

Hargreaves, Tom

Working Paper

Putting foucault to work on the environment: Exploring pro-environmental behaviour change as a form of discipline

CSERGE Working Paper EDM, No. 10-11

Provided in Cooperation with:

The Centre for Social and Economic Research on the Global Environment (CSERGE), University of East Anglia

Suggested Citation: Hargreaves, Tom (2010) : Putting foucault to work on the environment: Exploring pro-environmental behaviour change as a form of discipline, CSERGE Working Paper EDM, No. 10-11, University of East Anglia, The Centre for Social and Economic Research on the Global Environment (CSERGE), Norwich

This Version is available at:

<https://hdl.handle.net/10419/48799>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

**Putting Foucault to work on the environment:
Exploring pro-environmental behaviour change
as a form of discipline**

by

Tom Hargreaves

CSERGE Working Paper EDM 10-11

**PUTTING FOUCAULT TO WORK ON THE ENVIRONMENT: EXPLORING PRO-
ENVIRONMENTAL BEHAVIOUR CHANGE AS A FORM OF DISCIPLINE**

**Tom Hargreaves
June 2010**

**Centre for Social and Economic Research on the Global Environment (CSERGE)
School of Environmental Sciences
University of East Anglia
Norwich, NR4 7TJ**

Tom.Hargreaves@uea.ac.uk

ISSN 0967-8875

ABSTRACT

Calls for pro-environmental behaviour change among individuals have become commonplace within the ecological modernist framework. To date, research on pro-environmental behaviour has tended to emphasise either the more or less rational decision-making processes undertaken by individuals, or the ways in which broader social discourses and practices enable or constrain pro-environmental action. As far as politics enters into these discussions, it is normally with respect to how responsibility for addressing environmental problems should be allocated between individuals, governments or businesses. By contrast, this paper employs Foucault's understanding of disciplinary power to interrogate the micro-political processes of social control at work inside behaviour change interventions through which action by individuals comes to be seen as the most appropriate solution to global environmental issues. Drawing on an ethnographic case study of a behaviour change intervention called Environment Champions run in the head offices of a British construction company called Burnetts, it reveals the centrality of various subtle techniques of surveillance, normalisation and discipline to behaviour change processes. In so doing, it conceives of behaviour change less as a process of encouraging individuals voluntarily to choose pro-environmental behaviour, and more as one of making up environmental subjects for whom such acts are appropriate.

KEYWORDS

Pro-environmental behaviour change, sustainable consumption, Foucault, discipline, ethnography.

ACKNOWLEDGEMENTS

This research was conducted as part of my PhD thesis funded by the Economic and Social Research Council (ESRC - PTA-031-2004-00291). I am also grateful to the ESRC for funding a postdoctoral research fellowship that has enabled me to publish this research more widely (PTA-026-27-2086). Thanks to Prof. Jacquelin Burgess and Dr. Gill Seyfang who supervised my PhD thesis. Thanks also to Richard Baldwin, Ray Galvin and Noel Longhurst for helpful discussions throughout the writing of this paper.

1. INTRODUCTION: POLITICISING PRO-ENVIRONMENTAL BEHAVIOUR

“Behavioural change is fast becoming the ‘holy grail’ of sustainable development policy” (Jackson 2005, xi)

As the opening quotation suggests, calls for behaviour change at the level of individuals have become almost ubiquitous within contemporary environmental policy. Such appeals are based on a model of ecological modernisation (Hajer 1995; Mol and Spaargaren 2000) which attempts to avoid environmental crises by turning the tools of modernity towards new, environmentally more benign ends. Thus, alongside technological-, economic- and political-fixes, sovereign individual consumers are to be educated to hold pro-environmental attitudes, and enabled to undertake pro-environmental behaviour (hereafter PEB). Within environmental social science, and particularly environmental psychology, a whole series of models have been developed to understand environmental behaviour, why it currently isn't occurring, and ultimately to try and bring about such enlightened eco-rational acts. To date, interventions based on these models, and particularly recent social marketing approaches, have achieved some success in achieving this aim (e.g. McKenzie-Mohr 2000), however, this paper critiques these approaches and interventions as profoundly apolitical and, in so doing, seeks to challenge the apparent self-evidence of individual level solutions to environmental problems.

By contrast, drawing on emerging ideas about social practice theory (e.g. Reckwitz 2002, Shove, forthcoming) and developing these through a Foucauldian analysis of power and discipline, this paper attempts to develop a more critical reading of PEB that examines the micro-political processes through which environmental problems become translated into individual behavioural imperatives. Drawing on an ethnographic case study of a single PEB-change initiative called ‘Environment Champions’ run in the head offices of a UK-based construction company called Burnetts¹, the paper demonstrates that PEB-change interventions may be better understood less as attempts to encourage individuals to choose to undertake pro-environmental acts, and more as attempts to ‘make up’ (Hacking 1986) environmental individuals for whom such acts are appropriate.

The paper begins by outlining existing work on PEB, first within environmental psychology and second within recent geographical and sociological work on environmental discourses and social practices. On the basis of the argument that all of these approaches currently lack a critical political stance, section 3 outlines such an approach by drawing on Michel Foucault's conception of power. Sections 4 and 5 then introduce and present a detailed empirical analysis of the Environment Champions initiative at Burnetts to reveal the disciplinary mechanisms it rested upon and that have so far been obscured by more conventional analyses. Finally, section 6 concludes by considering the theoretical and political implications for the development of a more critical and reflexive environmental social science.

2. THE SUBJECT OF PRO-ENVIRONMENTAL BEHAVIOUR CHANGE

2.1 Psychological Approaches to Pro-Environmental Behaviour

Over the last two decades, environmental psychology has emerged as the dominant discipline in attempts to understand and promote PEB, and throughout this time has become increasingly enshrined in UK policy discourse (e.g. DEFRA 2008). Most environmental psychological work on PEB understands it as the outcome of more or less rational decision-making undertaken by individuals (see Harrison and Davies 1998 for a critique). Pro-

¹ To help preserve anonymity, the name of the company and of all participants are pseudonyms.

environmental attitudes are assumed to lead rationally to PEB and, by implication, anti-environmental action is the result either of faulty decision-making or due to the presence of various real or perceived 'barriers' to action (Lorenzoni *et al* 2007).

The early development of relatively robust scales to measure pro-environmental attitudes and values, such as the New Ecological Paradigm (Dunlap and Van Liere 1978) problematised a simple attitude-behaviour connection, however, by identifying a gap between cognitive dispositions and action - the so-called 'value-action gap' (Blake 1999). In turn, this led to a search for intermediary variables between attitudes and behaviour. Numerous models have been put forward as attempts to bridge the value-action gap, each identifying and focussing on different variables. Among the better known, and most widely applied, are Ajzen's (1991) *Theory of Planned Behaviour* which incorporates measures of *subjective norms* and the individuals' *perceived behavioural control*, Ölander and Thøgersens (1995) *Motivation-Opportunities-Abilities model* which emphasises Maslowian style human needs as the basis of behavioural motivations, and Triandis' (1977) *Theory of Interpersonal Behaviour* which introduced *habits*, or at least the '*frequency of past behaviour*' to the explanatory mix (interested readers are advised to consult Jackson 2005 for a comprehensive review of these and similar models). In each case, as the models have been tested and applied, more and more specific variables have been added (e.g. Bamberg 2003; Conner and Armitage 1998; Gatersleben and Vlek 1998; Knussen *et al* 2004; Mannetti *et al* 2004; Davis *et al* 2006) although only incremental improvements in explanatory capacity have been observed.

A common theme as variables have been added to the models has been an increased focus on the surrounding context in the form, variously, of social networks (Olli *et al* 2001), social norms (Barr 2003) or infrastructure provision (Martin *et al* 2006). Whilst this context has usually been seen as a 'barrier' to be overcome, its inclusion does represent a concession that individuals do not exist in a social vacuum. Nonetheless, despite this recognition of a relationship between the individual and her surrounding milieu, the agency and ontological status of the decision-making subject remains unchallenged and essentially static within the models. Accordingly, this approach lends itself well to policy measures that seek to correct faulty decision-making through education and information provision and remove the 'barriers' that impede (eco)rational behaviour.

