Transitions in practice: climate change and everyday life

This fellowship responds to growing recognition of the need for new ways of framing problems of climate change, consumption and demand; it extends the role and contribution of social science in conceptualising transitions in practice and seeks to inform policy and business interventions on the scale required to move towards an altogether lower carbon society.

To date, governments have tended to concentrate on improving the efficiency with which contemporary 'standards' of everyday life are maintained, and on persuading individual consumers to make 'green' their brand of choice. If there is to be any effective response to climate change, substantially and significantly new ways of living are urgently required (Stern 2006). Policy makers need to go beyond traditional forms of intervention - based on theories of rational action, lifestyle choice and human behaviour – if they are to catalyse 'entrenched habits, norms or practices' at the rate needed to mitigate and adapt to climate change (DEFRA 2005). In short, policy and governance actors have to confront the carbon burden of maintaining 'normal' patterns of sociability and mobility, and of comfort, cleanliness, food provisioning and leisure if they are to contribute effectively to transforming the collective conventions of everyday practice.

Current interest in processes of co-evolution and interconnection underlines the need for concepts and methods that position complex systems at the heart of policy analysis and of related theoretical development and empirical enquiry. Approaches like those of 'systems in transition', multi-level models of innovation (Shackley and Green 2007; Elzen and Wieczorek 2005; Berkhout 2002; Rip and Kemp 1998) and reflexive governance (Voß et al. 2006), and research planned or undertaken as part of the ESRC's Sustainable Technologies Programme, the STEPS Centre at Sussex, and the proposed UK Transport Research Centre, represent a partial response. However, much of this literature and much of the related analysis focuses on 'steering' society towards more sustainable systems of *production* and *provision*. What is missing – and what this fellowship provides - is a distinctive and concerted effort to develop correspondingly systemic understanding of the complex social processes involved in transitions in *consumption* and *demand* directly associated with climate change and with responses to it.

Giddens' claim that the core subject of the social sciences "is neither the experience of the individual actor, nor the existence of any form of social totality, but social practices ordered across space and time" (1984: 2) provides a starting point. In contemporary Western cultures, reproducing practices required for effective participation in society routinely involves consumption – of energy, of hot water, of material resources – demand for which constitutes the collective 'carbon burden' of everyday life (Wilk 2002). The really significant question is therefore not 'how to persuade isolated individuals to modify behaviour?' or 'how to deliver existing services more efficiently?' but - following Giddens - how might the complex of practices that constitutes daily life be reconfigured on a massive scale?

Although this represents a novel way of framing the challenge of climate change it is a framing that resonates with many areas of social scientific enquiry. Relevant intellectual resources exist – in social theories of practice, in complexity science, and in sociology, geography and management - but have yet to be brought together in relation to each other or to issues of mitigating and adapting to climate change. The fellowship provides an opportunity to add value by making such connections and exploiting synergies not only between theories and ideas but also between academia, policy and business.

It is already evident that switching attention from individual behaviour to complex systems of practice is more than a semantic twist. The analytic move of locating 'practices' (as distinct from the practitioners/people who enact and reproduce them) as the point of entry has the power to 'turn problems on their head' and to generate new ways of thinking and acting (Shove et. al. 2007, Spaargaren 2004; van Vliet et. al. 2005). As such it challenges established ways of proceeding, especially for policy and governance more widely defined. The prospect of moving away from incremental and linear policy thinking and of conceptualising interdependent changes resulting in radical breaks that tip systems of practice into significantly new configurations (Urry 2004) is certainly appealing, but exactly what is involved? A further task is to identify and learn from situations in which climate change policies have been influenced by more systemic theories of social, cultural and institutional change. Relevant examples exist in the USA (in relation to energy); in Australia (in relation to water) and in the Netherlands and Finland (in terms of energy and related forms of consumption and practice). How is interaction between social science, business and policy 'organised' in these cases, and what does it mean to develop system-sensitive forms of intervention in everyday practice? In addressing these issues the fellowship has the following **aims and objectives:**

1. To develop social scientific understanding of how complex systems of practice and consumption emerge, persist and disappear – and with what consequence for the spatial and temporal ordering of daily life and the potential for mitigating or adapting to climate change.
2. To extend the range of social theoretical input to climate change policy by generating and encouraging new forms of academic and non-academic interaction, adding value to existing research and developing a programme of cross-sectoral capacity building.
3. To discover how social scientific analyses of systemic transitions in practice have shaped climate change policy and governance in other countries and contexts - and what lessons can be learned for the UK.

