

## Moving to or from a carbon dependent countryside

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### 1. Introduction

“Within the revisiting of counterurbanisation ... attention has been paid primarily to the types of people involved - counterurbanisation as practice - and their motivations for moving towards a more residential environment” (Halfacree, 2011: 210);

“As the extensive literature on moving to a low-carbon society at-tests there are ... many ... ways of motivating people ... to move to low carbon energy” (Caney, 2011: 549).

This paper explores the two senses of the phrase ‘moving to’ referenced above, namely spatial movement as in-migration and changing state, or transition. Specifically, the paper explores, on the one hand, movements of people towards rural living - the counterurbanisation referred to by Halfacree and the daily movements or mobilities that emerge within this migration to rural living - and, on the other hand, movements from current forms of energy use towards low-carbon ways of living mentioned by Caney and which have come to exercise the minds and practices of many transport researchers and policy-makers due to connections between carbon use and global climate change (see Schwanen 2011; Banister et al. 2012). After highlighting the significance of these two senses of movement, it is argued that although often discussed in isolation they potentially lie in tension, in that the former might preclude, or at least hinder, achievement of the latter. Migration to the countryside may involve people moving to areas where they engage in higher levels of transport use, the majority of which will consume carbon-based fuels and emit carbon dioxide (CO<sub>2</sub>) and other ‘greenhouse gases’ that are widely seen to be creating global climate change. Drawing on work conducted as part of two major research programmes, entitled *Rural Economy and Land Use* (RELU) and *Bridging the Urban Rural Divide* (BURD), the paper demonstrates the value of a post-carbon perspective within a mobilities influenced rural transport geography. It does this through exploring the extent to which peoples’ everyday lives in the British countryside rely on carbon-fuelled mobilities and the degree to which there is both recognition of this and willingness to establish lower-carbon rural lifestyles. It is argued that whilst there is recognition and concern over levels of energy consumption, a series of ‘narratives to the self and others’ lead to little willingness to undertake actions to move away from this situation.

### 2. Migration, mobility and transition in the countryside: views from rural and transport geographies

In relation to the first sense of ‘moving to’, counterurban migration has long been a focus of geographical study (e.g. Berry, 1976; Fielding, 1982, 1986; Frey, 1989; Vining and Kontuly, 1978), although recent work has recognised that movement to the countryside can involve forms of mobility other than migrational movement. Halfacree (2011: 211), for example, has argued for a recontextualisation of counterurbanisation in light of recognition of heightened mobility that he views as having emerged “in the last couple of decades”, whilst research has also developed exploring relations between migration and commuting, which it has been argued, constitute “the two main forms of internal mobility within nation states” (Brown et al. (2015: 118)). Much of this work has focused on the relations between commuting and counterurbanisation, it being claimed that counterurban migrants often engage in longer distance commuting (Champion 2009; Champion et al., 2009; Axisa et al., 2012; Brown et al. 2015). Transport geography has seen a similar mobilities turn, with Shaw and Hesse (2010), for instance, highlighting the presence of complementarities and differences between research framed through notions of mobilities and that identified as transport geography.

Rural and transport geographers have also engaged with the second sense of ‘moving to’ explored in this paper, namely a transition in state towards a low-carbon economy or society. In recent years, this engagement has been quite extensive and explicit within transport geography (e.g. Hickman et al., 2011, 2013; Geels, 2012; Schwanen et al., 2012; Watson, 2012; Givoni and Banister, 2013; Schwanen, 2016), but rather less so in rural geography, beyond studies of rural renewable energy development (e.g. Thayer and Hansen, 1988; Woods, 2003; Mol, 2007, 2014; Zografos and Mart, 2009; van der Horst and Toke, 2010; Yadoo et al., 2011; Comber et al., 2015). Much of this latter work has focused on localised responses to particular developments rather than examining the potential to effect significant social and environmental transformations (although see Phillips and Dickie, 2014, 2015; Lennon and Scott, 2015; Marsden, 2016). By contrast, transport geographers have long emphasised such connections, drawing extensively on notions of sustainability (e.g. Black, 2000; Richardson, 2005; Frändberg and Vilhelmson, 2010; Barr and Prillwitz 2014) and, from the turn of

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the millennium, on the “entangled flows of transport, carbon ... and energy” (Schwanen, 2016: 127), and their impacts on climate change (e.g. Banister, 2011; Hickman et al., 2011, 2013; Geels, 2012; Schwanen et al., 2012; Givoni and Banister, 2013). As Urry (2012: 534) has observed, “almost all movement of people and objects”, at least in the Global North, is fuelled by oil, and hence contributes to atmospheric carbon emissions. This argument is central to his elaboration of a ‘post-carbon sociology’, which seeks to both highlight the “carbon underpinning” (Urry 2011: 16) of social life and the possibilities of transitioning to a society that has lost this dependency.

This paper explores Urry’s (2011) concept of a ‘post-carbon sociology’, although we wish to add a stronger geographical dimension such that this work might contribute to calls to establish a ‘post-carbon geography’ (Matthews and Morgan, 2013; Hicks, 2013). Many studies of environmental sustainability and the impact of transport and mobility on climate change have been urban-centric. Lack of engagement by rural researchers on the links between transport/mobility and climate change might contribute to this, although cities have been viewed both as a crucible for the formation of the “contemporary high carbon world” (Dennis and Urry, 2009: 25) and as a “key ‘instrument’” (Rutherford and Coutard, 2014: 1354) for addressing this. As Dennis and Urry (2009) note, cities have also formed arenas for many of the models and visions of a post-carbon society (see also Bulkeley et al., 2014). Rural societies, by contrast, appear in their account and those of many others, as passive victims of both carbon-fuelled urbanisation and associated climate change, and of mitigative actions such as agro-fuel developments, although they do make brief reference to some community-based rural low-carbon initiatives.

There has been some questioning of this urban focus, both through querying the significance of urban spaces in greenhouse gas emissions (e.g. Rickwood et al., 2008; Satterthwaite, 2008; Baur et al., 2013; Baiocchi et al., 2015; Glaeser and Kahn, 2010; Hoornweg et al., 2011) and highlighting rural connections between transport, energy and carbon. Banister and Breheny, for example, repeatedly suggest that transport and associated levels of energy consumption tend to be higher in rural areas than in urban areas (e.g. Banister, 1992; Banister and Banister, 1995; Breheny et al., 1993, Breheny, 1995). More recently, the *Commission for Rural Communities* (2010: 179) calculated per capita carbon dioxide (CO<sub>2</sub>) emissions were 8% higher in rural than urban districts, with transport being even greater at 26%. Subsequent studies by Fahmy et al. (2011), Minx et al. (2013) and Baiocchi et al. (2015) also found higher per capita CO<sub>2</sub> emissions in rural spaces, although focused on overall or domestic household energy use rather than specifically on energy use in transport, and highlighting how spatial differences in energy use may reflect socio-demographic influences such as differences in income levels and household size, as well as variations in climate conditions, rather than any specific rural-urban differences.

In this paper we wish to further the examination of the mobilities of rural residents, paying particular attention to dependence on carbon-based energy. In addition, and in line with the second sense of ‘moving to’, we also want to consider the potential of transitioning to low-carbon societies. As Schwanen et al. (2011) remark, studies emerging over the last decade have foregrounded how changes to “attitudes, lifestyles, norms and values of the people who use transport systems can contribute to behaviour change and decarbonisation”. This growth reflects shifts in government policy (Barr et al., 2010; Schwanen et al., 2012), although there have been growing criticisms concerning the framings of these policies and studies. These include the emphasis placed on individual as opposed to systemic change, and the relationships between attitudes, behaviour and change that are, often implicitly, purported to exist. As Shove (2010) observes, social transition is widely seen to stem from alterations in attitudes, values and beliefs, which are viewed as directing people’s behaviour. Work employing such perspectives often, however, identify ‘value-action’ or ‘attitude-action’ gaps (Blake, 1999; Kollmuss and Agyeman, 2002; Barr, 2004; Anable et al., 2006) and employ what has been identified as a ‘deficit

model of public understanding’ (Miller, 2001; Sturgis and Allum, 2004; Lorenzoni et al., 2007; Norgaard, 2011; Phillips and Dickie, 2014, 2015), whereby lack of behavioural change is attributed to a shortage in some key ingredient that fosters change in attitudes, values and beliefs or in motivations to act.

