

Introduction

Alan Warde
Helsinki Collegium for Advanced Studies

Dale Southerton
University of Manchester

Preamble: Social sciences and sustainable consumption

This volume arises from a Symposium ‘Social sciences and sustainable consumption’ held in April 2011 at the Helsinki Collegium for Advanced Studies.¹ The Helsinki Symposium built, in turn, upon a series of seminars, ‘Alternative approaches to sustainable consumption’, held at the Sustainable Consumption Institute² of the University of Manchester in 2008. At the core of these events was a concern to understand the consequences of habitual behaviour for the sustainability of contemporary patterns of consumption.

Debates around mitigating climate change increasingly focus on consumption. Studies of consumption address many relevant issues including: the material flow of goods across space and time; affluence and materialism as dominant aspirations and values; the appropriation and diffusion of technologies; and, processes related to the innovation and production of more or less resource-intensive goods and services. However, recent popular and scientific attention has focused most sharply on ‘behaviour change’ – the basic presumption being that only if consumers (people), *en-masse*, change how they live their lives can a more environmentally sustainable future be achieved. Despite this being a generically sensible premise, how behaviour is conceptualised and how it comes to change is subject to much theoretical dispute and conceptual confusion. Such tensions are laid-bare when it comes to the notion of habits. The articles in this volume, prepared for the Helsinki Symposium, interrogate, from different disciplinary positions, theoretical approaches to understanding behaviour change. A shared focus is the notion of

1 www.helsinki.fi/collegium

2 www.sci.manchester.ac.uk

habit, a mode of action not much considered by orthodox models of consumption behaviour but critical to sustainability.

At the Helsinki Symposium the issue of sustainable consumption served as the *raison d'être* for theoretical discussion and it made mutual inter-disciplinary understanding more than usually clear. All contributors, despite espousing different theoretical perspectives, could agree that established patterns of consumption present a major problem for sustainability and that to change everyday behaviour would be necessary, even if difficult to achieve. However, the issues of sustainability are not always directly discussed in the articles, attention often being devoted primarily to the social scientific foundations of theories of action which are too infrequently considered given the different light that they cast on political and practical issues.

It was widely agreed in the symposium that, in relation to sustainable consumption, behaviour change required understanding the phenomenon of habit. However, no consensus about how to analyse habit was available. It was as if every discipline has a place for it in its own jigsaw of concepts, but that the pieces were of different shapes and therefore not mutually transferable; the pragmatist's concept of habit could not be inserted into the vacant space in the economist's picture, nor the psychologist's into that of Sociology. It remains to be seen whether inter-disciplinary dialogue can deliver a remedy.

