Narratives as a Coordinating Device for Reversing Regional Disequilibrium

Paul Collier and David Tuckett

Second Draft, August 2020

A paper for the Oxford Review of Economic Policy

Abstract

Substantial differences in productivity, accompanied by growing social and political discontent, have widened across UK regions in the last 40 years, creating a dysfunctional spatial equilibrium; a coordination failure that has so far proved resistant to change. In this paper, we link such persistent regional disequilibria with current socio-psychological theories about the role of narrative in decision-making under radical uncertainty to explore how and why ideas held collectively within a social network can become the coordinating device for a range of decisions within networked communities that have extra-market effects (externalities), analogous to the role that prices play within markets. Drawing on findings from a pilot interview study in two UK regions, we show the potential for local leadership to use well-constructed narratives to coordinate fragmented agents to cooperate on a common purpose and more generally propose a framework to understand how low-income equilibria become stable but might be re-set. In this way we bring new insights into the need for an expanded economic theory of knowledge applicable to expectation and preference formation in conditions of radical uncertainty.

Narratives as a Coordinating Device for Reversing Regional Disequilibrium

1. Introduction

Productivity per capita is now 77 percent higher in London than provincial Britain. Half of all FDI, and two-thirds of venture capital investment, are in the South-East. This extreme spatial concentration is highly unusual and has become politically toxic.

It is unusual both historically and compared to other OECD societies. Until around 1980, for two centuries Britain's spatial productivity differences had been narrowing. Due to the subsequent reversal they are now more extreme than any other major OECD country. For example, West Germany has successful cities in each region, from Hamburg in the North-West to Munich in the South East, and through sustained and vastly expensive public policies (estimated at E2tr), even East Germany has been converging (Carrascal-Incera *et al.*, 2020). The social anger understandably generated by the inertia of public policy in the face of this prolonged divergence is now politically salient, reflected in the Levelling-Up agenda. However, while divergence was most likely avoidable, it has become a new equilibrium, entrenched in the expectations of economic actors and the structures of political decisiontaking. Reversing it will be a complex process.

In this paper we link two previously distinct literatures to build a new theory of the coordinated escape from a dysfunctional spatial equilibrium. One, reviewed in Section 2, updates economists with recent developments in the social psychology of investment decisions taken in the context of radical uncertainty. These shift the focus from the individual 'biases' in decision-taking with which economists are familiar and are already deployed in public policy, to the influence of ideas held collectively within a social network. The other, reviewed in Section 3, applies the concept of self-fulfilling beliefs to the interdependences now recognized as fundamental to spatial economics, highlighting the importance of a coordinated change in expectations. In achieving that coordination, the radical uncertainty that characterises the highly complex challenge of Levelling Up reduces the efficacy of prices, as exemplified by the ineffectiveness of low interest rates in stimulating investment (Collier and Mayer, 2020). Here we argue that a specific type of policy narrative, which becomes more potent in conditions of radical uncertainty, can be used as the policy tool that substitutes for prices. There is a parallel between the coordinating role of narrative in an

economy proposed in this paper and the role it is already being ascribed in theories of central banking and inflation targeting. Traditionally, inflation policy was interest-rate policy guided by a monetary rule. But in recent years policy has jumped "ahead of theory" (King, 2005) as central bankers have come to realise that "the way we expect monetary policy to be conducted in the future affects economic outcomes today" (King, 2017 p176). To anchor such expectations, central bankers have devoted an enormous effort to "learning about their environment" (King, 2005 and see Blinder and Reis, 2005), and routinely to craft their words carefully, using them at the time interest rates are announced to create narratives of the future, such as 'Whatever it takes' and 'So far, so V', (Tuckett, Holmes, Pearson and Chaplin, 2020). In this respect, central banks are exercising their coordination through narrative, backed by the power to alter incentives by changing interest rates. Believable narratives of their local economy constructed by regional leaders, backed by taxation and other powers that enable them to shift incentives, potentially have the same coordinating power.

Intrinsic to our argument is the proposition that narratives cumulate into 'deep stories' (Hoscschild, 2016) that become fixed, so that the expectations of a region's economy cannot be changed until they are understood. To move beyond the generic, we necessarily illustrate our argument using specific evidence from two provincial regions chosen for their economic contrast. Wales is the poorest mainland region in Britain and continues to fall further behind. The West Midlands has a major cluster of the automotive industry. As in the other automotive-producing regions of Europe, there is an objective basis for anxieties over the implications of the switch to electric vehicles. The region has Britain's second city, Birmingham, which could potetially thrive like Munich or implode like Detroit. Both regions are of comparable population – around three million. Crucially for our purposes, and unusually for Britain, both have active local political leadership: Wales has a Government led by a First Minister which has been in place since 1999, while since 2017 the West Midlands has a Combined City-Region Authority, led by a high-profile Mayor. In Section 4 we analyse the potential for such leaders to reset the narratives that influence investment decisions within a depressed region.

In both regions, following in the footsteps of Bewley (1999), we have undertaken in-depth pilot interview studies to gather evidence on the locally prevailing business narratives. As pilot studies, designed to test the feasability of capturing local narratives for a larger set of ethnographic studies, full confidence in the detail of our findings must be limited, pending

further work with more business people and also representatives of other decision-maker networks. But our sample is drawn from a group who regularly talk to the Bank of England's agents, by whom we were introduced. They are deemed by the Bank as expert on business conditions in their regions and so we think it unlikely that our main conclusions are far astray. We use the interviews to illustrate each of the three steps in our argument: the importance of narratives in forming investment expectations (Section 2); the expectations trap that locks some regions into low-income equilibria (Section 3); and the scope for regional leaders to reset those expectations (Section 4).

