Normative concerns and pro-environmental behaviour

Linda Steg (University of Groningen)

Acting pro-environmentally is often associated with higher costs, e.g., in terms of money, time, or effort. In this case, people probably only engage in pro-environmental behaviour if they want to benefit the environment, even though this may be costly for them in the short term. So, their behaviour is influenced by moral and normative concerns. One of the most influential theories that focuses on moral and normative concerns is the Norm Activation Model (NAM). The NAM proposes that three variables influence pro-environmental intentions or behaviours: (1) personal norms, reflecting feelings of moral obligation to engage in pro-environmental behaviour, (2) awareness of adverse consequences of not acting pro-environmentally, and (3) ascription of responsibility for the negative consequences of not acting pro-environmentally. As of yet, the causal relationships between the NAM variables are not clear. We conducted a series of correlational and experimental studies to examine how the NAM variables are causally related. I will discuss the pros and cons of both types of research designs, and present results of the studies on causal relationships between the NAM variables.

Materialism and environmental concern
Birgitta Gatersleben (University of Surrey)

Following the Inglehart tradition (e.g., Inglehart, 1990; 1995) it is often suggested that materialism and environmental concern should be negatively correlated (e.g., Kempton, et al., 1996; Saunders, 2007). Existing studies show that self-transcendent values are positively related to environmental concern and behaviour (Garling et al., 2003, Nordlund, 2002. Schultz, 1999; Stern et al., 1999). Self-enhancement values are negatively related to pro-environmental behaviour and positively to materialistic concerns (Richins and Dawson 1992; Richins, 2004; Kasser, 2005; Kilbourne et al., 2005). However, studies usually find only weak correlations between the two concepts (e.g., Burroughs and Rindfleish, 2002; Clump et al. 2002). I will present data from a series of quantitative survey studies among adults and young people which examine the relationship between materialism, environmental concern and self-reported pro-environmental behaviours and intentions.

Critical Psychology - an approach for changing environmental behaviour change policies?
Nora Räthzel (Umeå University)

Behaviour change policies addressing climate change rely on either attitude change or, more recently, on forcing behaviour change through laws. I argue that the effect of these policies is uncertain or slow because they conceptualise the individual and society as being in opposition to each other, e.g. the competing interests found in the 'commons dilemma'. These policies and the underlying individual/societal relations reflect the way in which people are forced to act within a competitive market society, but ignore their capacity to act collectively and for the common good.
Critical Psychology through its historical analysis suggests that individuals need to collectively control societal relations and that depriving individuals of their societal capacity for action *creates* an antagonism between them and society. This approach could shed a different light on the way in which Psychology understands behaviour change, by looking at ways to build on people's capacity for action and on organisations that foster solidarity like trade unions and other social movements. Concluding I will discuss how this approach can be used in qualitative research. To illustrate this I shall present some results of a pilot study looking at environmental concerns in Sweden and the UK and some issues arising from a research project on environmental policies of trade unions.

Predicting energy expenditure and associated GHG emissions for UK households: where will it be in 2020?

Mona Chitnis, Angela Druckman, Lester C Hunt and Tim Jackson (University of Surrey)

When measured from the consumption perspective, which includes all emissions embedded in products and services consumed by final consumers, UK households are responsible around three quarters of total UK GHG emissions, with the remainder being attributed to government expenditure and capital investment. This emphasises the need to develop the carbon footprint concept from a consumption perspective in order to understand sustainable household consumption. The Research Group on Lifestyles, Values and Environment (RESOLVE) is therefore attempting to model both direct and indirect energy consumption in order to analyse future consumption and associated environmental impact.