The programme of work

The three part programme of work outlined below directly addresses the aims of the Climate Change Leadership Fellowships; 'applying and developing social science theory and methods in groundbreaking ways to climate change', challenging existing assumptions of policy and practice and developing capacity within the social sciences and beyond. More substantively, it is designed as a response to theme 4, on managing the rapid transformation of complex socio-technical systems, and theme 5, on designing social and policy interventions capable of leading to significant changes in social action and practice. A conceptual focus on *transitions in practice* has enormous potential to connect and add value to existing climate-change related research including that undertaken within UKERC; by STEPS and RESOLVE (I am a member of the RESOLVE advisory committee); and as proposed for the UK Transport Research Centre (in which I am also involved).

Part 1. Transitions in practice: synthesis, conceptual development and agenda setting

Recognition that most consumption, including environmentally significant consumption, takes place not for its own sake but as part of the effective accomplishment of social practice (Warde 2005) generates further questions about how valued routines and social arrangements arise, persist and fade away. These topics, which are of immediate significance for many aspects of climate change policy (for example; transport (Lyons and Urry 2006; UKTRC proposal); water (Medd and Shove 2007; Sofoulis 2005, 2006), and energy (Chappells and Shove 2005; Shove 2003)) are also central to theoretical debates about how social systems are reproduced. Since practices require constant reproduction by those who do them, innovations

in practice are appropriately conceptualised as a grounded, distributed and often endogenous processes characterised by myriad localised moments of enactment; by positive and negative feedback loops and by various forms of path dependence (Reckwitz 2002; Schatzki 2002). Identifying and analysing these features is essential for understanding how significant transitions in practice and hence in the carbon burden of everyday life might come about.

As indicated above, practice theoretic approaches have proved productive in refusing to prioritise the actions of individuals, on the grounds that such actions are the outcome of shared conventions, competences, images and material resources *or* the effects of social systems – on the basis that such systems are reproduced in and through practice (Giddens 1984; Schatzki 1996, 2001, 2002; Reckwitz 2002, Brown and Duguid 1994). Much of this literature has tended to focus on stabilisation, routine and situated practice (Suchman 1987; Hutchins 1995; Orlikowski 2000). If theories of practice are to be useful for climate change and policy, further work is required to build on the insight that everyday practices are inherently unstable (Warde 2005: 141), that they intersect and that they are sustained, transformed and eroded through multiple circuits of reproduction.

A first step is to better understand the emergent qualities of social practice, the formation of practice complexes, collective temporal rhythms and the processes involved in the circulation of variously resource intensive patterns of everyday life. In taking this agenda forward I plan to develop connections between complex systems thinking (Byrne 1998; Cilliers 1998; Urry 2003, 2005) and social theories of practice. Linking theories of practice to multi-level analyses of sociotechnical systems in transition (Geels 2002; 2004; Geels and Raven 2006; Rotmans et. al. 2001) is a second conceptually generative move (Shove and Walker 2007). Instead of treating technology and practice as separate domains, the common task is to articulate the details – including the rate and pace - of their co-evolution. Third, and since transitions in practice involve the (re)patterning of things and people in space as well as time, understanding distributional processes is especially important for efforts to govern, manage and intervene in complex systems of practice, and for perceptions of legitimacy, fairness and social inclusion/exclusion (Dietz et al 2003, Keil et al 1998, Swyngedouw 2004; 2006).

I intend to develop the theoretical framework sketched above with reference to a relevant body of existing research, analysis of which will allow me to investigate key processes and potential sites of intervention including:

- types of *junction*, defined as places or moments where multiple practices come together (Schwartz Cowan 1987) and which constitute potential sites of co-evolutionary change and possible tipping points (De Wit et al. 2002) – for example, kitchens and bathrooms.
- mechanisms of *circulation,* including global media and business interests, that propel flows of people, ideas, materials and knowledge (i.e. the elements of practice), all of which are critical for sustainable systems of consumption and production.
- circuits of negative and positive *feedbac*k through which micro-, meso- and macro-processes constitute each other – for example, relations between social networks and changing patterns of everyday mobility.
- forms of *path-dependence* and *resilience* in socio-technical systems and the fragility or flexibility of associated complexes of practice (Van Vliet 2004) – for example, how household infrastructures order routines.
- patterns of *diversity* and *distribution* (including issues of access, justice and equity) that characterize sites of system reproduction (O'Sullivan et al 2006).
- actors and institutions that exert *influence* on the forms and dynamics of junctions, circulations and circuits of feedback and hence on the characteristics of emerging –

variously resource intensive - systems and configurations of practice and everyday life.

