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Divergent imaginings: Transitioning to decarbonised mobility in 'post-coalonial' County Durham

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ABSTRACT

What happens when the various parties involved in constructing decarbonised futures' infrastructure diverge in their imaginaries? Much of the published research on the sociotechnical imaginaries relating to electric vehicles (EVs) describes the creation of the future of decarbonised transport as a process mired in conflict, with various interested parties represented as strenuously disagreeing in their assessment of the most efficacious solution. The aim of the article is to offer an alternative account, based upon data gathered through participant observation, interviews, and grey literature. It describes the sort of personal transportation futures currently being imagined in the United Kingdom. The focus is specifically on the installation of electric vehicle charge points. The author contrasts Whitehall's national vision for this infrastructure with the 'post-coalonial' vision of officers of Durham County Council in North East England have articulated an alternative, a 'postcoalonial' vision, and finds that the vision of both the British civil service and Government of the United Kingdom focused on private ownership and commuting, while Durham County Council envisioned publicly accessible charge points that enabled various types of different journeys. Despite the striking differences the conclusion is that contrary to the findings of previous studies the existence of these divergent infrastructural imaginaries led not to conflict but to co-existence.



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Introduction

When the imaginaries of various parties involved in creating the infrastructure necessary for the realisation of decarbonised futures diverge, what are the consequences? Specifically, must any such divergence necessarily signal conflict? In this article I suggest that it is possible for diverging imaginaries to co-exist. I explore how this is may occur through a case study of the installation of electrical vehicle charge points in England.

According to Ali (pseudonym), a Durham County Council officer, the UK's 2011 census revealed that 70% of people in County Durham, a large local government area in North East England, commuted by private motor vehicles. As it was a swelteringly hot early afternoon in June 2021 and the COVID-19 pandemic restrictions were still in place, I was interviewing Ali via Microsoft Teams. We had been talking about Durham County Council's attempts at decarbonising, and battery electric vehicle (BEV) enthusiast Ali had been rather glum, and said it was 'very difficult to talk about sustainable transport' in County Durham because 'cars are embedded in our culture'.

The automobile is currently the United Kingdom's dominant mode of personal transportation. In 2023 domestic transportation was responsible for 26% of greenhouse gas emissions (Department for Energy Security and Net Zero 2024). This was the largest of any sector and automobiles were major contributors. Decarbonising personal transportation is essential for the UK to honour its international commitments regarding the 2015 Paris Agreement (United Nations 2015), and therefore it is necessary to understand how post-carbon personal transportation is being imagined and realised.

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Fig. 1. A Durham County Council public charge point in a car park

Interviewed council officers' perceptions of County Durham's car culture, which I label 'post-coalonial'¹, led them to imagine a particular future for BEVs and their requisite infrastructure, namely charge points (see Fig. 1 for an example of a charge point). Also, examined documents produced by the British civil service and Government of the United Kingdom (hereafter referred to by the metonym 'Whitehall') revealed an imagined a role for BEVs but its national vision and Durham County Council's post-coalonial one diverged. This was reflected in their very distinct imaginings of how charge points would be placed in the county's landscape. The differing 'chargescapes', as I term them, would create significantly different automobility systems.

To date, academic literature has tended to portray distinct imaginings of transportation futures as at odds. However, I argue that the different visions for chargescapes are capable of co-existing. I illustrate this through a discussion of the different visions. In the remaining part of this article I review the existing academic literature on automobility and sociotechnical imaginaries, and discuss how this article extends the sociotechnical imaginaries concept. Thereafter, I detail my methods for gathering and processing data, and then consider mobility's history in County Durham and how it has informed Durham County Council's vision. Finally, I discuss my findings and explain what they might mean for how we should think analytically about decarbonised transportation.

Literature review

In arguing for the plausibility of diverging yet co-existing imaginaries for British chargescapes, this study fits with science and technology studies and specifically literature on automobility and sociotechnical imaginaries.

