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Is it easy being green? On the dilemmas of material cultures of household sustainability

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Abstract

In the 1970s 'greens' were normally thought of as radicals because of their uncompromising political views about sustainability, non-violence, social justice and grassroots democracy. Sometimes greens were marginalised as 'tree-huggers' because of their affinity with the non-human world. Today, in popular discourse, 'green' provides the centre of sustainability gravity (Barr 2003). Green has become a definitive reflection of what individuals are to become as both consumers and citizens. It is easy, it is said, to be green. This is evident from product branding to categories used in government survey results to describe the 'most acceptable' household practices. But as green is drawn into the mainstream of politics and commerce, there are both possibilities and problems. The possibilities are self-evident. The more one might be defined by a 'green identity', the more likely everyday decisions will be informed by choices, attitudes and practices that purport to be 'environmentally friendly'. Individuals start to reflect on everyday practices. Is the tap running as I clean my teeth? Am I carrying my shopping home in a plastic bag? Can I take public transport? But the problems are just as evident. The more green life becomes mainstreamed, the more it shares with consumerism, becoming trendy among the young and affluent and lacking creativity as certain personal actions and consumer products become coded as the 'right' green choices.

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Chapter 2

Is It Easy Being Green? On the Dilemmas of Material Cultures of Household
Sustainability

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Introduction

In the 1970s 'greens' were normally thought of as radicals because of their
uncompromising political views about sustainability, non-violence, social justice and
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Am I carrying my shopping home in a plastic bag? Can I take public transport? But the problems are just as evident. The more green life becomes mainstreamed, the more it shares with consumerism, becoming trendy among the young and affluent and lacking creativity as certain personal actions and consumer products become coded as the 'right' green choices.

We think this path towards redressing human-induced climate change – focusing on 'greening' the behaviour of households vis-à-vis material forms of consumption – is problematic. At the very least assumptions ought to be examined about the supposed ease with which households are to transition towards a set of 'more green' behaviours. As Mike Hulme (2008: 5) has argued, this kind of 'constructed policy goal is unlikely to be one around which the world will be re-engineered willingly'. But also, it seems, assumptions about being green in one's personal conduct and consumption behaviour have quickly become normative, with uncertain potential consequences. Among the risks is that a set of class- and culture-specific practices become entrenched as 'green'.

Our desire to challenge assumptions about what might constitute 'green' household behaviour and the ease with which it is embraced, is borne not of scepticism about climate change, nor from any hesitation about the need to act urgently. Indeed, like Paul Chatterton (2010) and many others, we agree that something radical needs to be done about how we, as humans, use fossil fuels as the basis of an urban industrial capitalist system that for human advantage generates torrents of resource extraction, production and consumption.

Our concerns with the presumption that households can readily make a difference by being more green are instead about dilemmas of practice and

circumstance: firstly, that being green may not in fact be so easy or its choices self-evident; secondly, that an emphasis on sustainability in terms of green consumption masks a necessary critique of the industrial capitalist imperative to produce ever more stuff to consume; and thirdly, that embedded in some green sustainability scripts is a placelessness that belies how geographical context and social and cultural meanings vary, thus altering the entire landscape of what sustainability might mean for households. In our work the spatial context we are addressing is both domestic space (referred to as the meso level by Louise Reid, Philip Sutton and Colin Hunter 2009) and the surrounding city. Their relationality to each other and to wider spatial contexts is a dynamic process demonstrating both continuity and change.

We work as a team across a number of interrelated projects on households, sustainability and cultural practices in Wollongong, a small industrial city 80 kilometres to the south of Sydney. Here, understanding and acting on the imperative to be sustainable is refracted through a number of contingencies: Wollongong's industrial heritage (steel, coal) means that it has been 'carbon central'; that these industries are still active means that a substantial proportion of the city's population are not only employed in industries that may be affected by future legislative attempts to reduce national carbon emissions, but that also, within households in Wollongong, individuals are also *producers* of carbon emissions in an industrial sense (Gibson et al. 2011). This produces a rather objectionable situation where federal and state governments are encouraging households to 'be more green' in their consumption behaviour, amidst policy shifts that are believed by some to threaten the region's industries, and thus the livelihoods of those same households trying to do the right thing by the environment in their consumption behaviour. Wollongong's history of being a city exposed to

fluctuations of global commodity and manufacturing markets means that there are also territorial loyalties and suspicions here that lurk beneath sustainability discourses. The imperative to 'be greener' has for many Wollongong households become framed as yet another example of local people being penalised by state and national governments and global political manoeuvrings.