2. The social psychology of investment decisions under radical uncertainty

We first explore how and why ideas held collectively within a social network can become the coordinating device for a range of decisions within networked communities that have extramarket effects (externalities), analogous to the role that prices play within markets. In doing so we create a framework to understand both how low-income equilibria become stable but might be re-set and also bring new insights into the need for an expanded economic theory of knowledge applicable to expectation and preference formation in conditions of radical uncertainty.

Radical uncertainty contexts, we will argue, make narrative-based decision-making processes fundamental to understanding how investment decision-making is undertaken, particularly under the further condition that the investment is large and not reversible without substantial loss. We will elaborate from this framing to show how a narrative theory of decision-making shifts the focus from the individual 'biases' with which economists are familiar, to the systemic influence of the ideas held collectively within a social network which are formulated and communicated in narrative form. Results from our pilot study interviews suggest that the narratives of the opportunities in each region held by local businesses – both those that evoke 'attraction' and those evoking 'flight' - are common within a local social network, rather than being fragmented and specific to individuals. We could also distinguish more conflict and fragmentation between narratives in different social networks in one region than the other. If, as we argue, narratives can be reset by policy communication, they therefore have considerable potential to become the coordinating device to stimulate investment, analogous to the role that prices play in conventional analysis.

We start by framing investment in economically depressed regions as an instance of an irreversible decision taken subject to radical uncertainty. Such framing highlights an

underlying but hitherto under-recognised issue: that agents facing radical uncertainty experience *ambivalence* (Freud, 1900; Smelser, 1998). The term is used to refer to the *simultaneous* existence of reasons to feel both attracted to, and repulsed by, making the commitment (Tuckett, 2011). Under radical uncertainty, *ex ante* investment opportunities necessarily have the potential both for success and failure, each with unknown probabilities, so that *ambivalence* is inherent. The response of ambiguity aversion is a recognized 'bias,' but until recently economists had assumed that it would not significantly affect investment since risks would be mitigated through financial diversification. We now know that this is precisely wrong: sophisticated economic actors are more ambiguity-averse (Hong *et al.* 2019). Here we introduce economists to Conviction Narrative Theory (CNT), a social-psychological theory of decision-making which explains how people actually overcome or suppress ambiguity. In essence, it argues that people become sufficiently convinced to commit to an investment through narrative formulation of a mitigating information strategy. The pertinent narratives thereby replace prices as decisive.

CNT draws on contemporary knowledge of biologically embodied and socially embedded cognition (Tuckett and Nikolic, 2017; Johnson, Bilovic and Tuckett, 2020). In so doing it abandons the normative assumptions of much previous decision theory in which knowledge is largely given (Elqayam and Evans, 2011). It explains how, despite the absence of essential information and an overload of the inessential, humans are able to overcome the fate of Buridan's Ass (Sen, 2004). Initial ambivalence does not paralyze us into inaction. Rather, human qualities, particularly beyond those associated with calculative ability, enable us to draw on our social, emotional, and cognitive inheritance to *feel* as well as to *know* what to do. We are enabled to act, and particularly to innovate, in situations in which an algorithmic decision process, and the formal procedures considered to be good corporate governance, would freeze up.

CNT formulates and solves together two issues overlooked in previous approaches to investment decision-making. One is how investors make the necessary inferences to "know" enough about fundamentals to form their forward-looking expectations. Its complement is how they overcome the ambivalent doubts that dependence on radically uncertain future relationships necessarily generate.

The context in which the theory was pioneered was the decision-making of a group of regularly successful British, European and North American-based fund managers controlling over 700 billion dollars of investments on world stock markets (Tuckett, 2011 and Chong and

Tuckett, 2015). These studies found that they supported their decisions to commit resources not directly by new quantitative evidence, but with a package of new narratives from which they drew conviction. Some of these were 'attractors' that generated the feeling of excitement; others were 'doubt-repellors' that allayed fears. The package overcame ambivalence and enabled action.

Three properties of narrative enable the package to perform these functions.

- 1. Narrative Sense-making. A narrative is a structured hypothesis that guides perception by making sense of observations, supporting clear predictions. It can be succinct or lengthy, and apply to various contexts: an election, a pandemic or a Dotcom. Our capacity for narrative develops early (Bruner, 1990) and is fundamental to consciousness (Baumester and Masiacampo, 2010). By making sense of the world, narratives form a fundamental element in human cognition (Johnson, Bilovic and Tuckett, 2020). Their essential quality is that *they enable incomplete data to be fitted to patterns through stories that are partially pre-formed*, interpreting it to generate causal propositions that can be used for prediction. In this way they permit information relevant to action, but which is ambiguous, to become interpreted as actionable knowledge. This is consistent with how business strategy is actually practiced: a plausible narrative account "turns circumstances into a situation that is comprehended explicitly in words and that serves as a springboard into action" (Weick, Sutcliffe, & Obstfeld, 2005: 409).
- 2. Narrative Simulation. Stories, as well as making sense, can provide alterative readymade explanations of the past, or expectation about the future, as with the celebrated 'scenarios' used by Shell. Different narratives about an investment plan can be sketched out and their outcomes imagined (possibly with quantitative help despite the lack of objective probabilities) to allow choices to be made (Tuckett, 2011).
- 3. *Narrative Embodiment*. The brain is inherently forward-looking: humans have evolved by imagining ourselves in future scenarios to simulate what outcomes would be like. In this way, during the process of imagining, the brain is engaged so that outcomes are felt as experienced, as well as thought, and thereby become desirable or not. This has been aptly described as 'mental travel time,' drawing on the '*as if*

body-loop' (Suddendorf and Corballis, 1997 and Bechara & Damasio, 2005). This fusion of thought and feeling occurs automatically, the emotions continuously generated in the Amygdala and Orbitofrontal cortex constantly assessing cognitively envisioned outcomes as being good or bad for biological needs (Rolls, 2019). Note that this is contrary to the earlier, and now widely criticized, 'dual systems' theories of thinking which separated emotional and cognitive pathways (see for the latter, Kahneman, 2003, and for its critiques Phelps, 2006; Phelps, Lempert, & Sokol-Hessner, 2014, and Mercier and Sperber, 2017). In this way, our evolved adaptive capacities enable narratives about the future to produce a sense of verisimilitude truth - that enables individual and collective action (Spence, 1982; Bruner, 1985). The overall effect is that a preferred strategy is enacted if its underlying narrative evokes approach rather than avoidance emotions.

