The role of state actors, policy and agency in development path creation:

Evidence from the English Midlands

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Abstract

The central research questions addressed by this body of work are: (1) How can new paths of local and regional economic development be created? (2) What is the scope for state and individual actors and policy intervention to influence the path creation process? (3) How do these factors relate to contingencies specific to places at particular times?

The body of work under review comprises eight peer reviewed academic papers published between 2013 and 2021. This research is united by the substantive focus on the role of local/regional actors in economic development, the role of policy intervention and their respective influences on the process of path creation. Each paper is also in some way informed or motivated by the author's experience as a practitioner working in a variety of economic development roles in the English Midlands.

Early papers in the series focus on the changing practice of economic development in the Midlands after 2010 and the consequences of this changing practice for the development and policy content of economic strategies. Subsequent papers maintain this spatial focus, while using a number of case studies to explore the role of policy intervention and institutional and individual agency in the path creation process.

This focus on the path creation process in economic development firmly locates this body of work within evolutionary economic geography, but it is notable for drawing on a wider range of conceptual and theoretical underpinnings derived from political science, institutional analysis, public entrepreneurship and economic geography and related fields of enquiry. The rationale for this blend of conceptual underpinnings is the need to better integrate the role of human and institutional agency into accounts of the path creation process. In terms of method, the body of work combines qualitative and quantitative approaches to primary data collection with historical documentary analysis and the use of participant observation.

Academic contributions are made in relation to the combination of research methods employed; the application and synthesis of the theoretical perspectives utilised to develop a new model of path creation in economic development; and, empirically, in relating to the economic development of the post-industrial Midlands.

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List of Acronyms

CA Combined Authority

DTI Department for Trade and Industry

D2N2 Derby, Derbyshire, Nottingham and Nottinghamshire Local Enterprise

Partnership

ED Economic Development

EMDA East Midlands Development Agency

HMG Her Majesty's Government

HMT Her Majesty's Treasury

LA Local Authority

LEP Local Enterprise Partnership

MSF Multiple Streams Framework

RDA Regional Development Agency

RES Regional Economic Strategy

RI ResearchGate research interest metric

ROAMEF Rationale, Objectives, Appraisal, Monitoring, Evaluation, Feedback

SRE Strategy, Research and Evaluation

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1. Introduction

The central research questions addressed by this body of work are:

RQ1 How can new paths of local and regional economic development be created?

RQ2 What is the scope for state and individual actors and policy intervention to influence the path creation process?

RQ3 How do these factors relate to contingencies specific to places at particular times?

This body of work comprises eight peer reviewed academic papers published between 2013 and 2021. These papers in turn draw on a number of contract research reports that are listed in Appendix 1. Frequently papers (individually or collectively) have addressed some or all of these questions, but particular papers have also placed greatest emphasis on individual research questions listed above. The later sections note where the research questions (as numbered above) are addressed in different ways.

This research is united by the substantive focus on the role of local/regional actors in economic development, the role of policy intervention and their respective influences on the process of path creation. Each paper is also in some way informed or motivated by my experience as a practitioner working in a variety of economic development roles in the English Midlands. Reviewing these papers with the benefit of hindsight, it is clear that they also represent something of an intellectual journey; a journey that has moved from an initial concern to document the changing nature of economic development practice in the Midlands to an investigation of the path creation process and the role of policy and agency in influencing the economic development trajectories of localities and regions.

The first two papers published in 2013 and 2016 focus on the changing practice of economic development in the Midlands and the consequences of this changing practice for the policy content of economic development strategies. Subsequent papers maintain this focus on the economic development of the English Midlands, while using a number of case studies to explore the role of policy intervention and institutional and individual agency in the path creation process. Although not originally planned as such, this body of research

has, in its essentials, followed a route not uncommon to large empirically-grounded research projects. The starting point was to build evidence of what had changed, what was possible or not, before using this evidence as the empirical basis to develop theoretical insights into the path creation process and identify practical policy implications. While this does necessarily represent something of a *post hoc* rationalisation, it lends weight to the contention that these papers comprise a coherent body of work united by both their theoretical underpinnings and substantive focus.

This focus on the path creation process in economic development firmly locates this body of work within wider research often referred to as evolutionary economic geography (see for example Martin 2010, Kogler 2015). Kogler summarises the essence of this perspective:

"...it is believed that experiences and competencies acquired over time by individuals and entities in particular localities to a large degree determine present configurations as well as future regional trajectories." (Kogler 2015: 705)

It is in relation to the origins of these 'future trajectories' that we must address the path creation process – i.e. how and why do new paths of economic development emerge in particular localities and at particular times? Indeed, Neffke, Henning and Boschma (2011: 241) specifically identify the path creation process in regions like the English Midlands, that have been the location of declining industries, as amongst the most complex and challenging questions to be addressed in this field. Similarly, Hassink (2010) has highlighted the importance of avoiding path dependency that may result in lock-in in 'old industrial areas.' More specifically, Dawley et al (2015: 257) have called for more 'theoretically informed and empirically grounded research' in order to better understand and explain the path creation process. These are precisely the types of challenge that this body of work has sought to address.

In addressing the path creation process as described by authors associated with evolutionary economic geography, this body of work draws on conceptual frameworks derived from political science, institutional analysis, public entrepreneurship and economic geography. The rationale for this particular blend of conceptual underpinnings is the need to better integrate the role of human and institutional agency into accounts of the path creation process as called for by authors such as Davies and Msengana-Ndlela (2015) and Sotarauta and Suvinen (2018). Previous accounts of the path creation process have emphasised the path dependent character of economic development. As a result, they have been criticised for being excessively passive and/or deterministic in their treatment of

these processes (Martin 2010) – tending to emphasise the structural drivers of such evolution to the exclusion of human agency. This research has purposefully used these diverse conceptual underpinnings in order to fashion an account of path creation that strikes a better balance between structural considerations and human agency. These perspectives are also used to construct a more comprehensive approach that facilitates an enriched understanding of economic development issues and initiatives in local and regional contexts. This is, in essence, the fundamental academic contribution made by this assemblage of papers as a collective body of work.

In terms of method, this body of work combines qualitative and quantitative approaches to primary data collection. Historical documentary analysis is also employed. It is important to acknowledge the positionality of the author as a former economic development practitioner in the Midlands. Aspects of this research are clearly informed by the observations and experience of the author when operating in this professional context. It is not unreasonable therefore to characterise this body of work as an exercise in mixed methods research. Indeed, it can be argued that this range of research methods was necessary if the research questions outlined above were to be adequately addressed.

2. Overview of Academic Contribution

This body of work makes a number of academic contributions to the study of local and regional economic development with a particular focus on the English Midlands. This part of England represents as near to a perfect example of an 'old industrial area' as one could hope to find. It is a spatial unit within which manufacturing and other traditional industries have been in long term decline (in terms of employment) since the 1960s. Several of the papers within this body of work explicitly address the consequences of this deindustrialisation (see for example Rossiter 2016, Smith, Rossiter & McDonald-Junor 2017, Rossiter and Smith 2020, Yates, Clark and Rossiter 2021) and opportunities for renewal such as the emergence of a regional bioscience cluster. As a relevant areal unit, the English Midlands is also characterised by sufficient variety to allow for investigation that is informed by the specific cases but can also allow for generalisation: it includes old manufacturing towns and cities, former coalfields communities, large swathes of rural hinterland, large and small agglomerations of economic activity at a variety of spatial scales, and a diversity of administrative and governance structures.

While the substantive focus of this research is primarily the English Midlands, comparative material from across the UK and Europe is used to inform the analysis and test the extent to which findings may be more generally applicable. This section will briefly outline the nature of the academic contributions made before they are elucidated in greater depth in subsequent sections of this critical review.

2.1 Contribution to methods

This research is best regarded as an example of mixed-methods research. Mixed-methods research is generally considered to be a methodological approach that seeks, pragmatically, to combine aspects of quantitative and qualitative methods in pursuit of "breadth and depth of understanding and corroboration" (Johnson, Onwuegbuzie and Turner 2007:27). Indeed, the author would assert that this diversity of method is necessary if the aims of this body of work as a quasi-large and empirically-grounded project are to be met.

