting characteristics of each type in turn (see Table 1), highlighting the extent to which Gelsenkirchen operates within a Type I environment and Newcastle works in a Type II context, and assesses whether these arrangements are changing in any way. However, it also highlights the fact that multi-level governance perspectives only offer limited assistance in analysing relations between key actors. As such, additional theoretical approaches will also need to be incorporated into my overall framework in order to understand the institutional context within which the case study municipalities operate.

Multi-level governance in Gelsenkirchen

In terms of the functions assigned to jurisdictions, the city of Gelsenkirchen sits within the *Land* (federal state) of North Rhine-Westphalia (NRW). Unlike the other fifteen states across Germany, NRW also has an intermediate tier, the *Bezirk* (region), which sits in between municipalities and the *Land*: there are five *Bezirke* within North Rhine-Westphalia, and Gelsenkirchen is located within the Münster region. This institutional structure appears to fit with a "Type I" characterisation of multi-level governance, whereby each general purpose jurisdiction fits neatly into the other and remains static and inflexible.

There is some evidence to suggest that this "Russian doll" image of nested institutions operates in practice. Germany has a very long tradition of local autonomy, and municipalities have enjoyed a statutory right to self-government since a Prussian ordinance in 1808 (Norton, 1994). The Federal Republic's 1948 *Grundgesetz* enshrined this right in what was effectively the postwar constitution, and – due to the Allied desire that a centralised state would not re-emerge from the ashes of the Third Reich – it also ensured that the *Länder* had significant powers (Conradt, 2001). Officials in Gelsenkirchen certainly view themselves as operating within a Type I multi-level governance framework as far as climate change is concerned. Several interviewees mentioned the importance of United Nations or EU initiatives in raising the profile of climate protection and encouraging Gelsenkirchen to act (interviews 14, 19 and 20), whilst others stressed the importance of local governance for policy implementation:

I would say that climate protection takes places at various levels – global, EU, federal, and state... And then there is the execution of laws, which we have to implement as municipalities (interview 24).

More recently, even though hundreds of German municipalities have experienced severe financial difficulties since the early 2000s (Timm-Arnold, 2010), the vast majority have retained a reasonable degree of autonomy over capital spending, including in relation to climate protection. This is in spite of the fact that local government has had to rely

(2007). However, Bulkeley and Kern did not interpret their findings in the context of national policy styles, nor conduct in-depth analysis of two comparable cities to identify whether governance approaches were changing or converging.

increasingly on funding from the federal and *Land* levels, the latter of which is distributed to individual municipalities in NRW through the *Bezirk* authorities. For example, Gelsenkirchen received funding from the federal government to cover 90% of the budget for its climate protection strategy, the *Klimaschutzkonzept*, which sets out how the city aims to reduce carbon dioxide emissions by 20% by 2020 (interview 21). Although this money has to be spent on climate protection initiatives, and government auditors will assess the extent to which it has been effective both mid-way through the programme and at the end of the decade, the municipality has significant flexibility to determine the nature, timing and type of projects that it wishes to undertake (interview 14).

Nonetheless, the Type II model does not apply completely to the environment within which Gelsenkirchen operates. Most notably, the fieldwork research revealed that the notion of *Politikverflechtung* (Scharpf et al., 1976) is very much a reality within the city and wider *Land*. This concept describes the “political integration” of state institutions that has developed within Germany since the 1950s. It is characterised by government departments at all levels working very closely together and senior individuals often moving between institutions but nonetheless still working on the same policy initiatives. The nature of these intersecting memberships is in direct contrast to the “Type I” description of multi-level governance. Although the idea of *Politikverflechtung* is now nearly forty years old, and two constitutional amendments have been passed to try to clarify institutional responsibilities and thereby ensure that voters can take informed decisions when holding politicians to account, most academics agree that it persists (Scharpf, 2009, Kropp, 2010). Indeed, it was cited by a number of interviewees in Gelsenkirchen as a pervading influence over climate protection policy in Gelsenkirchen (interviews 16 and 19). Moreover, interviewees within the *Bezirk* authority saw their role as being about helping municipalities to bid successfully for *Land* funding, rather than stipulating what the money should be spent on, or auditing specific projects. As such, their relationship with local government is more akin to that of consultant-client rather than master-servant (interview 26). Such an image does not fit well with the Russian doll model, which suggests a hierarchy of nested jurisdictions.

Similarly, the Type I model suggests that institutions are fixed within a system-wide architecture, and organised into a limited number of levels. This does not leave much space for horizontal collaboration with other municipalities and public bodies – yet Gelsenkirchen does work with various partners outside the formal, hierarchical state structure. Other scholars have commented on how some municipalities have used European or international networks to share ideas and engage in “horizontal” integration on the issue of climate change (Bulkeley and Betsill, 2005, Lindseth, 2004, Kern, 2013). Gelsenkirchen has signed up to two of these networks: the Covenant of Mayors (through which municipalities commit voluntarily to reducing CO2 emissions by 20% by 2020, see www.covenantofmayors.eu/) and Climate Alliance (which has the more ambitious target of cutting emissions by 10% every five years, www.klimabuendnis.org).

The field research did not find much evidence to suggest that these networks had influenced policy, other than providing the city with a fixed ‘start date’ from which they began to measure emissions levels. However, Gelsenkirchen does work very closely with various other organisations at the regional level outside the scope of structured state institutions. This began in the 1990s with the re-development of the old Ruhr industrial area into the international Emscher Park exhibition (Technische Universität Dortmund, 2008), and cross-municipal collaboration has continued since the organisation evolved into the *Regionalverband Ruhr* (interview 20). The state of North Rhine-Westphalia has five *Bezirke*, but parts of the heavily-industrialised Ruhr area are located in four of them: there is no statutory regional body to oversee this territory, in spite of its shared history

and demographics (interview 22). Instead, the municipalities within the region work across *Bezirk* boundaries on various initiatives related to climate change (such as transportation and planning)³, in recognition of the fact that they have more in common with each other than other local authorities that are situated in the same region (interviews 14, 21 and 22). Indeed, one interviewee suggested that this attitude towards collaboration was one reason why local government in Germany has greater capacity than in England (interview 24).