As argued, economic actors under radical uncertainty lack objective knowledge relevant to the success of an investment, and so cannot know *ex ante* the probability of whether their plans will work out. Consequently, they have to infer what is going on by looking around, talking to others, learning and copying. The stories that support particular conviction narratives about investment decisions therefore draw on, and are consistent with, those beliefs and conventions already circulating in the community, reflecting its experience and ideas about the future.

Narratives are as old as the development of language and fundamental to communication and coordination. Conviction narratives are built up from among the many pre-formed narratives already in circulation – often in an institutional setting (Fenton O'Creevy and Tuckett, 2020). The process by which they are generated enables them to perform three further functions beyond that of steering individuals towards or against particular investments.

First, insofar as network-salient narratives of investment-pertinent propositions are shared, they can coordinate within and across networks, such as those among local business and local government, thereby affecting the perceived attractiveness of investment in a region. However, recent work on how actionable ideas spread within and between social networks suggests that while within a well-connected network they will spread easily, due to the weight of social pressure they will tend not to spread across networks between which there are only weak connections. 'Wide bridges [across networks], not weak ties' are necessary' (Centola, 2018, p 112). Suppose that within a well-connected network everyone has come to

accept proposition X. Now, an outsider links with one of these participants and offers evidence for -X. Despite the evidence, the cost of switching to -X may be a loss of the good opinion of several valued fellow-members. Centola shows that such situations usually resolve in favour of maintaining X. Further, the choice may be rationalised by a neutralising proposition that dismisses the evidence for -X as motivated reasoning (Collier, 2016).

Second, subject to the processes by which these narratives are formed and spread, they may be reshaped purposively by those actors who are nodal in the network. This is indeed why there is so much commercial focus on the marketing potential of 'influencers.' Our focus is on the scope for the political leaders of a region to use their power of communication to reset damaging narratives.

Finally, common action to generate perceived common benefit does not only depend upon the coordination of *causal* narratives. Leaders may also be able to overcome the tension between individual interest and common interest that constitutes the core of the collective action problem. For this, they may need to change the narratives that form ideas about identities and norms, building social pressure that elevates the value of actions which further common interest.

3. The economics of regions: interdependence, self-fulfilling expectations and multiple equilibria

Because spatial investment decisions are highly interdependent, spatially coordinated expectations can readily generate self-fulfilling outcomes. Hence, regional economies are characterised by multiple locally-stable equilibria (Fujita, Krugman and Venables, 1999). This is why, if regionally distinctive narratives coordinate these expectations, the capacity to change them would be valuable for public policy. In Britain, the policy objective is to raise productivity in low-income regions to that already prevailing in the South-East and this would be assisted by, and may even require, such narratives to be reset.

A high-income region depends upon at least one high-productivity city offering jobs at globally competitive levels of productivity: this usually takes the form of a cluster of knowledge-intensive firms competing in global markets within which immobile and locally-specific tacit knowledge can be fused with mobile codified knowledge (Pinch *et al.*, 2003). On this base of high-income jobs, many others can be supported in locally-traded services. If the region has good transport, some skilled people working in the export sector can remain living in their home towns while commuting to the cluster. Their expenditures support local

services, enabling those who provide them to share in prosperity. Such spatial equilibria are clusters of interdependent activities. For each individual decision taker, the key information concerns where other actors will decide to locate. Since each decision-taker has a history of having made irreversible commitments to a particular location, the most likely expectation is of persistence. This gives path dependence and *ex post* local stability, both of high-income city-regions and low-income ones. This problem of how to reset low-income equilibria is intensified by two complications.

One is that the interdependences span very different types of actor. If a cluster of firms enhances the productivity of the firms within it, their investment decisions will be interdependent (Venables, 2018). But interdependencies extend well beyond those between firms. Firms serving export markets depend upon investments in the infrastructure of connectivity which reflects a distinct set of decisions. Knowledge-intensive firms benefit from the research conducted in local universities, which also reflects distinct decisions. Firms need labour with pertinent skills, but investments in pre-employment training are taken by local households: parents will advise their teenagers according to their expectations of future prospects, and the local opportunities for training. These opportunities depend upon the courses offered by local Colleges of Further Education, reflecting a further set of decisions. The ability of a region to retain its skilled labour, and to attract new firms, also depends upon housing, public services and the brand-recognition of place, each reflecting investments diffused across the community. Even if the narratives prevailing within a networked community - such as that among local firms - are common, they may be fragmented between these distinct communities. As argued above, segmentation does not have to be absolute in order to prevent the spread of an idea. Resetting a low-income equilibrium may require a coordinated change in the narratives prevailing in several communities that have only limited interaction.

The other complication is that while we know in general terms that these interdependencies within and between groups matter, social science is unable to quantify them with precision. Nor do we know how to achieve coordinated change. Hence, the Levelling Up policy agenda is an instance of radical uncertainty (Manski, 2011; Kay and King, 2020). Since no model can be trusted to guide decisions, the generic principle for such problems is to encourage experimentation and rapid learning that, as with spatial proximity, helps to fuse the tacit knowledge of practitioner experience with the codified knowledge of experts (Nightingale, 2009). For this, devolved decision-taking is essential (Gibbons and Henderson, 2012). The

initial context of prevailing narratives differs between regions and is best-known locally. Further, it is easier for codified knowledge to flow from the centre to localities than for tacit knowledge to flow from localities to the centre.