The research also has a strongly reflexive character in that the author has been and remains an active participant in the domain of practice that represents a central focus of this work¹. The concept of reflexive research practice has been widely applied to domains

¹ The author worked for the East Midlands Development Agency between 2001-2011. His final role was as Head of Strategy and Regional Affairs responsible for preparation of the Regional Economic

of social scientific enquiry such as education studies, entrepreneurship and management, social work, sociology and social psychology – but has rarely been acknowledged as integral to the research process in studies of regional and local economic development (Hammersley and Atkinson 2019, Sklaveniti and Steyaert 2020).

Secondary data collated from official sources are analysed in order to identify the trajectories of development of the local and regional economies that form the substantive focus of this work (Rossiter 2016, Smith, Rossiter and McDonald-Junor 2017, Yates, Clark & Rossiter 2021). Primary data derived from interviews with key informants and business surveys are also utilised (Smith, Rossiter & Mcdonald-Junor 2017, Rossiter & Smith 2020). Analysis of historical documents is undertaken in order to shed light on the longer-term development of the local and regional economies that form the focus of this study and associated institutional capabilities (Rossiter & Smith 2017) in addition to the policy content of economic development strategies themselves (Rossiter 2016).

The author has also utilised direct observation of the strategy development process in economic development both as a source of primary data and to help identify themes of relevance to practice that have then been the focus of subsequent research (Rossiter & Price 2013, Rossiter 2016). The opportunity to use observation within this body of research was afforded because of the author's previous professional status within the Midlands and his ongoing participation in this sphere of activity as an academic often called upon to advise local and regional organisations involved in economic development.

The author's role as a participant observer (Hammersley & Atkinson 2019) has provided unique opportunities to gather data on the evolving practice of economic development in the Midlands but has also presented challenges. These challenges are principally related to managing the evident positionality of the author due to his active participation in the sphere of practice that is the object of study. Indeed, this challenge represents an important rationale for use of the mixed methods approach. Insights drawn from observation are tested against evidence from the other sources noted above. Insights gained from practice are in turn used to inform the interpretation of data drawn from other sources. One anonymous reviewer of Rossiter 2016 for *Local Economy* specifically

Strategy and its underpinning evidence base. He has subsequently been engaged to provide research inputs and policy advice to a number of local authorities, local enterprise partnerships, and other public and private bodies involved in economic development.

highlighted the way in which the positionality of the author had been addressed as a strength of the paper:

"A very interesting paper from the perspective of reflective practice... It provides an up-to-date and uncommon perspective on a crucial area of economic development practice." ²

While none of these methods can in themselves be regarded as novel, their combination, coupled with the emphasis on the use of insights drawn from participant observation to inform interpretation, can be regarded as novel in this field of study and allows the achievement of the overall project of work that collectively answers the three research questions outlined above. It can also be argued that the author's perspective as a participant observer is particularly useful as a means of gaining insight into the scope for agency to influence path creation (RQ2). As a participant, the author has direct experience of both the levers available to actors involved in these processes and the constraints that in turn act upon them in limiting the scope for and effect of action.

2.2 Conceptual contributions

When reviewing this body of work as a whole, it is possible to identify a number of conceptual contributions to existing knowledge. Firstly, this is the first research to the author's knowledge to have applied Kingdon's Multiple Streams Framework (1984) to the study of regional and local economic development (Rossiter & Price 2013, Rossiter & Smith 2020). A second conceptual contribution made by this research is the synthesis of insights from the study of political science, place leadership, public entrepreneurship and economic geography (Rossiter & Smith 2017, Smith, Rossiter & Mcdonald-Junor 2017). The third conceptual contribution made by this work relates to the way in which these insights have been used to develop a new model of path creation in economic development (Smith, Rossiter & Mcdonald-Junor 2017).

Taken together, these contributions have enabled a model of path creation to be developed that strikes a better balance in recognising the respective roles of structural factors and human agency in this process. Furthermore, the resulting model of path creation has specific implications for regional and local economic development policy and practice.

² Anonymous reviewer's comments 7th May 2015.

2.3 Empirical contributions

Viewed from an empirical standpoint, this research extends our understanding of the practice of economic development in the post-industrial Midlands. Furthermore, this research explores through a series of empirical case studies, the way in which the agency of state and individual actors interacts with policy intervention and structural factors to effect path creation in specific spatial contexts.

This research has also served an important secondary purpose in documenting the changing practice of economic development in the context of a period of history characterised by significant institutional turbulence. The papers included in this research document and explore spatial development paths over an extended period of time. They also have a particular relevance to understanding the ways in which economic development practice has been affected by the creation of Regional Development Agencies in 1998³, also their subsequent abolition and replacement by the patchwork of Local Enterprise Partnerships and pan-regional initiatives such as the Midlands Engine. These institutional changes are regarded as examples of state rescaling – a particular focus of Rossiter (2016) and Green and Rossiter (2019) (Appendix 1).

2.4 Impact of the research

This research has clearly been informed by practice, but it is also noteworthy for having influenced practice in local and regional economic development both within and outside the English Midlands. Indeed, the relevance of this research to practice is reflected in the nature of the journals in which this body of work has been published. Journals such as Local Economy (the journal of the Local Economy Policy Unit) and European Planning Studies straddle the divide between research and practice – attracting readers from both the academic research and practitioner communities.

The author's ongoing commissioned research activity (see Annex 1 for relevant examples) has demonstrated the acknowledged relevance and value of his contributions to practitioners in economic development, but it has also directly informed the research itself. It has ensured that the author's research agenda is responsive to the practical concerns of individuals and organisations involved in local and regional economic development. Continued citations of the research in policy documents and strategies produced by these kinds of organisations, demonstrates both the utility and impact of the research within the

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³ Regional Development Agencies Act 1998.

sphere of practice that forms the primary field of study (see for example Nottingham City Council 2012, D2N2 2013 and 2016, Midlands Engine 2020).

This body of research has formed the basis of direct contributions to strategy development and policy formulation at a variety of spatial scales in the Midlands and beyond:

Nottingham City Council, Nottinghamshire County Council, D2N2 LEP and the Midlands

Engine Partnership. This is illustrated in the case of the D2N2 LEP by the quote below:

"Nottingham Business School (NBS) researchers, led by Will Rossiter, have regularly undertaken research that has directly contributed to the activities of the LEP since it was first established. This input has taken a number of forms over the years encompassing commissioned research, workshop facilitation and economic briefings on a range of topics relating to LEP responsibilities..."

And in the case of the impact on practice across the wider English Midlands:

"Since 2016 these contributions have encompassed policy advice, technical input to the development of monitoring and evaluation strategies, contributions to the first Independent Economic Review of the Midlands (2020) and assessments of the impact of the Covid-19 Pandemic on the economy of the Midlands.

As a core partner in the delivery of the Independent Economic Review, NBS research has played a central role in the identification of strategic priorities for public investment in the Midlands. This research has also been instrumental in shaping the strategic rationale for public intervention at the spatial scale of the Midlands. These contributions to the regional evidence base have also shaped the soon to be published Government Strategy for the Midlands and are now directly informing recovery planning in the wake of Covid-19."⁵

From a more traditional academic perspective, the influence of this body of work is growing. ResearchGate⁶ currently lists 80 citations for papers included in this series and in excess of 1900 reads. The ResearchGate research interest metric (RI) has been steadily increasing and now stands at a level higher than 59% of ResearchGate members whose first publication was in 2013 and higher than 60% of those with interests in Economic

⁴ Letter from Sajeeda Rose, then CEX, D2N2 LEP.

⁵ Letter from Rachel Greenwood, Director of Midlands Engine.

⁶ https://www.researchgate.net/profile/Will-Rossiter/stats

Geography. Google Scholar⁷ identifies a total of 133 citations associated with this body of work, of which 114 date from 2017 or later.

2.5 Coherence of the body of work

The coherence of this body of work is evident in the methods employed, the influence of the author's practice in identifying objects of study and the interpretation of evidence, the common focus on the English Midlands at a variety of spatial scales and also their shared focus on the fundamental research questions noted above.

Figure 1. Mapping papers to research questions

Paper	RQ1 Path	RQ2 Actors	RQ3 Place
	Creation	and Policy	Specific
			Contingencies
Rossiter & Price 2013		✓	
Rossiter 2016		✓	✓
Smith, Rossiter & McDonald-Junor	✓	✓	✓
2017			
Rossiter & Smith 2017	✓	✓	✓
Rossiter & Smith 2018	✓	✓	✓
Disney, Rossiter & Smith 2018			✓
Rossiter & Smith 2020	✓	✓	✓
Yates, Clarke & Rossiter 2021		✓	✓

Source: Author

It is not the case that every paper addresses every research question and the emphasis placed on particular research questions varies across this series of papers. As a body of work, they have a unity and coherence that flows from these shared characteristics, substantive and spatial foci.