Such models, whilst widely enacted, have been extensively criticised for ignoring the extent to which actions are determined by non-conscious and contextual factors (e.g. Unruh, 2000; Barr and Gilg, 2007; Nye et al., 2010; Shove, 2003; Lertzman, 2015), for inattention to reactions beyond a dualism of acceptance or rejection/denial (e.g. Lorenzoni and Hulme, 2009; Norgaard, 2011), and a presumption that only academics, policy experts and committed environmentalists are aware of, and concerned about, disjunctures between awareness and behaviour (Stoll-Kleemann et al., 2001). These various critiques share an emphasis on a need to move attention away from absence - “from a lack of something” (Lertzman, 2015: 8), such as knowledge, understanding, trust, experience or motivation - to paying attention to what is present, including the unconscious, relations of power, other ideas and affective relations. As Norgaard (2011: 90) argues, more dynamic understandings of non-acceptance and inactivity should be adopted, adding that these require both cognitive and emotional work using ‘social narratives’ that enable people to “block out or distance themselves from information in order to maintain coherent meaning systems, desirable emotional states... or a sense of self-efficacy” (Norgaard, 2011: 91). Similar arguments are advanced by Groves et al. (2016), although focused on narratives’ roles in sustaining transition activities. This paper draws on such work, advancing the concept of ‘narratives to the self and others’ to explore how people themselves make sense both of actions to move towards a low-carbon society and non-activity with respect to such a transition. The paper explores the extent to which movements towards and within rural living might or might not be aligned with concerns related to a movement towards a low-carbon society. In detailing this, we will demonstrate the value of a post-carbon perspective within a mobilities influenced rural and transport geography.

### 3. Methods

This paper adopts a mixed-method approach involving quantitative analysis of governmentally produced secondary data relating to modes and patterns of travel, as well as CO<sub>2</sub> emissions, prior to developing more in-depth and qualitative analysis of the mobility patterns of rural residents and their attitudes to energy use and associated environmental changes such as climate change, based on social surveys conducted in eight villages in five contrasting English rural districts: East Lindsey, East Northamptonshire, Harborough, South Derbyshire and West Berkshire. The adopted mixed-method approach views quantitative analysis as providing the basis for ‘thin’ descriptions of features present in an extensive number of instances, whilst qualitative analysis provides the basis for more explanatory and interpretative accounts, in the manner advocated by Spillman (2014). Spillman (2014: 199–200) argues that within such a perspective “quantitative description is logically subordinate to qualitative explanation”, but the former is still seen as providing a series of added values, including the identification of patterns in need of explanation; the provision of support for, or grounds for the questioning of, background assumptions; and guidance in the selection of cases for investigation. In relation to the last added value, a quantitative based index was used to select Districts that appeared to reflect some of the diversity of rural England, being variously classified as ‘deep rural’, ‘dynamic rural’, ‘settled commuter and ‘dynamic commuter’ (Fig. 1) in the classification created by the ‘Rural Futures’ project (Future Foundation, 2002; Lowe and Ward, 2009).

For ethical reasons, the names of the villages studied are not disclosed and their identity is given through regional/county/district identities, whilst some of their locational and socio-demographic features are listed in Table 1. These highlight that whilst all the villages lay in relatively close proximity to urban centres such as towns and cities, those in Lincolnshire were significantly distant from both major and minor conurbations. Two of these villages also had significantly lower middle-class presence than



Fig. 1. Case study locations.

**Table 1**  
Selected statistics, case study villages.

Variables	Case Study Villages							
	East Lindsey 1	East Lindsey 2	East Lindsey 3	E Northants	Harborough 1	Harborough 2	South Derbyshire	West Berkshire
Middle class % (NS-SEC 1, 2 & 4)	45.8	60.2	39.2	59.7	69.1	65.1	53.4	67.1
Index of Multiple Deprivation rank, 2015*	8536	7194	13,111	7823	18,565	24,742	16,857	26,958
% residents migrated year previous to 2011	11.0	5.9	5.1	21.2	7.3	7.0	17.1	8.4
% residents travelling > 10 km to work, 2011	41.5	30.3	30.3	44.0	56.6	42.2	37.2	45.5
Average distance travelled to work (km)	24.9	28.1	16.8	24.6	24.2	29.4	20.2	23.0
Distance from a city or town (kms)	6.8	5.3	2.3	1.9	3.5	0.1	1.7	1.9
Distance from a minor conurbation (kms)	76.0	77.5	68.1	73.7	29.5	46.5	23.5	149.6
Distance from a major conurbation (kms)	110.5	108.9	100.7	53.1	56.1	45.3	20.8	58.9
Mean age	40.7	48.5	50.3	41.4	43.0	41.8	38.9	42.8
% of population < 18	24.5	12.5	10.8	20.0	23.1	22.3	20.0	22.6
% of population 18–65	58.7	65.4	64.6	64.3	57.3	60.5	73.2	58.1
% of population > 65	16.8	22.1	24.7	15.7	19.6	17.2	15.7	19.3
Distance from major conurbation (kms)	110.5	108.9	100.7	53.1	56.1	45.3	20.8	58.9
Distance from minor conurbation (kms)	76.0	77.5	68.1	73.7	29.5	46.5	23.5	149.6
Distance from a city or town	6.8	5.3	2.3	1.9	3.5	0.1	1.7	1.9

Notes: \* data is at lower level super output area (LSOA) while all other data relates to parish level or OA equivalent.

Sources: Office for National Statistics, 2011 Census: Aggregate data (England and Wales) [computer file], UK Data Service Census Support (Downloaded from: <http://infuse.mimas.ac.uk>. Information licensed under the terms of the Open Government Licence) Ministry of Housing, Communities & Local Government, English Indices of Deprivation, 2015 – LSOA Level (Downloaded from: <http://opendatacommunities.org>. Information licensed under the terms of the Open Government Licence); [<http://www.nationalarchives.gov.uk/doc/opengovernment-licence/version/2/>]).

the other villages, with the third's higher figure potentially reflecting a high proportion of people at or approaching retirement age. All the villages had similar mean age, although there were variations in the distribution of people around this mean figure. In all of the villages over 30% of the population commuted over 10 km to work.

In these villages, householder surveys were conducted between 2010 and 2016 as part of the two research projects through personally administered questionnaire interviews. Together these produced a dataset relating to 314 rural residents,<sup>1</sup> containing thin quantitative and thicker qualitative data on, amongst other issues, people's migration to these villages, their performance of everyday mobilities and willingness, or not, to amend behaviours in the light of concerns over energy availability and climate change. There were some identical questions in the surveys conducted in both projects, as well as questions that produced comparable information, although some questions were posed in only one of the surveys (e.g. questions on education qualifications and social networks were posed only in the RELU project, along with more extensive questions on migration).

Analysis of the interviews involved geocoding responses to enable investigation of patterns of movement, coding of people's social positioning through indices of gender, age, education, length of residence, and social class positions,<sup>2</sup> and narrative coding, whereby extracts of interview transcripts were identified where people provided some form of evaluation, justification or legitimisation of their attitudes or actions concerning travel, energy use and environmental change (see Phillips and Dickie, 2014, 2015, for more details). Such extracts, or "brief stories" (Mills, 2001: 298), highlight the active or performative dimensions of interviews, whereby these provide active moments of engagement and meaning generation rather than simply a point at which research participants pass on 'answers' that lie within them, or what Holstein and Gubrium (1995, 2004) identify as the 'vessel of answers approach'. In contrast they argue for the need to view interviewees as active subjects who in the process of giving answers actively assemble their responses. As highlighted by Whatmore (2003), this construction or generation of responses is mediated by a plethora of entities, both human and non-human, that are assembled together in the 'event' of the research interview and which affect its conduct and outcomes. In the cases of the 'brief stories' identified in the interviews conducted as part of the two research projects, there were clearly some aspects of interview situations that impelled people into providing some form of justification for their response. In some cases this was a verbal prompt from the interviewer, in other instances it may have been some form of embodied reaction from the interviewer that encouraged a response, but many occurrences appear to have stemmed from interviewee expectations that a particular viewpoint or event needed some form of clarification, explanation or justification. Such reactions might be viewed as evidencing aspects of everyday communicative actions (Habermas 1979, 2001), but also being indicative of cognitive and affective challenges that particular lines of questioning were posing for the interviewee, such as the potential need for change in attitudes, values and/or lifestyles practices. Such questions may stimulate cognitive and affective story-making responses by interview subjects rather than simply eliciting preformed thoughts and viewpoints. As such, it could be claimed that interviews act to create rather than simply record

narratives, although our argument is that provocation of such responses indicates that the questions posed connected with issues and tensions that respondents were in some way already engaging with and experiencing as issues within themselves. These moments of narrative explanation and justification within interviews were coded using NVivo and grouped to identify 'narratives to the self and others' that appeared to convey meanings capable of "linking diverse events... into unified and understandable wholes" (Polkinghorne, 1995: 136). It should be noted that not all narrative moments were incorporated into these broader narratives and that, in some instances, people enacted more than one narrative. These features mean that it is not possible to clearly allocate all the individuals interviewed with a single narrative, although we do feel it is possible to identify a series of quite distinct narratives employed by many residents in the 8 case study villages.