The above analysis is encapsulated in four propositions. Within a location, the business community is sufficiently well connected to form common beliefs; the investment decisions taken by these businesses are recognized as being dependent on those of many other types of actor; the key decision groups do not communicate well with each other; and the prevailing narratives differ substantially between regions. We now turn to the interview evidence to substantiate them.

On the first proposition, we were surprised to discover the uniformity of business views both within Wales, and within the West Midlands. Intra-regional disagreements were negligible and by combining any three interviews on almost all our open-ended, neutrally phrased questions, we could accurately predict the others. Views on economically pertinent propositions were held in common.

One of these confirmed the second proposition. Interdependencies between business investment and other decisions were widely recognized. In Wales, public investment in transport infrastructure is seen as inappropriately targeted: 'The pertinent region is M4 corridor'; 'Everything is East-West'. A major concern is a choke-point at Newport: 'The tunnel is the blockage', for which the solution is seen as being a bypass. But the Welsh Government has recently decided against it, using its discretionary finance to subsidize Cardiff Airport. This is seen by business as a vanity project 'Cardiff airport is a huge financial drain'. For South Wales, the political entity that would coincide with economic reality is the 'Western Gateway', which barely exists beyond its name. In contrast, in the West Midlands the problem of inadequate infrastructure for connectivity is seen as being due to a lack of discretionary finance, rather that misaligned priorities. 'Economically the West Mid region is defined by the M1 and M6'; 'We need road systems that link to ports -Felixstowe, Hull, Bristol'; 'The East side of Birmingham is doing well, but not the West side. There is very poor connectivity between them, but politically it is too difficult to build a link road. The Mayor has nothing to offer the NIMBYs to neutralise opposition. An American State Government would have the resources to offer something in exchange. But here the Mayor has no discretionary budget to buy them off.'

Another widely recognized interdependency was between business and schooling, colleges and universities, which determine the ease of recruitment of skills. In Wales education is seen as inadequate. 'Schooling is poor: all the Welsh Government is interested in is Welshspeaking'; 'It is hard to recruit from England because schooling is seen as sub-standard'; 'The universities are not good enough'; 'It is very hard to recruit people with good Russell Group-quality skills'. But in turn, the lack of skills is recognized as interdependent with the lack of jobs: 'The bright leave'; 'Skills without jobs won't work – they leave'. In the West Midlands, the situation is very different. In respect to schools the only complaint is about attitudes: 'We do training, but half our recruits fail; we can't find locals with the right attitudes - patience, diligence, emotional control. So, we recruit from Eastern Europe.' The region's universities are seen as good: 'Our strength is our universities', and recruitment of cognitive skills is seen as easy: 'High-level skills are easy to find and cheaper than London'. Vocational training is seen as inadequate, but due to the lure of London and national policies: 'We have a skill gap in region – metal bashing is not enough'; 'The apprenticeship levy is too narrow and too top-down: firms know how to do it'. There is some objective basis for these differences in business narratives. The exam performance of Welsh schools, a devolved responsibility, has declined considerably relative to those in England, while despite their similar populations, the highest UK-ranked Welsh university is only 27th, whereas in the West Midlands one is 9th and another 13th.

A further recognized interdependence was that place-based branding matters, and that organised civil society could be important in contributing to it. But again, there is frustration that it has not yet happened. The national model here is probably Edinburgh, where civil society has built its Festival into a major international event, attracting 500,000 people from around the world. Together with Edinburgh University, rated as the top university beyond Oxbridge and London, it makes the city appealing for educated youth. From Wales: 'We lack civil society and think-tanks generating a positive, forward-looking perspective;' 'My daughter won't say she's from Merthyr Tydvil'; 'We need more confidence, more marketing of success'. From the West Midlands: 'The biggest issue with Birmingham is perception'; 'We don't know how to translate the region into a national brand'; 'Birmingham-based firms are at a disadvantage in raising corporate capital because we're not based in London which is a better brand'.

While, the decisions taken in different networks within the region were recognized as interdependent, each is influenced by the narrative that circulates within it. To be

internalised, there needs to be sufficient dialogue between the networks to generate common, forward-looking purpose. In both regions this is seen as lacking, and here the narratives concern identities and norms as well as causality. 'East Wales doesn't like West Wales; North Wales doesn't like South Wales'; 'There is no commonality of opinion to agree on anything'. 'The West Midlands suffers from compartmentalisation, we don't work well together.' 'Coventry seldom speaks to Birmingham, and vice-versa.' A specific failure of liaison was that business saw universities as being too detached. From Wales, 'Our universities have only a lukewarm mission and weak links to business;' from the West Midlands, 'Warwick University needs to be more integrated in the local economy'. But only in the West Midlands was this linked to a specific, forward-looking strategy, widely shared: 'We're not generating enough ideas for using science – no one seems to be tackling this;' 'We don't have a science park, nothing like Harwell.'

Finally, we turn to the major difference in regional narratives. In Wales, narratives of identity suggest that identities are not merely fragmented, but actively oppositional. A predominant explanation for economic failure is normative: others are blamed within and outside the society, resulting in a passive mentality of victimhood. A pervasive theme among business was that it faced anti-business sentiment: 'The Welsh Government is anti-business;' People are suspicious of business: 'what's in it for you?''. A striking instance of such oppositional attitudes was the radically different interpretation within the region of the same flagship public policy, the Future Generations Act. A public agency described it as 'ground-breaking and globally admired', whereas the view from business was 'The Future Generations Commissioner has done no work on economic prosperity. The Act is great for stopping things!' Backward-looking victimhood is seen as widespread as the explanation for economic failure, 'There is a compensation, grievance culture universal among Welshspeakers and the Government;' 'The victim mode of comparison is common - 'why haven't I got it?". 'England is the big baddie'; 'The Welsh Nationalists want reparations from England for the Industrial Revolution!' There is recognition of what is needed: 'We need effective policy intervention around a strategy'. But the region is seen as incapable of generating it and so business looks to Whitehall: 'Devolution has made things much worse'.