Furthermore, since the mid-1990s, a key part of Gelsenkirchen's economic development and climate protection strategy has been to nurture the generation and consumption of renewable energy (particularly solar power) within the city (Jung et al., 2010). Together with the single-purpose *Land* organisation that was established to promote economic development across North Rhine-Westphalia (*Landesentwicklungsgesellschaft Nordrhein-Westfalen*, (LEG NRW)), the municipality established a new business park that aimed to attract low-carbon energy companies to the city. Following on from this, in 2004 the city and the science park, together with representatives from Emscher Lippe Energie (ELE, the privatised energy utility), the local chamber of crafts, a housing company and the solar industry, founded a separate company, *Solarstadt Gelsenkirchen* (Solar City Gelsenkirchen), to promote and encourage the use of photovoltaic panels in the area. In 2013 the company evolved into a climate alliance with the neighbouring borough of Herten (interview 20), and it aims to pursue joint projects to help reduce carbon emissions in both cities (Jung et al., 2010). Although the business park became a wholly-owned subsidiary of the municipality in 2007, these developments nonetheless illustrate an increasing reliance on specific-purpose bodies to achieve public policy objectives and therefore suggest a shift towards Type II multi-level governance.

The decline of heavy industry across the *Ruhrgebiet* had a major impact on the financial health of numerous municipalities in the area. Traditionally, the business tax (*Gewerbesteuer*), which is set, raised and collected locally, was the most important revenue stream for local government in Germany (Karrenberg, 1985). However, income from this source has reduced significantly in the last 20 years, especially in areas such as Gelsenkirchen that have suffered economic problems (Timm-Arnold, 2010). More importantly, the NRW *Land* government introduced legislation targeted at those municipalities that were unable to generate sufficient annual income to fund their expenditure. Since 1991 each such municipality has had to submit a plan to the *Bezirk* authorities setting out how they would be able to deliver a balanced budget within the next three years (Bogumil and Holtkamp, 2006). If their plan is approved, the council can receive additional financial help from the *Land* government – but if it is not, it may only borrow up to one-quarter of the amount borrowed in the previous year for capital investment. Since these regulations only restrict the autonomy of those municipalities that are experiencing severe financial problems, this asymmetric and uneven arrangement also does not fit with the neat Russian doll model of Type I multi-level governance.

Moreover, in response to the threat of *Land* intervention, many municipalities sought to sell-off or outsource services as a way of generating revenue and avoiding this eventuality⁴. This was certainly the case with Gelsenkirchen's privatisation of its *Stadtwerke* (local utility provider):

³ BOGESTRA, a partnership between the municipalities of Gelsenkirchen and Bochum, provides public transport services in the two cities, in spite of them being situated in different *Bezirke* (Münster and Arnsberg respectively).

⁴ There is a substantial literature on the supposed benefits of such New Public Management (NPM) ideas and German municipalities introduced ideas associated with the *neues Steuerungsmodell* (New Steering Model, Banner 1991) some time before the *Land* and federal level. However, research suggests that these reforms

It was about the money. It's that banal (interview 24).

The result has been the creation of a number of additional task-specific organisations that carry out public functions, including the energy provider ELE (which is jointly owned by Gelsenkirchen, two other municipalities and RWE) and the water company Gelsenwasser. This institutional arrangement, which requires local government to liaise with external organisations on issues related to climate protection, also conflicts with Type I characterisations of multi-level governance. Interestingly, the reform was introduced for financial reasons, rather than with the objective of improving policy effectiveness. Indeed, the result has been that Gelsenkirchen has less control over policy outcomes than those German cities that have retained their *Stadtwerke* – or indeed others that have sought to re-municipalise some service provision (Einhellig and Kohl, 2010).

Therefore, we can conclude that the strict, rigid nature of Type I multi-level governance no longer applies completely to Gelsenkirchen. Although some of its characteristics are definitely present, recent developments are weakening traditional state structures and challenging local autonomy. In particular, the decline of traditional industry led to Gelsenkirchen working across *Bezirk* boundaries on the Emscher Park initiative, and the ensuing drop in municipal revenue triggered the outsourcing of the *Stadtwerke* and an increase in central control over local spending. These developments fit closely with ideas that cities are increasingly competing with one another, particularly since the creation of the Single European Market in 1992. In fact, the decline of heavy industry in Gelsenkirchen and the wider Ruhr area is more often attributed to the availability of cheaper alternatives in North America (where coal could be mined closer to the earth's surface and therefore at much lower cost), accompanied by a rise in demand for gas or oil as an energy source and the emergence of new materials such as plastics (Biesinger, 2006). As such, it would appear that global economic forces have been more influential in changing the structure of multi-level governance arrangements within the city, rather than competition from elsewhere in Europe.

