

<p>Institution: The University of Manchester</p>
<p>Unit of Assessment: 32 (Philosophy)</p>
<p>Title of case study: Human Well-being and Environmental Policy</p>
<p>1. Summary of the impact</p> <p>Preference-satisfaction models of welfare dominate environmental policy but are problematic both in respect to the value placed on environmental goods and as a basis for environmental decision making. The Philosophy Department at the University of Manchester (UoM) has developed an alternative characterisation of well-being, along with tools for its measurement and employment in policy making. Impact is delivered via a UK-based project on climate justice, focused on a need to conceptualise, measure and map vulnerability to the impacts of climate change associated with flooding and heatwaves. The framework developed has had a major influence on adaptation planning at both local and national levels, allowing authorities to identify concentrations of climate disadvantage, and to formulate policies that address specific sources of disadvantage in different locations.</p>
<p>2. Underpinning research</p> <p>Key researchers in <u>Philosophy</u>: Professor John O'Neill (2001-2002, 2005-present); Professor Thomas Uebel (1993-present); Richard Christian (Post-doctoral fellow, 2010-2011); Paul Knights (AHRC Doctoral Student, 2008-2012). Key collaborators in the <u>Geography</u>: Sarah Lindley (Senior Lecturer, 1993-present); Joseph Kandeh (Post-doctoral fellow, 2010-2011). Professor O'Neill has also worked with the Department of Politics and the Tyndall Centre for Climate Change Research.</p> <p>This case builds on research initially undertaken by O'Neill as a visiting Hallsworth Research Fellow (2001-2002), and continued since his appointment as Hallsworth Professor (2005). It includes a series of projects on climate justice, concerned with the conceptualisation, measurement and mapping of climate change vulnerability in the UK associated with flooding and heatwaves. The key project was 'Justice, Vulnerability and Climate Change: An Integrated Framework' funded by the Joseph Rowntree Foundation (JRF) (2011-2012; £56,723) [A]. This was followed by grants to undertake additional work through the JRF and Environment Agency (EA) project 'ClimateJust' (2013-2014; £89,845) and the Scottish Environment Protection Agency (SEPA), 'Climate Change, Justice and Vulnerability in Scotland' (2012-2013; £1928). During this period subsidiary work was also undertaken through the 'Sustainable Development Commission' (SDC) research programme on consumption and sustainability. O'Neill also acted as an advisor on a Leipzig-based project on capability-based approaches to sustainability (GeNECA – Just Sustainable Development on the Basis of the Capability Approach, 2010-2012) [B].</p> <p>The research focuses on developing an alternative to <i>preference-satisfaction conceptions</i> of welfare, which avoids their weaknesses. Preference-satisfaction conceptions, which take well-being to consist in the satisfaction of preferences, have widely informed environmental thinking and policy-making. In contrast, the research develops an alternative <i>objective state conception</i> – according to which well-being consists in the realisation of certain objective states such as bodily health, interpersonal relationships, achievements and autonomy – and considers its measurement and implementation in policy. Key themes developed in the research include the following:</p> <ol style="list-style-type: none"> 1. Well-being, preferences and objective states: The preference-satisfaction account fails to capture the impacts of environmental 'goods' and 'bads' on human well-being. An Aristotelian objective state account of well-being provides a better basis for environmental policy making [C][F]. 2. Valuation over time: An objective state account offers a more defensible alternative to preference-satisfaction accounts than recent hedonic approaches to well-being. In particular it offers better accounts of how well-being should be assessed over periods of time, as well as how it might be sustained within environmental limits [E]. 3. Needs and capabilities: The differences between needs-based and capabilities-based versions of an objective state account of well-being are fewer than is often assumed, if needs are properly conceptualised [B]. 4. Multi-dimensional measures: Any defensible account of well-being requires measures that are multi-dimensional and rich in their content. Such an account of well-being can be found not only

Impact case study (REF3b)

in recent capabilities approaches, but also in the accounts of the standard of living developed within the Vienna Circle [D].