The mobility turn was an early 21st century attempt to attend to the diverse, novel ways of moving that had emerged in the 20th century and defied traditional social

¹In this article I use the word 'post-coalonial' as a neologism to signify the various ways in which Durham County Council's officers came to regard County Durham's history as a coal-mining area as of continuing significance for planning decarbonised futures.

scientific analysis (Urry 2000; Featherstone 2004; Cresswell 2011; Sheller 2017). Subjects as varied as aeromobilities (Adey 2008), logistics work (Gregson 2017), and temporary labour regimes (Bélanger & Silvey 2020) were analysed. Automobility was foremost among those new ways of moving that rose to prominence in the 20th century. In an influential article, John Urry refers to it as 'as a self-organizing autopoietic, nonlinear system that spreads world-wide, and includes cars, cardrivers, roads, petroleum supplies and many novel objects, technologies and signs' (Urry 2004, 27). Rather than the use of the car radiating from North America, like a virus, Urry likens the automobility system to a self-reproducing cell. Specifically, it created landscapes, such as contemporary out-of-town shopping malls, which perpetuated its existence.

Dennis & Urry (2009) suggest in their book *After the Car* that vehicles with internal combustion engines (ICE) might soon be technologically superseded by the development of alternative fuel systems. BEVs derived from technologies originating in the 19th century (Orsato et al. 2012; Mom 2013), yet Dennis & Urry (2009, 72) suggest that 'new fuel sources such as lithium-ion batteries that are cheaper and more efficient than present car batteries could generate a tipping point'.

Other scholars have not regarded the automobility system as self-perpetuating. Instead they have claimed that its instantiation was a complex process. Simon Gunn observed that the implementation of the automobility system in England engendered debates about congestion and the reorganisation of the urban form (Gunn 2013). He further notes that it tended to co-exist with older practices and to a degree was integrated into existing patterns of life. Fred Myers illustrates the phenomenon with reference to the Western Australian Pintupi, for whom the car was not a uniquely valuable object but instead another 'occasion for the temporary realization of their relationship and obligations to each other' (Myers 1989, 37).

Some scholars who have discussed the automobility system's future have drawn on Sheila Jasanoff and Sang-Hyun Kim's concept of sociotechnical imaginaries (Jasanoff & Kim 2009). These imaginaries are 'collectively held, institutionally stabilized, and publicly performed visions of desirable futures, animated by shared understandings of forms of social life and social order attainable through, and supportive of, advances in science and technology' that are vital to the creation of new sociotechnical systems (Jasanoff & Kim 2009, 120). The authors' initial usage of the term centred on examining how nation states' cultures informed the development of technical systems (Jasanoff & Kim 2015). Thus, for example, they argue that the United States regarded 'technology's benefits [...] as unbounded while risks are framed as limited and manageable' while Germany 'displays a postwar history of pervasive risk-consciousness and risk aversion' (Jasanoff & Kim 2013, 190–192).

Jasanoff & Kim's original focus was on national imaginaries (Jasanoff & Kim 2009; 2013), and researchers who have cited their work have often been often similarly attentive. For example, Bergman et al. (2017) focus on analysing visions of EV's and the role of car clubs in the UK in the future and Ruhrort (2023) considers competing German electric vehicle (EV) imaginaries. At a supranational level, Di Felice et al. (2021) have scrutinised the EU's imaginings that EVs are both an economic opportunity and a sustainability solution.

Theory

In the preceding section I have established that, to date, most of the scholarly literature on sociotechnical imaginaries and EV futures has been committed to the notion of national imaginaries, which thus raises the question of what literature to engage with in the construction of an alternative approach. In this section I discuss the literature that I have drawn on in developing a description of how Durham County Council's postcoalonial vision and Whitehall's national vision for chargescapes could co-exist.

Jessica Smith and Abraham Tidwell examined and contrasted the sociotechnical imaginings of North Americans in uranium and coal mining areas with national imaginaries (Tidwell & Smith 2015; Smith & Tidwell 2016). Unlike the early work of Jasanoff & Kim (2009; 2013), they contended that such local imaginings could be distinct from national imaginaries. However, in their accounts, Tidwell & Smith (2015; Smith & Tidwell (2016) contend that the subnational imaginings could not transcend their locale and that coal remained 'dirty'. Thus, this was a framing that emphasised conflict. It was akin to Amelia Mutter and Harald Rohracher's work on Swedish automobility imaginaries; they argue that 'our cases draw attention to the contestations between coexisting imaginaries and their rootedness in different socio, material, and spatial relations' (Mutter & Rohracher 2022, 87).