'Direct' energy use (which encompasses household gas, electricity, other household fuels and personal transportation fuels) is responsible for 38% of UK household emissions. Therefore a starting point for the analysis is an attempt to model the major contribution to emissions from direct energy use in order to achieve a better understanding of the structure of energy demand. To do this, an econometric technique known as Structural Time Series Modelling (STSM) is being employed to build the RESOLVE framework for estimating future household energy demand and associated GHG emissions until 2020. The framework allows us to identify and quantify the impact not only of the key economic drivers of income and price, but also of non-economic factors such as technologies and lifestyles. Building on this understanding, the framework will be used to model UK household consumption, (both direct and indirect energy consumption) and its impacts on GHG emissions (both direct and indirect). The relative contributions of economic and non-economic factors to driving demand are quantified in order to identify recommendations to move towards more sustainable consumption in the future.

This paper outlines the econometric model, identifies trends over the past 40 years and makes some preliminary estimates to 2020 for household energy consumption and GHGs. The results show that GHG emissions attributable to direct energy will not fall by enough to meet the UK's targets in 2020. With regard to contribution of demand determinants, the message for policy makers is that in addition to an economic incentive such as taxes which might be needed if they wish to restrain future energy demand, other policies that attempt to influence lifestyles might also be considered.

Envisioning the Carbon Intensity of UK Lifestyles to 2030

Scott Milne (University of Surrey)

This paper describes the ongoing development of scenarios depicting the carbon intensity of UK lifestyles through to 2030. A background to the scenarios approach is offered - including a discussion of the shortcomings of the approach - to place the current work in context. A review of existing scenarios focused on low carbon futures is also provided, highlighting the predominant focus on supply-side and macro-level issues to date. A consumption-based view of lifestyles is adopted here, including four broad categories of activities: in the home, what we eat, getting around and getting away. The paper discusses the challenges and opportunities of developing scenarios from such a consumption perspective and outlines some key areas of interest around lifestyles, values, consumption and environment that will be portrayed through the scenarios, as well as beginning to explore opportunities for lifestyle change. The epistemological contribution of these lifestyles scenarios is also investigated, taking into account the shortcomings previously identified. The paper concludes with an assessment of the potential role of these scenarios in policy/decision-making.

The impact of lifestyle and social change on the UK energy system

Nick Eyre (Environmental Change Institute, Oxford University)

Society and human behaviour change over time, sometimes in unpredictable directions, and therefore there is a wide variety of possible future levels of energy service demand and end use technologies. We have explored a scenario in which social change is strongly influenced by concerns about energy use and its environmental implications, and therefore energy service demand is at a significantly lower level by 2050 than in the 'business as usual' lifestyle assumptions. In the residential sector, the main drivers of energy service demand are internal temperature, consumption of hot water and use of lighting and appliances. In the transport sector, the main factors are mobility itself, the choice of mode and the uptake of more efficient vehicles. The efficiency of energy use is important in both buildings and vehicles. In the residential and transport sectors a combination of energy service demand change and efficiency improvement could reduce energy demand by more than 50% from business as usual levels by 2050. Lifestyle change will tend to increase the share of electricity in final demand. However, it may reduce the need for massive electrification that is required to meet tough carbon targets in 'technology led' scenarios. Social and lifestyle change has the potential to reduce national energy use, energy system cost and carbon emissions by 35% and 30% below business as usual levels. In an energy system constrained to 80% carbon emissions reduction, a key outcome of social and lifestyle change would be to reduce the costs of delivering a low-carbon energy system.

Community engagement and education: introduction to key concepts, opportunities and challenges

Michael Peters (University of Surrey)

Attempting to engage people, and the communities in which they live, in progress towards lower carbon living must necessarily take into account the link between lifestyles (the ways that people live) societal values (the values that underpin and guide the way that we live) and the environment. Although highly complex this is now prime territory for policy makers at all levels – internationally, nationally and locally, in their attempts to influence behaviours and in particular to reduce energy consumption and carbon emissions. During the last decade the UK Government has increased its focus on the potential for community action in enabling practical progress towards individual and collective household carbon reduction. This message has been embedded and broadcast through a range of legislative documents, statutory guidelines and policy communications, which all serve to highlight that reaching UK targets on CO2 emissions will continue to involve a greater push towards local action on climate change. The recent increase of the target for carbon dioxide emissions reduction from 60% to 80% by 2050 emphasises the importance of lifestyle and behavioural change, and the need for further engagement of the domestic housing sector - responsible for between 30% and 40% of all UK carbon dioxide emissions.