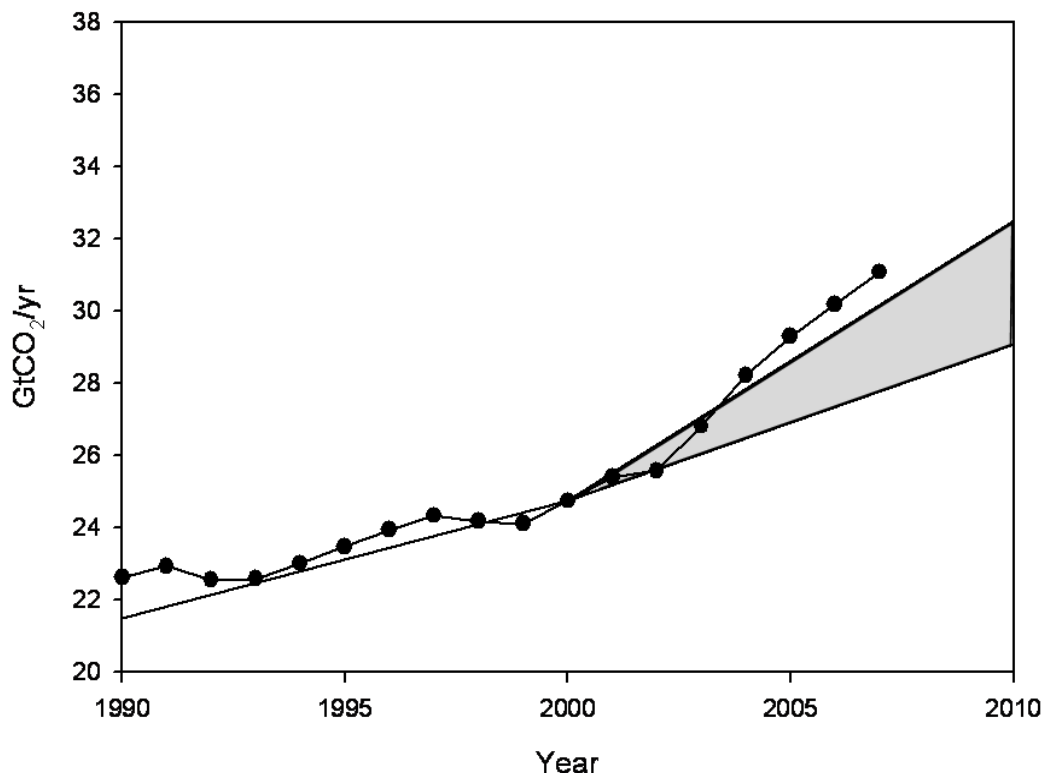
The problem of sustainable consumption

The environmental sustainability of consumption is fast becoming an intractable contemporary problem. Put simply, despite some progress in reducing the ecological impacts of supply chains and some substitution by consumers of more for less sustainable goods, overall levels of consumption continue to rise with corresponding increases in the ecological impacts of everyday lives (Munasinghe *et al.*, 2009). Recent climate science presents a worrying scenario of escalating emissions and temperature effects. Containment of increase to two degrees Celsius looks ever less likely (Anderson and Bows 2011). Urgent societal responses continue to be called for, with claims that climate change constitutes the most dramatic challenge that modern capitalist economies have yet faced (e.g. Stern 2007). That challenge is all the greater because of the historically slow pace of the type of social, cultural and technological changes which appear necessary.

The scale of the problem is starkly illustrated by recent reports, which reveal that carbon dioxide emissions are rising more quickly than the average estimates in the worst case scenarios of the Intergovernmental Panel on Climate Change's (IPCC) 2007 Special Report on Emissions Scenarios (Richardson *et al.* 2009).

This is illustrated in figure 1, in which the dotted line shows carbon dioxide emissions as measured by the Carbon Dioxide Data Analysis Centre³, which have risen above the range of averaged IPCC future scenarios (shown in grey). Three factors are widely identified to explain the continued sharp rise in carbon dioxide emissions: population growth; the close correlation between GDP growth and carbon dioxide emissions; and socio-demographic trends related to ageing, single person households and the rising percentage of people living in cities (Minx et al. 2009). To this can be added the trajectories of 'developing countries' which, at a generic level at least, are on course to increase consumption to match levels in the currently more affluent societies of the Global North. What connects these 'drivers' of escalating carbon dioxide emissions is that all relate to rising volumes of resource-intensive forms of consumption.

Figure 1. Carbon dioxide emissions in future scenarios



Note: The dotted line shows carbon dioxide emissions from the Carbon Dioxide Data Analysis Centre, which have risen above the range of averaged IPCC SRES scenarios for future emissions, shown in grey. (Data provided by Pep Canadell and Mike Raupach at CSIRO Marine and Atmospheric Research Global Carbon Project (www.globalcarbonproject.org) as an update to Raupach, Marland et al, 2007.)

Despite the increasing weight of evidence of the relationship between escalating consumption and ecological impacts (Jackson 2009), debate remains concentrated primarily on efficiency gains. The mantra of simultaneously addressing the sustainability of production and consumption is well rehearsed, but the relationship between the two remains under-specified and all too easily packaged in terms

3 See www.co2now.org/know-GHGs/Emissions/ (Accessed August 2009).

of supply and demand (Princen 2006). From the perspective of production the challenge is framed as a matter of developing less resource intensive production technology and organisation, more environmentally benign products and services, or palliative solutions (such as solar radiation management or geo-engineering), none of which require change to processes and forms of final consumption. From the perspective of final consumption, the frame of reference is even more nebulous and a matter of either consuming less or, most frequently, of making different choices about what to buy and how to live one's life. Consumption itself is treated as a relatively static affair: ways of life are, effectively, inert and merely responsive to external stimuli, while pro-environmental consumption is presented as a matter of the voluntary switching of consumer choices toward less environmentally damaging alternatives.