Multi-level governance in Newcastle

The structure of sub-national governance in England has undergone significant change in recent decades. Since the 1960s, various Labour governments have created non-departmental public bodies at the regional level to try stimulate economic development by co-ordinating planning or transport policies, but their existence has been largely short-lived. For example, after the 1997 election, the Labour government set up Regional Development Agencies for all eight of England's regions, including the north east where Newcastle is located, and gave them responsibilities for contributing towards sustainable economic development. In 2004 a referendum was held in the north east on introducing an elected regional assembly to oversee the work of the RDA, as well as other bodies that operated at this level, but the result was a resounding 'no', with more than two-thirds of the electorate voting against the proposal. After the 2010 election, the incoming Conservative-Liberal Democrat coalition decided to abolish RDAs across England, and their responsibilities were transferred to municipalities and newly-formed Local Enterprise Partnerships (LEPs). In addition, local government across the region employed some of their staff who used to work in the RDA, in the hope that their expertise in economic development would help them to progress this agenda further – although municipalities still lack some of the capacity necessary to punch their weight in this sector (interview 12).

were introduced overwhelmingly to plug short-term revenue gaps, and were implemented in a piecemeal fashion rather than being the result of strategic political convictions (Bogumil et al 2006).

The role that the LEPs will play in regional governance is still unclear, but they are dominated by local business interests and receive very little in public funding (Liddle 2013). Mindful of the need to ensure that public interests are also represented at this level, and that municipalities need to collaborate in order to increase their capacity, Newcastle has played a key role in developing the idea of a *combined authority* to cover most of the north east and ensure that transport, skills development and planning initiatives are co-ordinated across the region (interview 29). Central government has endorsed the combined authority, as indeed it did for a similar scheme in Greater Manchester, but the body does not have a statutory basis. Indeed, it will probably operate largely virtually, in that its staff will largely come from municipal payrolls across the region and often continue to work in the offices where they are currently based (interview 30).

The combined authority will build on existing relationships that have developed over recent decades, as illustrated by institutions such as the Association of North East Councils, a lobby group for local government in the region that also encourages collaborative working across municipal boundaries. This association produced a climate change action plan for the region in 2008, which sets out how private, public and voluntary sector organisations can mitigate and adapt to climate change (SustainE, 2008). Newcastle has developed particularly close links with neighbouring Gateshead, to the extent that the municipalities produced a combined local development strategy (Newcastle City Council 2013) and liaise very closely on issues of sustainable development (interviews 1, 2 and 12). Newcastle also subscribes to a number of international municipal networks for climate protection, although – like Gelsenkirchen – they do not appear to have influenced policy to any great extent (interview 12).

At the national level, central government has sought to stress the importance of acting to mitigate climate change by passing the Climate Change Act, which commits the country to reduce carbon emissions by 80% by 2050. At the same time, central control over local government increased significantly from the 1970s onwards, culminating in the Comprehensive Performance Assessment (CPA) framework. This required each municipality to measure and report its progress against several indicators related to climate change, including the amount of per capita greenhouse gas emissions from the local area, and this data contributed towards an overall performance score for the authority. The CPA system has since been abolished, and although some of its targets have survived in different guises, they do not contribute towards an overall performance assessment score for the municipality. Instead, the Conservative-Liberal Democrat coalition that came to office in 2010 has allowed local government to develop its own arrangements for monitoring progress on climate change. This has coincided with cuts in central grants that will total 27% of the 2009/10 levels by 2015/16 (Ferry and Eckersley, 2012), and meant that many councils no longer see the issue as a priority (Scott, 2011). The result has been that a number of municipalities (including Newcastle) have sought to devolve responsibilities for environmental and other services (such as libraries or leisure centres) to non-state organisations (interview 30). As one of the Newcastle interviewees acknowledged, this has potentially significant implications for policy delivery and public accountability:

I think increasingly we'll be faced with situations by the Council simply cannot deliver certain aspects of services that we have in the past, perhaps even whole services. So the funding will not be there, and increasingly our partnership working will be about working with organisations who can and want to maintain services, either in a particular area or across the city. And we will be working with them in an enabling, facilitation-type role, but not as a funder. And I think that's a very new way of working, because in a sense we will not be in control (interview 30).

Although Gelsenkirchen is also having to cope with severe financial constraints, it has been able to call upon other public bodies (most notably the *Bezirk* and neighbouring municipalities) for support and resources – and not had to rely on the voluntary or community sectors to act on its behalf. One reason for this is that third sector bodies just do not exist to the same extent in Germany (interview 27), partly because there is a much stronger belief that the state should provide public services and not divest itself of these responsibilities (interview 24). As such, the municipality in Gelsenkirchen, a multi-functional organisation, retains control over more services than in Newcastle – and is thereby more illustrative of a Type I approach to multi-level governance.

In contrast, the flexible and dynamic picture painted above, in which tasks are increasingly allocated to functional-specific bodies (whether in the public, private or voluntary sectors), suggests that Newcastle operates within a clear Type II multi-level governance framework for climate protection. Moreover, this model shows no signs of change, with the transfer of responsibilities to voluntary groups likely to accelerate over the medium term. In the last fifteen years, institutions have been created and then abolished, officials and organisations have changed responsibilities and the arrangements for monitoring local government's attempts to mitigate climate change have been substantially reformed. Gelsenkirchen is moving closer towards this model, away from the Russian doll image – in line with the hypothesis set out earlier – but it still operates within a far more rigid institutional framework.

Perhaps more importantly however, these findings demonstrate that multi-level governance can only be applied at a basic level: it only helps us to describe what arrangements are in place for governance to 'happen' within particular jurisdictions and thereby suggest units of analysis: by itself it does not assist us with that particular analysis. It cannot help us analyse institutional capacity, and even the two typologies presented do not give an indication about power relations and/or the extent to which Gelsenkirchen and Newcastle are able to operate autonomously of other tiers of governance. In other words, it does not provide the theoretical foundations for supporting the fact that the case study municipalities are able to call upon different levels of resources for developing and implementing policy, and therefore help us to understand which actors are most influential. For example, neither Type I nor Type II characterisations can help to explain the extent to which national or supranational institutions can shape local activity by attaching conditions to funding streams⁵. As a result, this analysis will need to draw on other theoretical approaches that allow for an appreciation of power relations between key actors. These perspectives will be incorporated into the framework at a later date.