#### 4. Carbon dependent rural mobilities: assembling evidence

##### 4.1. The national scene

As mentioned previously, the *Commission for Rural Communities* (2010) argued that per capita greenhouse gas emissions were higher in rural than urban districts, particularly with respect to transport. This is broadly confirmed by analysis of 2013 CO<sub>2</sub> emission data produced by Experian (Table 2), which suggests that average per capita emissions were 8.2% higher in rural areas (12.75 tonnes per annum rather than 11.71), whilst the per capita transport emissions were 25.5% higher (1.27 tonnes per annum rather than 0.95).<sup>3</sup> Higher per-capita emission levels, both generally and with respect to transport, appear across all categories of rurality, although rural villages in sparse and non-sparse contexts had the highest emission levels, with the latter set of villages having noticeably high per capita CO<sub>2</sub> emissions from transport (Fig. 2). It is also clear that whilst large cities such as London, Birmingham and Liverpool had many areas of low per capita emissions and many rural areas had high per capita emissions, there were variations within both urban and rural areas.

The higher rural per capita mean CO<sub>2</sub> emissions from transport shown in Table 2 can be seen, in part, to reflect differences in travel patterns. The *Commission for Rural Communities* (2010), for instance, calculated that people living in areas classified as 'Villages' or 'Hamlets and Isolated Dwellings' travelled 42% further than those in England as a whole (see also Anable et al., 1997). These longer travel distances were supported by analysis of the 2011 Census, where average distances travelled to work in England and Wales in these areas were 33% higher than the overall average, and were, perhaps unsurprisingly, significantly higher in rural areas within sparse settings (Table 2). However, the presence of higher levels of transport related CO<sub>2</sub> emissions in rural areas may also reflect use of different modes of transport. According to the 2011 Census, almost 14% more people in rural areas drive to work than in urban areas, with almost 10% more people working at home within rural areas (Fig. 3).

It is possible to assess distances travelled by different modes of travel (Table 3 and Fig. 4) using the 2011 Census. It was evident that trains tended to be used for longer commutes to large metropolitan centres and, pre-eminently, London, which as Rae (2017: 465) notes, appears as clearly "dominating the national picture". Train journeys from rural areas appeared generally longer than those from urban areas, a feature not uniformly evident in the other modes of travel, with buses and coaches being used for long journeys both from, to and within major conurbations, as well as from areas of villages and dispersed rural settlement. Driving, however, was clearly the predominant mode of commuting, particularly in areas outside of major conurbations, where journeys encompassed travel between major metropolitan centres, from a wide range of areas to metropolitan centres, and to smaller cities and towns from surrounding areas.

<sup>3</sup>This data is produced by Experian in association with the Stockholm Environment Institute and is made available as part of their Consumer View dataset.

<sup>1</sup>The surveys for the RELU project were conducted in 2011 and 2012, and those for the BURD project in 2016.

<sup>2</sup>In relation to education, use was made of the 4-fold qualification classification utilised in the UK Census, in which the highest level (4) relates to higher educational degrees or equivalent, and higher. The social class classification used was the UK's National Statistics Office's socio-economic classification (or NS-SEC) which seeks to characterise people's employment conditions and relations within paid work/employment. In this classification, Classes 1 and 2 relate to professional and managerial occupations, Class 3 are characterised as 'intermediate' occupations, Class 4 relate to petite bourgeois 'small employers' and self-employed 'own account workers', whilst Classes 5 and 6 relate to more 'working class' routine and semi-routine occupations. For further details of these classification, see Office for National Statistics (2014) and Rose and Pevalin (2002).

**Table 2**  
CO<sub>2</sub> emissions, travel to work and car/van ownership in urban and rural output areas within England and Wales, 2013.

Rural-urban classification	Per capita CO <sub>2</sub> emissions (tonnes per annum)						Travel to work distance			Average car/van availability	
	Minimum		Maximum		Mean		Standard Deviation		Km		No.
	Total	Transport	Total	Transport	Total	Transport	Total	Transport			
Rural hamlets & isolated dwellings in sparse setting	3.90	0.42	25.37	2.86	12.54	1.48	2.32	0.29	28.2	1.77	
Rural hamlets & isolated dwelling	0.73	0.45	28.55	3.30	12.36	1.39	2.54	0.30	22.6	1.88	
Rural village in sparse setting	6.04	0.50	46.25	5.58	13.33	1.47	3.32	0.44	25.5	1.51	
Rural village	1.08	0.11	44.57	5.60	13.09	5.60	2.50	1.35	21.6	1.69	
Rural town & fringe in sparse setting	5.42	0.37	37.25	4.00	12.91	1.16	3.43	0.40	20.8	1.17	
Rural town & fringe	1.02	0.12	43.07	4.17	12.66	1.17	2.36	0.29	18.4	1.39	
City & town in sparse setting	3.85	0.27	31.27	2.76	11.77	0.99	2.74	0.29	17.1	1.03	
City & town	1.16	0.01	249.85	17.50	12.00	1.07	2.53	0.30	15.0	1.19	
Urban minor conurbation	0.41	0.03	41.28	3.37	11.59	0.97	2.29	0.28	13.7	1.02	
Urban major conurbation	0.12	0.01	59.44	3.18	11.03	0.77	2.68	0.34	12.2	0.95	
All rural	0.73	0.04	46.25	5.60	12.75	1.27	2.52	0.33	20.6	1.57	
All urban	0.12	0.01	249.85	17.50	11.71	0.95	2.61	0.35	13.8	1.09	
Total	0.12	0.01	294.85	17.50	11.89	1.01	2.62	0.37	15.1	1.18	

Source: Experian GreenAware Dataset 2013; Office for National Statistics, 2011 Census, QS702EW & QS416EW, licensed under the Open Government Licence v.1.