In the UK, specifically, as the models have grown ever more complex, the PEB-change policies based on them have seen a gradual shift from public information and education campaigns that spread a general pro-environmental message to an undifferentiated mass audience as a means of filling a presumed information-deficit (e.g. *Helping the Earth Begins at Home* or *Are You Doing Your Bit?* - see Hinchliffe 1996; Owens 2000; DEMOS 2003), to the introduction of complex social marketing initiatives in which sophisticated communications techniques are used to 'sell' PEB to carefully targeted audience segments (e.g. Barr 2008; DEFRA 2008; Futerra 2005; McKenzie-Mohr 2000).

Despite the success of these models in generating policy, and the modest success of some initiatives in changing behaviour (McKenzie-Mohr 2000; Haq *et al* 2008), the basic thrust of this approach has been widely critiqued (e.g. Burgess *et al* 2003, Harrison and Davies 1998, Shove 2004). Key critiques centre on the models' realist and positivist understanding of 'the environment' and their essentialist representation of 'individuals'. The environment is seen as self-evidently in crisis and, as such, in need of rationally considered managerial interventions to which, the approach assumes, it will respond. The various means by which 'the environment' has been constructed in this way, however, escape the approach's purview (e.g. Ungar 1994; Macnaghten 2003). Similarly, individuals are understood to have fixed properties and levels of agency which need only to be activated and channelled by policy makers towards addressing the environmental crisis (e.g. Maniates 2002, Hobson 2004). Further still, these assumptions go hand-in-hand with the techno-managerialism of

weak ecological modernization (Mol and Spaargaren 2000) leading to the broader critique that environmental social science of this ilk, particularly when it recommends only incremental shifts in behaviour (e.g. Barr 2008), fails to challenge and thus acts as a 'handmaiden' (Blühndorn and Welsh 2007) to an ultimately unsustainable system (Shove 2003, 2004).

For the purposes of this paper, these critiques reveal the excessively apolitical nature of this approach. To the extent that politics has entered into these discussions at all, it is a politics of apportioning responsibility for self-evident environmental problems either to individuals or to 'structural players' (Middlemiss 2010) such as the government or business. As such, it naturalises, rather than challenges, the ultimately political processes through which 'the environment' has been made into a problem for which PEB undertaken by individuals is the obvious and appropriate solution.

The next section highlights two alternative understandings of PEB that have begun to address some of these critiques.

2.2 The Practical and Discursive Construction of Pro-Environmental Subjects

Recent work in cultural geography and environmental sociology, on the discursive construction of environmental problems and on theories of social practice, has offered a series of correctives to the realism and essentialism of the psychological approach. This sub-section will address each of these bodies of work in turn.

A series of studies in the mid-1990s and early 2000s questioned the self-evident nature of 'the environment' and 'environmental problems' that is taken for granted at the heart of psychological understandings. Instead, this line of research sought to understand how the environment was discursively constructed as in crisis and as in need of remedial action. These studies demonstrated empirically how the environment and environmental problems are not 'out there' and fixed, but are in fact constructed in different ways by different agents at different times and in different places (e.g. Burgess *et al* 1998; Burningham and O'Brien 1994; Harrison *et al* 1996; Myers and Macnaghten 1998; Macnaghten and Urry 1998). Subsequent studies examined how these environmental discourses functioned in the course of everyday life, revealing not only that they are often marginalised by other prevailing social discourses in specific contexts (e.g. Bedford 1999; Burgess *et al* 2003; Moisander and Pesonen 2002), but also that the dominant environmental discourses of ecological modernisation themselves contain and reinforce an individualistic conception of social agency (e.g. Maniates 2002). Further still, this inherent individualism is often resisted by individuals themselves, who do not merely accept exhortations to 'do their bit', but are seen to contest a discourse that presents individual action as the logical response to systemic unsustainability (Macnaghten *et al* 1995; Macnaghten and Jacobs 1997; Hobson 2004).

More recently still, proponents of social practice theory have begun to emphasise the routine and inconspicuous nature of everyday consumption (Shove and Warde 2002) and to consider the extent to which anti-environmental action is a systemic property locked-in to the bundles of social practices that make up normal everyday life (e.g. Hargreaves 2008, forthcoming; Røpke 2009; Shove 2003, 2004, forthcoming; Southerton *et al* 2004; Spaargaren and Van Vliet 2000; Warde 2005). These studies have considered the systems of provision that enable and constrain everyday practices, demonstrating how particular and often unsustainable norms and conventions are literally built-into the surrounding material infrastructure (Shove 2003). Further, these studies illustrate how, far from picking, choosing and controlling the practices they perform, individuals are in fact only a small part of the practices they 'carry' (Reckwitz 2002). Accordingly, even if exhortations to change behaviour were widely heeded, practices and the systems of provision amid which they are performed may not respond so readily or predictably.

These discourse and practice-based studies thus question the realism and essentialism of the psychological models. The environment and environmental problems are seen as mediated by and through discourses and socio-technical systems, and individuals and the agency they possess are also problematised as contingent and constructed. In short, in these studies there exists no uncritical connection between environmental problems and the need for individual-level PEB-change to solve them. Partly as a result of this critical impulse, however, these studies have so far achieved much less policy impact. Indeed some have begun to question the modernist and managerial assumptions of conventional policy approaches and the 'illusions of agency' they sustain (Rip 2006). Arguably, far from social practice theory becoming policy-relevant, policy needs to become more practice-relevant if it is to take environmental challenges seriously.

By advancing understandings of pro-environmental action in these ways, these approaches appear to lay the theoretical foundations necessary for a much more sophisticated politics of PEB – one which not only seeks to apportion responsibility, but also interrogates the normally unquestioned processes of problem- and subject-formation at the heart of environmental discourses and practices (e.g. Oels 2005). To date, however, these studies have relied too heavily either on focus group and interview techniques that, whilst capturing 'real' talk, remain divorced from real life, or on analyses of single and often rather obscure social practices that are isolated and cut off from the flow of normal everyday practice. As a result, they have offered an abstract and excessively consensualist picture that fails to capture the micro-social interactions, negotiations and politics of discourses and practices (Røpke 2009; Warde 2005, and see Hargreaves 2008; forthcoming). There therefore remains an urgent need to explore what actually happens on the ground in initiatives to promote PEB as a means of developing a detailed understanding of the micro-political processes through which 'the environment' is made into a subject that individuals can and should care about, and individuals are 'made up' (Hacking 1986) as subjects capable of knowing, caring about and acting upon it. The rest of this paper seeks to develop such an understanding by drawing on Michel Foucault's concepts of power and discipline.

3. FOUCAULT, POWER AND DISCIPLINE

Whilst previous power theorists had focussed their attentions on who possess power and how they wielded it either to get the decisions they desired (e.g. Dahl 1968), keep certain items off decision-making agendas (e.g. Bachrach and Baratz 1962), or to manipulate broader public interests (eg. Lukes 2005), Foucault's 'ultra-radical' view understands power quite differently. Two aspects are particularly relevant: First, Foucault understood power to be a pervasive and inescapable force that functions always and everywhere throughout society. As such, rather than being possessed by a few, it operates through everyone, making them the 'vehicles of its exercise' (Foucault 1980). Second, rather than seeing power as a solely negative, dominating and oppressive thing that serves only to constrain activity, Foucault saw it as a positive and productive force that serves to create, or 'make up' (Hacking 1986), the world and the people in it.