⁷ As at 9th September 2022.

3. Methods: The practitioner researcher and participant observation (RQ1)

A distinctive feature of this body of work derives from the role of the author as both economic development practitioner and academic researcher. It also underpins the strongly reflexive character of the research noted above. Indeed, it is this experience as an economic development practitioner that largely provided the intellectual motivation for this work and has directly informed the choice of objects for study.

In his prior professional capacity, the author was directly involved in the implementation of aspects of the then Labour Government's regional and industrial policy. Working first as Research Manager and then as Head of Strategy and Regional Affairs, responsible for the development of a regional economic strategy and its underpinning evidence base, the author was directly involved in the translation of national policy into regional/sub-national interventions intended to influence the development trajectories of localities within the Midlands. These roles, directly straddling the interface between research evidence and policy formulation and implementation, provided a unique insight into a number of social and economic processes that were to become central concerns within this body of work. It was also at this time that the author was introduced to evolutionary economic geography as a field of academic research closely related to this domain of policy and practice (Martin 2005).

These economic development roles provided critical insights into the practical nature of the policy process, the importance of institutional/strategic capability and the nature of the operational context within which economic development bodies operate. These insights have provided inspiration for specific research projects and papers, but perhaps more importantly, have also influenced the interpretation of both qualitative and quantitative data utilised within this research process.

The research process that has constituted the foundation of this body of research therefore bears some resemblance to ethnography where there is a fundamental recognition that, as researchers, we:

"...act in the social world and yet are able to reflect upon ourselves and our actions as objects in that world. By including our own role within the research focus and systematically exploiting our participation in the world under study as researchers, we can develop and test theory..." (Hammersley and Atkinson 1983, p. 25)

To a large extent, the body of work reviewed here has involved the author 'systematically exploiting' his participation in the phenomena under investigation. Furthermore, it is the reflexive character of this research that gives it a richness and depth – particularly in relation to understanding of process – that is hard to achieve by other means.

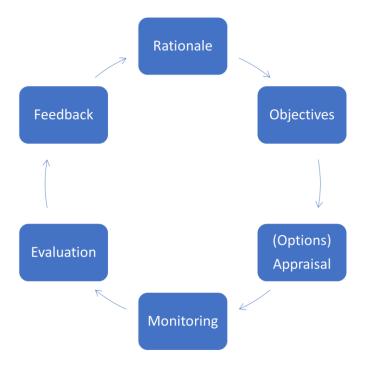
Nevertheless, it is important to acknowledge that the positionality of the author also presents challenges in validating the interpretations and analysis that are rooted in this perspective. It is for this reason that throughout this body of work, insights from participation in and observation of the processes under investigation are balanced with corroborating documentary sources and new primary data collection from other participants.

The remainder of this section will identify the specific contributions to this body of work that derive from the reflexive and mixed-methods character of the research under review.

3.1 The policy process and implementation or mediation of policy in specific places (RQ2 and RQ3)

The policy process is often represented, particularly within Government guidance, as essentially linear or cyclical in character. Perhaps the most widely cited example of this is the ROAMEF cycle as portrayed in the HMT Green Book (2021: 15, Figure 2). This is the somewhat idealised or archetypal representation of the policy process that starts with the identification of a problem requiring policy response (Rationale), policy or intervention objectives are then defined (Objectives), policy or implementation options are then appraised (Appraisal), implementation of a preferred option is then monitored (Monitoring), a summative evaluation is then completed (Evaluation), before learning thus identified is fed back into the development of the next policy round (Feedback).

Figure 2 The HMT 'ROAMEF' Cycle



Source: Adapted from HMT Green Book (2021)

While this characterisation of the policy process does serve a purpose in identifying some key aspects of the policy process, as a description of the policy process in practice, it lacks an essential authenticity. Indeed, it is for this reason that contemporary accounts of the policy process have largely moved beyond what is now seen as an overly simplistic 'stages heuristic' (Sabatier 2007:7) in search of conceptualisations of the policy process more capable of doing justice to the subtle complexities of a process involving multiple actors, levels of governance, ways of conceptualising problems and their solutions.

It was the author's experience of the policy process in practice that led him to look for conceptualisations of the policy process that better captured the reality of this process as experienced by practitioners. This experience was of the policy process as being far from linear, with multiple stands of activity often happening in parallel and serendipity often playing a strong role (Sabatier 1991).

This in turn led the author to identify Kingdon's Multiple Streams Framework (MSF) (1984) as a more interesting and useful characterisation of the policy process – specifically because it conceives of the process as being replete with ambiguity, multiple actors interact, multiple strands of activity progress in parallel. In short, it is a description of the process that far better reflects a practitioner's experience of policy than more simplistic or idealised accounts based on or associated with the 'stages heuristic'. MSF is not the only

perspective on the policy process to capture the essential 'messiness' of the policy process in practice. See for example the public choice literature including authors such as Frey, Peacock and Stevens (Stevens 1993). The specific appeal of MSF is that in the 'problem stream' – we see a particular role for research and data in problem identification. A role that resonated strongly with the author given his experience of the intersection between research and policy development. MSF also notes the importance of 'focussing events' which had direct relevance to the author's interest in path creation in post-industrial contexts. The events in question often being the loss of as major employer or similar local economic shock.

Applications of the MSF formed the basis of Rossiter & Price (2013), Smith, Rossiter & McDonald-Junor (2017) and Rossiter & Smith (2020). In each case, MSF was applied in a manner informed by the author's direct experience of the policy processes that formed the subjects of the research.

3.2 Understanding of institutional change over time (RQ3)

2010 marked a significant discontinuity in the policy and practice of economic development in the UK as a consequence of the change of Government from Labour to Conservative and Liberal Democrat Coalition. It also marked the author's transition from economic development practitioner to academic researcher. Indeed, the two events were not unconnected in that the change of government resulted in the abolition of the regional development agencies.

As an academic researcher, the author continued to participate in the world of economic development practice — albeit now as a contract researcher and policy advisor. This has entailed working on a variety of contract research projects commissioned by Local Enterprise Partnerships, local authorities and pan-regional partnerships such as the Midlands Engine. This was no coincidence. It was a direct consequence of the dissipation of regional/local economic research and policy expertise that resulted from the abolition of the RDAs (Rossiter 2016, Rossiter and Price 2013). Necessarily institutional actors such as local authorities, new Local Enterprise Partnerships and pan-regional partnerships like the Midlands Engine sought to draw on the expertise of former RDA staff where it was still accessible to them (e.g. Black, Shifferes and Rossiter 2017, Green & Rossiter 2019, Rossiter, Thompson & Karagounis 2020, Karagounis and Rossiter 2022).

In turn, this change in role (or vantage point), has afforded unique opportunities to compare and contrast the policy, institutions and practices associated with economic development in the Midlands before and after 2010. Indeed, this was the specific focus of Rossiter and Price (2013) and Rossiter (2016). The former used MSF to analyse the institutional capacities necessary to develop effective local economic development strategies in the context of a radically reformed institutional and policy landscape. The latter paper explored the substantive policy consequences of the shift from regional to local institutions and geographic scales of activity as the locus of economic development decision making. In both cases, it was the author's unique vantage point as a participant in strategy/policy development under both institutional and policy regimes that made these papers possible. Furthermore, it was this initial exploration of the nature and consequences of institutional change in economic development, that planted the seed that would be explored in greater depth and from different theoretical perspectives in subsequent papers.

3.3 Knowledge of the operational context for economic development organisations (RQ2)

After 2011, though no longer a full-time practitioner, the author's role as a policy advisor and research consultant working on a commissioned basis for LEPs and pan-regional partnership bodies engaged in this domain of practice, the author was able to observe at first hand, the practice of economic development personnel. The combination of these kinds of experience have directly contributed to the body of research under review and given it a distinctive character.

This direct experience sensitised the author to both the operational constraints within which economic development practitioners operate and the 'levers' available to them when seeking to implement interventions designed to influence local and regional economic development. This depth of operational understanding is evident in a number of the papers that comprise the body of work under review.