Such attitudes were much less common in the West Midlands. While rivalries among the 14 local authorities were recognized: 'Our cities have zero-sum rivalries', there was more sense of common purpose among the workforce: 'You can rely on the workforce to help you'; 'People rise to the challenge of things going wrong'. The was a strong forward-looking sense

of the potential, largely absent in Wales. In striking contrast to Wales, business in the West Midlands wanted devolution in order to seize opportunities: 'We need devolved responsibility,' 'We need regional control'; 'We need a good overall plan for the region – sciences parks, VCTs, graduate students'; 'We're primed for being the next big thing'; 'COVID is a big opportunity – Barclays is saying 'why do we need 7,000 people in Canary Wharf?' Similarly, the branding problem is seen as fixable: 'Coventry, City of Culture in 2021 could be an important opportunity for rebranding'; 'the Commonwealth Games [Birmingham]; Coventry City of Culture, and HS2 are all opportunities for rebranding.'

An implication is that although narratives are fragmented between communities within the West Midlands, they are not inherently unpromising as a basis from which local leadership might reset them around a common, forward-looking strategy. In contrast, in Wales the prevailing narratives are not only fragmented but deny the scope for local action, while local leadership is seen as complicit in reinforcing them. Having described the narratives prevailing in each region, we now turn to the potential for public policy to reset them.

4. Resetting Expectations through Communication by Regional Leadership

In a successful region such as the South-East in recent decades, decisions to invest in businesses, skills, and infrastructure become coordinated around some common, forwardlooking strategy that is sufficiently believable to form part of the conviction narratives supporting new investment. Confident expectations are then widely held within the region and easily transfer to a strong brand that is recognized globally, supporting further investment. The favourable outcomes map back into the beliefs, appearing to confirm them, so the process of beliefs \rightarrow actions \rightarrow outcomes \rightarrow beliefs becomes ergodic. In London, the narratives have built into a 'deep story' underpinning feelings of confidence, depicting London as Europe's predominant cosmopolitan community of opportunity for those with ability. Such forward-looking common purpose can apply beyond a specific objective: the deep story becomes a meta-narrative. In a radically uncertain world, a community can expect to encounter new anxieties. Its capacity to respond successfully to them depends upon whether it expects to surmount them. The communications of national political leaders and the media have contributed to London's confidence, not least because both are heavily concentrated in London. Further, until recently, Greater London has been the only economic region with its own elected mayor. Neither the West Midlands nor Wales has benefited from such a virtuous circle. The beliefs prevalent in Wales appear to be trapping it in a vicious circle of blame and learnt helplessness – analytically an equivalent ergodic process. Both

conditions are locally stable equilibria. In the West Midlands, we will argue, there is some evidence that beliefs are more amenable to change, and that leadership is beginning to reset them. But the steps needed to make this transition between equilibria demand a distinct theory: they are equivalent to the role played by scaffolding in construction, essential, but unobservable in the *ex ante* and *ex post* equilibria.

As discussed, leaders are potential nodal actors in networks and so have the power not only to set policies but to be heard. But being heard does not necessarily translate into influencing actionable beliefs. To reset them, a leader needs to be trusted as fair and competent in each of the pertinent networks, and hence able to deliver what is promised as events evolve. Further, the leader needs to have listened sufficiently to the narratives prevailing in these communities to be able to change them incrementally.

On trust, economics and evolutionary psychology have built the same theory. The economic term, *signalling*, signifies that trust is built by actions that would be too costly for those who are not well-motivated. The equivalent term in evolutionary psychology is *credibility-enhancing displays* (Heinrich, 2016). Although the latter are common in many species, humans have adapted it for leadership. Alongside the mammal-wide leadership style of dominance, in which leaders glory in being commanders-in-chief, we have evolved a parallel form characterised by behaviour which is 'prosocial, generous, and cooperative . . . using self-deprecating humour' (Heinrich, 2016, p123; see also Heinrich and Gil-White, 2001). This is the style best-suited to build the trust needed for the role of communicator-in-chief. The leader communicates by combining observable signalling actions with pertinent narratives (Reicher *et al.*, 2005; Haslam *et al.* 2011; Fransen *et al.*, 2015). We also know that leaders can be role-models so that timely and visible early compliance with new norms can encourage their spread (Gachter and Renner, 2018).

On listening, to change damaging narratives which have hardened into a deep story, a leader needs empathetically to understand its components to break through its defences. Here, a distinction made in CNT between two attitudes to early evidence of failure is useful (Tuckett and Nikolic, 2017 p13-14). In a Divided State, such reasons for doubting the CN are systematically shut out. For example, currently around a third of Americans would refuse a vaccine against COVID as unsafe, many of them having accepted the deep story of the social media network QAnon, a site frequently retweeted by President Trump. The *Financial Times* (2020) describes it as 'the virtual cult that believes America is run by a satanic deep state that abuses children', commenting that 'it would be hard to invent a more unhinged account of

how the world works. This is an extreme, yet important, example of a damaging deep story impervious to factual evidence. To induce take-up of vaccines, the conventional economic policy would be a subsidy. But in this context it would fail for the same reason that a low price for 'lemons' fails to attract buyers: the deep story interprets it as further evidence for avoidance. To be effective, policy needs to change the deep story incrementally, using the tools by which it has been constructed.