In a more recent work, Jasanoff offers an alternative understanding of sociotechnical imaginaries as follows:

Sociotechnical imaginaries [...] are not limited to nation states as implied in our original formulation but can be articulated and propagated by other organized groups, such as corporations, social movements, and professional societies [...] Multiple imaginaries can coexist within a society in tension or in a productive dialectical relationship. (Jasanoff 2015, 4)

However, it is the earlier work, co-authored by Jasanoff and Kim (2009; 2013), which is routinely cited by scholars working on automobility, EVs, and sociotechnical imaginaries. An exception is Alexander Wentland, who explored German sociotechnical imaginaries and stressed the significance of the car's role in the production of Germany's national identity. He observes that, as Germany moves towards EVs, 'the question is not which of these rearticulations will ultimately prevail [...] past episodes in the history of German automobility [...] tell us that most likely the world to come will turn out to be a combination of the proposed scenarios' (Wentland 2017, 158).

Several scholars emphasise the importance of regional imaginaries (Pfotenhauer et al. 2023). For example, Levenda et al. (2019) compared regional sociotechnical imaginings of low carbon transitions in the American cities of Portland and Phoenix, and they suggest that 'the governance of energy systems, including policies, and practitioners' practices, is influenced by sociotechnical imaginaries operating both nationally and regionally' (Levenda et al. 2019, 182).

Finally, the role that many of the above-mentioned scholars have attributed to the entanglement of imaginaries with the material world has been important for my conception of a post-coalonial sociotechnical imaginary, specifically what Jasanoff (2015, 22) calls 'past achievements'. With regard to coal, Magdalena Kuchler and Gavin Bridge discuss how existing coal resources have shaped Polish visions of the future and a desire for clean coal (Kuchler & Bridge 2018).

In seeking to contribute to the discussion about regional sociotechnical imaginaries and their being bound up with prior identities and materialities, I use the neologism 'post-coalonial'. I regard Durham County Council's specific vision for County Durham's automobility infrastructure as a post-coalonial one because it seems to underpin much of the Council's imaginings of how BEVs should be implemented. This emphasis on how coal has shaped and indeed continues to shape not only the county's landscape but also ideas about temporality and values is, I argue, a significant part of the reason why Durham County Council's vision of the county's chargescape has diverged from Whitehall's vision for the nation as a whole. However, I contend the divergence has not resulted in conflict but in coexistence and, to a certain extent, what Jasanoff terms a dialectical relationship (Jasanoff 2015).

Methods

Data collection

The data I use to discuss how Durham County Council's post-coalonial and Whitehall's national imaginaries of the potential new automobility system's chargescape diverged yet co-existed were collected over the course two research projects using various methods. These included participant observation, interviews, and textual analysis.

Participant observation is the signature method of sociocultural anthropology and involves regular observation and participation with a particular population for a sustained period (Bernard 2011). I conducted participant observation with two different groups over the course of several years. Fieldwork relating to Durham County Council included exploring how inclusive their decarbonisation initiatives were. The fieldwork was initiated in October 2020 and concluded in December 2021. The COVID-19 pandemic meant council officers were working from home, so fieldwork was carried out via Microsoft Teams. I shadowed council employees working on decarbonising the council, observed numerous daily meetings, and wrote fieldnotes. In March 2022 I commenced participant observation in a former mining village² in the eastern part of County Durham, as part of a multiperson interdisciplinary project examining the possibility of implementing novel heating systems in former mining settlements³. The fieldwork lasted until October 2023, with a break between December 2022 and January 2023. During my research, I lived in the village, participated in several community groups, wrote fieldnotes, and volunteered for several events.

In addition to participant observation, I conducted numerous unstructured interviews; The interviews were held with the council officers between October 2020 and December 2021, and between February and October 2023 in the mining village. According to Bernard (2011, 157), unstructured interviews 'are based on a clear plan that you keep constantly in mind, but are also characterized by a minimum of control over the people's responses'.

For Durham County Council and in Winning, I made use of chain-referral sampling (snowball sampling) to identify further interviewees regarded as possessing insights into a given topic. Consequently, interviews frequently concluded with me enquiring of the interviewee 'Who else should I talk to about this?' In total, I interviewed more than 100 people, with the

²In this article the village is referred to by the psedonym 'Winning'.