But the regional setting complicates matters further: for instance, sceptical framings of climate change have been almost absent from the pages of the city's tabloid newspaper, the *Illawarra Mercury*.[1] Instead, in the context of discussions about a carbon pollution trading scheme, climate change has been framed locally through intersecting discourses of green governmentality, civic environmentalism and ecological modernisation. Readers of the *Illawarra Mercury* are presented with an editorial perspective that accepts the science of climate change, but that selectively chooses discourses about what should be done about it: readers have been 'sold' the need for climate change action because of the impending threat of floods, sea-level rise and bushfires locally, rather than appealing to any altruistic desire to 'save the planet' (that generic prompt assumed to motivate households in the normative 'green' sustainability script). In turn, sustainability in Wollongong is most commonly presented in local media as an agenda beginning in the home rather than at the city's steelworks, for fear of criticising Big Industry in Wollongong (see Hinchliffe 1996). Another influence is the city's unique material geography – a coastal port city hemmed into a narrow coastal strip due to a dramatic, heavily forested escarpment, with 60 kilometres of high amenity surfing beaches. Local concerns about climate change are rendered tangible by

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[1] In preparation: Waitt, G., Farbotko, C. and Criddle, B. Steelworks, emissions and frogs: framings of climate change in an Australian newspaper (1997–2008).

newspaper front pages with headlines about job losses at the steelworks resulting from national policy shifts to reduce carbon emissions, or showing maps of which beachside suburbs will lose land and houses in the event of a rise in sea level. The result is a regional context where the binaries that are assumed to characterise the climate change debate globally (sceptics versus 'believers') simply do not hold true, with a far more contradictory mash of competing discourses at play.

This, then, has been the setting for our various research projects seeking to explore household cultures of sustainability in Wollongong.

With these regional idiosyncrasies in mind, in the remainder of this chapter we discuss some of the *dilemmas of household sustainability* as observed in our research in Wollongong (Gibson et al. 2011). Ours is not a hostile response to those who might wish to promote sustainability, but rather a critique of how the purpose of 'green' action is pegged to an all too easy script of transformation about education, altruism, motivation and behaviour. Sustainability has long been recognised as having multiple and contested meanings. Reduced greenhouse gas emissions to mitigate climate change can be understood as a recent subset of wider sustainability concerns. Some of the dilemmas occur when 'sustainability' behaviours are at cross purposes, for example when rainwater tanks to save mains water require installation of an electric pump to bring the water into the house. But we also want to identify the complexities of incorporating normative behaviours into everyday life.

An increasingly normative script – evidenced, for instance, in the New South Wales government's advertising campaigns on billboards and television about reducing carbon emissions by lowering the temperature of air-conditioners – suggests that

transformation can be realised by educating people on the need to respond to the challenge of climate change. It appeals to altruistic feelings about doing the right thing by the environment, and assumes that this single motivation will henceforth inform motivations to behave (that is, consume) in ways that are 'green' (pro-environmental) rather than damaging. What our research in Wollongong has found is that things are not nearly so linear. Rather, questions of household sustainability need to be understood in terms of contradiction and ambivalence (Hobson 2003, Davison 2008). The key is to understand the dilemmas of sustainability for households as emergent in the material circumstances of everyday life – how such dilemmas surface and escape resolution. Below we structure our discussion accordingly, around a taxonomy of dilemmas: how to account for the carbon implications of different forms of material consumption in the household; the moralities of material sustainability; and the household in its social context.

To clear space for such a discussion, we have shorn from this chapter the question of how to theorise 'the household'. Suffice to say that the theoretical perspective we bring to this chapter is one informed by the material turn in cultural geography (one increasingly concerned with how bodies, ideologies, technologies and materials are involved in the co-constitution of space) and more specifically by research into the geographies of home (Blunt 2005, Blunt and Dowling 2006, Gorman-Murray 2006, Gregson and Beale 2004, Power 2009) and the situated entanglements of household sustainability (Hobson 2006, Lane, Horne and Bicknell 2009). Such research materialises sustainability in the cultural contexts of home, and conceptualises household practices as spatial expressions of identity work and shifting meanings of domesticity. It also confirms the porosity of home spaces: the various ways of

maintaining, or breaking, linkages outwards into wider social, technological and regulatory networks that comprise suburbs, cities, regions and nations. From this perspective, households are not detached units but rather situated in contexts, relationships, 'enrolled networks' and processes of all sorts that guide normative behaviour (Gibson et al. 2011).