Arguably, attention to consumer behaviour has become the more popular option in policy rhetoric. It is hoped that changes in consumer behaviour will offer a much less expensive route to more sustainable societies than massive investment in infrastructural technology development and implementation. Even in the case of 'greener' products, attention is turning towards the question of the barriers to their widespread adoption, especially in the context of overcoming habitual consumer behaviour (Dolan *et al* 2010; Darnton *et al* 2011).

The current political fashion (at least in the UK and USA) for 'behavioural change' initiatives appears to be strongly rooted in the ideological figure of the 'sovereign consumer' who, relatively autonomously, reflects on its lifestyle, in light of available money and time, and selects goods and services to match preferences and values. (This figure of the sovereign consumer, we argue, is founded upon the portfolio model action, discussed later in this introduction.) Hence, in accounting for rising volumes of consumption, avarice and materialism (fuelled by the commercial interests of producers) are identified as the problem. This has led many to call for wholesale transformation in the socio-economic organisation of daily lives (Jackson, 2009). Where such proposals are regarded as too radical or politically unrealistic, attention shifts toward influencing consumers to make different choices when they go about their consumption. Perhaps most prominent are social marketing and information campaigns (McKenzie-Mohr 2000), which hope that individuals will conform to a model of rational behaviour, recognising that it would be only sensible to modify their ways of life and help save the planet. Where this strategy does not seem to work, recourse is had to trying to increase people's commitment to the tenets of ethical consumption (Vermier and Verbeke 2006), whether through 'bottom-up' political mobilization (Micheletti 2003) or through an appeal to the societal responsibilities of 'citizen-consumers' (Spaargaren 2003). If people held green values tenaciously and deeply enough, they might be more assiduous in turning their general sympathy for the environment into new behavioural commitments. And yet, even where we find apparently pro-environmental values they do not necessarily translate into

pro-environmental actions. For example, DEFRA (2008) demonstrates that pro-environmental attitudes are consistently higher than the percentage of people who take measures to change their behaviour. While this discrepancy can be explained partly by survey respondents not being sure about what steps they could take, the evidence suggests that the relationship between 'attitudes', 'values' and 'behaviour' is not straightforward. The 'value – action gap' reveals a critical lacuna in policies for changing patterns and forms of consumption.

The dominant basic template of consumption presents the process as one where the individual engages in very many discrete events characterised by personal deliberation which precedes personal, independent decisions made with a view to the satisfaction of preferences. Of course, all disciplinary approaches admit to contextual influences on decisions (income, subjective norms, socio-demographic characteristics, lifestyle group membership), yet nevertheless individual choice is the core presupposition, with those contextual influences considered to be available to the individual and deliberatively taken into account when arriving at every choice anew. Thus, Economics, for example, models the purchases of autonomous individuals with reference to the type, quality and/or price of products. This framing of behaviour we describe following Whitford as the portfolio model of the actor, one in which 'individuals carry a relatively stable and pre-existing set of beliefs and desires from context to context. Given the situation, they select from this portfolio "those elements that seem relevant and [use] them to decide on a course of action".' (Whitford 2002, 325). As Whitford notes, this model is hegemonic throughout the social sciences.

The model of the sovereign consumer has been challenged on many grounds, but for the purpose of this volume of articles five reasons for it being found wanting are particularly germane. First and foremost, this model equates consumption with purchase, without reference to the manner of appropriation of goods and services within the practices of everyday life. If one considers use as well as purchase, matters are complicated considerably, throwing new light on social scientific puzzles which are, for example, opaque in Economics because it has little grasp on the usage or using up of resources. If consumption is appropriation for the sake of a practice (Warde 2005), and consumption is therefore an integral part of everyday life because tools and materials are constitutive of the power to act, then the overlap between issues of consumption and those of a more general theory of action becomes apparent. In this view, there is nothing special about consumption; it is merely the use of things for the purpose of mundane conduct. Second, the extensive evidence of the social patterning of purchase suggests that 'decisions' are not purely personal. Preferences are not a simple function of personal financial resources. Rather, people conform to the norms of groups to which they are attached and social groups differ in their views of what is valuable and desirable, i.e. in their tastes. Equally important, to the extent that different groups participate