³Geothermal Energy from Mines and Solar Geothermal Heat (GEMS), primarily based at Durham University.

length of the interviews varying from 30 minutes to several hours, recorded over multiple sessions, variously via mobile phone or ZOOM and TEAMS.

To understand what I have termed Whitehall's national imaginary of automobility, I made use of the British Government's website to search for, identify, and collect any departmental reports and other policy documents, such as audits and policy briefs, which had been produced on BEVs and electric vehicle charge points between 2010 and 2023. These amounted to 28 documents, which are listed in Supplementary Appendix 1.

Data processing

Owing to the long-term nature of the two research projects, I started data analysis while I was still conducting fieldwork in Winning. I began by using NVivo 12 (Lumivero, Denver, CO) to upload all the Whitehall documents I had collected (and creating a project file). I was then able to analyse the documents for key themes. A consistently reoccurring imaginary became swiftly evident: for much of the period between May 2010 and July 2024 Whitehall had envisaged that a large part of the population would park their BEVs within the grounds of their property and charge them there, ready for their drivers to make their next commutes. Next, I used NVivo 12 to upload the transcribed interviews. I then examined them and found that Durham County Council was focused on the public's charging of EVs and regarded a variety of journeys as central to its policy.

Historical background

County Durham covers land bounded by the river Tyne to the north and river Tees to the south, and by the Pennines (a range of uplands) to the west and the North Sea to the east. This territory has encompassed settlements, such as Gateshead and Sunderland, which grew exponentially during the Industrial Revolution and became major urban centres. However, having already lost control of Gateshead in 1888, by the time of the political reorganisation of 1970s the county had lost most of its remaining urban settlements. Places such as Sunderland, Hartlepool, and Stockton-on-Tees became selfgoverning local authorities. What remained was a largely rural area; hence in 1997 its official name became Non-Metropolitan County Durham. However, in 2021 Durham County Council's jurisdiction was still sufficient to make it the country's seventh biggest local authority and home to more than 500,000 people (Durham Insight 2021).

As a result of the frequent political reorganisations, County Durham was characterised by Ali⁴, and by other council officers I talked to, as having 'a dispersed settlement pattern'. I well remember a workshop I attended in 2021, during which Beau, a long-tenured council officer, was giving a presentation on the county's BEV projects and explained that due to the closure of its coal mines Durham County had become a dispersed rural area with all the social problems of an inner city.

Coal had been mined in County Durham since the 13th century but in the 17th and 18th centuries the intensity of the activity began to change the landscape of the northern part of the county (Green 2010, 125). Later, the same process was repeated in the eastern part, with towns and villages, such as Winning, which grew and expanded around coal mines. However, since the 1990s, when the last coal mines were shuttered, residents of former mining communities have had to commute to various urban settlements outside County Durham for jobs and a range of services, including banking, health care, and education. Put succinctly, from this perspective, automobility became entrenched because formerly self-reliant settlements were no longer so.

The fieldwork I conducted in Winning in 2022 and 2023 allowed me to witness and experience this reliance on cars directly - a reliance that had led to the automobility system's dominance in much of the county. Winning had a population of c.2000 people. While most of its male residents had been employed in its mine, the mine was closed because of political decisions. Residents frequently explained to me that their connection to the nearby highway had saved the village from the fate of other mining settlements, which they described as both socially and economically isolated, with the exceptions of events such as the annual Durham Miners' Gala (Fig. 2). The envisioning of a future chargescape and its implementation were thus of considerable importance to the continued existence of Winning and other settlements like it.

Findings and discussion

In this section I discuss some of the key ways in which Durham County Council's imagining of a BEV chargescape in County Durham (i.e. what I call a 'post-coalonial' vision) diverged substantially from that of Whitehall's vision (i.e. a national vision). I particularly discuss their contrasting visions relating to property and journeys.



Fig. 2. People celebrating County Durham's coal mining heritage at the annual Durham Miners' Gala in Durham City

Based on my analysis of policy documents, I note that the Whitehall sociotechnical imaginary had private property as its lynchpin. Furthermore, due to findings from fieldwork and interviews, I became aware that Durham County Council's post-coalonial vision for the BEV chargescape was focussed on publicly accessible sites and the possibility of a variety of journeys. In the following subsections I discuss the values that informed these two distinctly different sociotechnical imaginaries.

