The Complex Adaptive Region-Assemblage and Local Economies: New Perspectives for Tackling Regional Inequalities



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Even before Covid-19, it was not news to say that many peripheral and rural regions have been struggling economically. This is exacerbated by what Peter De Souza observes in his 2017 book *The Rural and Peripheral in Regional Development*, that rural and peripheral spaces are poorly understood in academic

and policy terms. Indeed, often largely rural regions are imagined as having little to contribute outside of the amenity value of the landscape.

Policy has tried to tackle regional disparities, but as became clear in the June 2016 UK referendum result to exit the EU, regional development investment has not always been well received locally. The obvious question was why voters in regions that had benefitted most from Structural Funding could have felt such disaffection toward the EU. Research to explore this question found that Leave-voting interviewees did not feel that the funding had addressed the issues that concerned them, or that it had made manifest improvements to their lives (Willett et al 2019). This raises the important observation that local satisfaction does not tend to be part of the metrics designed to show whether and how development assistance has supported the region. The resultant learning is that we need to consider the subjective question about whether and how local people *feel* as if it has improved their lives.

Neither was this pattern confined to the UK. If voting for Donald Trump in the 2016 US Presidential election is taken as a proxy for what we might call 'anti-establishment' behaviour, recipient regions for assistance have also taken the 'populist' turn. For example, many parts of the South West and South of the State of Virginia voted overwhelmingly Republican. This is despite benefitting from a $1.1 bn fund from the Virginia Tobacco Revitalization Commission (2020). Here too, funding has not been able to ameliorate a sense of disaffection, and raises the ontological question about whether regional development is about improving the economies of *spaces*, or the *lives* of local people.

This starts to highlight a gap between the people delivering regional development, and the broader population of recipient regions. In order to address this, we need to find a new way of looking at regions if development is to have genuinely positive effects for local inhabitants. In this article, I am going to draw on the Philosophers Gilles Deleuze and Felix Guattari (2004) to make a case for the complex adaptive region-assemblage as a way to imagine regions, and which situates the general population as an important part of that assemblage. Later, I will look at what becomes visible if we imagine regions in this way, using case studies from the South West of Virginia, USA, and Cornwall in the UK.

Why the Complex, Adaptive Region-Assemblage?

In the framing of this article, we set out the problem in terms of a disconnect between decision-makers and the public with regards to development. Part of the issue is that we can end up imagining the various different aspects of development in fragmented and fractured silos. For example, targets for the number of (well-paying) jobs to bring to regional economies are not necessarily connected to training provision for these types of jobs, (to ensure that new and emerging sectors are able to recruit from a local talent pool) or from information to ensure that locals understand what kinds of marketable skills to invest in. Consequently, we need a way of imagining the region which can capture the complex interconnections, interactions and knowledge flows that occur within it, and examine the interrelationships between regions and other regions. We also need a theoretical model that can incorporate the stories and insights of regular people and that can acknowledge flows between disparate regions if we are to be able to break down the binary separations that we often draw between different parts of the system. These include between core and periphery; rural and urban; rich and poor; elite and popular.

The Assemblage has been growing in popularity across various aspects of regional studies over the past decade. Part of its appeal lies in its ability to explore processes of fluidity amongst the assembled and re-assembled elements of a system (Calzada, 2018), and in its examination of the complex inter-connections between things, parts and wholes (Jones, Heley and Woods, 2019). Yet there is much more that the concept is able to do. For the first part, through an intellectual trajectory going through the 1985 collaboration between the Nobel Prize winning – the Chemist Ilya Prigogine and the Philosopher Isabelle Stengers, Stuart Kaufman (1995), Bruno Latour (2005), Manuel DeLanda (2011), William Connolly (2011) and Jane Bennett (2010), the assemblage becomes a way of imagining ideas, institutions and regions as complex, adaptive, evolutionary organisms (Willett, 2019; 2020).