To change a CN supported by a Divided State, leaders must accumulate the knowledge and trust to break through its firewall, and so must themselves have a very different attitude: a CN supported by an Integrated State. Here, the actor recognises, tolerates and values anxiety, using it to be curious about what is going on, aiming to spell out and anticipate weak but essential parts of the plan of action, from which sensitive indicators of progress are formulated. Under radical uncertainty, if some parts of an overall project seem likely to fail to meet expectations, anxiety about resulting loss is an important warning sign and an opportunity to learn. The narrative elements in the CN that potentially arouse feelings of attraction or avoidance thereby support a programme of investment that can be carefully thought through. Integral to the plan from inception are actions that monitor things going wrong, respond by fine tuning, and learn from the outcome (Fenton O'Creevy and Tuckett, 2020). A leader with such an attitude is open to hear the viewpoint of those trapped in the deep story, accepts that resetting it is subject to uncertainty met by learning from trial and error. For example, he may begin by expressing the anxieties of those trapped in the CN as they see them, and acknowledges what they want him to do about them. He either does them but explains why they are insufficient, or explains why he cannot do them. This evidence that he has listened and is honest about limitations paves the way for setting out his own strategy. Maintaining modesty and honesty, he may underpromise its likely efficacy, while setting out tracking indicators observable as it is implemented.

We now return to the interview evidence from our two regions to assess to what extent their political leaders meet the two conditions for effective communication – being trusted, and coming to the problem with a CN formed in an Integrated State?

We begin with trustworthiness. As previously, within each of their business communities there is near-uniformity of views, but they are strikingly different. In the West Midlands, the Mayor, Andy Street, came to the job with a strong record of signalling trustworthiness both with the business community and ordinary residents. Not only had he himself been the CEO of a major company, (John Lewis), but under his leadership it had become the most admired

and trusted company in Britain. The interview evidence suggested that the potential for leadership by communication is widely recognized: 'We have an identifiable central city [Birmingham] and this can make a natural narrative;' 'We need to assemble the story – people think by inductive logic, from narratives;' 'I like the things they've done about creating the West Mid mayor;' 'There's huge potential for leadership;' 'Until Andy Street, getting the West Midlands to pull together was nigh-on impossible.' It also suggested that Street had successfully built on this base: 'Andy Street is doing a good job;' 'Andy Street has been very good indeed.' The only concern expressed was that he might not be reelected.

In Wales, the First Minister, Mark Drakefield is a former academic specializing in social policy, and like Street came to the job with plenty of evidence of pro-sociality. The potential for good communication by leaders is also recognized, but within the business community he is not seen as curious about business or having harnessed it. Unlike Street, he had no experience with business, and has not won its trust: 'Generating enterprise is not a priority of the Welsh government;' 'Our political leaders are not people you're willing to follow.' This assessment has hardened into a deep story that includes an explanation: 'Funding comes from England so there is not much interest in growing the local economy;' 'The Chief Scientific Officer of Wales self-published *Achievements* [about Welsh examples of pioneering innovation] but it was not distributed to schools because its not politically acceptable;' 'There's a semi-conductor hub in Newport but it gets no publicity or funding from the Welsh Government;' 'Global Welsh [the diaspora network] is not supported by the Welsh Government.'

We now turn to whether the leader's approach is likely to be resilient and able to adapt convincingly in the face of uncertainty. Is there an open attitude to learning-by-experiment? Again the judgement on Street is positive. 'We, [the local head of a business network] provide strategy feed-in to Andy Street; its highly specific because business has to work it out – transport, housing, skills – finding the bottlenecks; its hard to get them into delivery because of [regional policy] fragmentation.' In contrast, Welsh political leaders are seen, at least by business, as being in a Divided State: 'I think they think they know best;' 'The First Minister of Wales got rid of the WDA – it had reported to business people, he wanted something that reported to politicians;' 'We need leaders with vision, willing to take risks, and a media which accepts that not everything will work;' 'Consultation of the business community over the Future Generations Act was minimal and tick-box;' 'The Welsh government doesn't relate adequately to SMEs.'

Whether or not these views of the business community are justified, its views are important for economic recovery and the scope for Street to reset the narrative of the business community to a CN that justifies investment appears to be greater than that of Drakefield. Finally, we turn to the larger task of resetting identities and norms to create social pressure for common purpose to prevail over individual interest: the theory of how societies overcome the 'tragedy of the commons' for which Ostrom (1991) received the Nobel Prize. As discussed in Section 3, in neither the West Midlands nor Wales were identities aligned with the economic geography of a coherent region, nor was there any pressure to cooperate for the common purpose of growth in such an entity. But in the West Midlands the interviews suggested that Street is beginning to succeed in this larger task: 'He's changing perceptions of identity; there's much more willingness now to cooperate;' 'It [cooperation] is much better since Andy.' There remains much to be done: 'Andy needs to tap into universities'; 'its an uphill struggle, a long way to go.' The West Midlands is still quite far from its various communities sharing a forward-looking common purpose, based on a well-informed strategy, supported by a norm of mutuality. But having been Mayor for only three years, he appears to have created the sense that change towards this end is underway. In Wales there is no equivalent evidence: quite the contrary. The Government is seen by business as actively building a dysfunctional deep story among its supporters, somewhat analogous to that which Hochchild (2016) has described in Louisiana, that communicates a Divided State CN, backward-looking and divisive.

Above, we have shown that Street meets the two conditions for communication by a leader to be effective in resetting beliefs. To date, the Authority of West Midlands Combined Region has been given only minimal powers so that Street can neither command nor incentivize the actions of its component entities. His only option has been to rely on communication, and this is how he has deployed his abilities. Further, we have shown that at least within the business community, while uncertainty is fully recognized and actors are hesitant, they are not trapped into a Divided State CN that sees continued regional economic failure as inevitable. Hence, the business community, and possibly other pertinent communities, appear to be open to a region-wide CN that supports the investments that Street is trying to encourage.