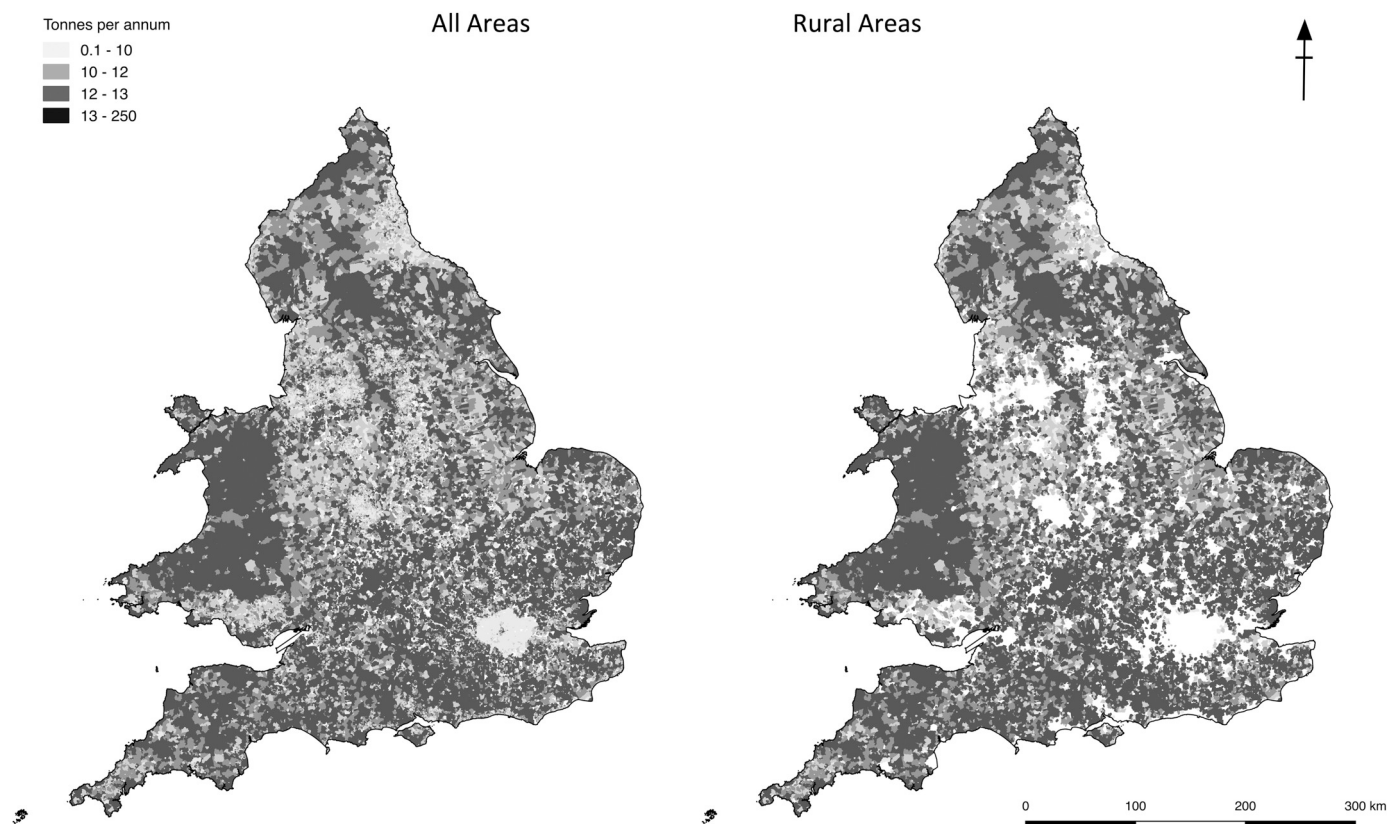
The predominance of driving in commuting from rural areas evident in Table 3 can be seen to both reflect and foster high levels of car/van ownership in these areas (see Table 2). This feature has been long recognised, it being argued that it in part reflects “a degree of ‘reluctant ownership’” (Moseley, 1979: 18) stemming from lack of alternatives, although as Gray et al. (2001: 166) remark, “people do not necessarily see car dependence negatively because car ownership is viewed as enhancing independence”. Research on automobility has emphasised its importance within the construction of a range of social identities (e.g. Edensor, 2004; Sheller, 2004; Dennis and Urry, 2009), whilst other work has stressed the significance of cars in accessing aspects of everyday living beyond work, including educational, financial, health, retail, recreational and welfare services (e.g. Moseley, 1979; Nutley and Thomas, 1995; Nutley, 1998; Gray et al., 2008; Shergold and Parkhurst, 2012). Such work also often highlights how counterurban movement increases car dependencies, both because it may involve people commuting “back to jobs closer to their previous urban homes” (Champion, 2009: 162), and because of the greater affluence and extra-local lifestyles of incoming residents. The next section of the paper focuses on the mobilities associated with this last set of issues, drawing on the results of questionnaire surveys conducted in 8 rural villages.

#### 4.2. Evidence from Berkshire, Lincolnshire and the Midlands

The previous section focused on rural-urban differences with respect to commuting and associated CO<sub>2</sub> emissions, although also referred to a range of intra-rural, and indeed intra-urban differences as well. The presence of intra-rural differences was recognised when developing case studies for more in-depth investigation, with rural Districts being selected that encompassed a range of commuting and migrational characteristics. The District of East Lindsey was classified as ‘deep rural’ under the Rural Futures classification mentioned in Section 3, which implied that the area had both limited in-migration or commuting. East Northamptonshire, Harborough and South Derbyshire were all classified as ‘settled commuter’ or ‘dynamic rural’ areas, meaning that they had significant commuting to nearby ‘conurbations’ and ‘provincial centres’. West Berkshire was classified as a ‘dynamic commuter’ area, implying it exhibited ‘socio-economic dynamism’ and large numbers of commuters (see Future Foundation, 2002; Lowe and Ward, 2009). These differentiations of commuting patterns were confirmed through analysis of commuting data generated within the 2011 Census. Fig. 5, for example, illustrates that West Berkshire had extensive commuting to areas towards and in Greater London, whilst South Derbyshire, Harborough and East Northamptonshire all demonstrated extensive commuting to centres within and around these Districts. East Lindsey had the longest average commuting, but much of it was within the District or to the neighbouring city of Lincoln.

These differences in commuting were confirmed in the questionnaire surveys conducted in 8 villages located across these Districts. Fig. 6 shows the location of places of work amongst the residents interviewed, it being evident that residents in the West Berkshire village tended to travel further to work than those in the Midland villages, who tended to travel predominately to nearby urban centres such as Derby, Leicester, Northampton and Nottingham, although there was also significant localised employment and longer distance commuting to London and other large metropolitan centres. In the case of Lincolnshire, there were also significant amounts of longer distance commuting to employment centres within and beyond the local authority District.

Whilst the questionnaire surveys broadly correspond to the commuting patterns established using the more extensive Census data, they also provided information on migration patterns and aspects of everyday mobilities beyond commuting. Fig. 7, for instance, shows locations of previous places of residence for the 4 villages surveyed as part of the RELU project. It indicates that all villages included residents who had previously lived in the village or in nearby locations, although were also drawing in residents from quite distant locations including from London. This last point illustrates the significance of counter-urban movement



Source: Experian GreenAware Dataset 2013

Fig. 2. CO<sub>2</sub> emissions from transport in England and Wales and rural England and Wales, 2013.

within all of the villages. It was also evident that there was a strong pattern of movement from urban centres within the Midlands in the Harborough village, whilst the West Berkshire village was occupied by many people who had previously resided in the southern part of England, and particularly in the 'M4 corridor' between London and Bristol.

Fig. 8 and Table 4 show journeys to supermarkets, clothes shopping, obtaining cash and seeing a doctor. They reveal that in two villages some people travelled as far or further than they were travelling to work to access supermarkets, whilst across all but two villages the maximum distance travelled to purchase clothing exceeded the maximum commute to work. Overall mean distances travelled to undertake clothes shopping exceeded mean work commute distances, although it was clear that across the villages, people generally travelled further to buy clothes than they did to access the other services listed in Table 4. Fig. 8 shows clothes shopping being more concentrated than supermarket shopping and accessing cash, although visits to doctors showed the highest concentration, reflecting the rural health services rationalisation observed over many decades (e.g. Moseley, 1979; Sherwood and Lewis, 2000; Moseley et al., 2004).

In many cases journeys were undertaken for multiple purposes, with people shopping at the supermarket on their way to/from work, and also obtaining cash, as well as petrol and other goods on this journey. On the other hand, it was also clear that people undertook frequent journeys to access these services: for example, 25% of respondents visited a supermarket more than twice a week. In only 4 cases was transport other than a private car or van used to travel to the supermarket, further highlighting the carbon dependencies of the everyday mobilities of these rural residents.<sup>4</sup>

Dennis and Urry (2009: 149) highlight how the mobilities and

carbon dependencies of contemporary societies extend into the social realm, claiming that a local sustainability transition would imply dramatic shifts in lifestyles, including friendship networks that would need to be "much more intensely local and smaller in scale". There has been little examination of this argument, although it has some resonance with claims advanced around the impacts of counterurbanisation on rural social life. As outlined in Lewis and Maund (1976: 21), rural communities have long been viewed as locations of close but spatially restricted social interaction, with incoming urban populations seen as exhibiting more spatially extensive patterns of social connection, linked both to the act of migration and a "tendency for work and residence to become separated". Whilst problematic in many ways, this vision suggested that villages experiencing counterurban migration will exhibit extended migration and friendship patterns, arguments explored empirically in some studies (e.g. Pahl, 1965; Lewis and Maund, 1979; Halseth, 1993). Fig. 7 confirmed the former point, whilst Fig. 9 illustrates the latter, although it is evident that one of the East Lindsey villages exhibited a very localised friendship network despite having a similarly dispersed pattern of in-migration as the other village in this District, as well as a similar pattern of everyday mobilities.<sup>5</sup> Clearly it should not be assumed that locations experiencing counterurbanisation and extended everyday mobilities will be devoid of localised social networks.

Qualitative commentaries obtained during the surveys confirmed that mobility, across a range of forms, was a key facet of rural living, and indeed, was often an important constituent, both materially as well as cognitively, in decisions as to where to live in the countryside.