The central Foucauldian question therefore, is not 'who has power?' or 'how much do they have?', but to explore empirically 'the *how* of power' (Foucault 1980, 92, emphasis in original), considering the ways in which it operates through people to create them and the world they experience. Throughout all of his works, Foucault (1977, 1980, 1984, 1991) explores the 'micro-physics' of power as it functions throughout society, revealing how it works beyond the state as well as inside it, and how it circulates through discourses, rationalities and normally taken-for-granted knowledges – hence his term *power/knowledge*. In particular, in his work on discipline (1977) and governmentality (Foucault 1991; Miller and Rose 1990; Rose and Miller 1992; Rose 1993), he reveals its 'capillary form of existence' (Foucault 1980, 39) in numerous quotidian technologies that serve to reclassify and

reorganise space, time, activity and ultimately individuals. As Miller and Rose (1990) elaborate, he shows that:

‘To understand modern forms of rule...requires an investigation not merely of grand political schema, or economic ambitions, nor even of general slogans such as state control, nationalization, the free market and the like, but of apparently humble and mundane mechanisms which appear to make it possible to govern: techniques of notation, computation and calculation; procedures of examination and assessment; the invention of devices such as surveys and presentational forms such as tables; the standardization of systems of training and the inculcation of habits; the inauguration of professional specialisms and vocabularies; building design and architectural forms – the list is heterogeneous and is, in principle, unlimited.’ (Miller and Rose 1990, 8)

Foucault’s ideas have been applied extensively across the social sciences (e.g. Martin *et al* 1988; Burrell 1988; Burchell *et al* 1991; McNay 1994; McKinlay and Starkey 1998; Rose 1999; Knights 2002) however, considering his concern with ‘the conduct of conduct’ (Dean 1999) and how people govern themselves, it is surprising how little his work has been applied to the issue of PEB-change. Several authors have adopted broadly Foucauldian approaches to studying the environmentalist discourse (e.g. Luke 1995; Rutherford 1999) but, in general, these writings have focused at the macro-level considering scientific or state-based pronouncements and neglected the micro-physics or ‘messy actualities’ (O’Malley *et al* 1997) of how environmentalist power/knowledge operates on the ground (see Rutherford 2007 for a review of the existing literature on ‘green governmentality’). At the more micro-scale, the work of Darier (1996) and Agrawal (2005) stands out as excellent but all too rare examples of how the concept of governmentality, or ‘environmentality’ (Agrawal 2005), operates in relation to environmental issues to make up environmental citizens. Within the study of PEB-change specifically, Foucault’s work has been largely overlooked with, at best, only incidental references to his approach in discursively focussed studies (e.g. Moisaner and Pesonen 2002). Perhaps most surprisingly of all, however, his ideas about discipline have been entirely ignored in this area, despite their explicit focus on training people to behave in new ways.

Accordingly, the rest of this paper seeks, for the first time, to develop an account of PEB-change processes that explicitly utilises the Foucauldian concept of discipline. Specifically, it does this by drawing on an ethnographic case study of a behaviour change initiative called ‘Environment Champions’ (hereafter EC). In so doing, it seeks to build a concern with power and micro-politics into the general social practice-based approach outlined in section 2.2. First, the next section introduces the empirical case and the methods used in more detail.

4. ENVIRONMENT CHAMPIONS AT BURNETTS

Between January and November 2007, the environmental charity Global Action Plan (GAP) ran its EC programme in the head offices of a UK construction company called Burnetts². Despite being fairly ‘low-tech’ interventions, GAP’s general approach to behaviour change has received a relatively large amount of academic attention (e.g. Barr 2008; Georg 1999; Hargreaves *et al* 2008; Staats *et al* 2004; Michaelis 2004; Nye and Burgess 2008; Nye and Hargreaves 2010) and, to some extent, could be considered as state-of-the-art in attempts to encourage PEB-change. Like all of GAPs programmes, the EC programme is designed to

² To help preserve the anonymity of the organisation and its employees, pseudonyms are used both for the organisation itself and for all participants involved in the study.

operate as a bottom-up, participant- (or in this case employee-) led initiative. The first step is to recruit a team of volunteer Champions, before a GAP programme manager assists them in auditing their organisation's environmental impacts (e.g. by weighing waste or taking utility meter readings) and holding a series of group discussions to plan changes to everyday organisational practices designed to reduce their environmental impacts. A campaign is then run to encourage all employees to adopt PEB, before a second audit is performed to evaluate any savings achieved.

At Burnetts, a team of 16 Champions was recruited, made up of 8 men and 8 women, ranging in age from mid-20s to late-50s, drawn from all departments at the head office site, and of a range of levels of seniority in the organisation (although none of the senior executives were involved). The initial audit was conducted in January/February, planning meetings commenced in April, a campaign to engage all employees was conducted between May and September, and the second audit was conducted in October/November. During this time, I conducted 9 months of participant observation around the offices. This involved attending all of the Champions meetings and participating in related events and activities, as well as a series of voluntary work placements in different departments at the head office site. In addition, I conducted 38 semi-structured interviews with all of the Champions, and with other employees who were either identified as relevant to the programme or who had been targeted by it. Interviews lasted between 30 and 120 minutes and were digitally recorded before being transcribed verbatim. The field diary and interview transcripts were then analysed in NVivo 7.0 using a constructivist grounded theory method (Charmaz 2006).

Whilst a full account of the ethnography is available in Hargreaves (2008), this paper will focus predominantly on the mechanisms used in, and the effects of, the Champions' campaign to encourage their colleagues to change their behaviours. More specifically still, it addresses an apparent contradiction at the heart of the initiative that I struggled to understand or explain during the fieldwork process. On the one hand, the Champions programme appeared to be a weak force in the context of the organisation: it had a tiny budget, was run by an informal group of volunteers as opposed to the organisationally enshrined Facilities Management team or the parallel, management-led CHANGE initiative that focussed on health and safety at work. Further still, as the initiative progressed many of the Champions' proposals were abandoned or at least watered down in the face of broader organisational concerns (see Hargreaves, forthcoming) to the extent that, come the end of the initiative, there were virtually no obvious changes to everyday working practices around the offices. On the other hand, the second audit process revealed that the initiative had realised a 29% (3.4 tonnes) reduction in the total amount of waste sent to landfill, and a 5.4% (6 tonnes CO₂) reduction in electricity use at the site. Whilst these may seem fairly small savings, they are quite large in relation to EC initiatives run at other organisations (see GAP 2006). Further still, throughout the interviews and observations, the initiative appeared to have had a number of quite subtle, yet pervasive effects on how employees understood and spoke about themselves, their colleagues, the environment and their work practices in relation to it. It was this apparent contradiction – how the EC initiative could be both weak and strong at the same time – that initially led me to Foucault's ideas about discipline, and that will be more fully explored in the next section.

5. DISCIPLINING ENVIRONMENTAL BEHAVIOUR

5.1 Re-Programming Reality: Partitioning Space, Time and Activity

Central to Foucault's ideas about discipline is the introduction of new ways of representing and dividing up space, time and activity that renders them more amenable to management and improvement (Miller and Rose 1990). In *Discipline and Punish* (1977), Foucault shows that throughout the early 1800s, time, space and activity were increasingly divided up in new ways as new forms of discipline swarmed throughout society. For example, prison space

was divided into individual cells (as opposed to communal dungeons), detailed timetables were introduced to structure prisoners' days, and meticulous sets of instructions were devised to train schoolchildren to hold a pen or soldiers to hold their rifles. Foucault argues that these devices were vital means of imposing new forms of order onto previously disordered, or at least differently ordered, minds and bodies, and were thus the first step in attempts to change them. At Burnetts, similar re-conceptualisations of space, time and activity were among the first things to occur in the Champions' earliest meetings.

Spatially, the EC initiative was restricted to the head office site from the very outset, dividing it off from the rest of Burnetts' operations. The head offices were seen as a pilot study or test case for the EC approach, as a means of producing new knowledge about a specific section of Burnetts' reality that could subsequently be applied across the company. In isolating and *enclosing* (Foucault 1977) the head office site in this way, the initiative created a fixed and stable object to work upon by specifically ignoring other aspects of Burnetts' reality.

In addition to this enclosure, the Champions also set about *partitioning* (Foucault 1977) and dividing the space of the offices into different elements, enabling them to focus more precisely on one at a time. Foucault argues that: 'disciplinary space tends to be divided into as many sections as there are bodies or elements to be distributed' (Foucault 1977, 143). Whilst the Champions were unable to rebuild the offices and erect walls between individual employees, they too set about dividing the site into more easily controllable and manageable sections. For example, in the very first meeting the Champions divided the offices up into different areas and assigned each its own 'mentor'. More finely still, in the initial audit and throughout the initiative, the Champions divided the office up into individual rooms with their own light switches and plug sockets, and even into individual desks with their own computers, monitors, and general waste bins. The Champions thus introduced new ways of thinking about and representing the office that segmented it into more or less individualised spaces. Such dividing practices are central to Foucault's understanding of discipline; however it is important to note that the Champions were not starting from scratch. There was no need to build new walls between different areas of the office, because such a disciplinary grid already existed. The offices were already divided into either single occupancy rooms, or larger open plan offices that were divided into fixed individualised compartments. Where they existed, communal areas were clearly distinct from these ordered work spaces. Building on this existing disciplinary grid, therefore, one of the first things the EC initiative did was to demarcate the space of its operation, dividing it into the different elements to be managed and improved.