Rather than proposing new empirical projects, my aim is to work through these conceptual possibilities with reference to research I have already undertaken as part of the Environment and Human Behaviour programme (Future Comforts); within the Sustainable Technologies Programme (Sustainable Domestic Technologies) and in relation to various consultancy roles (on congestion charging with Transport for London; on 'traces of water' with UKWIR; on mobility and social exclusion with the DfT). Together, these materials include more than a hundred transcribed interviews dealing in different ways with changing habits and infrastructures of daily life.

The two associated PhD students will work on related but independent empirical projects, each going deeper into key aspects of the overall agenda. One will focus on the temporal qualities of a lower carbon society: what forms of synchronisation, convenience and coordination characterise contemporary ways of life, and what other rhythms might be required? The second studentship - which investigates seasonal variations in everyday routines -concentrates on the variety and flexibility of existing climate-related practices, for instance, relating to clothing; heating, cooling and watering.

An intensive three day international and interdisciplinary s*ymposium on climate change and transitions in practice* will help refine and develop a robust framework for analysing and intervening in complex systems of practice. The symposium will consist of formal presentations, - for example from Schatzki (philosophy); Duguid (sociology); Suchman (anthropology); Geels (innovation studies/history); Spaargaren (environmental sociology); Voß (political science); Warde (sociology of consumption); Kemp (innovation studies); Steward (innovation/technology studies); Sofoulis (cultural studies), Hendricks (political science) - and focused, problem oriented debate. This event – held in the second year of the fellowship – is designed to extend the theoretical range of climate change related social science; to set new agendas for interdisciplinary research and policy interaction, and to result in publication of an edited collection of papers. Invited participants (20 in all) will include representatives from relevant ESRC funded projects and centres and selected experts from different traditions and perspectives.

Part 2. Experience of using systemic theories of consumption, demand and practice

Despite the general appeal of systems thinking and of concepts like transition management and reflexive forms of governance (see, for instance the German funded programme on 'Systems Innovation for Sustainable Development, and current work in the Dutch Research Institute for Transitions), the potential to put such approaches into effect is far from clear. Climate change policy makers, themselves locked into dominant paradigms and frames of action, may be willing but unable to make use of such ideas. Understanding the conditions and contexts in which complex systemic approaches to consumption, demand and practice might make a difference is an important part of this project, and indeed of any effort to promote effective interaction between local, national and international policy framed in terms of attitude, behaviour and choice, and forms of social science that revolve around alternative theories of social change.

I plan to conduct a limited number of interview-based case studies of situations in which ideas of transition and/or of practice (broadly defined) have been taken up in different ways and to different degrees by policy makers responding to the challenges of climate change, again broadly defined. Candidates include work on 'everyday water' in Australia (Sofoulis-Sydney Water); on domestic conventions, infrastructures and energy services (Lutzenhiser- in

response to CO2 emissions targets of 75% and 80% below 1990 levels set in Oregon and California); on time use, consumption and climate change (Jalas, Pantzar and Heiskanen – Finland); and on transition management and practice theory (Geels, Kemp, Spaargaren – the Netherlands). Interviews with relevant academics and policy makers will focus on the history of academic-non-academic interaction and the kinds of challenges faced in translating social and cultural theory into initiatives designed to reconfigure specific systems of practice, the characteristics of which differ in terms of irreversibility and scale. The aim is to show how better understanding of complex social and infrastructural systems might be operationalised and fed into contemporary policy making and business on the scale and at the pace required. This will be the topic of one or more policy briefings.

Part 3. Interaction, engagement and cross-sectoral capacity building

Twelve weeks of the fellowship will be devoted to a concerted programme of academic and non-academic interaction and engagement designed to 'build' future capacities to develop policy relevant theories of social change, complexity, transition and practice. My plan is to establish a "social change-climate change" working party consisting of PhD students from disciplines across the social sciences in the UK and Europe *and* early career non-academics based in relevant government departments, local authorities, regulatory agencies, NGOs or commercial organisations. Members of the working party – 15 in all – will meet four times (each meeting being of two days) over two years. These meetings – focused on themes of behaviour and practice; on the relation between resources and services; on complexity and transitions in everyday life and on mechanisms and processes of change - will include presentations and critiques from participants and invited speakers; self-organising reading groups, web-based interaction and practical exercises. Between meetings there will be a programme of exchanges, mini-secondments and research collaboration involving sub-sets of participants, the findings of which will be fed back to the working party as a whole. At the end of the programme, participants will present the results of their collaborative work in the form of an interactive conference-exhibition in London (modelled on the Cultures of Consumption programme final event) designed for non-academic participants. Opportunity to join the working party will be widely publicised, potential participants will make a short but formal application and applicants will be selected according to agreed criteria, including commitment to continued participation.