<sup>4</sup> As discussed later, there was evidence of use of fuels other than petroleum or diesel by a few residents within the RELU study, but in the BURD study where the fuel used in vehicles was explicitly addressed, there was only 1 that was not powered by carbon-based fuels.

<sup>5</sup> Questions on friendship were not asked as part of the survey undertaken for the BURD project and hence comparable analysis of migration and friendship patterns is only possible for the RELU study.

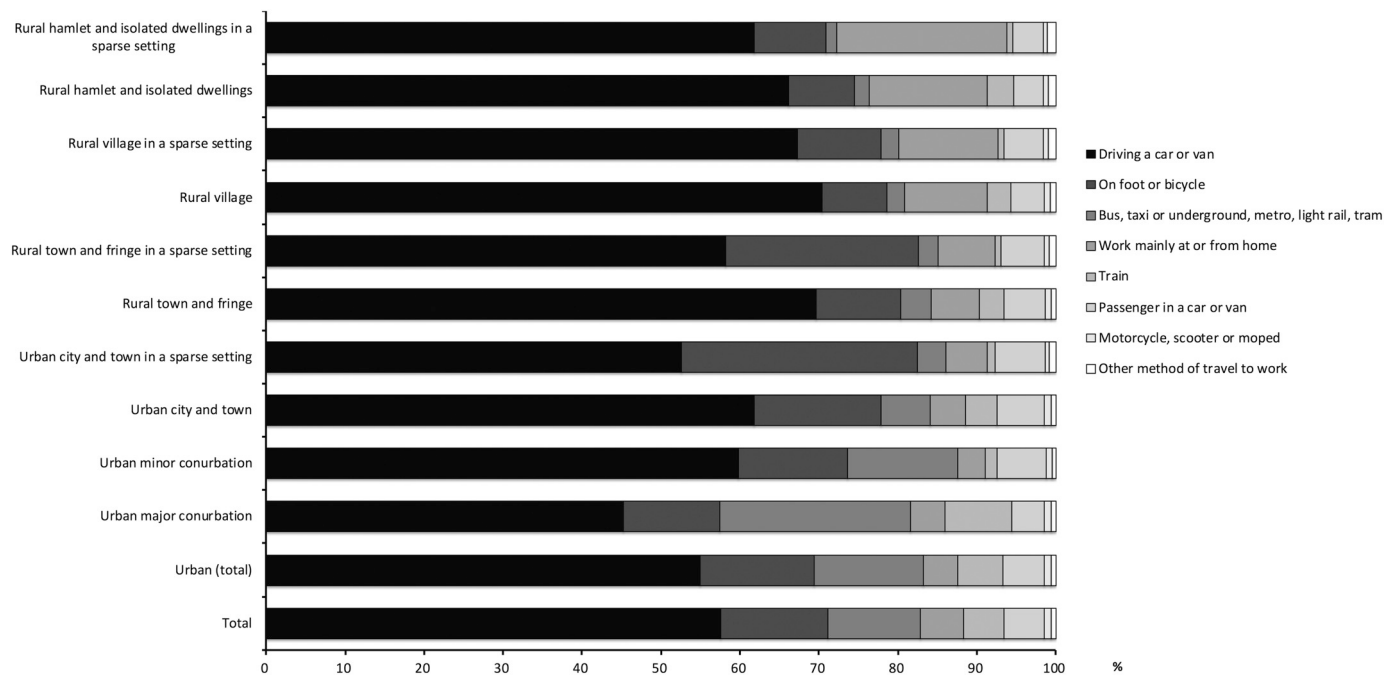


Fig. 3. Mode of travel to work 2011, by rural urban classification.

Table 3  
Travel to work distances, 2011.

Place of Residence	Work within home MLSOA	Travel to work								
		By driving car				By train			By bus	
		No. of people (,000)	No. of people (,000)	Average Distance (km)	Total Distance (, 000 km)	No. of people (,000)	Average Distance (km)	Total Distance (, 000 km)	No. of people (,000)	Average Distance (km)
Major Conurbations	784	3829	78.5	276,154	734	93.5	51,821	1058	46.9	53,900
Minor Conurbations	68	503	71.3	35,230	13	104.1	1157	101	35.5	3757
City and Towns	1110	7040	66.1	4,594,478	449	114.6	38,696	640	36.9	22,434
Rural Town & Fringe	314	1557	72.1	111,853	72	134.1	6734	73	41.8	2727
Village & Dispersed Settlement	399	1315	78.1	102,204	57	139.8	6151	35	50.1	1588

Source: Office for National Statistics, 2011 Census, QS701EW, licensed under the Open Government Licence v.1.



Fig. 4. Commuting patterns England and Wales 2011, flows of 2 people or more.

“its position is convenient, it's picturesque, it's got a nice mixture of housing ... you can go on lovely walks from the village without having to get into your car” (Woman, 61–65, NS-SEC 2, West Berkshire);

“we took the kids out in the car and went round looking at all the properties before we actually arranged a viewing ... and we must have covered 50 miles a day” (Woman, 41–50, NS-SEC 2, East Lindsey);

“We chose this area because ... it's a few minutes up the motorway to Reading but it's rural rather than migratory countryside... So, the appeal of living here is, while you can get to London, ... you wouldn't want to do it every day, so therefore it's what I call proper countryside because it's not commuter belt” (Man, 41–50, NS-SEC 1.2, West Berkshire).

It was clear that many people were conscious that they relied on mobility and access to transport within the conduct of everyday rural living:

“The village is smashing ... there's a super atmosphere ... a good community spirit .... what we've lost [is] all the facilities, the school's closed, the shop's gone, ... there's no public transport, so you're relying on a car, or two cars, or your bike, I wouldn't say it cramps your style, it's cost you more, of course, because, you know, the fuel and that” (Man, > 65, NS-SEC 1.2, East Lindsey);

“if you do need something, you know a pint of milk or a loaf of bread, it's a car journey, it's not just sort of, I'll nip to the corner shop” (Woman, 51–60, NS-SEC 2, East Lindsey);

“Fuel poverty [is] a massive problem because ... the petrol stations around here are some of the most expensive, and you've got to get in your car to travel anywhere. Actually just getting cash is a problem, getting your basic groceries” (Woman, 31–40, NS-SEC 2, West Berkshire);

“you have to use the car all the time.... You know, everyday I'm driving down to the next village to get newspapers and basics, and... if you do want to do your big shop you have to drive 7 to 10 miles” (Man, > 65, Retired, previous job unspecified, West Berkshire).

As these quotes all indicate, access to a car was widely seen as essential to contemporary rural living, and indeed almost 91% of respondents had



Fig. 5. Commuting patterns case study Districts 2011, flows of 2 people or more travelling by car or van.



Fig. 6. Commuting patterns case study Districts, questionnaire responses.

never made use of public transport from their place of residence.<sup>6</sup> Whilst 46% of respondents stated that accessing public transport was a problem, this was often quickly followed by statements that difficulties were not personal but related to others. There was indeed frequent recognition of issues of mobility inequalities, and concern that whilst not currently a personal challenge, this might not hold true into the future:

“There are a few people who I have met who are unemployed, who will never afford to be able to run a car or drive, who are looking for work and ... work is right the way across Leicester, so for them [the bus is vital]” (Woman, 41–50, NS-SEC 6, Harborough);

“not for us but for some people, there is a problem in public transport, it is somewhat sparse, it's alright for us with one car ... to be able to get around, and indeed being reasonably able bodied, so we can walk ... and get the bus, but that is a problem” (Man, 61–65, NS-SEC 2, Harborough);

“There are people now in this village that rely on the community bus, which gives them two hours a week, that's all... Now I'm told that these buses are going to be stopped again because of cutbacks” (Woman, > 65, NS-SEC 5, South Derbyshire);

“I worry about when I get older, because if I'm unable to drive, you'd then become trapped because there is no bus service to speak of. There's no doctors, no chemist, no anything really, apart from the pub. So that's a little bit of a worry for the future, but at the moment while we both can drive that's not a problem” (Woman, 51–60, NS-SEC 3, East Northamptonshire);

“isolating for me and the children, you know. Can't just nip out to the shop or, you know, everything you have to get in a car, so that can be expensive or more expensive living here because of fuel” (Woman, 41–50, NS-SEC 3, East Lindsey).

The last two quotes highlight how concerns over rural mobilities often connected to issues of health and ageing (see [Shergold and](#)

<sup>6</sup> In one of the surveyed villages, a bus service had recently ceased to operate, whilst in another a ‘dial-a-bus’ service was in operation rather than a scheduled service.