Keeping up with the Joneses in the Great British Refurb: social learning from eco-home open days and exemplar projects.

Jo Hamilton (Environmental Change Institute, Oxford University)

Eco-refurbishment – we all know it needs to be done, but what methods are working at a community level to engage, educate and enable individuals and communities to seize the eco-refurbishment opportunity? In the past three years, communities and organisations across the UK have organised open days focussing on home eco-renovation and eco-new build, plus a host of single event open days at eco-renovated homes. These events have proved popular, and have provided unrivalled opportunities for social learning about greenhouse gas reductions from eco-renovated and environmental new build houses. They have demonstrated the renovation opportunity for a variety of housing types, helped counter negative perceptions of energy demand reduction, and brought out the aspiration in insulation. The presentation will evaluate the Open Days, assess the barriers and opportunities which need to be addressed to help ensure the inspiration from the open days translates into action and CO_2 reduction at home, and outline the opportunities for further development and integration into community projects.

Educating communities or learning from communities: lessons from resource management.

Thomas Henfrey (Durham University)

Efforts to engage communities in combating climate change may learn from relatively advanced bodies of theory and practice in participatory and community-based initiatives to promote biodiversity conservation. Despite radically different perceptions and motivations, collaborations between conservation biologists and groups of traditional resource users worldwide occur and succeed with increasing frequency. Successes generally derive from making local interests the starting point for discussion, basing action upon their correspondence with global conservation goals. Scientific practitioners provide technical input that compensates for limitations in local capacities, without seeking to influence the ideological content of discourse about the need for environmental protection. In a similar fashion, it may be possible to achieve comparable progress in community engagement by subordinating master narratives about climate change to more immediate local issues. Rooting action for emissions reduction in self-identified community development priorities and proposals for action promises more rapid, effective and sustained success than attempts to impose agendas of little or no direct local concern.

Using the life history approach to examine food practices

Emma White (University of Surrey)

Oral history is "the recording of people's memories. It is the living history of everyone's unique life experiences" which "enables people who have been hidden from history to be heard" (Oral History Society, 2008). The life history approach is a branch of oral history which aims to examine events and experiences from right across the lifespan. It has the potential to provide incredibly rich data which can help us to understand the link between individual experience and the influence of historical events. This presentation will focus on the use of the life history approach in a one-year project examining food practices across the lifespan, which aims to understand:

- Why people do what they do;
- What conditions encourage change;
- The societal context at the time of change.

'Mum made me do it': exploring justifications of household pro-environmental behaviour

Louise Reid (University of Aberdeen)

This paper reports on my PhD research, the aim of which has been to assess the innovative use of a household diary approach as a means of framing and collecting household environmental behaviour data, and, critically, as an educational vehicle for bringing about behavioural change. Presenting the findings of this research, and with specific regard to the way in which the household diary approach can capture the motivators of, and barriers to, environmental behaviours within the household, this paper reports householders justifications for (pro-)environmental behaviours. Thrift, intra/inter-household dynamics, being seen to be green, and the practicalities of everyday life were the largest influences upon the adoption (or otherwise) of pro-environmental behaviours within households. Concluding by evaluating the success of the diary approach in identifying 'behavioural tipping points' and instigating (durable) behavioural change, this paper also discusses the implications for how we might best encourage the uptake of pro-environmental behaviours within households.