Policy styles and climate change in Gelsenkirchen and Newcastle

This subsection analyses the climate change strategies of Gelsenkirchen and Newcastle in the context of typical policy styles that are associated with Germany and the UK. It highlights that these styles do appear to be apparent within the case study municipalities, and that Gelsenkirchen therefore adopts a more hierarchical 'government' approach, whereas Newcastle relies to a greater extent on horizontal 'governance' arrangements. However, it also finds that these polar perspectives are shifting, and perhaps converging towards some kind of hybrid model. This is due to an increasing realisation within Gelsenkirchen that external forces are influencing municipal capacity,

⁵ Interestingly, federal and *Land* funding for local initiatives are known as the "golden reins" Norton, A. 1994. *International Handbook of Local and Regional Government: A comparative analysis of advanced democracies*, Aldershot, Edward Elgar., which suggests that the recipients are sentient beings, even if their riders would like them to travel in a particular direction at a certain speed. This contrasts with the common English expression of having *strings attached* to funding, which implies that the donor can direct the actions of an unconscious recipient in the same way as a puppeteer controls a marionette.

and a frustration in Newcastle that a consensual approach to strategy development can be time-consuming and inefficient.

Policy style in Gelsenkirchen

The process of developing Gelsenkirchen's *Klimaschutzkonzept* (climate protection strategy) illustrated the extent to which the municipality relied on a traditional 'German' policy style. In particular, the document was developed by an advisory body of officials and politicians within the municipality and the energy supplier – local businesses or voluntary groups were not involved in these discussions (interviews 14 and 21). Officials did engage with other stakeholders in the city to try and persuade them to play their part in achieving the planned reductions in carbon emissions, for example by reducing their reliance on road transport. However, it is notable that this only happened *after* the strategy was adopted formally by the council.

Similarly, the idea of developing the city as a location for solar energy was developed from the 'top-down'. Although interviewees suggested that other German cities would take a more consensual approach to policy, this only serves to confirm the fact that Gelsenkirchen's strategy was very hierarchical – primarily due to political realities:

At this level it can be politically effective to speak about the issue of climate protection. But, as opposed to Freiburg or Tübingen, a large part of the people of Gelsenkirchen have completely different concerns (interview 24).

Freiburg is more 'bottom-up'... and here with us it's more 'top-down' (interview 19)

This hierarchical approach sits alongside an adherence to strict legal requirements within which municipalities and industry must operate, which is also characteristic of the German policy style. For example, Gelsenkirchen would have very little room for manoeuvre when processing a planning application for an installation that might have environmental implications:

If a company initiated something here, then questions about their emissions, or about noise, air, water and soil pollution would be administered in exactly the same way in Gelsenkirchen as in every other German city. There would be no differences. And the local authorities would administer it exactly like the state authorities, which are responsible for big industrial facilities. In that sense, politics is not permitted to allow for compromises (interview 24).

Furthermore, the decision to promote Gelsenkirchen as the *Stadt der tausend Sonnen* ("city of a thousand suns"), in direct contrast to its previous image of *Stadt der tausend Zechen* ("city of a thousand mines", (Jung et al., 2010)) illustrates another typically 'German' characteristic in environmental policy: the preference for state of the art solutions (see in particular Wurzel 2002). This was exemplified by the installation of what was then the world's largest solar power station of its type (210 kW) on the roof of Gelsenkirchen's new business park in 1996 (interview 19). This symbolised the municipality's belief that an ambitious approach, which sought to put renewable energy at the heart of the city's economic development strategy, could help to mitigate some of the problems of industrial decline. The business park initiative is all the more notable considering that it pre-dated the German federal government's decision to introduce feed-in-tariffs for renewable power generation, and therefore it did not appear that the PV panels would deliver a financial return:

The renewable energy law came a few years' later and more than a few people ridiculed us at the time... especially in the established energy industry (interview 19).

The city also sought to nurture the development of local renewable energy businesses to manufacture products in the supply chain, such as solar cells. The council's ultimate

objective was to transform the Gelsenkirchen area into a "Solar Valley" (interview 19), which would draw on the *Ruhrgebiet's* image of a location synonymous with energy production but place it in a modern, renewable context. As a result, the council initiated further high-profile projects to demonstrate its commitment to this strategy, most notably by promoting the development of solar housing estates, including the *Ruhrgebiet's* first such project in the in the Bismarck area of the city. This interventionist approach, which is also characteristic of the German policy style, was adopted initially for overwhelmingly economic reasons as part of Gelsenkirchen's re-branding strategy, but it chimed subsequently with the council's objectives on sustainability and climate protection.

The above discussion illustrates how the municipality in Gelsenkirchen was able to take a hierarchical approach to climate policy within the city, to the extent that neither public officials nor other stakeholders in the area questioned its leadership role and authority. It highlights the level of status that local government is able to enjoy, which has enabled it to rely on more traditional 'government' tools than Newcastle. Indeed, the earlier analysis of multi-level governance structures found that Gelsenkirchen is more constrained financially than most other German cities, which would suggest that, generally speaking, German municipalities have considerably more capacity than their English counterparts. As a result, it is much easier for them to take hierarchical leadership positions within the locality:

Municipalities in Germany have a very, very much stronger position than in Great Britain and therefore do not have to do so much with civil society. They do not have to work with other actors – at least at the moment (interview 27).