A similar process occurred with the organisation of time. Despite a desire from management that the initiative should spread to employees' home lives as well, in an early meeting the Champions immediately set about dividing time at work from time at home. As I recorded in my field diary:

'Liam came up with a campaign idea to *'Switch off work. Switch on your life!'* – looking at setting down an ideal routine to leave the office which incorporates switching off your monitor and lights etc.' (FD:14)

Whilst this idea was ultimately dismissed because it was felt that *'management wouldn't like it'* (FD:14), the central message was adopted throughout the campaign as the Champions rethought the temporal organisation of office practices along environmental lines. The team recognised that, according to an environmental rationality, certain times of the day or week were more important than others, particularly times of arrival and departure from the office, and set about reorganising these specific moments.

Accordingly, one of the first things the team agreed upon was to produce a 'Shutdown Checklist' (FD:54) to detail exactly what steps to take when leaving the office to ensure

everything was switched off. An equal and opposite 'Switch On Routine' was also mentioned although never actually created. Further still, the initiative focused on particular times of the week, for example, the Champions sent a series of emails to all staff late on Friday afternoons to remind them to switch equipment off over the weekend. The team thus focused their efforts on specific times when they felt they could have most impact.

Whilst these observations may seem insignificant, what is important is that, just as they had with space, the Champions were introducing a new way of thinking about and structuring the passing of time in the offices. The Champions focused on entry to, and exit from, the offices, and on the beginnings and ends of certain tasks. These are the precise moments of the working day that are typically the most informal, disorganised, and undisciplined (Nippert-Eng 1996). In other words, these are the times that tend to escape conventional forms of workplace discipline.

Finally, Foucault argues that discipline functions by imposing a new form of control onto activity. By this, Foucault is not simply referring to the vague and general ways in which employees, patients, and schoolchildren are given tasks to do, but suggests that discipline is marked by power and control at a new scale, that he calls 'an infinitesimal power over the active body' (Foucault 1977, 137). Thus, in the EC initiative, the Champions set about identifying some quite specific practices, before breaking them down into their component parts and providing very precise instructions for how they should be reassembled in pro-environmental ways. For example, the Champions instructions were never so general and vague as simply 'Save energy,' or 'Recycle your rubbish,' but consisted of detailed step-by-step guidelines for individual performances of practices, such as those for using vending machines or changing printer settings and precise checklists for what to do and when (see figure 1). Whilst not quite as precise as Foucault's examples of *dressage*, in all of these cases the Champions provided a meticulous level of detail to help people perform in pro-environmental ways.

Figure 1: Leaving the Office Checklist

Extract from an Email to all Staff – sent at 16:46 on a Friday Afternoon

'Choosing to act positively, even in a small way, we can make a significant difference, together!

If you are leaving early or staying later, don't forget you do have time to switch off your.....

- PC
- Power transformer
- Docking Station
- Screen
- Plug (- sometimes easier to switch everything off at the wall)
- Gang socket (that little LED on the end uses about 0.3Watts)
- Phone Charger
- Printer
- Lights – if you're in a shared office, who is going to turn out the lights when you go?
- Is there a photocopier near you? Does that need to be left on? – one copier uses enough power when on standby at night to print one thousand five hundred copies!

It is thus evident that the EC team set about introducing a framework that sought to restructure space, time and activity in a range of new ways. Some might suggest that these steps are simply a part of good and efficient project management, and they would be exactly

right. Through these techniques the Champions were engaging in something wholly familiar, employing humble and mundane mechanisms that are regularly used across all areas of life. What is significant is that they were employing these means to new ends. Whilst they may not have conceived of it in these terms, or set out to do so intentionally, they were extending the discipline of the workplace to incorporate environmental concerns. Nonetheless, such reorderings would have little significance unless it can be shown how they were spread across the offices to all employees. The following three sub-sections will thus outline how the Champions used *hierarchical observation*, *normalising judgement* and *the examination*, or what Foucault (1977) calls the three 'means of correct training' to implant pro-environmental discipline in the thoughts and acts of their colleagues.

5.2 Hierarchical Observation: Pro-Environmental Big Brother?

Foucault argues that discipline is 'a power that acts by means of general visibility' (Foucault 1977, 171), and throughout the initiative there were numerous examples of the Champions and their colleagues starting to look in new places and to see things differently. For example, in both of the audits and in a series of lunchtime 'spot checks' the Champions cast a gaze over previously inconspicuous activities, people started to notice lights being left on or waste being in the wrong bin and think that it 'looks weird' (Sally interview, p26), and employees began to put on performances of what might be called 'conspicuous environmentalism' to one another, showing off their environmental credentials when recycling, photocopying double-sided or switching computers off. Further, in interviews, metaphors of visibility were regularly used to describe the initiative. For example, the language of 'big brother', being in 'glass houses', forms of 'policing', or having 'eyes and ears' were common, and would appear to indicate the nature of the new gaze being cast over everyday practices.

'It's like the big brother is watching you attitude. If anyone leaves their lights on (laughs), so somebody [will] tell you you're leaving the lights on. You can't get away with things, it's like a police force (laughs). It sounds a bit harsh...but you have somebody monitoring you.' (Graham interview, p14)

'Certainly my own behaviour has hopefully changed in terms of the erm, taking on the lessons learnt because the er, when you're in the public gaze then if you're not doing what you say then, you suffer accordingly erm...people in glass houses isn't it really.' (David interview, p21)

As these quotations indicate, the EC initiative introduced a new field of visibility and form of surveillance around the offices, and as employees began to perform to one another, watch over each another's behaviour and impose the new gaze upon their own actions, it became to some extent inescapable.

Whilst for Foucault "the perfect disciplinary apparatus would make it possible for a single gaze to see everything constantly" (1977, 173), as was exemplified in Bentham's design for the Panopticon, Foucault did realise that in most circumstances "the disciplinary gaze did, in fact, need relays" (1977, 174). The physical layout of the head office site meant that a single uninterrupted gaze was impossible and as such, the 'microscope of conduct' was forced to take on the shape of an hierarchical pyramid. At the pyramid's apex was Steven, the initiative's board-level sponsor. Although responsible for starting the initiative, he was also concerned for it not to seem too management-led, top-down or heavy-handed. Thus, he enlisted the help of a team of Champions drawn from across the offices and forming the pyramids second echelon. Descending further still, as the initiative progressed, certain employees began to act as 'mini-Champions' (David interview, p39) taking responsibility for their own areas, and across the offices employees began to exert peer pressure on each other reminding one another to recycle or switch lights off. The pyramid's gaze thus extended throughout the offices, turning them into an observatory in which an 'uninterrupted

play of calculated gazes' (Foucault 1977, 177) shone a light on environmental conduct everywhere.

A key aspect of this 'pyramidal organisation' is that, although it has a head, 'it is the apparatus as a whole that produces 'power' and distributes individuals in this permanent and continuous field' (Foucault 1977, 177). As such, no matter what position one occupies, one is always observed, and even the 'supervisors [are] perpetually supervised' (Foucault 1977, 177). In this sense, however, the EC initiative only partially conformed to Foucault's scheme. The reluctance to impose too top-down a structure or to be too heavy-handed, implies a certain reluctance to look too hard. Further, Craig explained that, despite the Champions' success in establishing a new field of visibility, there were some places where they could not look, or at least had to turn a blind eye:

'When we did the electrical audit, there's always one director, and like, you couldn't find anything in his office that wasn't left on...The issue with that Tom is then who addresses that issue with that person? Very difficult. For us as Environmental Champions very difficult, because we carry no weight do we, in truth?' (Craig interview, p12)

Although the EC initiative did introduce a new way of seeing, it could not completely replace previous relations of power, and was instead forced to work alongside them. Foucault argues, however, that discipline does not replace previous forms of rule, but instead works within them, being 'linked from the inside' (Foucault 1977, 176). These complications do not, therefore, undermine the fundamental point that the EC initiative employed a form of hierarchical observation that accentuated pro- and anti-environmental aspects of practice.