A property-owning democracy

In 1923, Scottish Unionist politician and thinker Noel Skelton put forward the concept of the property-owning democracy in response to what he saw as the threat of socialism (Francis 2012).⁵ He argued that owning

property would give the recently enfranchised voters a stake in the nation and its politics. The idea remained an important part of the Conservative Party's thinking during Margaret Thatcher's period of office (May 1979 - November 1990). Eventually, her government put the concept property-owning democracy into practice by privatizing state-owned companies and through the 'right-to-buy' policy. The latter policy involved selling state-owned dwellings (council houses) to the tenants and had been supported by the Conservatives since at least the mid-1940s (Turner 1995, 198). Through the Right to Buy, 'well over 1,600,000 public housing units were sold between 1979 and 1991' (Power 1997, 46). Homeownership continued to be central to at least some Conservatives' notion of democracy, such as Conservative peer Lord Willetts, who argued that delivering a property-owning democracy might win the Party young voters (Willetts 2019). I would argue that the ideology appears to have significantly informed Whitehall imaginings of the nation's chargescape. In the remaining part of this subsection, I explore the longstanding Whitehall vision during the period of Conservative government, which was that BEV's were best charged at home. I argue the vision was informed by a very specific notion of a home, with profound implications for the chargescape.

During the most recent period of Conservative rule – May 2010 to July 2024 – the Whitehall imaginary had been that owners would charge their BEVs at home. This was first communicated in a government report that imagined the 'majority of recharging taking place at home' (Office for Low Emission Vehicles 2011, 7). Similarly, in the response to the 2019 consultation on electric vehicle smart charging (Department for Transport 2021a), the home was imagined as the place to charge electric vehicles (Department for Transport 2021b, 4).

Anthropologist Mary Douglas once observed that a home is 'a pattern of regular doings' created through the act of dwelling (Douglas 1991, 287). In contrast to Douglas's expansive vision, Whitehall has generally imagined the home as a house, meaning a particular kind of built space and specifically one that had space for off-street parking. One early report asserted the following: 'Recharging at home is a viable option for a significant proportion of UK households [...] 65% of households in England (15 million households) have off-street parking' (Office for Low Emission Vehicles 2011, 33).

What about the c.7.5 million households without offstreet parking? Whitehall, while not silent, had often

⁵In the first half of the 20th century, Unionists were the major Scottish right-wing party.

been rather dismissive; according to a report by the Office for Low Emission Vehicles (2011), such drivers could charge at work, use the network of chargers spread across supermarkets and other spaces, or employ focused public infrastructure that supported owners who did not have access to off-street parking. The same report contains an unsupported assertion that 'new car purchasers are more likely than average to have off-street parking, meaning that recharging at home, at night, is likely to be possible for the majority of the owners of plug-in vehicles' (Office for Low Emission Vehicles 2011, 33).

The imaginary only changed toward the end of the Conservative party's period of government: a government policy report produced in 2022 stressed that 'for the sizeable minority without home charging, the public charging network is critical' (Department for Transport 2022, 19). However, the provision was still relatively limited. The Comptroller and Auditor General noted that by March 2020, under the Conservative Party, 'government funding had contributed towards the installation of 133,336 home charging points; 8,578 workplace charging points; and 690 on-street charging points' (Davies 2021, 8). The number of publicly accessible charge points were still dwarfed by government-funded home charge points, even when the 19,487 privately funded charge points were included.

Whitehall imaginings had centred not just on at home-charging but on property-owners, as for most of the period of Conservative Party rule funding was only provided to homeowners. In 2023, renters represented 25% of the population (Booth & Goodier 2023) and they were excluded from such schemes. In 2023, the UK government's Electric Vehicle Homecharge Scheme (EVHS), started to focus on renters and apartment dwellers (Office for Zero Emission Vehicles 2023).

To summarise, Whitehall's sociotechnical imaginary had long centred on property-owners, particularly a subset who possessed the capacity to park within their curtilage. In a nation where, due to a succession of economic crises and a housing bubble, home ownership was increasingly limited to those who were either wealthy or elderly, or both, a sociotechnical imaginary – a new automobility system – flourished for ten years. Its idealised implementation was exceedingly exclusionary, as it transferred state funds to those largely already of means.