This analysis fits with other comparative research into local government in developed countries (Norton, 1994, Wollmann, 2004, Scherf, 2010), which emphasises the fact that most German municipalities have enjoyed a wide-ranging constitutional right to *lokale Selbstverwaltung* (local self-administration) since a Prussian ordinance was passed in 1806. In contrast, until 2011 all English municipalities were only permitted to undertake those activities that were specifically allocated to them in legislation – otherwise they risked acting *ultra vires* and could be taken to court and ultimately fined. Indeed, it is interesting to analyse the reasons why local government was created in both countries in the first place. Municipalities in Prussia (the state that came to dominate a unified Germany after 1871) were given the task of developing the country from the bottom-up and nurturing civic pride in the wake of the Napoleonic wars (Palmowski, 2002, Gerlach, 2010). In contrast, the British government created municipalities in order to tackle the public health crisis that developed as a result of poor sanitation and substantial rural-urban migration during the Industrial Revolution (Seeley, 1978, Aidt et al., 2010). The result was that every Prussian municipality had a strong executive (*Magistrat*), which focused on local leadership, economic development and civic education. Although the Victorian era is often cited as a 'golden age' for local government in England, the reality was that municipalities were led by a complex system of committees and ceremonial mayors that focused more on the management and delivery of public services within the locality (Wollmann, 2004, Bogumil and Holtkamp, 2006). This legacy of German municipalities as playing a more *political* role than their English counterparts has continued to the present day, and helps to explain the different governance approaches taken by Gelsenkirchen and Newcastle. Indeed, substantial challenges to the autonomy of local government in the UK since the 1980s have exacerbated the distinction, without necessarily placing it within this historical context (Blair, 1991).

However, officials within Gelsenkirchen have begun to appreciate that they need to engage more with local actors in order to achieve their objectives, and therefore the traditional German policy style appears to be changing. This may be particularly

apparent in the context of climate governance, but also fits into a wider picture of attempts to increase democratic participation: a federal law of 1994 required municipalities to consider petitions that are signed by a certain percentage of the population (Kost, 2010). In Gelsenkirchen, the desire to engage with local people reflects a wish to garner public support for the city's regeneration plans (interview 19) and was exemplified by the idea of promoting solar housing estates. These were seen as a mechanism to involve citizens in the strategy (Jung et al., 2010), and led to the creation of a local citizens' group to represent the Bismarck community (Jeromin and Karutz, 2010).

More importantly however, officials in the municipality recognised that the behaviour of businesses, voluntary groups and private citizens across the city contributed towards carbon emissions. As a result, it needs to persuade stakeholders to support its *Klimaschutzkonzept* target of a 25% reduction in carbon emissions by 2020 – otherwise this objective will not be achieved. One such group of actors are landlords: the municipality is trying to encourage energy-efficiency improvements in private housing, but this is a considerable undertaking in a city where only 16% of homes are occupied by their owners and many properties are owned by hedge funds or companies listed on the stock exchange (interview 14).

This challenge to hierarchical 'government' suggests that the traditional policy style is being re-shaped by an acknowledgement that traditional approaches will not deliver the policy objective. Since 1987, Gelsenkirchen has provided advisory 'helpline' services to local businesses and residents to help them introduce changes that would help to achieve climate objectives (interview 15). Although this service still exists, the city has begun to take a more active approach to initiating behaviour change, including marketing campaigns to inform households and businesses that they would benefit from feed-in tariffs if they installed PV panels (interviews 19 and 24). In 2012 it organised a climate conference and invited key actors from across the city to share ideas: an event that it hopes to repeat in 2015. The result is that officials have now developed a large network of individuals from the private sector and neighbouring municipalities who have interests in the sector (interview 20).

The *Klimaschutzkonzept* lists numerous other examples of how the municipality is hoping to persuade stakeholders within Gelsenkirchen to change their behaviour. They include: encouraging cycling through a rent-a-bike scheme along the lines of the 'Boris Bikes' of London; a more co-ordinated campaign to encourage people to use public transport and car-sharing schemes, including real-time updates to bus, train and tram timetables; and a tool on the municipal website that allows householders and businesses to calculate the financial viability of installing solar panels, based on their property's north-south orientation and the existence of trees or other buildings that may cast a shadow over the roof. These all illustrate a growing reliance on 'governance' tools, as the municipality recognises that it needs to work with other societal actors in order to achieve its climate objectives.

Indeed, interviewees stressed that they viewed the *Klimaschutzkonzept* as a living document: if external actors suggested that the city should endorse other initiatives that would contribute towards climate protection, then they should be also incorporated into the strategy (interview 20). As such, the prescriptive and structured framework that is typically associated with German regulatory policy is being replaced by a more flexible and dynamic approach that emphasises the importance of policy outcomes rather than processes. In other words, this aspect of the typical German policy style appears to be weakening – at least in the context of Gelsenkirchen's climate change strategy – if indeed it ever manifested itself in reality.

In addition, Gelsenkirchen's nascent solar manufacturing industry did not take off to the extent that was initially hoped. Although Shell opened a solar cell factory in the city in the late 1990s, the company relied on its existing multinational supply chains rather than local businesses (interview 19) and, due largely to the lower price of Chinese competitors, the last solar module manufacturer left the city in the summer of 2012. Global economic forces proved far more powerful than the city of Gelsenkirchen and its dream of a Solar Valley in the *Ruhrgebiet*. As a result the municipality reappraised its strategy, but nonetheless still emphasised the idea of Gelsenkirchen as a forward-looking "city of a thousand suns":

We have to reinvent and reinterpret that. And I think the best interpretation would be that we cannot be an *industrial* cluster at the moment – even the whole of Germany or the whole of Europe cannot be an industrial cluster. Instead we could be an *applications* cluster, in particular with these solar housing estates, of which we now have four (interview 19).