Also ejected from this chapter in the interests of brevity are lengthy explanations of the methodologies used in our various research projects. At various points we draw selectively from a baseline survey of households – entitled 'Tough Times? Green Times? A survey of the issues important to households in the Illawarra' (henceforth 'Tough Times? Green Times?') – which was compiled using various quantitative measures to support a key flagship project – 'Making Less Space for Carbon: Cultural Research for Climate Change Mitigation and Adaptation' ('Making Less Space for Carbon'), a project funded through the Australian Research Council's Discovery Projects scheme. The baseline survey was the project's first key activity, involving postal distribution in July 2009 of the hard copy survey to 11,555 households, in eight suburbs in metropolitan Wollongong (stratified to account for distribution across quintile income categories). Of this number, 1,465 surveys were completed – a 12.67 per cent response rate. Statistical tests indicated that there was *no* significant difference between the sample population and the total metropolitan Wollongong population as enumerated in the 2005 Australian Census by household composition, number of people in households, total weekly household income, dwelling type, age, education and employment. It can thus be relied upon as a statistically representative sample for the City of Wollongong. In this chapter we frequently report on results of the 'Tough Times? Green Times?' survey to illustrate our contentions about the dilemmas of

sustainability.[2] Orbiting around the 'Making Less Space for Carbon' project have been a
constellation of other projects, some large (such as PhD research topics and longitudinal
ethnographic work undertaken by ourselves and post-doctoral fellows); others such as
honours research, which has been more contained. We occasionally also draw on key
insights from these projects in this chapter.

Accounting for Material Sustainability in the Household

Straightforward dilemmas arise from our concern that it seems possible to embrace
green rhetoric and craft a 'green identity' through purporting to have a green attitude,
being knowledgeable about the 'environment' and purchasing environmentally-friendly
products –without making significant reductions in the consumption of resources. At the
heart of this are tensions between awareness of what constitutes 'green' consumption
and actual measurements of energy and water use tied to instances of consumption – as
well as further contradictions between certain practices at the level of individual
households.

From statistical modelling in our 'Tough Times? Green Times?' survey it was
clear that households already committed to behaviours normatively understood as pro-
environmental (recycling, composting) were more likely to express an interest in
climate change, a preparedness to change household behaviours, as well as optimism for
mitigating greenhouse gas emissions and reducing the potential risks of bush fires and
rising sea levels. In comparison, the households categorised as 'reluctant' by their
collective environmental behaviours were more likely to express a lack of interest in

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[2] For a more comprehensive explanation of method, and statistical analysis of this data see, in preparation, Waitt, G.,
Caputi, P., Head, L., Gibson, C. and Gill, N. Tackling climate change through reduced consumption? A two-stage
cluster analysis of household consumption dynamics. Under consideration for *Global Environmental Change*.

climate change, and were more fatalistic and fearful about the future implications of greenhouse gas emissions. This was not entirely unexpected.

However results of 'Tough Times? Green Times?' also suggested that income, household consumption, education and length of residence were not consistent in differentiating between households actively engaged in normatively constituted 'pro-environmental' behaviours. In cluster analysis of strength of commitment to everyday practices of pro-environmental behaviour, we were struck by how households with 'strong', 'modest' and 'limited' commitments were represented across diverse social groupings and educational levels. And while some pro-environmental practices had become habitual for most households across socio-economic groups (such as recycling, using 'green bags' rather than disposable plastic bags, turning off taps and lights, putting on an extra layer of clothing before turning up the heating and donating used clothing to charities), even the majority of strongly committed households did not report regularly walking to the shops, growing their own fruit and vegetables or purchasing organic food, fair-trade products or recycled toilet paper. There therefore appear to be limits within which even strong consumer households are either able or prepared to embrace practices thought of as pro-environmental.