The complex adaptive region-assemblage is a temporal eco-system which pulls together all of the assembled actors within the region, and connects it and them to different or overlapping assemblages outside of the region. To illustrate and with regards to the economies of wool, Jones et al (2019) observe that whilst aspects of the wool industry are located in *one* region, the animal husbandry, harvesting, processing, and marketing of the wool and its products connects the

region nationally and globally through complex and dynamic flows of goods and knowledge. If we flip this around the other way, we see that through (in this example) the wool industry, the region assemblage both contains this industry, but also is connected to many other regions throughout the world. It is temporal, because the knowledge and know-how required in order to undertake the industries and practices that occur within the region, rely on knowledge which have accumulated and disseminated over an extended period of time. It is an organism, because just as biological organisms need to adapt to their environments in order to be able to survive and thrive, the economies which support the region-assemblage also need to be able to evolve (see Boulding, 1981). From the overlay between Boulding's Evolutionary economics, Delueze and Guattari, and DeLanda, we see that it is essential that knowledges flow freely between the various inter-connected parts of the complex, evolutionary, region-assemblage if it is to be able to be able to adapt to contemporary challenges (see Willett 2020 for further discussion).

For regional analysts and policy-makers, this means that it is imperative that we consider the complex interactions between all parts of the region-assemblage. It also means that if we take ourselves back to the situation outlined in the beginning, a lack of satisfaction of the general population with regards to development indicates a fundamental breakdown of knowledge flows amongst participants in the region-assemblage (see also Willett 2020). Given this situation, we now turn to what the Peripheral complex adaptive region-assemblage looks like when viewed from the perspective of the public.

The case studies regions were the South West of the State of Virginia, USA, and Cornwall, in the Southwest of the UK. Alongside both being, highly rural regions a five-hour drive from the National capital, both have local incomes and productivity well below those of the national average (Census 2019; Nomis 2019) and have experienced significant changes to their economies with a severe decline of the extractive industries, and the re-shaping of other traditional industries associated with contemporary globalisation. A primary difference is that Cornwall has an extremely well developed tourism industry, although this contributes to what Bürk et al. (2012) describe as a 'stigmatising' perception of people within the locality – and which both regions share.

The fieldwork for this ethnographic project was conducted over one-year period between April 2019 and April 2020, supported by an RSA Grant. Over 50 persons

were interviewed (either one-to-one or in groups) including over 40 members of the public, and 10 'decision makers' (5 in each case study area). Elite interviews were conducted towards the end of the research process in both locations, in order to understand better the institutional architecture within which interviewees were situated, and discussed their lives. Interview transcripts were analysed using Grounded Theory, and emerging themes explored using the complex adaptive region-assemblages outlined above.

What does the peripheral rural region look like if we start with regular people?

For the first part, we see that although we can imagine these rural peripheries as being 'different' in some way, in actual fact, they are located within the assembled stories of the broader nation-state of which they are a part. Although experiencing active discrimination from more Metropolitan parts of the US, many people in SW VA (Southwest Virginia) were at pains to point out the extent to which their region had contributed to wider American histories. From the young men that fought in the Revolutionary war, the coal that was removed from the mountains to fuel America's energy demand, to the country music which the region played a seminal role in recording and popularising, people were keen to emphasise that their place had played a major (if neglected) role in the American story. Other histories, which played a significant part of the popular imagination (such as quilting, and other practices associated with rural subsistence farming) are also ones that are shared throughout contemporary USA. Even the stories around the closure of many local factories are embedded in a collective American experience (Macy, 2015).