The success or failure of his efforts is evidently consequential for Levelling Up. But for our purposes it constitutes a testbed for our theory of the role of narratives communicated by leaders in resetting a spatial equilibrium. Applied to these two regions, our theory predicts that in the West Midlands the leadership efforts begun in 2017 will go some way to revive

economic growth, and that its first observable signs will be a reset of business beliefs. In contrast, in Wales, where the government has had real powers of authority and resources for two decades, on the basis of leadership communications to date we predict that economic divergence would have persisted, revival having been stymied because instead of being reset, adverse business expectations appear to have hardened into a deep story.

That the observable evidence is consistent with our predictions falls far short of meaningful verification of the theory. We make only the more limited claim that it has guided us in identifying what seem to be real differences in potential for economic regeneration in two pertinent contexts and allowed us to formulate how it might be tested more rigorously.

5. Conclusion

In this paper we have tried to link economists' understanding of the coordination failures that underlie persistent regional disequilibria, with current socio-psychological theories about the role of narratives in taking investment decisions under radical uncertainty. Through this, we have proposed a narrative theory of the role of leadership in triggering coordinated escape from a dysfunctional spatial equilibrium.

Our narrative approach addresses the ambivalence caused by the threat of loss when undertaking irreversible investment under radical uncertainty, shifting the focus from the individual 'biases' in decision-taking already deployed in public policy, to the influence of ideas acted on by individuals but held collectively within a social network in the form of "deep stories" of place. We have proposed how a specific form of communication – a Conviction Narrative supported by signalling actions - can perform the coordinating function of prices. We have illustrated how these ideas make sense of current obstacles to economic development, using pilot interview data from business leaders in two areas of the UK. We suggest that the results are sufficiently promising to warrant research on a larger scale.

It has been customary in much economic thinking to regard emotion as noise and to take the ability of economic agents to know and exploit fundamentals as given, rather than as something constructed through processes of inference and knowledge formation to form conviction. This has encouraged contrast between 'behavioural' and 'fundamental' influences, with little role for narratives and emotion. If however, as we suggest, knowledge formation is a socio-psychological process enabling action, influenced by ideas and narratives in social networks that can differ and persist in path dependent ways, then this

typical analytic distinction dissolves, most especially under radical uncertainty where no one view of the fundamentals can be supposed accurate.

Investment necessarily rests on inference and conviction. In arguing that narratives play a major role in creating spatial disequilibria, we are not dismissing fundamentals. Bu their influence is exerted via intervening variables, perception and cognition, based on the way narratives filter ongoing streams of events to provide explanation and actionable expectations based on them (see also, Lane and Maxwell, 2005). Shifts in narratives that are matched with conventional economic interventions can then induce actions which are coordinated through being based on a common narrative. Potentially the combination resets expectations to a virtuous circle in which outcomes confirm the new beliefs and so reinforce them.

To be effective, much depends on reputation. Mayors, like central bankers, need to be consistent, trusted, perceived as competent, and able to articulate their narrative understanding of economic opportunity.

References:

Baumeister, Roy. F., & Masicampo, E. J. (2010). Conscious thought is for facilitating social and cultural interactions: How mental simulations serve the animal–culture interface. *Psychological Review*, 117, 945–971.

Bechara, Antoine, & Damasio, Antonio. (2005). The somatic marker hypothesis: a neural theory of economic decision. *Games and Economic Behavior*, 52(336-372).

Bewley, Thomas (1999) *Why Wages Don't Fall During A Recession*. Harvard University Press.

Blinder, Alan, and Reis, Ricardo, (2005) The Greenspan Standard. Paper presented at the Federal Reserve Bank of Kansas City Symposium. Jackson Hole. August 25-27.

Bruner, J. (1985). Narrative and paradigmatic modes of thought: Invited address presented at the August 1984 meeting of the American Psychological Association, Toronto, Canada. In E. Eisner (Ed.), *NSSE Yearbook: Learning and teaching the ways of knowing* (pp. 97-115). Chicago, IL: University of Chicago Press.

Bruner, Jerome. (1990). Acts of meaning. Cambridge, MA: Harvard University Press.

Carrascal-Incera, Andre, Philip McCann, Raquel Ortega-Argiles, and Andres Rogriguez-Pose, 2020, UK Interregional Inequality in a Historical and International Comparative Context, *National Institute Economic Review*, 253 (August).

Centola, Damon. (2019). How Behaviour Spreads. Princeton. Princeton University Press.

Chong, Kimberly., & Tuckett, David. (2015). Constructing conviction through action and narrative: How money managers manage uncertainty and the consequence for financial market functioning. *Socio-Economic Review*, 13(2), 309-330. doi:10.1093/ser/mwu020

Collier, Paul and Mayer, Colin (2020) Reforming the UK financial system to promote regional development in post-COVID Britain. *Oxford Review of Economic Policy*.

Collier, Paul. (2016), The Cultural Foundations of Economic Failure: a Conceptual Toolkit, *Journal of Economic Behavior & Organization, Volume 126, Part B, June 2016, Pages 5-24*

Elquam, Shira and Evans, Jonathan St. B.T. (2011) Subtracting "ought" from "is": Descriptivism versus normativisim in the study of human thinking. *Behavioral and Brain Sciences* (2011) 34, 233–290 doi:10.1017/S0140525X1100001X

Fenton O'Creevy, Mark and Tuckett, David. (2020) Narrative, emotion, and ambivalence in strategy making under uncertainty. *Under review*.

Fransen, K. et al. (2015) Believing in "us": exploring leaders' capacity to enhance team confidence and performance by building a sense of shared social identity. *J. Exp. Psychol. Appl.* **21**, 89–100 (2015).