Fig. 7. Previous places of residences

Parkhurst, 2012; Ward et al., 2013), and also the cost of fuel, with 78% of respondents expressing concern that fuel could become unaffordable. Significantly, in the light of earlier discussions of attitude/action gaps, there were fewer references to environmental dimensions of rural

mobilities, despite 80% of respondents expressing acceptance that the world's climate was changing. Only around 2% of respondents stated they were seeking to reduce the number of journeys they were doing, although 25% stated they were considering switching to vehicles with



Fig. 8. Everyday mobilities amongst residents of 8 English.

Table 4  
Travel distances to obtain access to resources of everyday life.

Villages	Activity											
	Travel to work		Supermarket		Doctors		Cash		Petrol		Clothes	
	Mean	Max.	Mean	Max.	Mean	Max.	Mean	Max.	Mean	Max.	Mean	Max.
East Lindsey Village 1	22.3	92.9	17.7	242.4	9.1	10.0	15.1	101.8	18.0	96.7	25.9	47.4
East Lindsey Village 2	24.1	203.9	13.6	45.8	8.3	45.8	15.3	112.5	20.6	112.5	35.1	121.2
East Lindsey Village 3	21.4	123.7	7.5	18.0	6.7	18.0	7.8	18.0	8.6	18.0	13.2	43.3
Lincolnshire Villages	24.4		15.2		8.4		13.9		17.3		28.4	
East Northants Village	22.6	133.8	7.1	34.9	4.1	11.2	8.8	94.0	9.2	53.3	42.6	282.0
Harborough Village 1	11.6	24.7	12.8	18.2	4.3	12.7	11.1	15.7	8.7	18.2	16.5	67.1
Harborough Village 2	46.8	173.7	6.8	19.7	13.0	121.6	13.6	121.6	7.3	25.2	29.1	121.6
South Derbyshire Village	15.8	186.4	8.6	47.0	3.4	10.3	4.7	47.0	11.8	47.0	18.3	127.8
Midlands Villages	20.7		9.6		5.0		8.9		9.7		23.5	
West Berkshire Village	23.1	95.2	13.1	95.2	6.1	95.2	15.3	95.2	16.1	128.1	33.5	261.8
All Study Villages	21.7	203.9	12.2	242.4	6.4	121.6	12.0	121.6	13.5	128.1	26.9	282.0

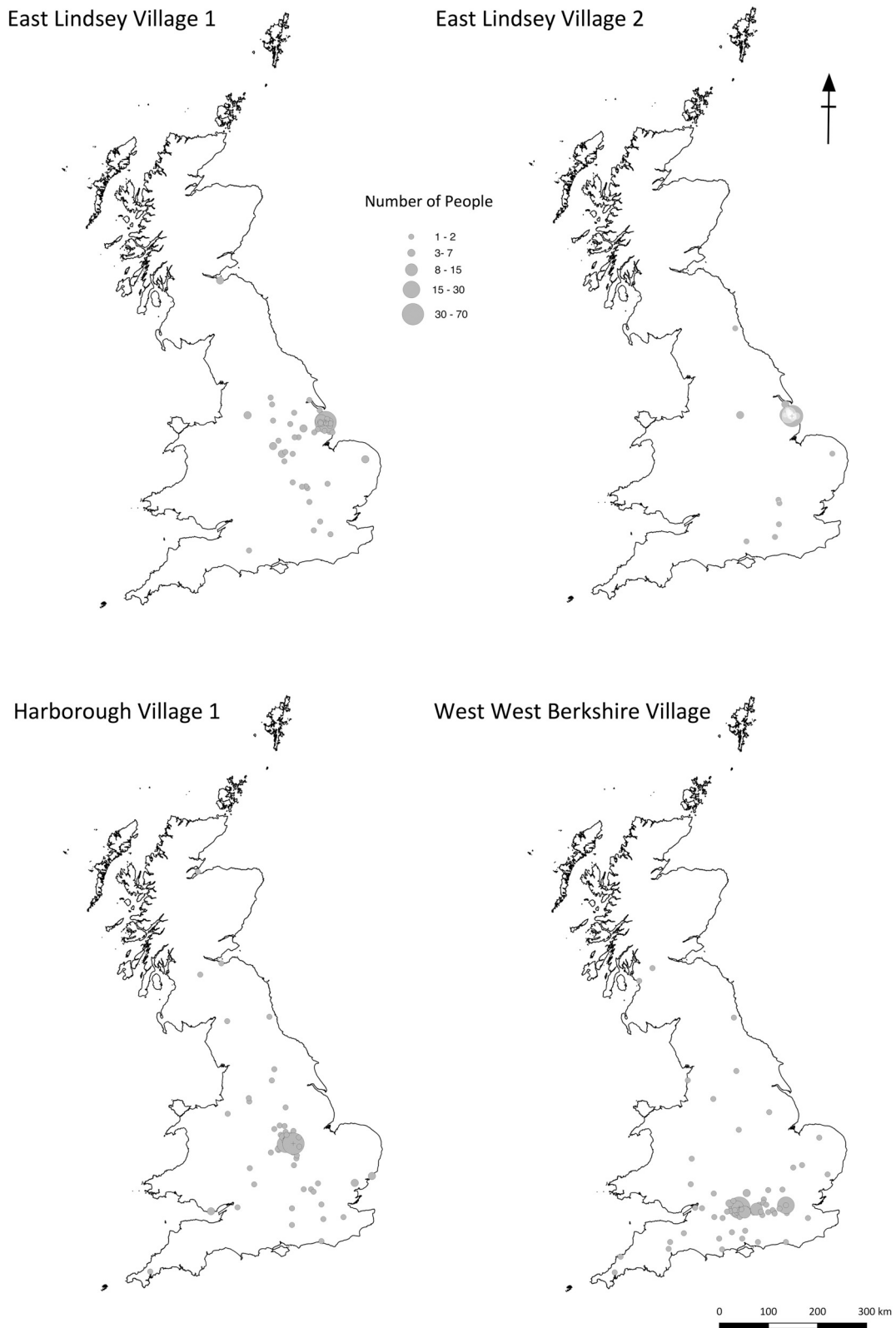


Fig. 9. 'Best friends' location of residents in 4 English villages.

smaller engines. Whilst village residents seemed highly conscious both of the significance of mobility to their everyday lives and global climate change, there appeared to be widespread disconnection between these cognitions and actions.

**5. Movement and non-movement to a low-carbon countryside: disjunctures and narratives to the self and others**

As discussed earlier, conceptions of attitude/value-action gaps tend to view disjunctures as features to be overcome through the filling of some absence, such as knowledge, understanding, trust, experience or

motivation. This emphasis on absence has been questioned, and to reflect this, information on the educational levels of respondents as well as length of residence will be included where possible in this section of the paper to indicate how issues of awareness, attitudes and actions do not simply map into differences in education or indeed experience of a particular locality. Furthermore, critics such as Lertzman (2013: 120) have questioned the emphasis on the eradication of disjunction, suggesting that people routinely “hold conflicting desires, thoughts and impulses, even those that appear diametrically opposed”, including wanting “our cars and ... to avoid global climate-induced catastrophes”. This holding together of ‘multitudes’ is one of the presences that Lertzman (2015) and Norgaard (2011) argue need to be addressed in order to understand states of denial, uncertainty, inaction or apathy about climate change. They are also the focus of Groves et al.’s (2016) study of activism, which highlighted the existence of tensions and contradictions experienced by advocates of environmental transition. These studies all highlight how people are conscious and reflective about the ambiguities, contradictions and tensions between the multitudes, working hard cognitively, emotionally and affectually to resolve, reconcile or displace them through some form of narrative to the self, that is also, at times, expressed as a narrative to others. In many instances these narratives produce stasis, in that they provide rationales for continuity of existing practices, but they may also orientate people towards transition.