5. **Distribution:** An objective state approach provides the most defensible basis for conceptualisation and measurement of welfare for the purpose of mapping distributive impacts of environmental changes [A][C].

This philosophical perspective on well-being provides the conceptual and normative underpinning for the first systematic mapping of vulnerability to the welfare impacts of climate change in the UK [A]. The project developed a novel approach to measuring and mapping climate disadvantage and vulnerability. **Climate disadvantage** is understood to be a function of the likelihood and degree of exposure to a climate hazard such as flood and heatwave, and the vulnerability of individuals to such hazards. **Vulnerability** is characterised by the degree to which an event is likely to convert into losses in the well-being of those affected. Understanding and measuring vulnerability to climate change requires an account of the different dimensions of well-being that are made insecure by floods and heatwaves, and requires a grasp of the factors involved in converting these weather events into losses in well-being. **Standard economic and hedonic approaches to well-being fail to capture this full range of losses, and standard physical climate models fail to capture the full range of conversion factors.**

3. References to the research (all references available upon request - AUR)

The research has been published in a sole authored monograph, a co-authored monograph, a policy report and a number of high quality peer reviewed journals.

- [A] (2011) Lindley, S., O'Neill, J., Kandeh, J, Lawson, N., Christian, R. & O'Neill. M. 'Climate Change, Justice and Vulnerability' (York: Joseph Rowntree Foundation) (AUR)
- [B] (2011) O'Neill, J. "The Overshadowing of Need" in Rauschmayer, F., Omann, I. & Fröhmann, J. (eds.) Sustainable Development: Capabilities, Needs, and Well-Being (London: Routledge) (AUR)
- [C] (2008) O'Neill, J., Holland, A. & Light, A. Environmental Values (London: Routledge) (REF 2014) (AUR) (Google Scholar: 157 citations)
- [D] (2008) O'Neill, J. & Uebel, T. "Logical Empiricism as Critical Theory? The Debate Continues" Analyse & Kritik 30(2) 379-398 (REF 2014)(AUR)
- [E] (2008) O'Neill, J. "Happiness and the Good Life" Environmental Values 17(2) 125-144 (REF 2014) doi:10.3197/096327108X303819
- [F] (2007) O'Neill, J. Markets, Deliberation and Environment (London: Routledge)(RAE 2008)(AUR)

4. Details of the impact

Background: The JRF report developed a multi-dimensional capabilities approach to well-being to take into account the *social*, as well as the physical, personal and environmental factors that are involved in the conversion of external stresses into losses in well-being. In collaboration with colleagues from the Department of Geography (UoM), these were incorporated into a detailed socio-spatial index of vulnerability, which permits a thorough mapping and statistical analysis of the distribution of climate disadvantage. This methodology permits an approach to local and national mapping that grants policy makers not only a sense of where the main concentrations of climate disadvantage are to be found, but also more fine-grained information on what the specific sources of disadvantage are in different locations. This is crucial, as different locations require distinctive policy interventions, depending on the specific local conversion factors at play.

Pathways: The JRF report was disseminated at a series of meetings with national policy making bodies, local authorities, housing organisations and civil society groups. As a result of subsequent uptake, a range of actors are now able to better target adaptation strategies and policies to the specific needs of different populations. The **primary impact** of this research can therefore be charted at two levels.

(1) Nations and Regions: At the **UK** level, results were presented to the 'Adaptation Sub-Committee' (ASC) to the Committee on Climate Change meeting (London, 5th April 2011), with [A] then utilised extensively within the ASC report (2011) that informed the 'UK Climate Change Risk Assessment' (2012). It states: "*Vulnerability is also determined by the characteristics of local*

populations, including age structure, income levels, education, health and mobility. A recent study by the Joseph Rowntree Foundation has found that these socio-economic characteristics can have a significant effect on the inherent vulnerability of a local community to climate risks. For example, the study found that the North West and Yorkshire had a higher proportion of communities vulnerable to flood risk than the South East". The 'Risk Assessment' also cites [A], as does a 2012 ASC report that revisits [A], citing the finding that "deprived communities... generally have a lower capacity to prepare, respond and recover from flood events" [1].