unequally in different activities, their requirements for goods and services will vary. Third, choices are not independent of one another. This is not just a matter of group membership - the existence of communities of shared taste necessarily implies that some items go with others. It is also a matter of decisions being sequential and cumulative. Past purchases preclude some options and leave gaps for new ones. People learn from experience which items give them pleasure or satisfaction. This sense of entailment of later decisions on earlier ones has been described as 'choice sets' by Levett et al (2003), though that formulation probably underestimates, and perhaps mis-specifies, the significance of the binding effects of sequence. Fourth, many items are acquired repetitiously. Some items that are routinely used up, like groceries or automobile fuel, are subject to the logic of replacement. Such repeat transactions are sometimes explained from a consumer's point of view in terms of economy of effort and thought, and of reassurance afforded in situations of uncertainty. Equally significantly, firms make very considerable investments, through advertising and branding, to try to ensure precisely repeat purchases. Fifth and finally, the role of deliberation is easily exaggerated. While very expensive and occasional purchases may entail protracted reflection and research into a range of options, a great many items of ordinary consumption, like electricity and water, are acquired and consumed mindlessly. Much of the most environmentally problematic features of consumption are invisible, unremarkable and unrecorded at the point of purchase or use. Moreover, given the unequal social division of labour of shopping, much of what is appropriated is vicarious; the end consumer has no need of deliberation if someone else does the purchasing.

Each of these five reservations qualifies assumptions that consumption, even in acts of purchasing (which is the easiest ground for the defence of the dominant model), is a matter of free individual choice. The more of these 'counter-choice' mechanisms that obtain, and the greater their intensity, the less the orthodox forms of explanation fit. Alternative accounts are necessary in order to address and capture the practical, collective, sequential, repetitive and automatic aspects of consumption. One implication might be that consumption is predicated as much on habit as on choice. Exploring the potential of analysing consumption, and indeed many other forms of activity, as strongly subject to habituation provides a common theme and purpose for the papers in this collection.

The problem of habit and the theory of action

The sociological analysis of consumption has gradually seen greater insistence on the regular, repetitious, routinised, unreflective, mundane and ordinary aspects of consumption (Gronow and Warde 2001). From repeat purchases in the supermarket to the routines of taking a shower daily, flows and sequences of actions which comprise consumption behaviour might be described as habitual (Crawford 2009;

Shove 2003). Many aspects of consumption (including that which makes expenditure patterns predictable in the aggregate) are habit-like. However, contemporary social scientists have been very reluctant to use the term 'habit', despite its apparently being a major phenomenon of social life. Minimal introspection, or observation of other people, will confirm the tendency for actions to be repeated with little or no deliberation time after time. Indeed this was considered much the most common form of action in modern societies even by Max Weber, more usually remembered for his analyses of rational and instrumental action.⁴

Despite such authoritative legitimation, habit remains a form of action that contemporary social scientists are often reluctant to acknowledge and consequently they have to hand relatively few tools for its analysis. There are many reasons for this. One is that habit is a rather dirty word in relation to everyday life and common sense, used typically in relation to 'bad' habits like addiction to alcohol, drugs and tobacco, and then by extension to other activities characterised as excessive, like shopping or eating. This predominantly negative intimation of the concept is to be understood in terms of the flourishing of ideologies of the active and autonomous individual in the West. This tendency almost entirely eclipses ideas, formerly prevalent, that most human action is habitual, and that habits may be virtuous: people may have good habits, and habits may be good for people (Bennett, 2009).

Another reason, as Crossley (2010) notes, is that scholars do not agree upon how the term should be used: "Habit" belongs to everyday language, wherein its meaning is variable and imprecise. Where it is used technically, by philosophers, sociologists and others, it is used in different ways and in the context of very different theoretical frameworks.' A useful orienting definition guiding sociological discussion has been provided by Charles Camic (1986, 1044), for whom 'the term "habit" generally denominates a more or less self-actuating disposition or tendency to engage in a previously adopted or acquired form of action'. In so far as this implies repeated performances, learned and practiced, it resonates with the themes of 'counter-choice'. However, insofar as it emphasises 'a more or less self-actuating disposition' rather than behaviour and does not specify a stable context, it differs from the predominant current definition in Psychology – 'Habit requires frequency, automaticity and a stable context' (Darnton et al 2011, 3).