Rossiter and Price (2013) directly applied this source of insight in order to analyse the institutional/strategic capabilities that the then newly established Local Enterprise Partnerships would require in order to develop effective, evidence based, economic development strategies, while negotiating the complex multi-stakeholder environment within which they were required to operate. In Rossiter 2016, the focus of interest shifted from institutional capabilities to the economic strategy development process itself. This paper analysed in detail the contrasting policy development processes utilised by economic

development bodies before and after 2011 and the consequence of this changing practice for the policy content of the resultant economic strategies.

In a similar vein, this understanding of operational context directly informed the interpretation of data collected from other sources – whether primary research or secondary analysis of documentary sources in Smith, Rossiter & McDonald-Junor (2017), Rossiter & Smith (2017 and 2020) and Yates, Clarke & Rossiter (2021).

3.4 Understanding the opportunities for and limits to human agency in economic development (RQ2)

A further benefit derived from the application of participant observation and practice informed interpretation lies in the unique perspective that this provides on the 'levers', tactics and stratagems available to economic development practitioners operating at the local and regional level. By the same token, this approach provides insight into the institutional constraints that limit the scope for effectual agency in specific spatial and temporal contexts. Being an economic development practitioner of 20 years plus standing in the Midlands has afforded the author with unique opportunities to both observe economic development practitioners and to experience directly the extent to which their agency is constrained in particular institutional settings. These constraints take many forms. Sometimes they are a function of the need for economic development actors to negotiate complex systems of multi-level governance (Rossiter 2016, Yates, Clark and Rossiter 2021). On other occasions they may reflect the limits of available resources or strategic capabilities necessary to develop and implement effective economic development strategies.

The participant's perspective has also been particularly valuable in providing insight into the transmission mechanisms that are required if national policy is to be translated into local action and intervention in support of economic development. This, in turn, has directly contributed to the portrayal of the role of national policy in the new model of path creation described in section 4.3 below. Evidence of the value of the participant's perspective is also provided in the portrayal of the 'policy stream' in Rossiter and Smith (2020: 908).

If Smith, Rossiter and McDonald-Junor (2017) emphasises the structural drivers of path creation, Rossiter & Smith (2017 and 2020) balance this perspective with a more agency focussed account of the path creation process. The latter places public entrepreneurs and

research scientists more centrally within the path creation process – national policy both enabling and constraining their scope for action and the resources upon which they could draw.

3.5 Sensitivity to the distinctive roles of places in regional spatial economy or, a spatialfunctional understanding of place (RQ3)

A key feature of the body of work in its entirety is the centrality of 'place' as both the context within which individual and institutional actors operate and the objects on which they seek to act. This is a very direct response to the author's experiences as an economic development practitioner which led him to appreciate that while policy may operate nationally or regionally, implementation is always local. Implementation of economic development policy happens locally on specific development sites, or in communities, businesses or households. It is also in specific localities that institutional resources and capabilities can be accessed by individual actors in order to effect change or a movement towards a more positive economic outcome (Rossiter & Smith 2017, 2020)

This is not to suggest that every place is different, or totally unique; more it is to recognise that policy implementation is always influenced by contingencies that operate in specific places at specific times. The local industrial (and social) milieu (Smith, Rossiter & McDonald-Junor 2017) is therefore a critical ingredient in any account of path creation in economic development. This perspective is central to a number of the later papers produced within this body of work.

A further dimension within which 'place' is seen to matter throughout this body of work concerns the way in which 'places' relate to each other in functional terms – particularly in the context of polycentric urban networks such as that characteristic of the English Midlands. Rossiter (2016) contrasted the sectoral composition and functional roles of the city economies of Derby and Nottingham and explored the consequences of these compositional differences for economic development strategies within this sub-region. Similar appreciation for the functional roles of places is evident in subsequent analysis of the development of the biotech sector in Nottingham (Smith, Rossiter & McDonald-Junor 2017, Rossiter & Smith 2017 and 2020). Again, this perspective is a direct response to the author's experience of developing economic strategies at the regional scale – that must still be relevant to the development of specific localities within a region.

4. Conceptual Contributions

The conceptual contributions made by this body of work fall under three broad headings: (1) the synthesis of insights from political science, place leadership and economic geography literature, (2) the first application of MSF to sub-national economic development and, (3) the development of a new model of path creation in regional and local economic development.

4.1 Synthesis of insights from political science, place leadership and evolutionary economic geography literature (RQ1, RQ2, RQ3)

A fundamental characteristic of the body of work under review is the plurality of the conceptual foundations utilised both to frame the research and interpret the empirical material gathered through the research process. On one level, this may reflect the author's early training in sociology: a discipline characterised by an essential promiscuity when it comes to theoretical constructs utilised and associated research methods. Central to the pluralism of sociology as a discipline is its recognition of the legitimacy of different theoretical traditions and a pragmatism in selecting theory and method to fit the object of study and/or research question. Although it is noteworthy that within sociology this pluralism has at times been regarded as somewhat problematic (see for example Payne 2014 and Payne, Williams and Chamberlain 2004).

On another level, this is a simple response to the complex and multi-faceted nature of the economic development processes that represent the object of study. Such is this essential complexity as to render futile any attempt to dogmatically privilege a single theoretical perspective in explaining the phenomena at issue. For these reasons, a number of the papers within this body of work have explicitly sought to synthesise perspectives drawn from multiple disciplines.

This characteristic is perhaps most explicit in Rossiter & Smith (2017) which established a conceptual framework drawing on institutional perspectives on economic development, public entrepreneurship and place leadership. It is also evident in the essentially 'historical epistemology' (Martin, Tyler and Evenhuis 2020) that underpins this and other papers within this body of work (see 5.3 below). Similarly, Smith, Rossiter and MacDonald-Junor (2017) draws inspiration from political science (MSF) while seeking to explain a phenomenon central to most accounts of evolutionary economic geography (path creation) and does so from an explicitly historical perspective. These papers contrast with the more

straight-forward applications of MSF (Kingdon 1984) to economic development phenomena found in Rossiter and Price (2013) and Rossiter and Smith (2020). In both cases MSF being employed in order to shed light on a particular aspect of economic development practice and related policy processes.

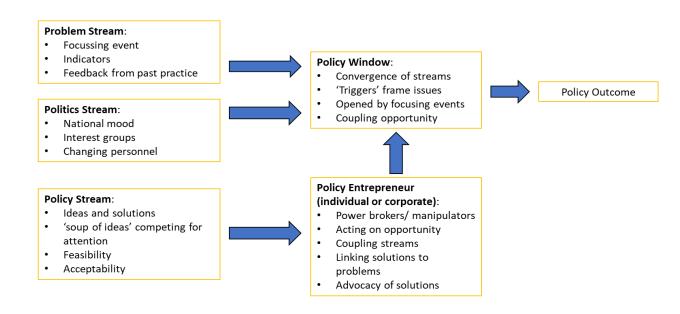
4.2 Application of MSF to local and regional development (RQ2)

In his original formulation, Kingdon (1984) conceptualised the policy process as being comprised of three streams of activity that flow concurrently: the problem stream, the politics stream and the policy stream. The passage of time is central to this model. The time available to policy makers is seen as extremely limited. In this context, much of Kingdon's focus was on how problems and policy solutions come to be taken note of by decision makers (agenda setting). From time to time, he saw the streams converging at critical junctures (policy windows) or being made to converge, at which point policy change could be effected by the policy entrepreneur. Subsequent development and analysis utilising this approach has revealed it to be particularly useful as a tool to understand the policy process in conditions of uncertainty and ambiguity (Sabatier 2007). The appeal of this perspective to the author lay in its recognition of the policy process as a far from logical, linear or cyclical process (for example, the ROAMEF cycle depicted in Figure 2 above). This gives MSF a verisimilitude – in light of the author's experience of policy processes – that more traditional perspectives on the policy process lack.

Rossiter and Price (2013) was, to the author's knowledge, the first application of MSF to local and regional economic development. It was the only such paper cited in Cairney and Jones (2016) review of applications of MSF. At that time, it was one of few applications of MSF at the sub-national spatial scale and the only one to explicitly apply MSF to the practice of local and regional economic development.

Overall, this body of work has demonstrated the utility of MSF as an heuristic device that can aid understanding and new knowledge production well beyond the domain of federal government in the US which was the domain within which this perspective was first developed and applied (Kingdon 1984). In large part this derives from the origins of MSF in the 'Garbage can' conception of organisational decision making (Sabatier 2007, Rossiter and Smith 2020).