There were ambiguities too in patterns of consumption outside the realm of pro-environmental behaviour, around air-conditioner use and ownership of fridges and clothes driers. The poorest households (in income terms) had the fewest fridges (74 per cent of households in the lowest income bracket had only one fridge, compared with 33 per cent in the highest income bracket); and household and family types normally understood as socio-economically vulnerable, such as single parent families and retirees living alone, also had fewer fridges (75 per cent and 85 per cent, respectively, had only

one fridge). By contrast, in the highest income bracket the norm was to own two fridges (49 per cent), or even three or four (25 per cent of highest income households). But even this seemingly direct correlation was made more complex when compared against other variables: those holding bachelor or honours degrees from universities were as likely to own two, three or four fridges as those with basic Year 10 high school as their highest level of educational attainment; 43 per cent of two-person households felt the need to own two fridges, while 36 per cent of six-person households managed to get by with just one.

Beyond fridges, the contradictions expanded exponentially: the wealthiest bracket of households were twice as likely to install solar power (although still in very small numbers) as the poorest, but were also the most prevalent users of air-conditioning. The poorest households were most likely to say that they were 'uninterested' in climate change as an issue (22 per cent of the lowest income bracket, compared with 3.6 per cent of the highest income bracket), but they were also the least likely to own LCD or plasma screen televisions or clothes dryers. The poorest households were also the most likely to repair clothing, to use toilet paper made from recycled paper; to buy 'environmentally-friendly' detergents; to reuse glass bottles and jars; and to save water by taking shorter showers (indeed, by a huge margin: 44 per cent of the lowest income bracket 'always' took shorter showers, compared with 5 per cent and 15 per cent of the two top highest income brackets). Those with higher levels of educational qualifications (bachelor, honours and postgraduate university degrees) were equally likely to use air-conditioning habitually during summer as were those with basic high school education (Year 10 or below), but current students, as well as the unemployed, were the least likely to use it. Baby boomers were the least likely to be

sceptical about climate change, but the most likely to fly five times or more in a 12 month period. And so on and so on, across a myriad of types of consumption within households from kangaroo meat eating to energy-saving light globes.

All this is then rendered more complex again if we question the actual emissions embedded in different products and the processes connecting them to the household. Does the travel impact of items sold on eBay outweigh the recycling value? Do the greenhouse gas emissions used in the production of certain types and scales of food far outweigh transport emissions, as some New Zealand-based work on milk has suggested (Saunders, Barber and Taylor 2006), turning the injunction to 'eat local' into a misguided if not dangerous assumption? (See also Johnston, Biro and MacKendrick. 2009). Recent energy use studies by Choice, the Australian consumer group, demonstrated that even in one electronic appliance – digital set-top boxes – standby and on-power energy use can vary as much as 400 per cent across different brands, all within the same price bracket (Choice Australia 2009).

Householders' concern to do the right thing vis-à-vis consumption of material goods is undercut by obfuscation of their actual environmental impacts. Clothing is a prime example. Chris Gibson and Elyse Stanes (2010) tracked the emergence of 'green fashion' as a new trend in clothing marketing, exemplified by the incorporation of organic cotton into mainstream production of jeans (Levis) and T-shirts (Marks & Spencers). But what isn't clear to consumers is the sheer amount of energy consumed during cotton processing, ginning, balling and dyeing, or the geographical variability of cotton production (in Israel, for instance, cotton production requires 7,000 litres of water per kilogram, while in Sudan the figure is more like 29,000 litres; Fletcher 2008).

The picture is complicated again when material goods whose environmental consequences have already been obfuscated are inserted into the material-cultural geographical spaces of the household. Again, clothing provides a stark illustration. Here meeting the essential human need to be covered intersects with fashion as a *cultural* industry, promoting particular forms of consumption as social practices, where fashion is central to the production of self-identities and a way of marking the body with meaning. Most people own more clothing than is necessary, replace perfectly useable items with changes in season and trends, and wash clothing more often than is needed. In this context fashion branded as 'eco' or 'sustainable' becomes a means to accumulate cultural capital; a new moral economy 'ultimately constrained by the size of niche markets' (Bassett 2009: 2, see also Beard 2008) – while leaving intact the holy grail of more sales and consumption. And there are yet more contradictions about the ways people relate to clothing as fashion. Undertaking ethnographic work on the cultural economy of clothing consumption of young people in Wollongong, Gibson and Stanes (2010) found that those most likely to consume far more clothing than they needed were also the most likely to consider environmental sustainability when making purchases (they were most likely to buy organic cotton jeans or other items of clothing marketed as more sustainable). By contrast, those least likely to buy large amounts of clothing (people describing themselves as frugal or even 'anti-fashion') frequently bought clothing that was cheap, made of poor quality textiles and that carried a heavy environmental burden. When all of these kinds of contradictions and complexities are factored in, exactly where households sit on a balance sheet of accounting for environmental impact becomes decidedly unclear.