Imagining the consumer: conceptualising the user in a hi-tech firm

Justin Spinney (University of Surrey)

The onus for altering our lifestyles and reducing consumption is often seen as the responsibility of the individual consumer. Many retailers for example constantly suggest that they are simply responding to consumer demand implying that it is the consumer who is responsible for over-consumption. However as numerous commentaries attest, the phenomenon known as consumer demand is not shaped in a vacuum, rather it is shown to be constructed by numerous actors in the value chain. This study takes as its starting point the notion that demand co-evolves through the actions of both producers and consumers and that only through understanding the relationship between different actors in the value chain can we move towards more sustainable patterns of consumption. This paper reports on (very) preliminary findings from in-depth interviews conducted so far with employees of a computer firm. In particular, I focus on the ways in which consumers are imagined as a specific type of consumer who always desires innovation, is creative, and is technologically literate in order to construct and naturalise the need for innovation by the firm.

Thrifty, Green or Frugal: Sustainable Practice in the Context of the Economic Downturn

David Evans (University of Manchester)

This paper considers the methodological import of qualitative approaches to the study of practices that are generally understood to be 'sustainable'. Drawing on an ethnographic study of cyclists in London alongside a series of in-depth qualitative interviews with persons who identified themselves as attempting to live in ways that are somehow more sustainable, we seek to complicate the somewhat narrow framing of 'sustainable behaviours' that seem to persist in academic and policy debates. In doing so, we demonstrate how so-called sustainable practices emerge from, sit with and come into conflict with other concerns and agendas. Crucially, we suggest that multiple meanings and justifications exist for practices that are understood as sustainable ranging from the mundane and practical through a range of moral registers to the overtly self-interested and hedonistic. Particular attention is paid to the links that seem to exist between notions of frugality and sustainable practice alongside consideration (albeit speculative and tentative) of the possibilities that the economic downturn offers up for sustainable living. Here, we argue that a fundamental distinction needs to be drawn between thrift and frugality, a distinction that is all too often missed by commentators on the virtues of frugal living. In re-interpreting 'frugal' responses to the economic downturn as 'thrifty' responses; we suggest that the passage to sustainable lifestyles may not be as clear as it is often assumed.

The bare necessities: how much household carbon do we really need?

Angela Druckman and Tim Jackson (University of Surrey)

The advent of the recession has prompted many UK households to review the expenditures which support their lifestyles, asking questions such as: how much expenditure is necessary, and how much is discretionary and could, potentially, be eliminated? This study looks at a scenario in which expenditures are reduced to a standard that provides not just the basic necessities such as food and clothing but also provides enough to enjoy the opportunities and choices necessary to participate in society. Our study is concerned with the environmental impact caused by household expenditure, and in particular the contribution to climate change that can be attributed to UK households. The question we ask in this study is: what reduction in greenhouse gases might be achieved by reducing expenditures as outlined above? To do this we estimate the GHGs that are emitted in the production and distribution of all goods and services purchased by UK households, whether the emissions take place at home or abroad using a quasi-multi-regional environmentally extended input-output framework. This framework is used to estimate the GHGs used to support pre-recession lifestyles and compares this with the emissions required to support the reduced expenditure lifestyle scenario. In the presentation we reveal the extent to which GHGs are cut in the reduced expenditure scenario, and we examine this in the light of the UK GHG emissions reduction targets published in the UK Climate Change Act. In the presentation we discuss what can be learnt from the study with regards to the type of expenditures that households may value preserving during the economic turndown, the changes in infrastructure that are required to support the reduced expenditure-reduced GHG scenario in our study, and what this may mean for future, post-recession lifestyles.

The implications of the rebound effect for sustainability

Steve Sorrell (University of Sussex)

Everyone seems to be in favour of using energy efficiently, but the resulting energy savings are often much less than expected. This is partly due to the 'rebound effect', whereby demand for energy services such as travel increase when their price declines due to efficiency improvements. The 'rebound effect' has long been recognised, but there is a continuing dispute over its importance. While policy makers tend to ignore the rebound effect altogether, some economists argue that improving energy efficiency may actually increase overall energy consumption. This talk will summarise the evidence for such effects and highlight their far-reaching implications for climate policy.