There are various other reasons too. The term 'habit' has unacceptable overtones of the stimulus-response theories of mid-20th century behaviourist Psychology. In Sociology it is strongly associated with portrayals of traditional

4 In the great majority of cases actual action goes on in a state of half-consciousness or actual unconsciousness [*Unbewusstheit*] of its subjective meaning. The actor is more likely to 'be aware' of it in a vague sense than he is to 'know' what he is doing or be explicitly self-conscious about it. In most cases his action is governed by impulse or habit. (Weber 1:21-22)

rather than modern societies. It is inconsistent with the dominant neo-classical economic theory of market exchange. More generally, it jars with the dominant lay perceptions of agency, self and choice (epitomised in the figure of ‘the consumer’) and thus runs against the grain of western common sense. When occasionally examined more closely, as by Turner (1994), it is treated mostly as an individual property and thus difficult to access for the purpose of empirical investigation and analysis. Finally, as Whitford (2002) argued, it is eclipsed by another type of action – the paradigmatically privileged goal-oriented, means-end ‘portfolio model of the actor’. Being thus shunned, habit has not been subjected to conceptual refinement and is not systematically distinguished from adjacent concepts like routine, ritual, fashion, convention, norm, impulse or instinct.

This said, the term has recently made something of a comeback, being used a little more often by social scientists. Reasons for this are various, including the current diagnosis of the problem of unsustainable consumption, failures of policies directed towards behaviour change, and developments in scholarly understandings of action. A key trigger has been the arrival on the political agenda of the issue of sustainable consumption. Reflection on Western styles of life cannot avoid recognising, as Shove (2003) demonstrated, that standards of comfort, cleanliness and convenience have become normalised at environmentally unsustainable levels. Without doubt, most people would be very loath to live at standards of comfort lower than that to which they have become accustomed (Lebergott, 1993). Moreover, technologies and infrastructures (or socio-technical systems) channel key behaviours and encourage everyone to do some things regularly and in similar ways. It is not only the effects of recurrent consumption that have directed attention towards observing habituation, but also the failures of policies directed towards behaviour change. The intransigence of the value – action gap has attracted policy attention on the grounds that even where the attitudes, values and preferences of individuals change in an environmentally-friendly direction, corresponding shifts in their actions are not forthcoming. Habits are framed as confounding variables that block an individual from ‘choosing’ effectively: ‘Individuals and firms behave habitually and in response to social customs and expectations. This leads to “path dependency”, which limits their responses to policies designed to raise efficiency’ (Stern Report 2006, 381).

A complementary driver comes from the academy, where philosophers, psychologists and other social scientists have been exploring alternative theories of human action. Pragmatist philosophy, which puts the concept of habit at the centre of its theory of human action has undergone something of a revival in recent years. Some psychologists have begun to explore applications of the concept in ways that are well distanced from earlier behaviourist accounts. Also, the emergence of theories of practice in the social sciences, an approach associated initially with the work of Giddens, Bourdieu, Foucault and Sahlins (see Ortner 1984) and its

subsequent diffusion and revision (Schatzki 1996 and 2002) elevated routine and habituated action, based upon practical sense or consciousness, to the forefront of a general theory of social action. In the realm of social theory, the pendulum is swinging, if only a little, against models of the sovereign individual.

The merits of a concept of habituation include its capacity to identify mechanisms of individual conduct and social process which are presently under-appreciated. Certainly it gives some good predictions; if you want to know what somebody is going to buy next, or do next in relation to a particular practice, you are well advised to inquire what he or she did last time. Even when loaded (often somewhat inappropriately) into models of intentional individual action, operationalised as behaviour on previous similar occasions (for example in the supermarket or in a journey to work), habit makes a significant contribution to statistical explanation of outcomes. Moreover, people typically recognise, when engaged in discussion about their own behaviour, that they have habits, and indeed that they are attached to their habits. Studying newspaper reading in India, Peterson (2010, 127) reported an interviewee, a retired school teacher, who, having spent a long time describing the failings of the *Times*, was asked why he did not therefore swap to a more congenial daily, 'stared at me silently for a long time, then said: "But young man, it is my habit to read *Times of India*"!'