Figure 3 Multiple Streams Framework



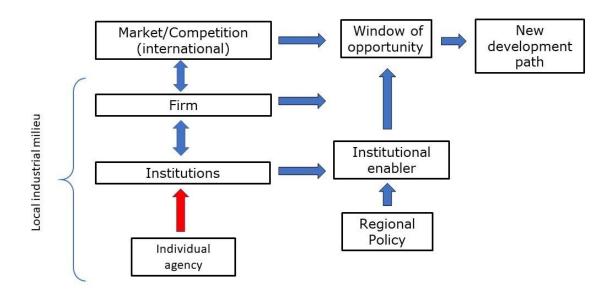
Sources: Rossiter & Smith 2020/adapted from Rossiter and Price (2013: 855)

4.3 A new model of path creation (RQ1)

An important conceptual contribution made by the body of work under review is the development of a new model of the path creation process in local economic development. In a sense this may be seen as analogous to grounded theorising – where a large empirical investigation is used as the foundation for a new theoretical construct. In this case, an evolutionary model of path creation incorporating place-based characteristics, institutions, policy and agency. A model that represents a synthesis of the conceptual contributions made by the body of work under review.

In terms of structure, this new model is inspired by MSF (Kingdon 1984) – albeit MSF applied in a manner that would be alien to many proponents of this conceptual framework. This framework shares with MSF a recognition that a number of semi-independent streams of activity co-evolve over time to culminate at critical junctures when regional and local actors are able to take advantage of a 'windows of opportunity' during which new development paths may be initiated. It is also at these 'critical junctures' that individual and institutional agency are seen as particularly important to the path creation process.

Figure 4 - New path creation in local economic development



Source: Adapted from Smith, Rossiter & McDonald-Junor 2017 – incorporating insights from Rossiter & Smith 2017 and 2020. Note: These papers provide the main theoretical insights in combination, but individual papers provide further insight into particular components of the model and specific relationships.

The model of path creation presented in Figure 4 (above) is a composite that draws on a number of the papers within this body of work. It emphasises the importance of the 'local industrial milieu' (a product of long-term historical development) as providing the context within which individuals and institutions co-evolve and act. The model also acknowledges the importance of exogenous developments and their impact on localities and industries (Market/Competition). Institutions (both private and public) are seen as critical enablers of change and sources of capacity and resources that individuals may access and deploy in order to effect change. There is a strong temporal dimension and national policy is seen as having the potential to be more or less conducive to path creation at different points in time (Rossiter and Smith 2020). These factors coalesce in windows of opportunity during which there is scope for local agency to result in new path creation. One such 'window of opportunity' arose in Nottingham around the Millennium (Smith, Rossiter and McDonald-Junor 2017, Rossiter and Smith 2020) when the policy environment proved conducive and local institutional and individual actors were able to effect a change that would result in the emergence of a significant local biotech sector. Earlier windows of opportunity during which change was effected by public entrepreneurs harnessing local institutional capacities

and taking advantage of a conducive national policy environment are identified in Rossiter and Smith (2017) from the 1840s to the Millennium.

4.3.1 The role of policy (RQ2)

The extent to which (regional) policy intervention can influence the path creation process in regional and local economic development remains a major issue for debate in evolutionary economic geography and this is a central question addressed in this body of work. Several of the papers in this series explore the impact of policy on path creation. Smith, Rossiter and McDonald-Junor (2017) identify an important role for regional industrial policy – specifically associated with clusters – in their account of the emergence of a nascent biotech cluster in Nottingham.

Implicit in these papers is a view of policy intervention alone as insufficient to engender path creation. Policy is seen playing a role that may be more or less conducive to path creation, but for this to be the result, institutional capacity and individual agency are also required. In the clearest example of new path creation examined by this research – the emergence of a regional bioscience cluster centred on Nottingham – national policy was seen to be an extremely influential facilitator of change (Smith, Rossiter and McDonald-Junor 2017, Smith and Rossiter 2017 and 2020). A policy nexus comprised of New Labour's regional, industrial (clusters) and innovation policy combined to influence local institutional development, release resources that could be deployed locally and incentivised the development of local cluster policy initiatives that culminated in the BioCity development. And yet, in the absence of agency on the part of multiple actors from Nottingham to Ludwigshafen (Rossiter & Smith 2020), these policy drivers alone may have been insufficient to influence new path creation. This brings us to the role of agency.

4.3.2 The question of agency (RQ1 and RQ2)

Accounts of the path creation process have been criticised for focussing on the structural drivers of development and being somewhat deterministic in character (Martin 2010). Smith, Rossiter and McDonald-Junor (2017) can be said to have shared this trait in that it was primarily concerned with the structural factors underpinning the development of Nottingham's Biotech sector. The factors identified as driving this development were seen to operate at the level of global markets (in this case for pharmaceuticals), the level of the firm (Boots/BASF/Abbott) and the development of local institutions. Local institutions were seen as a manifestation of the local industrial milieu and one of the ways in which place

specific factors were introduced to the account of path creation. Regional policy was also seen to have played a role (see 4.3 above). This paper was relatively silent on the importance of individual actors and the role of their agency in shaping local outcomes.

In different ways, the need to better address the role of individual agency in accounts of local and regional economic development provided the motivation for Rossiter and Smith (2017), Rossiter and Smith (2018) and Rossiter and Smith (2020). Indeed, in this respect, the contrast between Rossiter and Smith (2020) and Smith, Rossiter and McDonald-Junor (2017) is particularly stark. This shift in emphasis was both a response to evolving debates about the nature of path creation (MacKinnon, Dawley and Pike 2019, Martin and Sunley 2015) and the emergence of a growing literature on place leadership (Collinge, Gibney & Mabey 2010, Sotarauta 2018, Beer et al 2019, Bowden and Liddle 2018). It was also the result of additional empirical work undertaken in Nottingham that had significantly enhanced our understanding of the local context, dynamics and the importance of individual agency in the emergence of the biotech industry of the City.

Rossiter and Smith (2017) sought to explore the interplay between individual agency and the development of important formal institutions in Nottingham over the long term. This paper identified a number of examples of 'public entrepreneurs' or 'leaders in-place' who had been instrumental in influencing local path creation. These individuals were seen as significant in that they contributed to the development of formal institutions and associated strategic capabilities in the locality. They were also able to work through these organisations to secure and deploy capacity and resources necessary to facilitate path creation. Significantly, the leaders in question were not necessarily seen to hold formal positions of leadership in local or regional government, although some did hold these formal positions of authority. A number of the key actors identified were seen as leaders in-place who were in positions of authority in other kinds of public institutions or private businesses.

Rossiter and Smith (2020) added further depth to this account of local path creation by addressing the specific roles of local research scientists – first employed by Boots in the Pennyfoot Street Laboratories and then as scientist-entrepreneurs involved in the establishment of BioCity and the firms that would come to occupy this ground-breaking facility that would seed a wider industrial cluster. This recognition of the role for local agency in the origination of industrial clusters stands in marked contrast to much of the

literature on cluster policy which tends to emphasise the role of top-down policy intervention in the instigation of industrial clusters (Swords 2013).

4.3.3 The role of institutions (RQ3)

Students of evolutionary economic geography and the path creation process have long held that institutions play important roles in relation to the ways in which localities respond to economic shocks (resilience) and their capacity to adapt – whether in the face of challenge or opportunity (Amin and Thrift 1994, Martin 2005, Zukauskaite, Trippl, and Plechero 2017). Several of the papers in this body of work highlight the importance of institutions in facilitating or enabling path-creation.

A major focus of Smith, Rossiter and McDonald-Junor (2017) is the development of and interplay between the Boots company and its successors and other local and regional institutions including local and regional government, universities and hospitals. Rossiter and Smith (2017) explores in greater depth the manner in which key local institutions accrue capabilities and resources over long time periods. This progressive 'layering' of institutions over time (Rossiter and Smith 2017) is seen as a key element in the development of adaptive capability that can help localities develop resilience and the ability to adapt in order to take advantage of opportunities from wherever they arise (Smith, Rossiter and McDonald-Junor 2017). It is for this reason that Figure 4 identifies an 'institutional enabler' that is the result of developing local institutions over time and a particular regional policy environment which contributed to these institutional developments, secured resources which could be deployed and incentivised the development of certain kinds of local policy responses rather than others. It was in this specific context that we observed the emergence of local and regional cluster/industrial policy initiatives that were to culminate in the creation of the BioCity business incubation facility. A key local asset that would subsequently support the development of a wider bio/med-tech industrial concentration in and around Nottingham (Rossiter et al 2018).