The "social change-climate change" working party represents a methodological experiment in networking, interaction and capacity building. If successful, it will produce a cohort of academics and non-academics experienced – at an early stage in their career - in collaborating across disciplinary and professional boundaries. Repeat meetings and web based events are likely to result in enduring connections between people and ideas. The working party will make links with other related groups of PhD students (for example, the CONTRAST programme in the Netherlands). The two associated PhD students will be centrally involved in designing working party events and in contributing to them.

Dissemination and communication strategy: planned output from the fellowship includes one single authored book, provisionally entitled 'Transitions in Practice: Climate change and everyday life', one edited collection, up to three journal articles; one three day workshop; four two-day working party workshops, one final conference-exhibition, policy briefings, a web site, and participation in national and international conferences. Outputs and other materials relating to the fellowship, the workshops and the "social change-climate change" working party will be made available on a dedicated web site. The "social change-climate change" working party is itself an instrument of influence. Its members will be encouraged to disseminate research insights, develop related debate and, where possible, experiment with

new approaches in their own working environments. More directly, the fellowship will involve interaction with policy makers, commercial organisations and academics actively interested in developing and working with more systemic models of social change in this country and abroad.

Resource allocation: Of the 25 months for which funding is sought (70% time over three years), 19 months will be devoted to part 1, and 6 months (3 months each) to parts 2 and 3 of the work programme – see attached timetable. Other commitments include a role in the UKTRC, (5% time for three years), and 25% role within the Sociology Department - Doctoral Director, PhD supervision and teaching.

Evaluation: My success in establishing a new agenda for UK social science research in climate change and sustainability (focused on transitions in practice) will be demonstrated in various ways: in the production of high quality publications; through invitations to present fellowship-related work in this country and abroad; in the potential to attract additional funding on a larger scale (involvement in related future bids) and in my ability to entice established scholars who have yet to turn their attention to questions of climate change to do so. My success in developing innovative methods of academic and non-academic interaction will be demonstrated in the form of feedback from members of the "social change-climate change" working party; and from others who participate in this experimental process.

Relevant experience, expertise and institutional context

As my CV demonstrates, I have been involved in environmental social science from 1991 with projects funded under the ESRC's Global Environmental Change (phases 1 and 4); Environment and Human Behaviour, and Sustainable Technologies programmes. Alongside this work, I have contributed to various EU projects (New Networks, New Agendas; and DOMUS), have held a Leverhulme fellowship, and have run a very influential series of ESF funded workshops, exchanges and summer schools – all dealing with questions of social environmental change. More recent research has been funded under the ESRC's Cultures of Consumption programme. The fellowship would provide an opportunity to bring these various strands together and capitalise on different areas of ESRC investment. As my CV also shows, I have a track record of intellectual leadership and capacity building, having played a key role in establishing the environmental significance of ordinary routines and infrastructures of everyday life and encouraging PhD students and Research Associates to develop this field through workshops, summer schools, mentoring and co-publicaiton. In parallel, I have been actively involved in developing and writing about forms of *interactive* social science and in putting these concepts into practice, for example in the design of a very successful programme of research and related workshops on 'Traces of Water' involving social scientists and representatives of the water industry. As this and other experience shows, the potential for effective engagement between social science and industry/policy is itself a kind of 'capacity' that requires careful cultivation and development.

Finally, Lancaster is an excellent environment in which to make use of this fellowship. Within the University we have an impressive concentration of interest and expertise with respect to practices, systems and sustainability, and experience of close collaboration particularly between sociology, geography and the management school. Relevant research seminars are run within the Centre for the Study of Environmental Change (CSEC); the Centre for Mobilities Research (CEMORE); the Lancaster Complexity network and by a new group focusing on 'Theories of Practice: an interdisciplinary exchange' (TOPIX). It would be hard to find a better context in which to develop the programme of work described above or in which to locate the two associated PhD students.