In retrospect, interviewees acknowledged that the municipality should have taken a more collaborative approach to developing its strategy. Although they recognised that the demographic structure of Gelsenkirchen means that most residents do not consider the environment to be a priority, they do feel the municipality could have done more to promote its vision to nurture civic pride and local identity:

I think that is one of the things that we have learnt in the last twenty years or so – that you always need allies... There are some people who would say, "Oh, yes, solar city! At least there we are back on top!" But it is still a difficult task to communicate this issue to people who are outside leadership circles (interview 19).

Once again, this illustrates how Gelsenkirchen's traditional hierarchical approach to governing is being challenged by the reality that its climate protection policies require the support of local residents in order to be effective. Similarly, the outsourcing of municipal utilities, which was discussed in the previous subsection on multi-level governance, has led to the city needing to work with the other partners in ELE in order to achieve other objectives. For example, together with the other two municipalities that have a share in the energy company (Bottrop and Gladbeck), Gelsenkirchen was able to include a clause in the most recent contract for providing energy to the three cities that requires ELE to increase its reliance on renewable electricity by up to 20GWh per year by 2020 (interview 20). Although the risks associated with re-municipalising energy provision may be very high (interview 24), it can still be raised as an option during contract negotiations and thereby serve as an example of the state casting its "shadow of hierarchy" (Héritier and Lehmkuhl, 2011) over market actors. In contrast, the UK energy sector has been wholly privatised and the prospect of local (or even national) government asserting significant control over gas and electricity provision is extremely unlikely. Therefore, although Gelsenkirchen's capacity for hierarchical climate governance may have been reduced in recent decades, it remains in a much stronger position to instruct other actors than Newcastle.

Another aspect of the German policy style that has changed in recent years is the desire to implement 'state of the art' solutions. As discussed earlier, Gelsenkirchen was at the forefront of promoting solar energy in the 1990s, ensuring that the world's largest PV installations was put on the roof of the business park and overseeing the *Ruhrgebiet's* first solar estate between 1999 and 2001. Since then however, the municipality's financial situation has worsened considerably and all investments now require a business case in order to be approved. Most notably, the environment and climate change team had to bid for €750,000 from the council in order to fund the initiatives set out in the *Klimaschutzkonzept* – and they were conscious that this bid would need to emphasise how the strategy would deliver economic benefits to the city:

The evidence to support the funding bid was important. We did not rely on the climate protection arguments, instead we said “basically, climate protection is also economic development”. Why? Because if we invest in building retrofits, for example, or new heat pumps, or energy efficiency programmes in other areas, then that means, basically, a certain proportion of that money will flow into the local economy (interview 20).

This retreat from a preference for state of the art solutions is also apparent at the regional level. Most notably, applications for *Bezirk* funding to finance kindergarten refurbishments were only approved in 2008 and 2009 if the renovated properties would meet higher standards of energy performance than those that were stipulated at the time for new build properties. Three such projects were approved in Gelsenkirchen during this period, out of a total of 18 within the Münster region. The *Bezirk* authorities considered the most important part of any application to be the projected energy performance of the refurbished building, to the extent that “it was not important, how economic the project was” (interview 26). This stipulation was removed from 2009 onwards, once the severe impact of the global financial crisis became apparent and after its objectives were largely incorporated into a new federal law that requires any refurbished property to meet the same energy standards as a new building (interviews 22 and 26). Nonetheless, funding bids are now also assessed against financial considerations and the climate protection regulations are much less prescriptive, stating only that “programmes should promote... measures to reduce CO₂ emissions and increase energy efficiency, including the use of renewable energies”⁶ (Paragraph 2.5).

Similarly, the city of Gelsenkirchen has introduced a new internal regulation that means photovoltaic panels will only be installed on public buildings if they will deliver a financial return within ten years – and this will only be done when the buildings are in line for refurbishment. Although there was pressure from outside the council for it to set its sights higher and ensure that public buildings also reached *Passivhaus* standards following any refurbishment, this would be “financially impossible” for the cash-strapped municipality (interviews 22 and 24). This acceptance that sustainability investments should consider financial implications, which Wurzel (2002) refers to as “best available technology not entailing excessive costs”, is a clear shift away from the reliance on state of the art solutions that was characteristic of the German policy style in the 1980s (Dyson, 1982). Nonetheless, there is still a strong belief in the principle that any refurbishment should take account of sustainability implications: therefore the council has stipulated that any buildings that are not suitable for solar panels should be given a green roof when they are refurbished. As such, although the principle of adopting state of the art solutions has weakened and financial considerations have become more important, Gelsenkirchen still relies on high uniform standards for climate protection policy in this area.

Policy style in Newcastle

As might be expected, Newcastle’s strategy for climate protection has included many more characteristics of the English policy style compared to that of Gelsenkirchen. The city has a greater reliance on non-state actors and solutions that are flexible and more cost-effective financially. In particular, it sought to develop a much broader coalition of actors from across the city to help in developing its strategy and overseeing its implementation. Officers in the municipality put together Newcastle’s climate change strategy and action plan in the late 2000s, but they relied on ideas and input from other members of the city’s climate change partnership, including the universities, hospital, police force, transport authority and some community groups. The drafting process also

⁶ „Im Rahmen integrierter Gesamtkonzepte sollen dabei Maßnahmen zur Verringerung der CO₂-Emission und zur Steigerung der Energieeffizienz einschließlich des Einsatzes erneuerbarer Energien... gefördert werden.“

included formal consultations, with senior officers considering whether ideas from the public could be included (interview 31). Both municipalities have adopted similar approaches to marketing their respective strategies after publication, with one officer in each city spending a considerable amount of time presenting their plans to a range of external stakeholders. However, although not all of the public's suggestions were adopted in Newcastle, its process of developing the strategy contrasts sharply with that of Gelsenkirchen, where the only contributors to the *Klimaschutzkonzept* were either officers or politicians from the municipality, and non-state actors in the city did not get to see the plan until it was published.