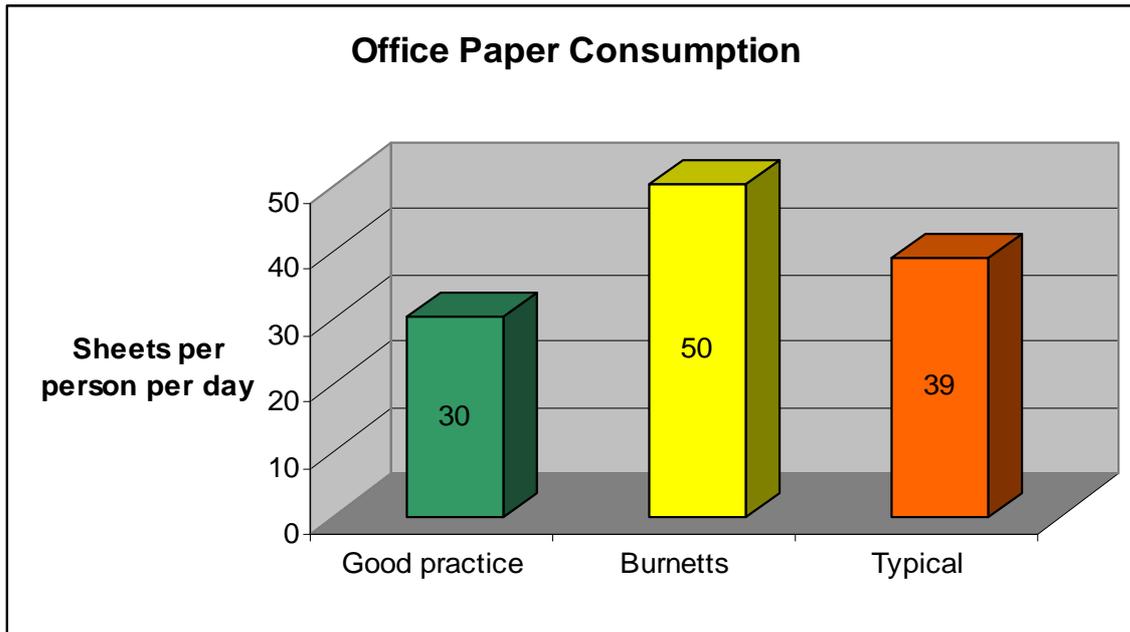
5.3 Normalising Judgement: Creating Environmentally Different Types of People

In addition to observing how people conformed to their suggestions, the gaze cast by the EC initiative also introduced a form of *normalising judgement* around the site. The concept of normalisation is central to Foucault's thinking about discipline as it highlights that what is considered natural or normal is in fact socially constructed. By isolating a particular characteristic of individuals or their behaviour from the chaotic and unruly mass of bodies and activities, norms are created against which all can be judged. The novelty of normalisation is that, rather than introducing an absolute sense of right or wrong behaviour, it produces a relative sense of rightness or wrongness. It thus renders all but the most normal in need of improvement. What needs to be changed, then, is not wrongdoing *per se*, but 'that which does not measure up to the rule, that departs from it' (Foucault 1977, 178). In the EC initiative, examples of normalising judgement were extremely common. I will highlight just four.

First, following the first audit the GAP programme managers were quick to place environmental conduct at Burnetts in a broader national context. As figure 2 shows, through such contextualisation a clear norm was provided against which everyday behaviour could be judged and which offered a vision of 'good practice' to be aspired to.

Second, alongside the initial audit process, the Champions themselves devised and circulated a staff survey, asking all employees to state whether they *Never, Hardly Ever, Sometimes, Usually* or *Always* performed a series of different pro-environmental acts. These kinds of scales and surveys are a common feature of environmental psychological work on PEB and whilst they might be seen as a neutral means of gathering data on an objective reality, they also play a more active and productive role in isolating the environmental aspects of behaviours and presenting them as something one should have an attitude about

Figure 2: Normalisation of Paper Consumption



or act upon. Depending on which box a respondent ticks, they are invited to rank their behaviour in relation to others, and thereby to cast a moral judgement as to the significance of being in any of the other categories. As Rose and Miller put it:

‘making people write things down, and the nature of the things people are made to write down, is itself a kind of government of them, urging them to think about and note certain aspects of their activities according to certain norms.’ (Rose and Miller 1992, 200)

Third, the idea of creating a ‘league table’ in which different parts of the offices might be regularly compared according to different environmental criteria was suggested in an early Champions meeting. Although no formal league table was ever produced, and the available data were never better than patchy, the basic principle of normalising judgement is plain to see and, in an email sent by the Champions to all staff during the campaign (see figure 3), this normalising intent was made clear.

Figure 3: Extract from an Email Sent to all Staff

‘There has been another audit of energy usage across the site at the end of last week....The audit was to see what percentage of electrical items had been left on after the working day and people had left the office.

The results were quite varied in different areas of the site. There was an outstanding performance from both the Duplex Building First Floor and Design & Wages with only 4 & 5% of items left switched on.

In other areas, there is probably room for improvement, with one area registering up to 48% of electrical items being left on - including a number of Air Conditioning units, which would have proceeded to cool down or heat up an empty office from Friday evening until Monday morning.’

Whilst not as comprehensive as the league table initially proposed, such messages allow areas of the office such as the 'Duplex Building First Floor' and 'Design and Wages' to feel a sense of satisfaction that they were doing well, but also quietly warn them that lapses in performance would be noted. As such, they also serve to reinforce the gaze of the Champions indicating to all that they might be being watched and judged at any time.

Fourth, the final example I will highlight suggests that the Champions did not merely *try* and normalise environmental conduct but that, at least in certain times and places, they actually came to think differently of their colleagues, and to classify and categorise them in new ways. In interviews, several of the Champions offered taxonomies that focused on their colleague's environmental attitudes or behaviour. Typically these consisted of three 'types of employee', but sometimes more. For example:

'I think initially erm, we probably had about three categories of people and their response to the campaign. There were those who weren't interested, didn't think they could make a difference. There were those who were willing to come on board, yet there were also those who say 'well I already do this, I already do that.' I think the campaign's helped soften the people who weren't interested to start with. It's definitely brought on board the people who are willing to give it a go. But also it's further improved those who did think they really were, erm, you know, doing great environmental things.' (Louise interview, p7)

Again, the normalising drive is clear as, throughout the initiative, the Champions came to think of themselves and their colleagues differently; in relation to their individual environmental perspectives and performances.

The crucial aspect of such normalising judgements is that, through punishment or praise, they exist to improve the population in relation to the identified norm. Foucault highlights two novel characteristics of this drive to improvement. First, 'disciplinary systems favour punishments that are exercise – intensified, multiplied forms of training, several times repeated' (Foucault, 1977, 179). Second, discipline introduces a double system of 'gratification-punishment', in which gratification is the preferred option. Whilst the language of punishment is perhaps a little strong for the EC initiative, it was apparent throughout that, so far as it did exist, punishment took the form of encouragement and training to do better, and positive incentives or gratification was the preferred means of enacting this. Graham provided the best example of how the Champions exercised and trained colleagues who were not abiding by the new environmental norm:

Graham: 'We're [the Champions team] like little piranhas (laughs) at people's ankles. Don't give up. Erm and you don't shout and rage at them or anything like that to belittle them. They might do it to you initially, but it's not even a war of words, you can turn them around with words... You have a suspicion that as soon as you walk out the door they're just going to go back to normal, so you go back and repeat it the next day and the next day, and the next day, and the next day. It will get there in the end. They'll get the idea you are not going to go away.'

Tom: Mmm. How do people respond, how do they respond to that? Do they get sort of thoroughly fed up with it or?