A public resource

In mid-May 2022, when I had been living in a flat in Winning for a little more than one month, one of my neighbours, Jan, asked 'Can I park in your space?' Each of the flats in the block had been assigned a parking space. This was signified by a number corresponding to the flat's number. However, as a non-driver I made no use of my space. Since March the space had lain empty and inviting. Jan asked to borrow it indefinitely because Jan's an adult child now needed a parking space.

During my time in Winning, it became very apparent that the village lacked sufficient parking spaces. Some villagers had resorted to parking on the pavements. Winning's landscape was such that this could occur on one side of the road and then the row of houses on the opposite side might each have their own driveways. A house in the village was not guaranteed either easily accessible parking or parking on the premises.

County Durham held a local election in May 2021, midway through my fieldwork session with Durham County Council. The Labour Party lost control of Durham County Council for the first time in a century and was replaced by a coalition of independents - Liberal Democrats, a Green Party representative, and, most significantly, Conservatives. However, Labour's long rule of Durham County Council had shaped public expectations of local government. For example, residents expected the equitable and efficient delivery of local services. Such ideologies had their origins in the 19th century and the efforts of organisations such as the cooperative movement, the Durham Miners' Association, and the Labour Party (Gibbons 1901; Beynon & Austrin 1994). Those organisations ensured that places such as Winning were provided with collective resources, some which later became reorganised as public services. In the early 21st century, the provision of equitable public services in County Durham was not always a reality as many of my interviewees suggested, yet for those involved in creating the chargescape it remained the ideal. This shaped a very different sociotechnical imaginary with respect to BEVs. It meant that Whitehall's national sociotechnical imaginary of a chargescape centred on privately-owned homes was simply unimaginable.

According to one interviewee, Beau, Durham County Council's statistics showed that 40% of the county's housing lacked facilities for off-street parking. Consequently, Beau and other council officers thought that it was imperative that publicly accessible charge points be provided. To that end, Durham County Council had applied for, and succeeded in gaining, funding for several projects to install public charge points.

Durham County Council's post-coalonial sociotechnical imaginary for a chargescape diverged in several important ways from Whitehall's. Perhaps the most significant way was with respect to equality of access. However, such equality was not always attainable. Early in my fieldwork with Durham County Council I had several conversations with Beau and other representatives, during which they emphasised that one of the problems with the central government grants for on-street charging of EVs was that they only allowed for the installation of a limited number of charge points. The number of installations was considerably fewer than the number of parishes in the county. According to the interviewees, this presented a real problem because, although they had wanted to ensure equality of access for all the county's residents, they could not create the sort of chargescape they had imagined.

Durham County Council had not only tried to distribute charge points equitably throughout its territory, but had also sought to achieve temporal equality. On one occasion, I sat in on a Teams meeting between Ali and a state school representative who wished to install a Durham County Council charge point in the school's car park. Ali was placed in the unfortunate position of having to apologise and explain that it was simply not feasible. The charge points had to be continually accessible to the public. The school's barrier meant its car park was inaccessible at night.

In sum, Durham County Council's efforts to establish a chargescape in the county centred on the creation of a universally accessible public resource. No matter the time of day or night, there would be an accessible charge point available. This sociotechnical imaginary thus diverged from Whitehall's national vision of most people charging at home. It also created the grounds for a very different sociality and raised an entirely different set of questions about how such charge points should be designed and priced.

Changing mobilities

One Wednesday morning in late March 2023, Byron, an elderly yet spry ex-miner, entered the Winning (pseudonym) Miners Club hall and sat down. Being late for a shift as a volunteer and by way of explanation the exminer declared that 'It was chaos in Winning.' What was ordinarily a simple, 30-minute journey from a suburb of Durham City had taken 1 hour and involved a rather lengthy and unexpected detour. Roadworks undertaken to maintain Winning's main road and its sole link to the outside world's automobility system had greatly impeded traffic and left some villagers thinking about their dependence on ICE vehicles. The ICE vehicle, and the automobility system offered the possibility of freedom; by contrast, Byron's experience had not been freeing. In common with some other scholars, Lutz & Lutz Fernandez (2010, 15) suggest that 'there are

few more potent and tangible symbols of freedom than the car'. The key to that sense of freedom was the possibility of an uninterrupted journey, as 'It is possible to leave late by car, to miss connections, to travel in a relatively timeless fashion' (Sheller & Urry 2000, 743).