In **Wales** a special meeting was organised with the Welsh Government (Cardiff, 10th October 2011), with research outputs being subsequently utilised internally to engage stakeholders (including Ministers) around key principles, and moving to ensure that social vulnerability and related justice issues were given appropriate consideration in their activities. As the Welsh Government's knowledge transfer advisor notes, the JRF report was "*particular[ly] useful as this had a Welsh perspective and looked at a number of different angles that I had not seen covered elsewhere e.g. deprivation and access to services*" [2]. In **Scotland**, the work was picked up by the ASC in their report to the Scottish Government. Subsequently two meetings were held in Edinburgh (16th May & 12th September 2012) which acknowledged the potential to transform the research into useful policy, encouraging SEPA to fund a follow-on project, using additional SEPA datasets to map climate disadvantage in Scotland. The Scottish Government's Principal Research Officer recognises this, noting that: "*Through the original work and the work under the Scottish Government contract, there has been a greater awareness within SG of the importance of considering geographical patterns in flood social (or socio-spatial) vulnerability in addition to the geography of flood hazard-exposure*", also confirming that the report for the Scottish Government was "*referred to within the forthcoming Scottish Climate Change Adaptation Programme*" [3].

The JRF 'Climate Change and Social Justice' programme was the subject of an independent evaluation which showed that [A] was one of the most important pieces of work commissioned by JRF, and has 'substantial traction' amongst JRF's key audiences, with "*many examples of instances where the messages from this project have been picked up*" [4]. For instance, the Environment Agency (EA), which advises local authorities and communities on flooding were "*impressed with the JRF's well-grounded academic framework and robust research*" noting that: "*JRF research on adaptation and social justice has been at the cutting edge. We specifically changed some of our research plans in order to build on JRF findings, rather than duplicate work they had already done*" [2]. Finally, JRF noted the importance of this work within their own ongoing programme: "*we have prioritised it in our own communications activity and JRF's programme manager has devoted substantial time and resources to support its dissemination including seeking out opportunities to present the findings and discuss the implications with key audiences in many fora*" [4]. This is also evidenced through substantial dissemination support, and the subsequent funding of ClimateJust (JRF/EA).

(2) Local and Civil Society: At a **local authority level** the research was disseminated through a series of meetings with 'Regional Climate Change Partnerships' for local authorities including: Leicestershire, Leicester and Rutland (16th April 2012); South East (23rd October 2012); Yorkshire and Humberside (27th November 2012) [4]. The director of Climate East Midlands notes that: "*It was particularly helpful for those audiences and for Climate East Midlands partners to gain new insights into climate justice... via the local case studies of specific neighbourhoods... This research work is starting to have a positive effect on practitioners and policy makers in the East Midlands, for instance by reference to its findings in the Leicestershire Climate Ready Plan... This is the first type of area based adaptation plan in the East Midlands and is promoted by Climate East Midlands as an example of leading best practice. It contains an action, with nominated lead responsibility to 'map socio-spatial vulnerability to climate change in Leicestershire'*" [5]. These and other events led to requests for information and further meetings with additional local authorities including Calderdale, Cheshire West and Chester, East Riding of Yorkshire, Knowsley, North East Lincolnshire, North Lincolnshire, Powys, Rossendale and Wigan. The JRF evaluation revealed that the report was "*being used widely by local authorities in their own climate change work to draw out social justice arguments and inform discussions with colleagues to create a shared agenda*" [4]. For example, one local authority officer reports: "*We found the mapping work... to be very useful*

and have applied it locally using our own datasets in conjunction with adult services. We are currently adding in datasets on public health to the map. I think it could make a difference to how services are delivered in the future for example through the relocation of adult day care centres” [2]. Also, Hampshire County Council “has been using the mapping approach in its own analysis of social vulnerability” at an enhanced local scale [4], and Wigan Council has stated that as a response to this work, they are “revising our climate change strategy and action plan and will place a particular focus on climate change adaptation” [6]. Finally, the JRF report is “being used as a basic evidence source for local Health and Wellbeing Boards’ Joint Strategic Needs Assessment promoted in the guidance provided by DH officials... [and] used to scope local action plans” [4].