Graham: No, erm, you might walk towards someone and they'll say 'look, it's all switched off. I know, I'm going home, I've switched it all off' (laughs). It's as simple as that, you just have to crack, be light-hearted not serious.' (Graham interview, p44-5)

Graham's emphasis on constant repetition of the key messages was echoed by many other Champions. Much like exercise at the gym, this process relies on gradually building up strength, little by little. The more often the message is repeated, the stronger it becomes. The character of punishment in the initiative thus tended towards repetition and exercise, but in the last line of the quotation above, Graham also expresses its second characteristic: 'light-hearted, not serious.' As Foucault would have expected, the Champions emphasised the positive, fun, encouraging aspects of their new norm, more so than the negative.

5.4 The Examination: Testing the Power/Knowledge of the Champions

The centrepiece of Foucault's mechanisms of discipline is *the examination*. The purpose of both hierarchical observation and normalising judgement is to gather knowledge of individuals such that action can be taken in accordance with this new knowledge. In the examination, these two mechanisms are combined. Crucially, through this combination of techniques the examination is able to link together 'a certain type of the formation of knowledge [with] a certain form of the exercise of power' (Foucault 1977, 187). As such, Foucault suggests that the examination has become both ever more constant throughout the disciplinary society, and at the same time 'highly ritualized' (Foucault 1977, 184). Both of these aspects were seen in the EC initiative.

There were numerous examples of examination in the EC initiative, including the staff survey, audits, spot-checks, and 'mentoring chats'. Further, as has been shown, these became ever more constant as the initiative progressed, to the extent that by the end, almost any employee at the site might have been found examining their own or their colleagues' conduct for its environmental credentials, at any time.

I have paid less attention to the 'highly ritualized' nature of these environmental examinations, nonetheless this was also apparent. For example, the two main audits were both followed by key events in the initiative. A 'launch day' communicated the initial audit results to everyone at the site, and similarly a celebration event, reserved for the Champions alone, ritually marked the improvements that had been made. Although of lesser stature, other examinations were also accompanied by an element of ritual: results were always widely communicated; mentoring chats often had an element of the doctor's visit to the patient's bedside as everyone stopped what they were doing to listen to the advice on offer (FD:91); and spot-checks in the offices often caused quite a commotion as employees would follow the Champions around, offering humorous excuses, issuing challenges, and teasing each other, about their environmental performance (FD:217).

As with hierarchical observation and normalising judgement, the presence of forms of examination in the EC initiative is impossible to deny. The key aspect of the examination for Foucault, however, is its joining of the creation of knowledge with the application of power. Whilst the level of documentation and administration falls short of the ideal examples Foucault found in French prisons, schools and hospitals, through these various forms of examination, the Champions built up a corpus of knowledge about their colleagues, enabling them to determine who was performing well and who badly. This corpus of knowledge served to normalise employees, enabling judgements of them, and generating behavioural change to meet the new norm. In turn, as new behaviour occurred, new knowledge was gathered, new judgements could be made, and the norm became a moving, and environmentally improving, target. The Champions' environmental examinations thus combined new knowledge with a new form of power. In an inescapable fashion, the Champions' environmental discipline created the very subjects that required further environmental discipline.

5.5 Resistance and the Making Up of Banal Environmentalism

Through these 'means of correct training' (Foucault 1977), the Champions introduced a new framework of power/knowledge – what I have called environmental discipline – to all individuals and practices at the head office site. Social practice theory, as outlined above, argues that individuals are a part of the practices they perform and, in line with this view, Foucault suggests that a key effect of different forms of power/knowledge as they circulate in different practices is to constitute individuals in new ways. Thus, the Champions' introduction of environmental discipline to workplace practices can be seen to have 'made up' (Hacking 1986) what might be called *environmental employees* across the offices.

Nonetheless, whilst pervasive and almost inescapable, it would be wrong to suggest that this process ran without a hitch. Whilst most employees saw the initiative as a good thing, resistance also existed in several forms. These included simple grumbling about being told what to do; the invention of several creative excuses for why pro-environmental acts were not possible, for example that printing double-sided was a waste of time as no one reads more than one side of writing anyway; the occasional argument about problems with the new recycling arrangements; and regular teasing of the Champions suggesting they were the 'Environment Police' or the 'Recycling Police'. Tellingly, however, none of the forms of resistance witnessed ever contested the central idea that environmental impacts should be reduced. In each case, resistance appeared to stem from other practices, or other forms of workplace discipline, making the new environmental actions difficult or awkward to perform e.g. due to other work priorities. The resistance might therefore be better interpreted as attempts to escape the new ways in which employees were being 'made up', rather than any fundamental rejection of the environmental message. Viewed in this light, such acts of resistance arguably serve to reinforce the procedures of environmental normalisation they ostensibly contest. Foucault suggests that 'there are no relations of power without resistances' (Foucault 1980, 142). Rather than challenging or overthrowing the Champions' new power/knowledge, resistance instead serves to show it where next to turn, and to offer up new points of application. Sites of resistance to the Champions' environmental discipline are thus seen to provide further opportunities for 'making up' new environmental employees.

In summary, this section has shown how, by employing familiar, humble and mundane mechanisms, the Champions were thus able to bolster the apparent weakness of the EC initiative by building environmental procedures and concerns into existing office practices and linking an environmental discipline to existing, and more conventional, systems of workplace discipline. For these reasons I would therefore suggest that the EC initiative managed to introduce a form of what might be called, after Billig (1995), *banal environmentalism* to the head office site. That is, an environmentalism in which the environment is so pervasive that it need not always be made explicit and one in which pro-environmental thoughts and actions begin to assume the status of normality.

6. CONCLUSIONS: IS DISCIPLINE A DIRTY WORD?

This paper has attempted to make a radical departure from most current work on PEB. Through its use of an ethnographic case study to explore the mechanisms and workings of a single PEB-change initiative, it has revealed the ultimately political processes of problem- (and solution-) definition, normalisation and subject-formation at the heart of such interventions that are routinely obscured in more conventional analyses. It should be remembered that the analysis presented here is based on a single case study, and therefore generalisations from it should be treated with caution and as the basis for further detailed empirical exploration of many other cases in many other settings. Nonetheless, this brief concluding section will attempt to draw out some of the more provocative implications that the case opens up.

Theoretically, this paper seeks to contribute to ongoing work that addresses the environmental implications of changing social practices (e.g. Southerton *et al* 2004; Shove, forthcoming, Hargreaves, forthcoming). Specifically, it has offered a micro-level perspective that gets inside the workings of practices to reveal that instead of merely being ‘carried’ (Reckwitz 2002) by individuals, practices in fact serve, more actively, to discipline and make up their carriers in various ways. The case study has shown that, far from choosing pro-environmental practices based on prior environmental education, it would be more accurate to suggest that employees at Burnetts underwent a process of *environmental socialisation* in which the practices they performed, and they themselves, were re-assembled and co-produced. Where much current work on social practice theory focuses rather broadly on whole practices and how they are assembled, these insights call for further studies of the internal workings of practices. In particular, they highlight a need to explore the ways in which individuals are multiply ‘made up’ by the many practices they carry, and to consider the forms of acquiescence or resistance, conflict or consensus such socialisation processes give rise to (see Hitchings 2010 for some early steps in this direction).

Further, and more provocatively, this paper suggests a need for a fundamental re-interpretation of conventional psychological understandings of behaviour change and the interventions they generate. For example, it suggests that survey methods should no longer be seen as objective descriptions of the outward realities of environmental attitudes/values, and that social marketing campaigns should no longer be understood as purely benign efforts at environmental education. Instead, there is a need to recognise and examine the humble and mundane responsabilizing mechanisms and normalising devices that such procedures employ. Such a re-interpretation would not, necessarily, reject all that this approach has undoubtedly added, indeed it may well provide a series of new and effective disciplinary mechanisms with which to encourage further PEB. It would, however, force a reassessment of the means by which individual level behaviour change has become the seemingly self-evident solution to structurally-embedded environmental problems.