Freud, S. (1900). *The Interpretation of Dreams*. The Standard Edition of the Complete Psychological Works of Sigmund Freud, Volume IV (1900): The Interpretation of Dreams (First Part). p430 London: Hogarth Press and the Institute of Psychoanalysis.

Fujita, M., P. Krugman and A. J. Venables, 1999, The Spatial Economy, MIT Press.

Gachter, S. and E. Renner, 2018, Leaders as role models and 'belief managers' in social dilemmas, *Journal of Economic Behavior and Organization*, 154, 321-34.

Gibbons, R., and R. Henderson, 2012, Relational Contracts and Organisational Capabilities, *Organization Science*, 23 (5), 1350-64.

Haslam, S.A., Reicher, S.D. & Platow, M.J. *The New Psychology of Leadership: Identity, Influence, and Power.* (Routledge, 2011).

Henrich, J. (2016). *The secret of our success: How culture is driving human evolution, domesticating our species, and making us smarter.* Princeton, NJ: Princeton University Press.

Heinrich, J., and F. J. Gil-White. (2001) The evolution of prestige: Freely conferred deference as a mechanism for enhancing the benefits of cultural transmission, *Evolution and Human Behavior* 22, 165-196.

Hochschild, Arlie. R. (2016) *Strangers in Their Own Land: Anger and Mourning on the American Right*. New York: The New Press.

Hong, C. S., Ratchford, M., and Sagi, J. S. (2019), 'You Need to Recognize Ambiguity to Avoid it', *The Economic Journal*, 128, 2480–506.

Johnson, Sam, Biolovich, Avri and Tuckett, David (2020) Conviction Narrative Theory: A Theory of Choice Under Radical Uncertainty. Under review. https://doi.org/10.31234/osf.io/urc96

Kahneman Daniled. (2003). Maps of bounded rationality: a perspective on intuitive judgment and choice. In Les Prix Nobel: The Nobel Prizes 2002, ed. T Frangsmyr, pp. 449–89. Stockholm: Nobel Fund.

Kay, John. and King, Mervyn (2020), *Radical Uncertainty: Decision-making beyond the numbers*. London: Little Brown. New York, NY: WW Norton & Company.

King, Mervyn (2005). Monetary Policy: Pracice Ahead of Theory. The Maes Lecture. https://www.bankofengland.co.uk/-/media/boe/files/news/2005/may/monetary-policy-practice-ahead-of-theory-speech-by-mervyn-king King, Mervyn (2017) *The End of Alchemy: Money, Banking and the Future of the Global Economy*. London: Little Brown.

Lane, D., & Maxwell, R. R. (2005). Ontological uncertainty and innovation. *Journal of Evolutionary Economics*, 15(1), 3–50.

Manski, Charles., (2011) Policy Analysis With Incredible Certitude. The Economic Journal, 121 (August), F261–F289. Doi: 10.1111/j.1468-0297.2011.02457.x

Mercier Hugo., and D. Sperber, Dan. (2017) *The Enigma of Reason*, Harvard University Press.

Nightingale, P. (2009), 'Tacit Knowledge and Engineering Design', in Anthonie Meijers, (ed) *Handbook of the Philosophy of Science: Philosophy of Technology and Engineering Sciences*, North-Holland, pages 351-374.

Ostrom, E., (1991). *Governing the Commons: the Evolution of Institutions for Collective Action*, Cambridge University Press.

Phelps, E. A. (2006). Emotion and cognition: Insights from studies of the human amygdala *Annual Review of Psychology*, 57(1), 27-53.

Phelps, E. A., Lempert, K. M., & Sokol-Hessner, P. (2014). Emotion and decision making: multiple modulatory neural circuits. *Annual Review of Neuroscience*, 37, 263-287

Pinch, Steven, Nick Henry, Mark Jenkins, Stephen Tallman, (2003). From 'industrial districts' to 'knowledge clusters': a model of knowledge dissemination and competitive advantage in industrial agglomerations, *Journal of Economic Geography*, Volume 3, Issue 4,, Pages 373–388.

Reicher, S., Haslam, S. A. & Hopkins, N. (2005)Social identity and the dynamics of leadership: Leaders and followers as collaborative agents in the transformation of social reality. *Leadersh. Q.* **16**, 547–568.

Rolls, Edmund. T. (2019). Emotion and reasoning in human decision-making. *Economics: The Open-Access, Open-Assessment E-Journal*, 13 (2019-39): 1–31. http://dx.doi.org/10.5018/economics-ejournal.ja.2019-39

Sen, A. (2003). Rationality and freedom. Cambridge, MA: Harvard University Press.

Smelser, Neil. J. (1997). The rational and the ambivalent in the social sciences. *American Sociological Review*, 63, 1–16.

Spence, Donald. (1982) *Narrative Truth and Historical Truth: Meaning and Interpretation in Psychoanalysis*. London and New York: W.W Norton and Company.

Suddendorf, T., & Corballis, M. C. (2007). The evolution of foresight: What is mental time travel, and is it unique to humans? *Behavioral and Brain Sciences*, 30(3), 299-313.

Tuckett, David. (2011). *Minding the Markets: An emotional finance view of financial instability*. London: Palgrave Macmillan.

Tuckett, David., Holmes, Douglas., Pearson, Alice., & Chaplin, Graeme. (2020). Monetary policy and themanagement of uncertainty: A narrative approach. *Bank of England staff working paper* No. 870.

Tuckett, David. A., & Nikolic, Milena. (2017). The role of conviction in decision-making under radical uncertainty. *Theory & Psychology*, 27(4), 501-503.

Venables, Anthony. J. (2018), 'Globalization and Urban Polarization', *Review of International Economics*, 981–96.

Weick, K. E., Sutcliffe, K. M., & Obstfeld, D. (2005). Organizing and the process of sensemaking, *Organization Science*, 16(4), 409-421.