The climate change partnership was replaced by a Greening Newcastle body following the election of a Labour council in 2011. One reason for its abolition was that members increasingly sent junior representatives along to meetings, which reduced its decision-making capacity to that of a "talking shop" (interview 31). Initially, the Greening Newcastle body acted as a front for the city's application to be the European Green Capital bid in 2012, and it involved senior executives from a range of public, private and voluntary organisations. However, the group became less important after the Green Capital bid was unsuccessful: it has not met since October 2013 and resource constraints amongst several partners mean there are currently no plans to resurrect it in the near future.

Nonetheless, Newcastle still uses other mechanisms to involve wider stakeholders in policy-making, most notably through open "Green Cabinet" meetings, which allow individuals from across the city to listen to and question local politicians about the council's environmental policy (Newcastle City Council, 2013). It has also engaged actively with major employers in the city to encourage more sustainable travel, and supported behavioural change where necessary. For example, the municipality has installed electric vehicle charging points near to large offices, in response to demand from some businesses (interview 8). It is also working with retail, business and commercial units in the city centre to develop a shared service that would reduce the amount of traffic travelling into Newcastle by ensuring that they use the full capacity of delivery vehicles on each journey (interview 4).

Moreover, not only does Newcastle engage with wider actors on the issue and rely on them to deliver low-carbon objectives, but it also gives voluntary and other groups explicit responsibility for helping to get the message out even further. For example, much of the marketing and engagement work for promoting sustainable transport involves voluntary groups that have been active in this area for a number of years. The Tyne and Wear metropolitan area (a conurbation of over one million people that also includes the municipalities of North Tyneside, South Tyneside, Gateshead and Sunderland) received £4.9m in Local Sustainable Transport Fund (LSTF) in central government funding to help get the message out – and one interviewee viewed the involvement of wider organisations as being particularly beneficial:

Because of LSTF, it brings everybody together, all the partners. Because it's not just local authorities, it's companies like Sustrans, BikeRight, Living Streets, Nexus the integrated transport authority. It's everybody who has a vested interest in transport, it's all as a partner within the mix. We've got consultants involved, we've got a framework contract where we can call-off advice from everyone (interview 8).

As discussed earlier, Newcastle enjoys less autonomy and capacity than Gelsenkirchen, with private sector actors in the city able to exert more power in local governance arrangements. One interviewee recognised this, and the fact that it means Newcastle has had to adopt a more consensual approach to climate change policy:

I think at a very basic level, we can't tell the big partners what to do... There are certain strategic powers that we can use around transport planning and cycling and planning generally, and we're seeking to do that, and all of that has an impact on partners. But that's something that we – and this is just my view – we cannot, particularly given the very fragile state of the recovery of our economy locally and nationally, we can't just go in very heavy-handed on that. So there's a real balancing challenge there around how we use our strategic powers to further the green agenda, whilst at the same time taking businesses with us and making sure that the recovery that we're starting to see in the city is not just killed off by some very heavy-handed policies (interview 30).

Crucially, although senior officers in Gelsenkirchen also acknowledged that the municipality could not introduce far-reaching policies on climate change, these constraints were attributed to *political* rather than *economic* realities. In other words, Gelsenkirchen is more concerned about how such policies might influence local voters, rather than maintaining the support of local businesses. Although there is doubtless a significant overlap between these two groups, this distinction nonetheless illustrates that the German municipality has a stronger position *vis a vis* other major actors in local governance arrangements – even if it still has to take account of public opinion. It also highlights the fact that it views itself as playing a more democratic and representative role, rather than focusing on working with business to boost the local economy:

A politician who came out strongly on climate protection here would not do well at the next election... The policy is always a bit further advanced than the average voter, but it cannot lose touch from them. In my view, the policy in Gelsenkirchen is where it is able to be... That means that we don't prevent people from driving into the city centre. But we do do other things: we promote cycling and we provide very good local public transport (interview 24).

In addition, the financial situation is extremely tight for many English municipalities – particularly for those in the north that have smaller tax bases and therefore are more dependent on central grants that have been cut significantly since 2010 (Ferry and Eckersley, 2012). This has accelerated the process of Newcastle devolving responsibility for some public services to voluntary groups – and thereby represents another way in which the wider community is involved in the city's climate change strategy. Indeed, Newcastle's objective of developing a "broad coalition" across the city for climate protection and sustainability fits very closely with a traditional English *governance* style and contrasts sharply with Gelsenkirchen's hierarchical *government* approach. Interestingly, leading politicians in Newcastle had been keen to develop this coalition before they took office, when they were unaware of the full extent of the financial problems they would face:

It was very much a core part of their manifesto when they were fighting to take over the council in the 2011 elections. And at that point we knew there were big financial challenges, but we didn't, at that point, we didn't fully realise how big they were... This would have been core Council policy, whatever the financial challenges. It's something that the Leader and the Cabinet believe in very much. The budget challenges mean that we have to increase the pace around this. And the budget challenges mean that we simply don't have a choice – this isn't something that we'd like to do, this is something that we must do if we're going to preserve public services, because the Council simply won't have the money to do all of those things. It just necessitates getting local residents more involved (interview 30).