Moralities of Material Sustainability

Efforts such as improving sustainable transport and encouraging energy-saving consumption in the home stem from examining what kinds of activities produce bad climate change outcomes. But the theory behind public education campaigns is not particularly responsive when it comes to understanding underlying human behaviour, needs or desires (Malpass et al. 2007). Understanding the household as a site of homemaking practices and a nexus of intersecting ideological and technological relations points to questions of what ethical worlds inform everyday practices, and precisely where altruism comes into play – if at all. What is critical here is that morality emerges from within social practice, not simply out of an aspiration towards abstract altruistic ideals (Gough 2010). The environment is just one line of responsibility being juggled in acts of consumption, which necessarily serve different anticipated needs (Dowling 2000, Burgess et al. 2003). As Kersty Hobson (2006) demonstrates, situation-specific ethical moments come into play. Urging householders to behave responsibly in these moments has its limits, with what constitutes 'responsible' behaviour being developed within social worlds such as households, rather than abstractly distant from them. Hence morality is informed by a sense of social justice; of doing right by one's family, neighbours, friends; by domestic moralities (how best to bring up kids or to ensure their safety); and also by norms of cleanliness, comfort, convenience and waste (Shove 2003, Hawkins 2006) – all of this occurring in the shifting spaces and moments of personal decision making within households.

Financial imperatives and changes in household structure appeared to both override and intersect with concerns about the carbon implications of behaviour. In 'Tough Times? Green Times?', when asked for the primary reason for any change in

energy consumption or car use in the past 12 months, financial imperatives and changes in household structure always outnumbered explanations based on responding to the problem of climate change. For instance, of those who said that they had experienced a change in personal car use over the previous 12 months, only six per cent registered climate change as a factor, compared with 41 per cent citing being made redundant and 19 per cent having recently retired. This is not to say that environmental ethics are not present: where respondents recorded a change in household energy use, the most commonly cited reasons did include 'purchasing energy-efficient appliances', 'purchasing green power' and 'concern about climate change'; but these were, statistically speaking, *mixed up* among other reasons cited, including increased cost of power; a change in the number of people in the household; recently having a baby; becoming unemployed; or retiring from work.

It must be emphasised too that social practices, cultural norms and the material spaces of the home are iteratively linked: none come pre-formed or absolute. The techniques of design matter, for instance, because they relate to (and are in turn influenced by) shifting everyday practices: some designs for appliances (such as standby circuits on DVD players), furniture and home interiors 'ratchet' up consumption in ways that are difficult to reverse (Shove 2003, Shove et al. 2007); other forms of design create more malleable objects that can be put to different purposes, extending the life of products or orientating them to new uses. An example of where these dilemmas can be thought through is that of big houses, recently built in master-planned estates. Such houses (and estates) are often condemned for their ideological imprint of mass consumption ('McMansions'), but are also valued by families for their sense of open space and flow (see chapter 5 in this volume). It is true that most houses

in new estates have been designed with no eaves to maximise indoor house space on the available land, which means high energy bills for both air-conditioning in summer and heating in winter (through elimination of the 'passive' design quality of eaves allowing or deflecting sunlight differentially in different seasons). Although per capita floor space has increased dramatically in recent years, those same houses do have ample space to include more people if future family size and living patterns shift (potentially reducing the overall per capita footprint); and they do enable families to hoard things for future reuse. Indeed we would do well to debate further the politics of hoarding (Gregson and Beale 2004, Lane, Horne and Bicknell 2009): is hoarding an outcome of overconsumption, or a practice that reduces waste disposal and enables future reuse?

Larger houses may be used to enable extended families (grandparents and couple families with children) to co-habit. Sometimes co-habitation involves altering the footprint of buildings, converting garages into granny flats or expanding homes through extensions and extra floors – adaptations that enable co-habiting families to live 'under the one roof', but as separate families: 'living together but apart'. These arrangements, predicated on living in large houses, at times enable the sharing of resources (such as food) and responsibilities (such as child care) in ways that are likely to reduce per capita consumption.