However, there is a substantial distance between imaginaries and reality. In advertisements, 'If they [car users] are on their way to anything [...] it is always to a holiday, a party, or some other leisure activity. [...] The road is completely open for driving, and driving is for leisure and for fun' (Hagman 2006, 66). Mass car culture occurred in Britain considerably later than in the US (Gartman 2004). Moreover, rather than the open road, the car offered 'modest freedom, denoting a break from the pressures of work and domestic chores as well as the ability to move beyond the confines of the local and known' (Gunn 2013, 224). In Winning, one interviewee vividly recounted personal experiences in the 1970s:

when my father got this Hillman Super Minx, we would travel to Chester-le-Street, South Shields [...] and Whitley Bay [...] So, we got to places [...] some of my friends who I grew up with [...] didn't have cars. So, it was like excitement that we were going out and one of them we sometimes took with us, and he was [...] really made-up that he was actually getting out of the village [..] seeing other places.

Mobility scholars had attributed to the automobility system a profound transformation in experiences of mobility (Urry 2004; Sheller 2017). It is worth examining what sort of journeys Durham County Council had imagined drivers taking as it sought to create a chargescape for BEVs and considering how that infrastructuring process was bound up with creating particular atmospheres, which would aid the generation of both social and economic relations.

The above-quoted interviewee had seemingly omitted stories of commuting from their account of the purchase of the vehicles. In the discussion of pit villages, Ali made the following observation: 'I guess when you had your coal mines then you did have like a fifteen-minute neighbourhood' and thus framed colliery settlements as formerly self-sufficient worlds that many residents had not needed to travel outside of and certainly not regularly enough to occasion the usage of an ICE vehicle. Interviewees in Winning explained that an immediate consequence of the local pit's closure was that many men suddenly sign up for driving lessons, as they needed to travel further afield for work.

Post-coalonial commuters were not the only BEV users imagined by Durham County Council's council officers. The officers wanted to ensure the new chargescape was useful for tourists who visited the county. I once witnessed Ali suggesting in a meeting with villagers that a well-placed and publicly accessible charge point would contribute to the creation of an atmosphere that would potentially lure visitors to an area that might otherwise be overlooked. Ali envisioned a tourist discovering the location of the nearest charge point using an app, such as Zapmap. While charging, tourists would contribute to the local economy. In wilder imaginings it was ventured by other council officers that a charge point might incentivise hotel choice. As Peter Merriman argues, infrastructuring potentially creates an atmosphere and particular relations, but he adds that outcome inevitably exceed proponents' imaginings (Merriman 2017).

Tourists were not the only potential beneficiaries of BEVs. Beau imagined that the initial adopters would not be commuters, but rather, for example, women who dropped off children at school. However, Beau had noticed that young people were starting to use BEVs owned by a car club. Durham County Council's post-coalonial sociotechnical imaginary encompassed the many and varied roles transport played in people's lives.

Focus on commuting

Durham County Council had imagined a chargescape that would enable BEV users to take a variety of different journeys and potentially provide a means for local economies to benefit to some extent from tourists' spending. In these imaginings the car was a vehicle for the preservation of existing relations through, for example, school runs, as well as through the creation of new relations resulting from the encouragement of practices such as tourism. By contrast, Whitehall's vision for BEV's had been profoundly different. It was a solitary one that centred on BEV users engaging in commuting to and from work. In some ways, the focus on commuting was unsurprising because 'this twice-daily ebb and flow of people is one of the major rhythms of contemporary urban life' (Bissell 2018, xiv). However, my discussion in this subsection primarily concerns what Whitehall's imaginary had occluded.

Whitehall's imagining of BEVs as primarily a means of commuting had been central to its vision from 2011. A very early policy document imagined that most of the journeys BEV users would take would involve travelling for work purposes. This commuter-centric vision was one of the reasons why, after the home, Whitehall seemed to have mainly emphasised the importance of charge points at work for its vision of the nation's chargescape (Department for Transport 2018, 6). However, even if one were to see the installation of charge points strictly in terms of a focus on the economy, this vision of a BEV chargescape was profoundly limited. For example, it completely failed to address professional services such as taxi driving or delivery work for which constant movement is the most pronounced feature of the labour performed. The vision of a BEV chargescape was limited also because it failed to grasp that data from the Department for Transport's National Travel Survey conducted in 2009 showed the incidence of commuting declining; moreover, most of the reported journeys did not involve commuting.