5. Empirical contributions: The changing practice of economic development (pre and post 2010) (RQ1)

With the benefit of a dozen years of hindsight, it is reasonable to claim that 2010 represented a once in a generation inflexion point for the policy and practice of local and regional economic development in the UK. The regionalism of successive New Labour governments between 1997-2010 was supplanted by the localism, centralisation and ad hoc devolution initiatives characteristic of subsequent Conservative led governments. A major focus of this body of research has been to document the nature of this change and its implications for the institutions and practices of economic development in the post-industrial English Midlands.

A second empirical contribution made by this body of research has been to develop a number of case studies that have shed light on the subtle interplay between the factors and processes identified in Figure 4 (above) as integral to the path creation process.

5.1 Structures/institutions/resources (RQ1)

Rossiter and Price (2013) explored the nature of and consequences of the shift from RDAs to Local Enterprise Partnerships (LEPs) as the prime institutional promoters of sub national economic development. It did this through comparing and contrasting the strategy development processes employed by the East Midlands Development Agency (2005/6 the last substantive revision to the Regional Economic Strategy) and the D2N2 Local Enterprise Partnership when developing its first Strategic Economic Plan in 2011/12.

This paper used the MSF (Kingdon 1984) conceptualisation of the policy process to identify key strategic capabilities necessary to develop effective sub-national economic development strategies (relevant policy artefacts). The level and nature of these capabilities were then contrasted pre and post 2010 – providing an initial assessment of the manner in which the practice of strategy development was changing. This paper did highlight aspects of continuity in this domain of practice. Often this was seen to be a result of former RDA staff being employed in similar policy and research roles in successor organisations, local authorities and/or universities. The involvement of these individuals (including the author) points to the importance of maintaining 'institutional memory' in the context of shifting institutional boundaries and configurations.

In the East Midlands, NTU became a repository of 'institutional memory' both by employing the author and a number of his former RDA colleagues to maintain local economic research

capability and hosting an open-access repository of EMDA policy documents and research⁸. Ongoing contract research (See Appendix 1) and advisory engagement with LEPs and local authorities in the East Midlands demonstrate the ongoing demand for this capacity and expertise.

In applying MSF to the practice of sub-national economic development Rossiter and Price (2013) noted the importance of research and analytical capacity to the development of credible and effective economic strategies. Rossiter (2016) developed this point by assessing the changing level of financial and staffing resources devoted to economic strategy development through a comparison of RDA, LEP and local authority practice within the East Midlands. The evident asymmetry in the level of financial and staffing resources devoted to strategy development by these organisations is stark (Figure 5). Both of the post-2010 strategies under review here were developed using a much lower level of resources than those deployed on the preceding EMDA strategy. A key area of practice affected by this marked change in the level of available resources devoted to the task was the nature of and role of research evidence in the strategy development process.

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⁸ The EMDA archive is available at https://irep.ntu.ac.uk/view/collection/emda Knowledge Bank/

Figure 5 Resources deployed in strategy development

Process	EMDA 2006	D2N2 2013 ⁹	Nottingham City
			2012
Approximate duration	22 Months	6 Months	6 Months
Financial resources (excluding staff)	£400,000 ¹⁰	£49,000 (LEP Capacity Fund Grant from BIS)	Economic assessment commissioned
Strategic Environmental Assessment	Yes	No	No
Dedicated internal team	9 staff	0 – private sector board member led process working directly with university staff	Partial – led by members of the Economic Development Team
University expertise/capacity used	Yes	Yes ¹¹	Yes
Stakeholder consultation	Yes	Some	Some
Public consultation	Yes	Primarily business	Yes
Supporting evidence base	Yes (independently peer reviewed)	Yes – a suite of 6 reports were produced and published on the D2N2 website	Yes – economic assessment completed and used in Growth Plan but not published

Source: Adapted from Rossiter (2016: 844).

The EMDA Regional Economic Strategy combined extensive internal analysis (e.g. EMDA 2006b) with a series of papers¹² commissioned from leading academics. Both elements of the evidence base were also subject to independent academic peer review. The internal

⁹ This summary relates to D2N2s initial development of strategic priorities. The subsequent EU SIF was also supported by an external commission. A further Strategic Economic Plan has also now also been published by D2N2.

¹⁰ EMDA Board briefing paper dated August 2007.

¹¹ The subsequent revision of the strategy as part of developing the EU SIF (2014) utilised a commercial consultancy to whom the strategy development task was subcontracted.

¹² See https://irep.ntu.ac.uk/view/collection/emda Knowledge Bank/2005.html for examples of academic research papers commissioned to inform strategy development.

analysis was undertaken by EMDA's Strategy, Research and Evaluation (SRE) Team under the leadership of the author. 9 members of this team of 12 had specific responsibilities relating to RES evidence and strategy development. The survey of LEPs reported by Pike et al (2013) suggests that EMDA's then SRE team employed more people than the total number of staff employed by around one third of the 39 LEPs then extant.

5.2 The process of sub-national strategy development (RQ2)

If Rossiter and Price (2013) used MSF as a means of highlighting the kinds of capacities necessary to develop effective sub-national economic strategies, Rossiter (2016) scrutinised how LEPs and local authorities were utilising their capabilities in practice as part of the strategy development process. The comparison with earlier RDA practice revealed some notable changes in the practice of local strategy development. In addition to differentials in the level of resources deployed, Rossiter (2016) highlighted a notable truncation of the timescales devoted to strategy development and/or renewal since 2010. Whereas EMDA's RES took some 22 months to prepare in 2005/6, both the Nottingham City and D2N2 strategies reviewed took around 6 months to prepare.

One corollary of truncating the strategy development timescale was a significant reduction in the breadth and depth of public consultation incorporated into these processes. As described in Rossiter (2016) the dual requirement to both conform to Cabinet Office guidance on public consultation and the DCLG guidance on implementation of the Strategic Environmental Assessment combined to require a far more extended strategy development period.

5.3 Policy or strategy content (RQ3)

Rossiter (2016) extended this analysis by exploring the consequence of these changes in the institutional capabilities deployed and the difference in aerial units that comprised the spatial focus of strategies for the policy content of sub-national economic development strategies. This paper compared the policy content of economic strategies prepared by EMDA (for the East Midlands), the D2N2 LEP and Nottingham City Council. In so doing, it assessed the consequences of a notable example of state rescaling for the practice of economic development at the sub-national scale – both in terms of strategy development processes employed and the policy outcomes embodied in the respective strategies.

The aerial units that were the spatial foci of these strategies were 'nested' in the sense that Nottingham City Council's boundaries fall wholly within those of the D2N2 LEP. In turn, the

boundaries of the D2N2 LEP fall wholly within those of the East Midlands Government Office Region which formed the spatial extent of the area covered by EMDA. The fact that each strategy covered common areas provided an excellent basis for considering the impacts of state-rescaling for the policy content of the respective strategies in question.