Reaching Consensus on a Global, Low-Carbon Future: The Long and Winding Road to Copenhagen

Shane Fudge (University of Surrey)

The evolution of the United Nations Framework Convention on Climate Change (UNFCCC) during the last two decades has seen the emergence of what would appear to be an impressive international regime which includes legally binding quantitative targets on the emission of greenhouse gases for designated Annex I nations, as well as a framework through which to integrate the more wider sustainability goals of Non-Annex I countries. December 2009 will see the meeting of the fifteenth Conference of the Parties (COP 15) as the signatories of the UNFCCC convene in order to try to broker a post-Kyoto agreement on reducing global emissions.

While the significance of the Copenhagen COP 15 meeting relates to the fact that the present Kyoto commitments are due to end in 2012, Connor and Green (2009) make the point that the treaty has so far failed to in its aims to curb global greenhouse gas emissions in any significant way since its launch in 2005. They observe that the global aggregate of CO_2 emissions have actually *increased* at a rate of 1 per cent a year during the past decade: faster even than the worst-case scenarios that have been predicted by the Intergovernmental Panel on Climate Change.

While the urgency of climate change and the heightened profile of global sustainability issues continue to highlight the need for an effective, transnational system of regulation, the paper explores the continued political tensions over these aims and the difficulties that a fragmented and often highly conflictual political system have posed to the ideals of a global, low-carbon future.

The executive secretary of the UNFCCC Yvo de Boer has expressed the hope that success in the UN climate conference in Copenhagen will be measured by greater clarification in the following four areas:

- By how much the industrialized countries will be willing to reduce their emissions of greenhouse gases;
- By how much the major developing countries such as China and India will be willing to limit the growth of their emissions;
- By agreement on the degree of financial help needed by developing countries to engage in reducing their emissions and adapting to the impacts of climate change;

- By agreement on how that money is going to be managed (de Boer, 2009).

The paper discusses the possibilities for Copenhagen in meeting these aims as well as speculating on possible impacts that the global recession may have on preceedings.

Economic Governance for Social Justice and Sustainable Living

Pat Devine (University of Manchester)

The recently published Sustainable Development Commission's report, *Prosperity Without Growth?*, calls for steady-state economy and a new structure of 'Governance for Prosperity', focussing on the macro level. A recently published book by Richard Wilkinson and Kate Pickett, *The Spirit Level*, focussing more on the micro level, recommends employee ownership and control as a desirable governance structure for enterprises in a sustainable, steady-state egalitarian society. Neither publication addresses the question of whether its vision and policy implications are compatible with the continuation of capitalism and production for profit, although the former does note that all existing 'varieties of capitalism … have a structural requirement for growth'. This paper starts by considering whether capitalism is indeed compatible with a steady-state economy and society, concludes that it is not, and proposes as an alternative a multi-layered governance structure based on social ownership, rather than private or state ownership, and negotiated coordination, rather than market forces or state imposition.

Can 'green jobs' stabilise an unstable economy? Challenges and prospects in the context of the current downturn and Obama Administration Policy

Mathew Forstater (University of Missouri)

Abstract: 'Green Jobs' is an idea that has been around for some time, but it became part of the national conversation in the United States during the last U.S. Presidential campaign, with both Republican and Democratic candidates employing the phrase (though in a number of different ways). Some have argued that Green Jobs cannot address the problem of cyclical unemployment. The first issue that needs to be addressed is what is meant by the term 'Green Jobs'. Depending on how this question is answered, Green Jobs may or may not be capable of serving as an economic stabilization policy. After considering some various criticisms of the idea, the paper then outlines the author's approach to Green Jobs as part of a Public Service Employment program, first proposed in 2001. Obstacles to implementing this type of program are considered, and the potential benefits assessed.