Clearly it is necessary to find conceptual tools which are able to deal with phenomena of this type. If habit has unattractive connotations, it behoves the social scientific community to find an alternative way to express the aspects of social reality to which the term habit pertains – namely, the practical, collective, sequential, automatic and repetitive aspects of action in general and consumption in particular. Ultimately it may be best to work with a more refined set of concepts which avoid association with simple repetition, automatic behaviourist response to stimuli, and total absence of mind. For the time being, however, we examine in a little more detail some recent social scientific work on habituated action. With reference to the five deficiencies of the orthodox model of the consumer listed above, we indicate how different schools of thought in Psychology, Sociology and Philosophy have begun to re-evaluate theories of action in the light of the deficiencies of what Kilpinen calls 'mind-first' accounts.

Different approaches, alternative solutions

Consumption in practice

Recent reformulations of theories of practice, associated with what has been called 'the practice turn' in social theory (Schatzki *et al* 2001), have been adapted

for the purpose of analysing consumption while attributing minor significance to consumer choice. Types and levels of consumption tend to be determined socially and collectively. Practice-theoretical accounts propose that consumption is less a matter of individual personal display or expression of self-identity, and more a corollary of the conventions associated with specific, socially-organized practices felt to be necessary to live a good life. Consumption is more a matter of the use of goods and services than of purchase. Participation in a practice means the requisitioning of familiar items and their regular application to well understood activities. Practice theories thus emphasise habits and routines, based on conventionally shared understandings about appropriate conduct, paying attention to both 'sayings' and 'doings' (Schatzki 1996). In some versions (e.g. Warde 2005), the theory of practice sees consumption as explained by the necessity for people to become competent exponents of the many practices which each necessarily embraces in the course of everyday life and for which particular services and goods are mandatory. Performances, to be recognised as competent, for example in the fields of dress, interior design, motoring, or listening to music, find their orientation in collectively accredited and locally situated conventions associated with specific practices. Hence, behaviour change targeted at influencing individual choice at the point of purchase is unlikely to be sufficient to remedy unsustainable practices.

The social patterning of consumption

Bourdieu, whose work was itself a major landmark in the development of practice theory (1977 [1972], 1990 [1980]), made the most impressive demonstration of group variation in consumption in *Distinction* (1984). He sought to capture group variance in cultural consumption in terms of the concept of *habitus*:

The conditionings associated with a particular class of conditions of existence produce *habitus*, systems of durable, transposable dispositions, structured structures predisposed to function as structuring structures, that is, as principles which generate and organize practices and representations that can be objectively adapted to their outcomes without presupposing a conscious aiming at ends or an express mastery of the operations necessary in order to attain them. Objectively "regulated" and "regular" without being in any way the product of obedience to rules, they can be collectively orchestrated without being the product of the organizing action of a conductor.' (Bourdieu 1990, 53)

In this manner Bourdieu accounts for streams of consistent and predictable action, referring not to habit but to dispositions which are the generating mechanism behind regularities in personal and group behaviour. This has proved controversial,

and the attempt has been criticised extensively on several counts.⁵ However, the concept, which of course has a sound sociological pedigree in the works of Weber, Elias and Mauss, has stubbornly refused to lie down and die. Not only loyal followers in the Bourdieusian school, but others in feminist theory, sociology of the body, and social stratification continue to find a use for the term. Insofar as it indicates a set of learned, embedded and embodied dispositions to act in particular way when appropriate circumstances arise, it does offer a serviceable social psychological foundation for explanations of why people exposed to a similar social trajectory have a predictable tendency to act in like fashion. Once stripped of an exclusively class character, it describes a mechanism subtending conduct which gives a plausible account of the differentiation of everyday *Praxis* across social groups. Bourdieu's account supports the fundamental insight of almost all sociological accounts of consumption, that social position – of which the principal indicators are socio-demographic characteristics like gender and ethnicity, as well as class – systematically influences patterns of conduct. The basic thrust of *Distinction* has been confirmed by many subsequent investigations which, by showing that sense of self and social position are reflected in consumption patterns, indicates, *de facto*, limits to the autonomy of the individual (eg Holt 1997; Bennett et al 2009).