Together, these implications point towards the re-politicisation of work on PEB specifically, and of the whole ecological modernisation project more generally, and towards a more critical examination of the extent to which - despite a rhetoric of education, consumer sovereignty and choice - the whole edifice rests upon thousands or even millions of tiny humble and mundane acts of surveillance, normalisation, discipline and coercion. At the same time as being aware of these potential dangers, it is equally vital to recognise that discipline is not necessarily a dirty word, but is, in fact, an essential part of everyday socialisation processes. Indeed, on issues such as environmental damage, smoking, obesity or dangerous driving around which the behaviour change agenda has emerged, the sort of self-restraint that discipline encourages might be just what is required to curb the worst material excesses of consumer society. Ultimately, and in conclusion, what the analysis presented here suggests is a need to heed Foucault’s warning:

“not that everything is bad, but that everything is dangerous, which is not exactly the same as bad. If everything is dangerous, then we always have something to do. So my position leads not to apathy but to a hyper- and pessimistic activism. I think that the ethico-political choice we have to make every day is to determine which is the main danger.” (Foucault 1983 in Rouse 2005, 115)

Such a standpoint carves out a vital role for a critical and reflexive environmental social science that does not merely act as a ‘handmaiden’ (Blühdorn and Welsh 2007) to ecological modernisation’s imperatives, but instead that seeks continually to resist and question such totalising visions and, in so doing, to explore the alternative kinds of pro-environmental societies and individuals that might be made up.

REFERENCES

- Agrawal, A. (2005) *Environmentality: Technologies of Government and the Making of Subjects*, Durham and London, Duke University Press.
- Ajzen, I. (1991) The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.
- Bachrach, P. & Baratz, M. S. (1962) Two Faces of Power. *American Political Science Review*, 56, 947-952.
- Bamberg, S. (2003) How does environmental concern influence specific environmental behaviors?: A new answer to an old question. *Journal of Environmental Psychology*, 23, 21-32.
- Barr, S. (2003) Strategies for Sustainability: Citizens and responsible environmental behaviour. *Area*, 35, 227-240.
- Barr, S. (2008) *Environment and society: Sustainability, Policy and the Citizen*, Aldershot, Ashgate.
- Bedford, T. (1999) Ethical Consumerism: Everyday Negotiations in the Construction of an Ethical Self. Unpublished PhD Thesis. University College, London.
- Billig, M. (1995) *Banal Nationalism*, London, SAGE Publications.
- Blake, J. (1999) Overcoming the 'Value-Action Gap' in Environmental Policy: tensions between national policy and local experience. *Local Environment*, 4, 257-278.
- Blühdorn, I. & Welsh, I. (2007) Eco-politics beyond the paradigm of sustainability: A conceptual framework and research agenda. *Environmental Politics*, 16, 185-205.
- Burchell, C., Gordon, C. & Miller, P. (Eds.) (1991) *The Foucault Effect: Studies in Governmentality (with two lectures and an interview with Michel Foucault)*, Chicago, The University of Chicago Press.
- Burgess, J., Harrison, C. & Filius, P. (1998) Environmental communication and the cultural politics of environmental citizenship. *Environment and Planning A*, 30, 1445-1460.
- Burgess, J., Bedford, T., Hobson, K., Davies, G. & Harrison, C. (2003) (Un)sustainable consumption In Berkhout, F., Leach, M. & Scoones, I. (Eds.) *Negotiating environmental change: New perspectives from social science*. Cheltenham, Edward Elgar.
- Burningham, K. & O'brien, M. (1994) Global Environmental Values and Local Contexts of Action. *Sociology*, 28, 913-932.
- Burrell, G. (1988) Modernism, Postmodernism and Organizational Analysis 2: The contribution of Michel Foucault. *Organization Studies*, 9, 221-235.
- Charmaz, K. (2006) *Constructing Grounded Theory: A practical guide through qualitative analysis*, London, SAGE Publications.
- Conner, M. & Armitage, C. J. (1998) Extending the theory of planned behaviour: A review and avenues for further research. *Journal of Applied Social Psychology*, 28, 1429-1464.
- Dahl, R. A. (1968) Power. In Sills, D. L. (Ed.) *International Encyclopedia of the Social Sciences*. New York, Crowell, Collier and Macmillan.
- Darier, E. (1996) Environmental governmentality: The case of Canada's green plan. *Environmental Politics*, 5, 585-606.
- Davis, G., Phillips, P., Read, A. & Iida, Y. (2006) Demonstrating the need for the development of internal research capacity: Understanding recycling participation using the Theory of Planned Behaviour in West Oxfordshire, UK. *Resources, Conservation & Recycling*, 46, 115-127.
- Dean, M. (1999) *Governmentality: Power and rule in modern society*, London, SAGE Publications.
- DEFRA (2008) *A Framework For Pro-Environmental Behaviours* London, DEFRA.
- DEMOS (2003) *Carrots, sticks and sermons: influencing public behaviour for environmental goals*, London, Demos/Green Alliance report produced for DEFRA.
- Dunlap, R. & Van Liere, K. (1978) The New Environmental Paradigm: a proposed measuring instrument and preliminary results. *Journal of Environmental Education*, 9, 10-19.

- Foucault, M. (1977) *Discipline and Punish: The Birth of the Prison*, London, Penguin.
- Foucault, M. (1980) *Power/Knowledge: Selected interviews and other writings 1972-1977* (edited by Colin Gordon), New York, Harvester Wheatsheaf.
- Foucault, M. (1984) *The History of Sexuality (Volume 1): The Will to Knowledge* (translated by Robert Hurley), London, Penguin.
- Foucault, M. (1991) Governmentality. In Burchell, C., Gordon, C. & Miller, P. (Eds.) *The Foucault Effect: Studies in Governmentality*. Chicago, The University of Chicago Press.
- Futerra (2005) Rules of the game: principles of climate change communication. London, Futerra.
- GAP (2006) Changing Environmental Behaviour: A review of the evidence for behaviour change from Global Action Plan. London, Global Action Plan.
- Gatersleben, B. & Vlek, C. (1998) Household consumption, quality of life and environmental impacts. In Noorman, K. J. & Schoot-Uiterkamp, A. J. M. (Eds.) *Green Households? Domestic Consumers, Environment and Sustainability*. London, Earthscan.
- Georg, S. (1999) The social shaping of household consumption. *Ecological Economics*, 28, 455-466.
- Hacking, I. (1986) Making Up People. In Heller, T. C., Sosna, M. & Wellbery, D. (Eds.) *Reconstructing Individualism: Autonomy, Individuality and the Self in Western Thought*. Stanford, Stanford University Press.
- Hajer, M. A. (1995) *The Politics of Environmental Discourse: Ecological Modernization and the Policy Process*, Oxford, Clarendon Press.
- Haq, G., Whitelegg, J., Cinderby, S. & Owen, A. (2008) The use of personalised social marketing to foster voluntary behavioural change for sustainable travel and lifestyles. *Local Environment*, 13, 549-569.
- Hargreaves, T. (2008) Making pro-environmental behaviour work: An ethnographic case study of practice, process and power in the workplace. Unpublished PhD Thesis, University of East Anglia, Norwich.
- Hargreaves, T. (Forthcoming) Practice-ing behaviour change: Applying social practice theory to pro-environmental behaviour change. *Journal of Consumer Culture*.
- Harrison, C. M. & Davies, G. (1998) Lifestyles and the Environment: Environment and Sustainability Desk Study Prepared for the ESRCs Environment and Sustainability Programme. ESRC.
- Harrison, C. M., Burgess, J. & Filius, P. (1996) Rationalizing environmental responsibilities: A comparison of lay publics in the UK and the Netherland. *Global Environmental Change*, 6, 215-234.
- Hinchliffe, S. (1996) Helping the Earth Begins at Home: The social construction of socio-environmental responsibilities. *Global Environmental Change*, 6, 53-62.
- Hitchings, R. (2010) Seasonal climate change and the indoor city worker. *Transactions of the Institute of British Geographers*, 35, 282-298.
- Hobson, K. (2004) Sustainable Consumption in the United Kingdom: The 'Responsible' Consumer and Government at 'Arm's Length'. *Journal of Environment and Development*, 13, 121-139.
- Jackson, T. (2005) Motivating Sustainable Consumption. *A report to the Sustainable Development Research Network, as part of the ESRC Sustainable Technologies Programme*. Guildford, Centre for Environmental Strategy, University of Surrey
- Knights, D. (2002) Writing Organizational Analysis into Foucault. *Organization*, 9, 575-593.
- Knussen, C., Yule, F., Mackenzie, J. & Wells, M. (2004) An analysis of intentions to recycle household waste: The roles of past behaviour, perceived habit, and perceived lack of facilities. *Journal of Environmental Psychology*, 24, 246.
- Lorenzoni, I., Nicholson-Cole, S. & Whitmarsh, L. (2007) Barriers perceived to engaging with climate change among the UK public and their policy implications. *Global Environmental Change*, 17, 445-459.
- Luke, T. W. (1995) On Environmentality: Geo-Power and Eco-Knowledge in the Discourses of Contemporary Environmentalism. *Cultural Critique*, 31, 57-81.