Rossiter (2016) identified two major consequences for the content of subnational strategies associated with this case of re-scaling (RQ1): (1) the breadth of policy content narrowed markedly – largely at the expense of material relating to social inclusion and sustainability; (2) an increase in the granularity of spatial content at the lower geographical scales encompassed by a local authority strategy. This narrowing of the thematic foci of strategies is demonstrated in Figure 6:

Figure 6 Thematic content of strategies

EMDA 2006	D2N2 2013	Nottingham City 2012
Structural Themes (cross-cutting):	Strategic Priorities:	Strategy for Growth (sectors):
Raising Productivity Ensuring Sustainability Achieving Equality	Business skills Innovation Finance Infrastructure	Digital content Life sciences Clean technology
Strategic Priorities:	Areas of economic focus:	Actions for growth:
Innovation Enterprise & business support Employment, learning & skills Land & development Transport & logistics Environmental protection Resource efficiency Social capital Economic inclusion Economic renewal	Transport equipment manufacturing Medical & bioscience Construction Visitor Economy Low-carbon goods and services	Fostering enterprise Developing a skilled workforce Building a 21 st century infrastructure
Priority Actions:	Priority Actions:	Projects/Programmes:
64 actions identified across the 10 Strategic Priorities	Actions aligned to Strategic Priorities	Specific projects and programmes aligned to 'actions for growth'
Top level targets/progress measures:	Top level targets/progress measures:	Top level targets/progress measures:
Regional Index of Sustainable Economic Wellbeing, Productivity, Employment.	Private sector job creation	Private sector job creation

Source: Adapted from Rossiter (2016: 847)

5.4 Mediation and implementation of national policy at local/regional level (RQ2 and RQ3)

A further empirical contribution of this body of work relates to the influence of national policy on local and regional economic development practice – as this is manifest in specific local development projects. In different ways, four papers in this series addressed these

issues. Adopting a long term and historical perspective, Rossiter and Smith (2017) addressed the manner in which successive generations of public entrepreneurs or 'leaders in place' were able to harness opportunities afforded by national Government policy both to develop local institutional capabilities and deliver specific projects important to the direction of Nottingham's local economic development. Figure 7 identifies a number of local actors who may be described in these terms and the specific developments with which they were associated:

Figure 7 Public entrepreneurs, institutions and developments in Nottingham

Entrepreneur	Role/ Occupation	Organisation	Sector	Institutional development	Period active
William Felkin	Manufacturer	Lace Manufacturer	Private	College of Art & Design	1840s
Jesse Boot	Founder	Boots	Private	University College	1930s
Bertrand Hallward	Vice Chancellor	Nottingham University	Public	Science City (Nottingham University)	1950s
Barry Stickings	CEO	BASF UK	Private	BioCity Nottingham	2000s
Colin Campbell	Vice Chancellor	Nottingham University	Public	Science Park, Jubilee Campus	2000s
Ken Murphy	CEO	Alliance Boots	Private	MediCity	2010s
Jon Collins	Leader	Nottingham City Council	Public	BioCity Nottingham, Phase 4	2010s

Source: Adapted from Rossiter and Smith (2017: 388)

All of these individuals, operating at very different times in the City's development, were able to take advantage of national Government policy to secure significant resources for the City that influenced the development of important local institutions, capabilities and physical developments.

In Smith, Rossiter and McDonald-Junor (2017) and Rossiter and Smith (2020) the focus shifts from the City as a whole, to a specific development within Nottingham, the BioCity business incubation facility. This is seen as both a product of local agency and top-down national policy intervention. The national policies in question related to New Labour's regional and industrial policy and the institutions and resources with which they were associated. This is also where we see evidence of links between the empirical and

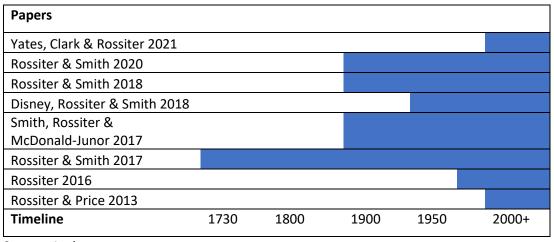
conceptual contributions made by this body of work. In these two papers the empirical investigation of the BioCity case directly informs the development of the novel model of path creation illustrated in Figure 4 above.

Similar dynamics are again addressed through a micro-level case study of the Trent Basin Development (Rossiter and Smith 2018) and the city-level case study of sustainable transport initiatives in Nottingham (Disney, Rossiter and Smith 2018). The focus of both papers are the ways in which local actors and institutions are able to harness national policy drives towards sustainable communities, transportation and energy to support the implementation of a range of 'green innovations'. Innovations united by their complementary focus on achieving national (and local) sustainability goals.

5.5 Policy and practice responses to long-term de-industrialisation at the sub-national scale (RQ1, RQ2, and RQ3)

A central feature of this body of research is its evolutionary and historical perspective on local and regional economic development – drawing on recent developments in evolutionary economic geography (see Figure 8). This is perhaps most evident in the long term-historical scope of Rossiter and Smith (2017) and Smith, Rossiter and McDonald Junior (2017). It is also a notable feature of Rossiter (2016), Rossiter and Smith (2017) and Disney, Rossiter and Smith (2018) albeit that the timescales in question are more modest in extent.

Figure 8 Timescales encompassed by specific papers



Source: Author

The extended timeframes characteristic of these papers is a response both to the evolutionary nature of the phenomena under investigation and the desire to understand

temporally and spatially specific contingencies that have affected these trajectories of development. Hence it has been necessary to consider the economic development of the East Midlands and Nottingham from the pre-industrial to the post-industrial epoch. A recuring theme of this body of work is therefore how can institutions and place leaders respond to the loss of traditional industries by enabling path creation? Indeed, Rossiter & Smith (2017) describes a progressive 'layering' of institutional capabilities that, in turn, are seen as enabling successive reinventions/reorientations of Nottingham's economy through a process of repeated branching and path creation. In a similar vein Smith, Rossiter and McDonald-Junor (2017) place the emergence of a nascent bioscience cluster in Nottingham within the context of the evolution of a specific local industrial milieu. An industrial milieu that was the product of over 200 years of social and economic development.

In so doing, the author may also be seen to have responded to and perhaps even to have anticipated the recent call to relocate regional socio-economic development in its historical context:

"...it can be argued that by adopting a historical perspective – or perhaps better termed a historical epistemology – in which the aim is to reveal how at any particular time an observed pattern of regional socio-economic differentiation has come to be what it is, we not only improve our understanding of regional development as an inherently historical process, but derive a clearer view of how far and by what ways policy interventions might help to steer future regional development along some more favourable path." (Martin, Sunley and Evenhuis 2020: 3).

If this historical epistemology is felt useful to understand the scope for policy to influence trajectories of development over the long term, it is the contention of the author that it is equally valuable in establishing how the institutional, human and physical capital necessary to engender adaptive capability (Martin 2005) accumulates over time and can then be harnessed by leaders 'in place' to effect positive change (Collinge, Gibney and Mabey 2010, Rossiter and Smith 2017). It is therefore necessary to adopt this approach if we are to better understand the constraints on and enablers of human agency in economic development.

This historical perspective is also seen to be particularly appropriate given the focus of a number of these papers on the nature of and consequences of de-industrialisation in the former manufacturing towns and cities of the Midlands. The focus of the author's research

and practice on the English Midlands has led to an abiding interest in the scope for policy and local agency to ameliorate the long-term consequences of de-industrialisation. These themes are addressed through a series of case studies centred primarily on Nottingham and the East Midlands. The first of these was Rossiter (2016). The substantive focus was on economic strategy development, but the relevant economic context (established through an analysis of relevant secondary data) was the long-term decline of manufacturing and other traditional industries within the East Midlands. Rossiter and Smith (2017), Smith, Rossiter and McDonald-Junor (2017) and Rossiter and Smith (2020) explored the emergence of new sectors and institutions within the context of a substantially de-industrialised city of Nottingham. At a more micro or site-specific scale, Rossiter and Smith (2018) explored the re-purposing and redevelopment of a former industrial site — Trent Basin — and associated novel institutional arrangements through the application of 'green innovation'. This latter case provided a much more granular perspective on the interplay of policy, local agency and institutional developments than is afforded by other papers in this series.

6. Summary of Critical Review

In summary, it is necessary to consider the relationship between the contributions described in sections 3, 4 and 5 and the research questions which motivated this body of work. Figure 9 maps contributions onto research questions.

Figure 9 Mapping contributions to research questions

Contribution	Specific contributions ¹³	RQ1 Path	RQ2 Actors	RQ3 Place
domain		Creation	and Policy	Specific
				Contingencies
Methods	3. Practitioner researcher	✓	✓	✓
	3.1 Policy process		✓	
	3.2 Institutional change		✓	✓
	3.3 Operational context		✓	✓
	3.4 Scope for agency		✓	
	3.5 Roles of place			✓
Conceptual	4.1 Synthesis of perspectives	✓	✓	✓
	4.2 Application of MSF	✓	✓	
	4.3 Path creation model	✓	✓	
	4.3.1 Role of policy	✓	✓	
	4.3.2 Role of agency	✓	✓	
	4.3.3 Role of institutions	✓	✓	✓
Empirical	5. Changing ED practice		✓	
	5.1 Structures/institutions/		✓	✓
	resources			
	5.2 Sub-national strategy		✓	✓
	5.3 Policy/strategy content		✓	✓
	5.4 National policy	✓	✓	
	implementation			
	5.5 Responses to de-	✓	✓	✓
	industrialisation			

Source: Author

 $^{\rm 13}$ Numbering reflects numbered sub-headings in sections 3, 4 and 5.