By comparison, small houses and apartments have their contradictions: they encourage careful purchasing of items for fear of crowding, but also force people to throw out goods more frequently, exacerbating the voluminous throughput of consumables. This is especially so in cities, where small footprint homes (especially apartments) are linked to the gradual downward shift in average family size – itself a problem for sustainability because of the resultant replication of household

infrastructure and energy use across a larger number of household units (Lenzen, Dey and Foran 2004).

The use of washing machines, as evidenced in 'Tough Times? Green Times?', demonstrates some of this complexity. Frequency of use appeared consistent across households of all *sizes* (that is, there was no noticeable efficiency gain for larger or smaller households, in terms of numbers of people), but it did vary by household *type*, with extended family households using the washing machine about as often as couple families with children. This suggests that extended families are doing 'communal' clothes washes as a matter of course, consequently meeting the laundry needs of two (or more) co-habiting families with about the same number of washes. Other family types used the washing machine differently, for instance each family member in a nuclear family running a separate wash – with resultant impacts on water use. For dishwashers the story was similar: one person households were least likely to own a dishwasher, or use one daily if they did (washing by hand or saving up dirty dishes to wash every couple of days), while extended families used a dishwasher slightly less often than couple families with children (48 per cent and 55 per cent, respectively, used a dishwasher most days or daily). In other words, as the structure of households and material spaces of co-habitation change so too do the ethics and pragmatics of social worlds begin to shape decisions about resource use, sharing and consumption.

The manner in which the morality of household consumption is shaped by industry logics is also relevant here: in the case of gardening practices such as lawn maintenance and watering, by the petrochemicals industry and privatised utility supply companies (Askew and McGuirk 2004, Robbins 2007); in the case of household cleaning products and behaviours, the petrochemicals industry (again) and the

marketing of disinfectant products appealing to fear of germs and post-Second World War norms of cleanliness. In clothing, the pervasiveness of an industry-generated fashion cycle has meant that enormous amounts of clothing production and consumption occur on a seasonal basis, a product of conspicuous consumption rather than basic need (Gibson and Stanes 2010). The fashion cycle has sped up, too: in response to losing manufacturing to China, the US textiles industry deliberately restructured production systems to enable what is known as 'fast fashion' (Doeringer and Crean 2006), whereby localised US manufacturers respond to street fashions practically instantaneously (rather than designing the traditional twice-yearly 'new season' lines). Shops can now change product lines every month if they so desire, thus maximising sales as consumers are tempted by more frequent updates in item availability. The result is a higher overall consumption of clothing and the incorporation of larger wardrobes into house design, which in turn establishes the conditions for further accumulation of clothing (Gregson and Beale 2004). Accordingly, Clive Hamilton and colleagues (2005) estimate that approximately A$1.7 billion dollars is spent annually in Australia on clothing that is not worn.

A spotlight also needs to be cast on the dispersal of fashion cycle logics – originating in the clothing industry – into industries where they once did not apply. Scott Lash and John Urry (1994) described this as the symbolic economy; an enculturation of all forms of production with cultural logics of taste and fashion signification. Computers that were once drab beige or grey boxes are now designer products (thanks to Apple) to be replaced regularly as colours and features change. Home interiors need replacing not because furniture has been broken or because paint needs refreshing, but because art deco 'is in', or fabrics and colours go in and out of

style. That this is so is more than mere individual greed or vanity; it is entirely to be expected in a world where cultural capital is a measure of self-worth and where awareness of how others perceive you is paramount.

Amid this swirling mix of industry logics, societal norms and ethical responsibilities to the environment, family, society and self are the lived moments of decision making about everyday practices around the home. Trade-offs between different goods/evils become dilemmas: is it worse to waste the water to rinse out tin cans than to put them in the recycling bin dirty? Is it worse to use plastic supermarket bags for bin liners, or to take reusable green bags to the supermarket but then buy dedicated bin liners? Beyond the need for better calculations of these sorts of trade-offs are dilemmas of time management and everyday household practice. How much time do well-intentioned people spend thinking these choices through or debating them within a household? In our survey 30 per cent of respondents said they felt rushed or pressured for time 'frequently' or 'always' and a further 40 per cent felt rushed or pressured for time 'sometimes'. Less than 5 per cent 'never' felt rushed or pressured for time and only about the same percentage said that they 'frequently' or 'always' had spare time that they didn't know what to do with (contrasting with 30 per cent who 'never' had spare time). We asked our survey respondents to record any arguments they had in their household about recycling, reusing or reducing their environmental footprint – expecting them to be prevalent. But only just over 10 per cent admitted that arguments occurred, evidence perhaps that households simply do not have the time to undertake the required 'thinking work' around sustainability. Beyond the scope of our survey are further questions about which members of households undertake this 'thinking work':

who feels guilty; is it worth it, and what could be the outcomes if the same amount of effort was invested elsewhere?[3]

The Household in Social Context: What are the Carbon Implications of Social Processes and Trends?