- Lukes, S. (2005) *Power: A Radical View (2nd Edition)*, Basingstoke, Palgrave Macmillan.
- Macnaghten, P. (2003) Embodying the environment in everyday life practices. *The Sociological Review*, 51, 63-84.
- Macnaghten, P. & Jacobs, M. (1997) Public Identification with Sustainable Development: Investigating cultural barriers to participation. *Global Environmental Change*, 7, 5-24.
- Macnaghten, P. & Urry, J. (1998) *Contested Natures*, London, SAGE.
- Macnaghten, P., Myers, G. & Wynne, B. (1995) Public Rhetorics and Environmental Sustainability: ambivalence and effects. Centre for the Study of Environmental Change, Lancaster University.
- Maniates, M. (2002) Individualization: Plant a Tree, Buy a Bike, Save the World? In Princen, T., Maniates, M. & Conca, K. (Eds.) *Confronting Consumption*. Cambridge, MASS, The MIT Press.
- Mannetti, L., Pierro, A. & Livi, S. (2004) Recycling: Planned and self-expressive behaviour. *Journal of Environmental Psychology*, 24, 227-236.
- Martin, M., Williams, I. & Clark, M. (2006) Social, cultural and structural influences on household waste recycling: A case study. *Resources, Conservation & Recycling*, 48, 357-395.
- Martin, L. H., Gutman, H. & Hutton, P. H. (Eds.) (1988) *Technologies of the Self: A seminar with Michel Foucault*, Amherst, The University of Massachusetts Press.
- Mckenzie-Mohr, D. (2000) Promoting Sustainable Behaviour: An Introduction to Community-Based Social Marketing. *Journal of Social Issues*, 56, 543-554.
- Mckinlay, A. & Starkey, K. (Eds.) (1998) *Foucault, Management and Organizational Theory*, London, SAGE Publications.
- McNay, L. (1994) *Foucault: A critical introduction*, Cambridge, Polity.
- Michaelis, L. (2004) Community, reflexivity, and sustainable consumption. In Reisch, L. & Røpke, I. (Eds.) *The Ecological Economics of Consumption*. Cheltenham, Edward Elgar.
- Middlemiss, L. (2010) Reframing Individual Responsibility for Sustainable Consumption: Lessons from Environmental Justice and Ecological Citizenship. *Environmental Values*, 19, 147-167.
- Miller, P. & Rose, N. (1990) Governing Economic Life. *Economy and Society*, 19, 1-31.
- Moisander, J. & Pesonen, S. (2002) Narratives of sustainable ways of living: constructing the self and the other as a green consumer. *Management Decision*, 40, 329-342.
- Mol, A. P. J. & Spaargaren, G. (2000) Ecological modernisation theory in debate: A review. *Environmental Politics*, 9, 17-49.
- Myers, G. & Macnaghten, P. (1998) Rhetorics of environmental sustainability: commonplaces and places. *Environment and Planning A*, 30, 333-353.
- Nippert-Eng, C. E. (1996) *Home and Work: Negotiating Boundaries through Everyday Life*, Chicago and London, University of Chicago Press.
- Nye, M. & Burgess, J. (2008) Promoting Durable Change in Household Waste and Energy Behaviour: A technical research report completed for the Department of Environment, Food and Rural Affairs. Norwich, University of East Anglia.
- Nye, M. & Hargreaves, T. (2010) Exploring the Social Dynamics of Pro-environmental Behavior Change. *Journal of Industrial Ecology*, 14, 137-149.
- O'Farrell, C. (2005) *Michel Foucault*, London, SAGE Publications.
- O'Malley, P., Weir, L. & Shearing, C. (1997) Governmentality, criticism, politics. *Economy and Society*, 26, 501-517.
- Oels, A. (2005) Rendering Climate Change Governable: From biopower to advanced liberal government? *Journal of Environmental Policy & Planning*, 7, 185-207.
- Ölander, F. & Thøgersen, J. (1995) Understanding consumer behaviour as prerequisite for environmental protection. *Journal of Consumer Policy*, 18, 345-385.
- Olli, E., Grendstad, G. & Wollebaek, D. (2001) Correlates of Environmental Behaviors: Bringing Back Social Context. *Environment and Behavior*, 33, 181-208.
- Owens, S. (2000) Engaging the Public: Information and Deliberation in Environmental Policy. *Environment and Planning A*, 32, 1141-1148.

- Reckwitz, A. (2002) Toward a Theory of Social Practices: A Development in Culturalist Theorizing. *European Journal of Social Theory*, 5, 243-263.
- Rip, A. (2006) A co-evolutionary approach to reflexive governance - and its ironies. In Voss, J.-P., Bauknecht, D. & Kemp, R. (Eds.) *Reflexive Governance for Sustainable Development*. Cheltenham, Edward Elgar.
- Røpke, I. (2009) Theories of practice - New inspiration for ecological economic studies on consumption. *Ecological Economics*, 68, 2490-2497.
- Rose, N. (1993) Government, authority and expertise in advanced liberalism. *Economy and Society*, 22, 283-299.
- Rose, N. (1999) *Powers of Freedom: Re-framing political thought*, Cambridge, Cambridge University Press.
- Rose, N. & Miller, P. (1992) Political Power Beyond the State: Problematics of Government. *The British Journal of Sociology*, 43, 173-205.
- Rouse, J. (2005) Power/Knowledge. In Gutting, G. (Ed.) *The Cambridge Companion to Foucault (2nd Edition)*. Cambridge, Cambridge University Press.
- Rutherford, P. (1999) Ecological Modernization and Environmental Risk. In Darier, E. (Ed.) *Discourse of the Environment*. Oxford, Blackwell.
- Rutherford, S. (2007) Green governmentality: insights and opportunities in the study of nature's rule. *Progress in Human Geography*, 31, 291-307.
- Shove, E. (2003) *Comfort, Cleanliness and Convenience - The Social Organization of Normality*, Oxford, Berg.
- Shove, E. (2004) Changing human behaviour and lifestyle: a challenge for sustainable consumption. In Reisch, L. & Røpke, I. (Eds.) *The Ecological Economics of Consumption*. Cheltenham, Edward Elgar.
- Shove, E. (Forthcoming) Beyond the ABC: climate change policy and theories of social change. *Environment and Planning A*.
- Shove, E. & Warde, A. (2002) Inconspicuous Consumption: The Sociology of Consumption, Lifestyles, and the Environment. In Dunlap, R., Buttel, F., Dickens, P. & Gijswijt, A. (Eds.) *Sociological Theory and the Environment: Classical Foundations, Contemporary Insights*. London, Rowman and Littlefield.
- Southerton, D., Warde, A. & Hand, M. (2004) The limited autonomy of the consumer: Implications for sustainable consumption. In Southerton, D., Chappells, H. & Van Vliet, B. (Eds.) *Sustainable Consumption: The implications of changing infrastructures of provision*. Cheltenham, Edward Elgar.
- Spaargaren, G. & Van Vliet, B. (2000) Lifestyles, consumption and the environment: The ecological modernisation of domestic consumption. *Environmental Politics*, 9, 50-76.
- Staats, H., Harland, P. & Wilke, H. (2004) Effecting Durable Change: A Team Approach to Improve Environmental Behavior in the Household. *Environment and Behavior*, 36, 341-367.
- Triandis, H. C. (1977) *Interpersonal behavior*, Monterey, CA, Brooks/Cole.
- Ungar, S. (1994) Apples and Oranges: Probing the attitude-behaviour relationship for the environment. *Canadian Review of Sociology and Anthropology*, 31, 288-304.
- Warde, A. (2005) Consumption and Theories of Practice. *Journal of Consumer Culture*, 5, 131-153.