The financial problems have influenced other aspects of Newcastle's approach to climate governance. For example, it has increased the need for any solutions to be cost-

effective, and thereby fits even closer with the classic characterisation of the British policy style. Perhaps more importantly however, it has also encouraged the council to bid for a range of external funding sources, even if the conditions of any grant might not fit comfortably within its existing strategy. For example, as central government funding streams for climate protection have diminished, Newcastle's focus has shifted slightly towards mitigation, where more money is available (interview 12). As such, the climate change strategy has had to be dynamic and flexible in order to take account of different contextual circumstances and the fact that the municipality is heavily dependent on resources from elsewhere. Once again, this shows how the city's governance approach is congruent with that of the British policy style.

However, Newcastle (and indeed the UK more generally) has moved away from its "typical" policy style in one notable area of climate protection. This relates to a focus on quantitative targets for greenhouse gas emissions, rather than the impact of climate change on public health. Like Gelsenkirchen's *Klimaschutzkonzept*, and in line with the EU's Covenant of Mayors agreement, Newcastle's climate change strategy includes an explicit target to reduce the level of carbon dioxide emitted from the city by over 20% between 2005 and 2020 (Newcastle City Council, 2010). This overall figure is broken down into various work streams, each of which has its own target for carbon reduction. Indeed, the level of carbon dioxide equivalent emissions has become the most important indicator of progress on climate mitigation across tiers of governance, from the local to the global, beginning with the UN's Kyoto Protocol in 1997 and also including the EU's Covenant of Mayors (to which both Gelsenkirchen and Newcastle are signatories). At the UK national level it is illustrated most starkly in the 2008 Climate Change Act, which committed the country to a reduction of 80% in greenhouse gas emissions by 2050 (UK Government, 2008). This focus on quantitative targets is probably because it is easier to measure the level of carbon emissions than their impact: it is notoriously difficult to find a causal link between a single spate of bad weather and an increase in the concentration of greenhouse gases in the atmosphere. Nonetheless, it illustrates how one typical aspect of the British style has changed within this policy sector – in Newcastle and indeed across the UK.

In parallel with this however, and as extreme weather events have appeared to become more common, climate change adaptation has also become more of a policy priority, both within Newcastle and elsewhere in the UK. Climate North East, a third sector organisation that tries to raise awareness of climate change within the region's business and wider communities and receives some of its funding from local government, has shifted its focus away from encouraging behavioural change and towards providing advice on dealing with flooding, storms and heatwaves (interview 12). By helping property, businesses and individuals to cope better with extreme weather events, a focus on adaptation helps to reduce the impact of climate pollution on human wellbeing, rather than necessarily reduce the amount of pollutants that are emitted. As such, the increasing importance of adaptation demonstrates how the traditional British policy style remains very much alive in the area of climate change – and may even become predominant in future, particularly if global temperatures increase by more than two degrees Centigrade, the level at which climate scientists have predicted could trigger "runaway" climate change.

Conclusions: changing governance models for climate strategy in Gelsenkirchen and Newcastle

As this article has shown, the institutional framework and policy styles that would be typically associated with Gelsenkirchen and Newcastle have largely been present in both

municipalities' strategic approaches to climate change. However, both the multi-level governance arrangements and the policy styles appear to be changing slightly, particularly in Germany. As far as the institutional structure dimension is concerned, Type I multi-level governance still appears to be dominant in Gelsenkirchen, in that the municipality operates within a constitutional framework that means it sits 'below' the *Bezirksregierung* of Münster, the *Land* of North Rhine-Westphalia and the German federation. However, increasing liaison with other organisations outside this framework (including other *Ruhrgebiet* municipalities that may be located in different *Bezirke*, landlords or major local businesses), as well as the creation of various purpose-built bodies to carry out specific tasks, have challenged this "Russian doll" image and highlighted the fact that the governance picture is not as clear as it may appear at first. In England, various regional institutions have come and gone in recent decades, and the overall subnational governance framework remains in flux – partly due to the lack of a codified constitution to guarantee the continued existence of any public body. As such, a dynamic and flexible arrangement, characteristic of Type II multi-level governance, has remained in place for Newcastle.

The investigation into policy styles found that decision-makers and bureaucracies in Gelsenkirchen and Newcastle did tend to rely on the "standard operating procedures" (Richardson 1982) that are associated with their respective countries. However, it also highlighted the fact that economic pressures, together with the realisation that climate change is a "wicked problem" that the state cannot solve alone, have caused these governance approaches to shift. Although Gelsenkirchen can and still does rely on more hierarchical mechanisms to implement its policies, whereas Newcastle has sought to develop a broad coalition of stakeholders from across the city, their positions are converging to a certain extent. In particular, Gelsenkirchen has sought to engage more with wider stakeholders to persuade them to change their behaviour and support the municipality's climate strategy. Nonetheless, Gelsenkirchen continues to take a more state-centred, 'government' approach to its climate change strategy than Newcastle – partly due to the legacy of local government in Germany having a more active political role than in England. Capacity issues, coupled with political convictions about the most effective means of achieving objectives, have resulted in Newcastle seeking to build a broader coalition of stakeholders to input into the city's strategy and take it forward, and meant that the council has not assumed such a leadership role. This reliance on other actors locates it closer towards the 'governance' end of the spectrum.

These findings have implications for other policy sectors, particularly those that include "wicked" policy issues that are disrupting traditional operating procedures, as decision-makers seek to identify the most effective way of achieving objectives and tweak governance arrangements accordingly. They also raise a number of normative issues around democratic accountability – at any level of government, not just the municipality – which would be of interest to political theorists. This is because power is being exercised increasingly by private companies rather than elected officials, and therefore it is questionable whether decisions are being made in the public interest, even if 'governance' approaches offer the most effective means of achieving political objectives.

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