Many people in Cornwall are more resistant to an assertion of similarity with a broader UK, often proclaiming more in common with fellow Celts in Wales, Scotland, Ireland and even Brittany. This assertion of being a separate assemblage is punctuated with markers of difference such as the Cornish language, ancient flag, myths and legends, and the maintenance of a unique Cornish culture. However, even here, assemblages around Cornwall and the rest of the UK are bound together by a complex entanglement of past and present relationships, institutions and power structures. It might contribute less to the UK economy than more economically thriving regions, but in this extremely centralised nation state, its fortunes are inseparable. This might be from the people that have returned or newly migrated, who gained their skills and

networks in ‘the city’ before moving ‘home’, or it may be from the particular and central role that the Cornish leisure industry plays in the British imagination (and the various responses to this). Regardless, we see that the rural and peripheral do not exist on a binary scale in the popular imagination, but when we explore them more deeply, we find that actually they are assemblages that are ‘plugged in’ to much bigger assemblages.

We also find that people in both areas might grumble about the places in which they find themselves, but actually people showed an extraordinary attachment to the communities in which they live. Sometimes this is rooted in the histories that their families have, but more usually, it is that the place and the people in it *matter* to them. For example, we hear about how downtown in Bristol VA 20 years ago was ‘just tumbleweeds’, but now boasts a thriving community and a Smithsonian national museum, commemorating the contribution of the city to the story of Country Music. The energy behind these attachments plays an extremely important role in fuelling the assembled region-organism, and helping the economies to evolve and move forward.

However, despite the clear appreciation that many people held for the places in which they live, the precariousness of living in a poor region, and the uncertainty that this creates, inhibited some of the creativity and ingenuity that *could* be encouraged and fostered to grow the region-assemblage from the ground up. This might have been about not being able to get and keep a job that paid the bills, Cornwall’s difficulties over access to secure housing, or SWVA’s problems in accessing healthcare. Although decision-makers provided frequent assurances that there *are* well-paying and secure opportunities in both case studies, and that there are support mechanisms for the small businesses, which have the capacity and adaptability to offer so much in both regions, there are a number of key connectivity blockages in the ways that knowledge flow around the regional-assemblages. For example, many people in SWVA who do not live inside city or town limits do not have access to fibre-optic broadband or 4G mobile signal. If Covid-19 highlights that the Internet is a utility not a luxury, this is a utility that many people are unable to access. It also dramatically reduces the ability of much of the population to keep up to date with how the wider communities in their travel to work areas are changing, the kinds of opportunities that are coming on board, and the marketable skills that they might want to invest in.

However, Cornwall shows us that even with this infrastructure, many people still

are unaware about how their economies are changing. Despite over 20 years of high level EU structural funding investment, many participants still imagined the local economy to be dominated by the loss or decline of traditional agricultural, fishing, or extractive industries. When asked where people that they know get work, they tell stories of trades people or shop workers, rather than participants in the growing digital, marine, or creative industries. This problematizes the adaptive capacity of the region-organism because it means that many local people are unable to participate. Moreover, blockages extended beyond knowledge, to the physical flows of people around a geographic space. Although the public transportation system is far better developed in Cornwall than in SW VA, many people told stories about the extreme difficulties they, or people that they knew had in getting to work because of non-existent, infrequent, or too expensive bus services. Consequently, people found themselves spatially limited in the places where they could look for work, and often had to take *any* job rather than ones to which they were better suited or qualified. Clearly, taken together this adds to the precariarity which people experience their lives, and reduces the amount of energy that they have to contribute to the region-organism.

So what do we learn if we start to try to understand complex adaptive region-assemblages by starting with the experiences of ordinary people? Firstly, and importantly, we learn why people find it hard to access the new opportunities that funding brings. This makes visible to researchers and policy the places where flows of information are not getting through, and where (lack of) physical mobility hinders community members to take advantage of opportunities even if they know about them. It also highlights the spaces of precariarity, which sap the energy – or what Henri Bergson (1944) calls the *Elan Vital*, or life force, out of communities, rendering them less productive than they may be. Why does this matter? It matters because the region-assemblages of struggling regions are not *different* to powerful metropolitan cores, but are all connected to, and part of the same system.

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