### 5.1. Narratives of stasis

The presence of uncertainty has been highlighted in studies of climate change attitudes (e.g. Poortinga et al., 2011; Whitmarsh, 2011) and was clearly both evident in interview responses and used by some people to justify inaction with respect to climate change and low-carbon transition. Such cases can be seen to constitute a narrative of stasis, it being widely claimed that there was currently too much uncertainty to know what changes to implement. This narrative often graded into expressions of other narratives of stasis through, what following Norgaard (2011), could be described as literal, interpretative and implicatory narratives of stasis or denial. Literal denial involves explicit rejection of claims, and formed a second, albeit relatively rarely evident narrative in our interviews, although when expressed was often done with clear vehemence:

“I have very, very, very strong views on global warming... Climate change is a very new science. It is developing rapidly as it is trying to scare the life out of everybody... [Q]uite frankly I have noticed no changes” (Man, 41–50, level 4 qualifications, occupation not given, West Berkshire, resident for less than a year);

“[A] lot of people are jumping on the band wagon. I don't really believe it ... what I don't like about the whole climate change argument, is it seems to be very one sided ... half of the stuff ... is what people ... want you to think ... ‘making fewer car journeys’. Right well, I could probably ... go into work on the train ... but realistically ... I don't think we need to be doing it” (Man, 41–50, qualifications not given, NS-SEC 4, Harborough, resident for less than a year).

Both these instances of literal denial were expressed by men who were recent arrivals into the villages where they now lived. Whilst it was also expressed by more long-term residents as well, this discourse appeared to be quite masculinist in character, in contrast to the narrative of ambiguity and uncertainty which was enacted by many women.

A third narrative of stasis involved ‘interpretative’ and ‘implicatory’ denial. The former, Norgaard (2011) argues, rejects not so much the existence of climate change as interprets it in ways that severs, or disavows, any association with human activity. As such it connects to Rahmstord's (2004) notion of ‘attribution scepticism’ whereby people

accept that the world's climate is changing but do not view it as a result of human activity (see also Poortinga et al., 2011). In our interviews, comments ascribing climate change to some form of natural process, as illustrated below, were more frequent than literal rejections of climate change:

“think it probably is changing but I don't think ... its necessarily what we're doing, I think it's just the cycles. I think it's natural” (Woman, 61–65, level 2 qualifications; occupation not given, West Berkshire, resident 35 years).

“The climate has been changing since the Big Bang, since the Ice Ages, it is an ongoing process. Climate change is natural, it is going to happen anyway. At any moment in time we are going from one climate to another, so it is changing” (Man, 51–60, level 2 qualification; NS-SEC 2, East Lindsey, resident 3.5 years);

“I don't think there's anything manufactured about the way the climate is changing, I think it's just all part and parcel of natural climate changes year on year ... so I don't think there's a lot you can do about it” (Woman, age and qualifications not recorded, NS-SEC 2, Harborough resident for 4.5 years).

In these cases, nature was employed to enact narratives of stasis through acting as what Norgaard identifies as a ‘tool of order’, affirming a sense of ontological stability such that human activity is viewed as incapable of altering “how things are in the world” (Norgaard, 2011: 146). Such narratives drew upon constructions of nature as both external to human activity and unchangeable, which are widely enacted in Western societies such as the UK, although are far from the only interpretations of nature available or drawn on in discussions of climate change (see Macnaghten and Urry 1998; Phillips and Mighall 2000; Castree 2014).

Rurality also figured as a similar tool, particularly in relation to transport where, as discussed previously, access to a car was widely seen as essential to contemporary rural living, a situation frequently viewed as unchangeable, even in the face of climate change recognition:

“I think everyone is concerned about it [climate change] in some degree or other, we all moan ‘got to keep carbon footprints smaller’, but you still drive your car, you know, you have to, don't you, it's difficult if you live in a village because you just have to” (Man, > 65, no educational qualifications, NS-SEC 6, Harborough, resident for less than a year);

“we are quite remote as well, everybody burns oil for heating and everybody gets their car out, but it's just how it is” (Man, 61–65, level 3 qualifications, NS-SEC 4, East Lindsey, resident for 31 years).

These comments were both made by elderly male residents, but as indicated in quotes in the previous section, this view of the centrality of cars to rural life was expressed by a wide range of residents, including, as illustrated by the above quotes, from recent and long-time residents. In these quotes, rurality was constructed through notions of particular settlement forms - the village - and remoteness, or distance. The latter construction, and its converse, were widely employed in discussions of transport, although a series of other symbolic constructions of rurality that have been identified in studies of the English countryside - such as the presence of agriculture, extensive green or vegetated spaces, historicity or some sense of community (see Halfacree 1995; Phillips et al. 2001; Woods, 2010) were also employed.

Rurality and nature were also used as what Norgaard (2011: 11) describes as a ‘tool of innocence’, creating narratives of stasis through implicatory denial. These did not reject the existence of human induced climate change but rather distanced the speaker from any psychological, political or moral associations with it. Norgaard (2011: 149) argues, for instance, that areas of nature and rurality are widely viewed as spaces beyond “the ills of modern society”, and hence by implication

removed from contributing to problems stemming from such a society, such as climate change or resource depletion. These arguments have clear parallels with work on representations of rurality which have highlighted how it is often constructed as being a space distanced from processes of modernity and change (e.g. Murdoch and Pratt, 1993; Halfacree, 1997, 1998; Phillips et al., 2001; Ward and Ray, 2006) and also work on climate change perception that has remarked on the presence of distancing and othering (e.g. McManus, 2000; Smith and Joffe, 2012). It was certainly evident in some responses that the presence and causes of climate change, and the need for mitigative and adaptive responses, were located with places and people distant from rural England:

“the Chinese are going to go on doing what they do, the American's are gonna go on doing what ... [they] do, and somebody not using their car in England because it might pollute the [climate], no, forget it” (Woman, 61–65, level 3 qualifications, NS-SEC 2, West Berkshire, resident for 10 years);

“Obviously human causes contribute to the heating up but ... we've had cars for hundred odd years and there's, what, 50 million of us. Chinese have 1,000 years of riding round on bicycles, millions of those start driving Range Rovers around the place, it's going to have a far bigger impact than England switching off my tea to standby, it's just not going to make any sniff of a difference globally” (Man, 31–40, level 4 qualifications, NS-SEC 1.2, Harborough, resident for 2.5 years).

Interpretative and implicatory denials involve “selective perception and cognition” (Norgaard, 2011: 91) that both recognise and ‘disavow’ recognition, a process that Weintrobe (2013: 7) argues creates very intractable narratives, not least because interpretative and implicatory denial can be combined and work to reinforce each other. This intractability may be particularly entrenched in rural areas given the intertwining of conceptions of rurality and nature evident in many accounts of rural living, resulting in respondents being unable to conceive or imagine any way that their place of residence or lifestyle could connect to or mitigate climate change.

Having said this, in other accounts there appeared to be recognition of such connections, albeit accompanied with a resistance to realise these connections in practice. Stoll-Kleemann et al. (2001: 107) have identified a ‘comfort interpretation’ of inactivity, whereby people are more content with their current situation than with the prospect of undertaking any change. Such an attitude can be seen to constitute a fourth narrative of stasis evident in our interviews, one frequently expressed in relation to movement to the countryside and the mobilities enacted as part of contemporary rural living. It was clear that many interviewees had invested materially and psychologically in the current character of their rural place of residence and did not wish this to change or to contemplate changes in the modes of transport that they were enacting:

“It sounds awful to say ... I would only become concerned about it if there was going to be some [change] ... I'm ashamed to say that I would be quite lazy in saying no, not unless it impacted on me directly” (Woman, age and qualifications not recorded, NS-SEC 2, Harborough, resident for 4.5 years).

“truthful answer, I don't want to think about it... I think there will be some huge changes and I hope there won't be” (Man 61–65, level 3 qualifications, NS-SEC 4, East Lindsey, resident for 31 years);

“I hope [the village will be] not a lot different, I really hope... I don't always like to think too far ahead to what the future holds, it will make me worry” (Woman, 41–50, level 2 qualifications, NS-SEC 5, East Lindsey, resident for 9 years).

These cases, which were drawn from men and women of varying lengths of resident and social class position, illustrate how many

respondents did not contest arguments about the need for change but resisted thinking about its enactment or consequences.

A fifth, and final, narrative of stasis was offered by people who quite explicitly accepted the need for change but considered that they could not themselves enact change, either because of the presence of significant barriers to change or because their actions alone would be insufficient. Such accounts often drew upon similar elements to other narratives of stasis, including the ontological character of rural space and relative distancing from causes of climate change. These, however, were not used to deny or disavow the need or potential for change, but rather to individualise their situation and account for personal/current inaction:

“I just have this wishy-washy middle-class, Western/European view that it's awful and something ought to be done about it. Not to the extent of doing too much to change my own behaviour, although I do try, but you know living where we live, we have to drive motor cars, we have to burn some kind of fuel” (Man, 51–60, level 4 qualifications, NS-SEC 4, West Berkshire, resident for 10 years).