In the sociotechnical imagining of a new automobility system, there had been little consideration of the consequences of the recent rise in working from home. Prior to the COVID-19 pandemic, which started in 2020 in the UK, there had been only the briefest acknowledgement of charge points being installed outside office buildings or homes (Office for Low Emission Vehicles 2011). This imagined future was still being assumed in 2021 when Whitehall stated the following in one report: 'We expect that charging at home and workplaces will be central to the charging ecosystem' (Department for Transport 2021a, 6). This vision of the workplace as the second most important place to have a charge point after the home also pointed to an imagining of the future labour of BEV owners as taking place at stationary locations. It was only in the remaining few years of Conservative Party rule that reports gave much consideration to the effect of white-collar professionals refraining from using the office on a regular basis and what the consequences of that might be for EV charging and the National Grid (Department for Transport 2018, 20).

While commuting appeared central to the Whitehall imaginary of what BEV users might do, and hence where they might require charge points, it was not the only type of journey that Whitehall had envisioned the users taking. Specifically, various reports had mentioned shopping, visiting the cinema, and other leisure practices as justification for where publicly accessible charge points should be sited. What seemed to be missing from the sociotechnical imaginary were the sorts of limited freedoms that Simon Gunn mentions (Gunn 2013) (see the subsection 'Changing mobilities'). Prior to a UK Government's policy report published in 2022 (Department for Transport 2022) there seems to have been minimal consideration of the necessity of providing a chargescape suitable for tourists or travellers and how a charge point's presence might transform a settlement into a destination for EV users. It appears that Whitehall's imagining of infrastructuring the chargescape regarded it as an event not a process.

Tabl	e 1.	Summar	y of	findings
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Organisation	Socio- technical imaginary	Position	Value
Durham County Council	'post- coalonial'*	accessible public charge points	equitable access
Whitehall	national	private charging within property	private property ownership
Durham County Council	'post- coalonial'	enable a variety of different journeys	preserving and creating social relations
Whitehall	national	enable commuting	preserving existing economic order

Note: *A neologism used to signify ways in which Durham County Council's officers regarded the County's history as a coal-mining area as of continuing significance for planning decarbonised futures

Conclusions

The overarching question addressed in this article is whether divergent imaginaries for decarbonised motor vehicles can exist contemporaneously. The analysis of the data revealed profound differences between Whitehall's and Durham County Council's imagined chargescapes (summarised in Table 1). The former drew upon longstanding Conservative ideas about property ownership, the value of work, and the existing economic order. By contrast, Durham County Council's 'post-coalonial' vision stressed County Durham's coal mining legacy and presented charge points as a shared resource, as well as a means for preserving and creating relations. However, despite the differences in the two visions, the visions co-existed, which represents something of a departure from how published research on EVs portrays such interactions.

Moreover, Durham County Council's sociotechnical imaginary cannot be reductively presented as uncomplicated opposition to Whitehall's own sociotechnical imaginary. When I commenced fieldwork with Durham County Council in 2020 a change had already been initiated.

A recent Whitehall report contains the following observation: 'local authorities are fundamental to successful charge point rollout, particularly for the deployment of widespread on-street charging' (Department for Transport 2022, 7). This is because private enterprises are unwilling to invest in certain areas. In Whitehall's altered sociotechnical imaginary local authorities will use their specific knowledge of their landscapes and people to determine the placement of charge points. This would prevent the rural-urban infrastructural divide from widening. However, it is a measure of the off-street charging imaginary's resilience that even the above-cited document by the Department for Transport normalises charging at home. Ultimately, I see two broader implications of the divergent BEV imaginaries. The first is that the dialogic process between Durham County Council and White-hall complicates framings of EV imaginaries as existing in tension. Instead, researchers focusing on EVs imaginaries need to incorporate into their theorising an understanding of how states are organised and their authority spatialised. The second implication of the divergent BEV imaginaries is that the reality of co-existing imaginaries is local authorities applying for grants to produce chargescapes. This places certain authorities at a distinct disadvantage and, by extension, those residents who reside in areas where they are reliant on public chargescapes. In sum, unequal futures are still being created and are likely to continue to be created.

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