A third dilemma of sustainability stems from the social actions of households, rather than from material products consumed. For example, how many vehicle kilometres are expended each weekend in the pursuit of children's sport? Could we quantify the environmental costs of divorce in terms of the expanded number of households? How many Australian children have two bedrooms as a consequence of separated parents?

How households entertain themselves similarly remains ignored in research on household sustainability. Entertainment should be considered an essential element of human existence: we need food, shelter, clothing *and* also pleasure. Music, art, dance, acting, having sex, eating for taste not just nutrition, socialising, gossiping and laughing are part of all functioning human societies across times and places. Because how we gain pleasure – how we entertain ourselves – is a basic part of life, it thus ought to be a crucial part of the climate change equation.

In 'Tough Times? Green Times?' we asked participants how they entertained themselves, how often they went out, what they did, and whether this had changed (and why). Nearly half the respondents had recorded a noticeable change in going out for entertainment in the last 12 months – of these three-quarters had reduced their social outings. Of the reasons given for changes in social outings, climate change was the least

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[3] V. Organo, L. Head and G. Waitt, 'Who does the work in sustainable households? A time and gender analysis', in preparation.

common (about 2 per cent), compared with the global financial crisis (25 per cent), having recently retired and health concerns (about 20 per cent each), unemployment, moving closer to or further away from friends, and having a baby (each about 10 per cent). As a consequence, households stayed home more often, ate out less and spent less money on the cinema, festivals, live theatre or music. This so-called cocooning has potential implications for sustainability given that that research which has sought to account for the ecological footprint of mass entertainment – principally festivals (Gibson and Wong 2010) – has shown that there are contradictions that play out in the specifics of cultural practices. Staying at home more means fewer trips in cars, reducing fuel dependency, but also atomised modes of entertainment whereby separate household units need energy to watch television, and to light and heat their homes. At festivals (and presumably too at cinemas, theatres and live music venues) energy use is by contrast borne collectively, meaning lower per capita carbon emissions.

These dilemmas of social practice become even more complicated if we then analyse the meaning of eating out socially, the contributions festivals make to public culture, or the thrill of the eBay hunt and its associated sociality. They take us to the heart of how symbols, habit, knowledge and practice are entwined in our daily lives.

Conclusion

In this chapter we have sought to respond to Mike Hulme's (2008) challenge to enculturate climate change research, with particular regard to governmental compulsions towards 'green' behaviour amongst citizens. As the hub of domestic consumption, households are increasingly encouraged to consider and reduce their greenhouse gas emissions. But as we have sought to show here, the household as a site

of material cultural relations is far more complex than policy sound-bites about the 'green home' might suggest. The burdens and the productive possibilities associated with such reductions are unevenly distributed spatially into future times and places. Our survey and ethnographic work in Wollongong challenges long-held ideas that cities, households or individuals categorised as working class are less likely to be engaged in 'environmental' action. Changing patterns of household behaviour, across a socio-economic continuum, were driven more often by cost and changing household social circumstances, rather than concerns about climate change. But climate change is part of the mix.

This work also unsettles the idea that consumption itself is 'bad'. For those who are poor, consumption equals survival, while the desire to move beyond imminent crisis into consumption for luxury remains a strong – if likely unfulfilled – emotional pull. How willingly will people accept 'being greener and poorer', given that sustainability assumes a certain amount of 'loss' of lifestyle and material ownership (Humphery 2010)? And if they reject it, how might this translate into politics, meaning perhaps that governments take retrograde steps, or at best run platforms of tokenistic, techno-centric solutions rather than real change? Rather, we need to think through more nuanced ways in which consumption in interaction with other social and industrial processes (Shove 2003) produces dilemmas that are difficult to resolve; we may need to accept that there are multiple readings of sustainability for households.

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