“If I could have a purely electric car I would do, but the infrastructure is not there yet for it. You've got to have somewhere to charge it and for the number of miles I do, 10,000 a year, I could manage with an electric one but you've got to have somewhere to charge it” (Man, > 65, no educational qualifications, NS-SEC 6, Harborough, resident for < 1 year).

These quotes both came from men and exhibit a focus of technological objects and choice that has been identified in other work discussing individualism and inactivity (e.g. Slocum 2004; Leiserowitz, 2006; Barr & Prillwitz, 2014).

Overall, our research was able to identify five distinct, but often over-lapping, narratives to the self that acted through processes of uncertainty, rejection, disavowal, distancing and individualisation to provide justifications for inaction. Whilst narratives of literal rejections of climate change and post-carbon transition were limited in number, the other narratives of stasis were widely enacted. The widespread enactment of narratives of stasis is arguably unsurprising given the widespread presence of disjunctions between expressions of concern about climate change and associated mitigative actions. It may also lend support to Whitmarsh's (2011) claim that climate change ‘scepticism’ is more widespread in rural locations. She connects such attitudes to an aged demographic, and it is clear that the majority of the quoted expressions of stasis have been drawn from people aged 50 and over. This distribution reflected the age profile of the case study villages (Table 1), and indeed much of the UK countryside, although it clearly also raises the possibility that areas with different demographic profiles might have different sets and balances of narratives.

## 5.2. Narratives of transition

Whilst narratives of stasis tended to predominate in interview commentaries, there were also clear instances where ‘narratives of transitions’ were being constructed whereby people were creating accounts as to why they should be changing their behaviour. At least three forms of such narratives were identifiable.

First, there were some people who saw changes as inevitable, a viewpoint often employing notions of nature and portraying rural areas as places inescapably at the mercy of wider forces of change:

“I think human activity may have had some influence... [but] in comparison with the natural cycle, I think we're a pimple ... I think we have got to learn to live with the changes, I think we have to adapt, mankind has adapted over the thousands of years” (Woman, 31–40, level 4 qualifications, NS-SEC 2, Harborough, resident for < 1 year);

“the village is very... susceptible to transport... so if...private

motoring became unaffordable and there wasn't any provision for public transport in addition to what is available now, then it would become a very undesirable place to live and would change drastically" (Man, 41–50, level 2 qualifications, NS-SEC 2, West Berkshire, resident for 2.5 years).

In these two cases, the respondents were recent middle-class arrivals to the countryside and it could be that awareness of other areas and recent experiences of residential movement helped foster change recognition. In such accounts change was not necessarily welcomed, but rather seen as something that would have to be accepted or accommodated in some way or another. By contrast, in two other identified narratives, change was associated with some benefits.

One of these narratives can be seen to encompass explicit engagement and promotion of climate change mitigation and movement towards a low-carbon economy. As with the narrative of literal denial, this narrative of adoption was expressed relatively infrequently, but often with passion and detail:

"We do try and make fewer car journeys, we do all our shopping and various things ... once a week, rather than going in every few days for stuff ... we have a policy in our family where we try and buy as locally grown as possible, during summer we grow as much as we can ourselves" (Man, 41–50, level 3 qualifications, NS-SEC 4, East Lindsey, resident for 17 years);

"We made sure we bought a fuel-efficient car. I try to make fewer car visits and make rotas with other families. I cycle to Lonsis sometimes rather than driving. I try and buy food with lesser food miles, I buy local" (Woman, 41–50, level 4 qualifications, NS-SEC 4, East Lindsey, resident for 11 years);

"my concerns are mainly to do with the future, I worry myself sick... I have arguments about everything, like ... do you not think even if you did recycle and you cut back on energy consumption and your water consumption, that at the end it would always be good regardless of what the outcome is" (Woman, 41–50, level 3 qualifications, NS-SEC 6, Harborough, resident for 7 years).

Two of these statements were made by women, which stands in some contrast to the masculinism identified in the narrative of literal denial, although the age, educational and social class profiles of both sets of respondents was relatively similar for these opposing narratives.

A final narrative of transition, which could be viewed as intermediate between the other two, considered changes relating to climate change and low-carbon transition as potentially beneficial, even if not explicitly advocating these concepts:

"I don't quite believe everything I hear about climate change ... but for myself, I just wanted a more fuel-efficient vehicle ... I just like new technologies, and I think ... [in] the back of my mind, I do know we're running out of fossil fuels and oil won't be around forever, it's not unlimited" (Man, 51–60, level 2 qualifications, NS-SEC 1.2, East Lindsey, resident for 4 years);

"I think it [renewable energy] would be cheaper, and I think there would be less pollution ... and more effective ... I know there's an awful carry on about ... world climate ... when I read the papers that the artic is melting, and that the polar bears don't have an abode ... but I'm not convinced that it's to the extent that they're saying it is ... I sit on the fence" (Woman, 51–60, qualifications not recorded, NS-SEC 2, Harborough, resident for 17 years).

Both respondents held middle class occupational positions and had moved into the countryside, but at different points in their lives.

Just as the narratives of stasis did not all involve rejection of the concepts of climate change and low-carbon transition, so two of these three narratives of transition did not necessarily involve complete acceptance of these ideas. Notions of uncertainty, nature and rurality can be seen to circulate within narratives of stasis and transition, although

are given differing interpretations within these narratives. This enabled conversations between rural residents to occur, including people who had quite divergent residential histories, levels of education and social class positionings, although it also facilitated silences and talking past each other as well.

## 6. Conclusion

This paper explored two senses of movement, as spatial relocation and as changing state, within a study of rural living. It highlighted how transport and rural geographers have recognised both senses of movement, although often discussing them in isolation. The notion of a post-carbon geography fosters explorations of connections between mobilities and transitions in a range of locations, including spaces other than the urban. Drawing on this, we have sought to develop a post-carbon rural transport geography via research conducted at the national scale and in eight villages in England, where we have also employed geo-, social and narrative coding to develop analyses of the everyday carbon-based mobilities of rural residents and their actions and views in relation climate change and movement towards a low-carbon society. These analyses have detailed the presence of a very carbon dependent countryside created as part of highly mobile everyday lives, with mobility, if not carbon dependency, being widely recognised as a highly significant constituent of contemporary rural living, and indeed in decisions as to where to live in the countryside. This mobility dependency was a subject of widespread concern amongst rural residents, albeit largely expressed as a potential impediment for other people or distanced to some potential, and largely undesired, future.

The significance of climate change and a transition to a low-carbon society within such a future was even less prominent, despite 80% of those interviewed expressing acceptance that the world's climate was changing. In line with other studies, our research highlighted disjunctures between attitudes and actions, although in some contrast to 'deficit models of public understanding', we have argued that many of our respondents were highly aware of these disjunctures, which became the focus of 'narratives to the self and others', whereby people come to cognitively, emotionally and/or affectually resolve, reconcile or displace these disjunctures between their thoughts and actions. We identified five narratives that act to justify inactivity or stasis, and three that act to encourage movement or transition, a finding that highlights how views on climate change are far from a simple binary of acceptance or denial. Acceptance and denial come in a variety of forms and often co-exist in peoples' responses to climate change and understandings of the actions they or others are, or are not, taking to mitigate its formation. Narratives constitute a way of reconciling or coming to terms with the co-existence of acceptance and denial.

Transport and mobility have been shown to be important constituents of these narratives of stasis and transition, which can be seen as reflective both of their importance within wider discourses of climate change formation and mitigation, and of people's understanding of their importance in the conduct of their contemporary rural lives. We also highlighted how these narratives often drew upon common elements, including uncertainty, nature and rurality, although argued that they are used differently within the narratives. The narratives of literal denial and explicit advocacy were, in our survey, clearly in the minority, with many people quite evidently holding, and justifying to themselves, the presence of a multitude of thoughts, practices and feelings. Consequently, it is unsurprising that the narratives did not appear to map directly onto social or migrational differences, although some lines of association were identified with gender and experiences of migrational mobility. In many cases, people actually expressed a multitude of narratives as they sought to understand and come to terms with the contradictions of their contemporary rural lifestyles. Consequently, whilst narratives of stasis seemed to generally hold sway within the villages we studied, these narratives were far from secure and some people could potentially transition between, at least some of them, with

relatively little change.

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