At the **civil society** level, meetings have taken place with community groups (Westminster, 22nd September 2011) and housing associations (Manchester, 10th October 2012). The research has since been used by groups to formulate responses to adaptation. For example, The Mersey Forest has used the data to help define an area for a Big Lottery ‘Communities Living Sustainably Fund’ application on community led adaptation in practice. The research has also garnered wider media coverage around the theme of justice in climate change adaptation, including an article in The Guardian [7]. Overall, the JRF report has reached a wide audience and garnered “... *international interest... linked to a presentation by JRF at the Future Cities adaptation conference held in Hastings on 26/7 February 2013 which was attended by a range of European cities involved in a European project on adaptation where social justice issues were new to some of the audience and some participants particularly remarked on the interesting approach taken on the vulnerability work*” [4].

A range of **secondary impacts** have also emerged from the research at UoM. The SDC project ‘Redefining Prosperity’ considered whether improvements in well-being can be decoupled from increased material consumption. Undertaken prior to Professor O’Neill’s JRF work, his ‘think piece’, commissioned by the SDC, ‘Living Well Within Limits: Well-Being, Time and Sustainability’ (2008), considers both the promise and limitations of hedonic theories of well-being in answering this question, arguing that objective state theories offer a better starting point for both addressing the question, and for understanding the nature of inter-generational moral and prudential concern. The brief was utilised in the final SDC report, written in 2009 [8]. The research has also been presented to the public through philosophical societies in Manchester, Lancaster and Kendal, and also at the Cambridge Festival of Ideas (28th October 2011); a presentation is available online, with 1046 viewings [9]. In May 2009 Professor O’Neill’s invited contribution on well-being informed the Commission for Rural Communities (CRE) inquiry into the ‘Future for England’s Upland Communities’, as acknowledged in a later report [10].

5. Sources to corroborate the impact (all claims referenced in the text)

- [1] (2011) Adaptation Sub-Committee ‘Adapting to Climate Change in the UK: Measuring Progress – Progress Report 2011’ (p.23); (2012) ‘The UK Climate Change Risk Assessment 2012: Evidence Report Annex A and Annex B’, London, HMSO (pp. 4,8,23,36,38); (2012) Adaptation Sub-Committee ‘Climate Change – is the UK Preparing for Flooding and Water Scarcity? Progress Report 2012’ (p.54);
- [2] (2013) Cambridge Policy Consultants ‘Reviewing the Joseph Rowntree Foundation’s Climate Change and Social Justice Programme: Final Report’ (February) (pp.16, 27, *passim*)
- [3] Testimonial from Principal Research Officer, Scottish Government (June 2013); (2011) Adaption Sub-committee ‘How well is Scotland preparing for Climate Change?’ (p.18)
- [4] Testimonial from Programme Manager, Climate Change and Poverty, JRF (5th June 2013)
- [5] Testimonial from Coordinator, Climate East Midlands (5th September 2013)
- [6] Testimonial from Sustainability Manager, Wigan Council (15th May 2013)
- [7] Email from Green Infrastructure Planning Officer, Mersey Forest (October 15th 2013); (2012) The Guardian ‘Climate change set to hit UK hard and the poorest hardest’ (26th January)
- [8] (2009) Jackson, T. ‘Prosperity without Growth? The Transition to a Sustainable Economy’ London, Sustainable Development Commission (p.32)
- [9] Cambridge Festival of Ideas, download Statistics as of 31st July 2013
- [10] (2009) Carruthers, P. *et al* ‘Developing the English Uplands: A report to the Commission for Rural Communities’ Inquiry...’ (November) (pp.25,34-40, *passim*)