It is evident from Figure 9 that this body of work has made a range of academic contributions that relate closely to the three central research questions defined in Section 1. Taken together these contributions have clear policy implications, but they also point to a number of interesting potential avenues for future research.

6.1 Policy implications

Taken as a whole, the series of papers that comprise the body of work under review have a number of clear implications for policy:

1) Local and regional institutions have a key part to play in the development of adaptive capability and the facilitation of development path creation in specific localities.

Formal institutions matter because, over time, they develop strategic capability and accrue resources that can be accessed and deployed by other actors to facilitate path creation. This appreciation was largely absent from the policies of the Coalition Government 2010-2015. It has resurfaced more recently in the now defunct Industrial Strategy of Theresa May's Government 2016-18 (HMG 2017) and the Levelling-up White Paper (HMG 2022). This was an insight that was clearly lost in the Coalition Government's 'bonfire of the quangos' after 2010¹⁴. One could interpret the later fostering of pan-regional partnerships (Northern Powerhouse and Midlands Engine) by George Osborne, when Chancellor of the Exchequer, as a tacit recognition of the importance of these kinds of institutional capabilities at the sub-national scale. Unfortunately, another insight that might be drawn from this body of work is that, once lost, these capacities can take a long time to reconstruct. This is particularly so because a key dimension of strategic capability concerns the links and relationships between institutions that facilitates coordination across multiple policy domains. These relationships and capabilities cannot be (re)created instantly after periodic bouts of institutional restructuring or state rescaling. They are best seen as products of co-evolution over long periods of time.

2) Enable rather than constrain local agency

The most successful example of path creation in a post-industrial context analysed within this body of work – the Nottingham biotech cluster – was as much a product of local agency as top-down policy intervention. Therefore, it follows, that if policy makers are to repeat this process elsewhere, they must find ways of enabling exactly this kind of local agency.

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¹⁴ https://www.bbc.<u>co.uk/news/uk-politics-19338344</u>

This is partly about providing resources, but it is also about supporting the development of sub-national institutions through which local agents can act. Most fundamentally, this is about resisting the temptation to dictate policy wholly from central government. This remains a major challenge in the context of the extreme centralisation characteristic of the British state (McCann 2016, Martin et al 2021). Herein lies an important link to ongoing debates about the form of devolution settlement appropriate to the United Kingdom in the 21st Century. The advent of a new Mayoral Combined Authority covering the existing spatial footprint of the D2N2 LEP¹⁵ will provide an interesting test for this proposition — while also representing a further example of that very problematic institutional restructuring noted above.

3) Work with the grain of the local and regional industrial milieu

The limits to top-down policy imposition are increasingly well understood as noted above. Less well appreciated is perhaps the importance of developing policy interventions that are adequately sensitive to contingencies specific to particular places at particular times. This perspective is partly but not wholly captured in contemporary debates about place-neutral versus place-based policy (see Barca et al 2012, Martin et al 2021). The Midlands cases explored within this body of work are strongly suggestive of the importance of seeking purposively to exploit the development potential of existing physical, human and institutional assets present in specific localities. This is evident at the micro-site scale in the Trent Basin case (Rossiter & Smith 2018) and at the city-regional scale in the Nottingham biotech cluster case (Smith, Rossiter & McDonald-Junor 2017, Rossiter & Smith 2020). In both cases the redeployment of legacy physical assets, legacy industrial capabilities and accumulations of human and institutional capacity were harnessed to effect a positive development outcome. In this sense, these successful examples of development at the local scale, are a product of policy makers (local and national) and local actors 'working with the grain' of the local industrial milieu. The challenge is how do we facilitate positive path creation in localities that are, in these terms, asset poor? This brings us to the question of future research.

¹⁵ https://www.gov.uk/government/news/east-midlands-local-economy-to-be-levelled-up-with-historic-billion-pound-devolution-deal

6.2 An Agenda for Future Research

1) Testing and extending the model

The evidence presented in this body of work has identified a number of factors and processes associated with path creation in the English Midlands (summarised in the model represented in figure 4 above). Individual papers have demonstrated the generalisability of these findings to other UK regional contexts (Smith, Rossiter and McDonald-Junor 2017, Yates, Clark and Rossiter 2021) and in a limited way to other European Regions that have sought to develop new paths associated with life sciences and/or biotech (Rossiter & Smith 2020). There is a clear need to extend the scope of these comparative studies in order to better understand the interplay of institutions, agency and policy in a wider range of spatial contexts that have been affected by long term structural change associated with deindustrialisation.

The model has clearly identified the importance of local agency within the path creation process. There is, however, potential for this model to be further extended by considering what specific types of local agency are most effectual in specific spatial, institutional and industrial contexts. This is particularly so because of the variegated nature of deindustrialisation and restructuring as experienced by different regions and localities (Blažek et al 2020). In some regions this may take the form of a one-off shock, in others, arguably more like Nottingham and the English Midlands, it may constitute a more incremental process experienced over a longer time span that we can perhaps characterise as 'deindustrialisation by a thousand cuts' or, building on the evolutionary metaphor, a form of punctuated equilibria.

2) How to engineer path creation in asset-poor and/or institutionally weak/unstable localities?

To a significant extent, the path creation processes explored in this body of work have involved the redeployment of legacy assets (physical and human), policy intervention, the capabilities of institutions and local agency. Perhaps the biggest challenge arising from this work is to understand how policy makers and local actors can successfully effect new development path creation in localities where one or more of these key ingredients are weak or absent? Following from this, is it possible for investments or capabilities in one of these domains to compensate for deficiencies in others?

The early papers within the body of work under review (Rossiter and Price 2013, Rossiter 2016) documented the nature, and policy and practice consequences, of a notable example of state rescaling in the shift from regionalism to localism in UK economic development policy after 2010. One consequence of this national policy change was a period of institutional instability as new organisations formed and more established ones re-formed or reconstituted themselves. Where continuity was evident it was associated with a cadre of economic development practitioners who successfully transitioned into new or reformed organisations while retaining important analytical and strategic capabilities in their regions and localities. This evidence points to the importance of retaining specialist human capital during periods of institutional instability. How this might be done and in what specific spatial and institutional contexts it is important or appropriate is another question for future research.

3) Where next for cities and localities like Nottingham?

This body of work, using an application of the historical epistemology noted above (see 5.6 above), has allowed the antecedents of the recent development path associated with biotechnology in Nottingham to be identified. It is, however, salutary to remember that only a few years before the development of BioCity – in many senses the seed for the Nottingham cluster - Lord Sainsbury had concluded that there was essentially nothing of note associated with biotechnology in the East Midlands (DTI 1999). In light of the research presented here, we can conclude that the Sainsbury Review had missed some important antecedents or legacy capabilities that were of great potential relevance to the development of a new biotech industry. However, the salient point is that at the turn of the Millennium, it was far from obvious to the policy makers of the time, that the City stood on the cusp of what would become an extremely fruitful new development path. How then can policy makers, and indeed other local actors, be expected to identify development opportunities of this kind at a point where policy intervention might be beneficial? There is growing local interest in Fintech as a potentially significant new development path for Nottingham - building on the presence of companies like Experian and Capital One and their network of specialist suppliers. Similarly, recent pro bono research at NTU has identified the intersection between 'digital' and 'creative industries' as an emergent area of growing strength with potential (Karagounis and Rossiter 2022). Finding ways to systematically identify and evidence such development opportunities on an ongoing basis remains a major challenge to policy makers.

Proponents of smart specialisation have responded to this challenge by arguing for what amounts to an embedded form of entrepreneurial discovery, supported by sub-national institutions, as the means by which state and private sector actors may collaboratively identify potential new development paths (Bailey and De Propris 2020: 241). What this entails in practice remains far from clear. This body of research has identified some of the individual and institutional agents and processes involved. Further research, in a wider variety of industrial and spatial contexts will be required if these insights are to be effectively translated into sub-national development policy in the kinds of post-industrial regions and localities that have been the focus of this work.

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Appendix 1

Published papers that comprise the body of work

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Appendix 2

Contract research that has informed this body of work

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