Sequential and repetitious action

One relatively unexploited implication of Bourdieu's notion of *habitus* is that personal consumption is predictable on the basis of the biographical experience of an individual. Tastes are cumulative, and so too therefore are possessions and competences. Knowing what someone liked or acquired last year, or in childhood, gives some insight into current preferences and practices. Patterns of consumption imply meaningful sequences; so, rather than considering each act of consumption to be independent of every other one, it makes better sense to anticipate some degree of predictable continuity and coherence over time. Of course it would be foolish to pretend that people's tastes never change, or that they do not abandon some practices and take up others. However, the empirical evidence of market research and of the new research programme in the psychology of habit does indicate that repetition in everyday activities and purchases is very common.

⁵ *Habitus* is sometimes interpreted as entailing structural determination, in which case it is inconsistent to see it as also as a generative mechanism for responding innovatively to new situations; Bourdieu is accused of downplaying agency and the subjective meaningfulness of action. He is also accused of having an overly strategic conception of action – for *habitus* operates to reproduce privilege and disadvantage. Also there is dissatisfaction with the idea that a *habitus* can be collectively shared: Bourdieu's most sustained empirical analysis of *habitus* in modern societies was in *Distinction* (1984 [1979]), a study of cultural consumption, where *habitus* was more or less synonymous with class position – critics suggest that this hopelessly exaggerated class homogeneity even in France of the 1960s. There is also suspicion that dispositions are often not transferrable across situations, and indeed some hostility to the idea that dispositions and predispositions can serve effectively as elements of a basic psychological foundation for his practice theoretical approach.

Psychology now hosts a cottage industry theorising the role of habit in the determination of individual behaviours. After having suffered decline in the wake of dissatisfaction with accounts in terms of stimulus-response and the excessive reliance on mechanisms of reinforcement as explanations of behaviour, the notion of habit was resuscitated at the end of the 20th century. Revival was premised on recognition of the widespread impact of habituation; as Verplanken *et al* (2005) remark, in the world in general repeated behaviour prevails over new. However, the concept of habit has not been worked up very thoroughly. For psychologists a habit typically refers to behaviour that is frequent, automatic and which occurs in a stable context (Neal *et al*, 2006). Repetition is not in itself enough. Some degree of automaticity (the precise nature of which is highly controversial) is crucial. The most common view is that cues in the external environment trigger repeated identical responses. For example, 'Verplanken and Aarts (1999) defined habits as "learned sequences of acts that have become automatic responses to specific cues, and are functional in obtaining certain goals or end states".' (Verplanken *et al*, 2005) Such an account has a behaviourist twang, with repetition attributed to responses to 'specific cues'. However, an alternative interpretation might put greater emphasis on 'learned sequences'.

Ouellette and Wood (1998) see habit as referring to the often strong link between past behaviour and present behaviour, which can be shown in path dependency models to have a strong independent effect upon behavioural outcomes, particularly in stable situations. They summarise habit as follows:

Past behaviour directly contributes to future performance in contexts that support the development of habits. Behaviors that are well practiced and performed in stable contexts are likely to be repeated because they can be performed quickly, relatively effortlessly, in parallel with other activities, and with minimal or sporadic attention (Bargh, 1989; Logan, 1989). Conscious deliberation and decision making are not required for performance of such acts. Although habitual behaviors may be intentional and goal directed, the controlling intentions are not typically accessible to consciousness, because with repeated performance (a) intentions themselves tend to become automatic; (b) intentions tend to be specified in an efficient, stable and general form that emphasizes the goals met by the action rather than the action details; and (c) intentions, much like the actions they direct, tend to be combined into broader and more efficient units that refer to sets of behaviors that occur together rather than to individual actions. (Ouellette and Wood 1998, 65)

Three points are worth noting. First, the claim that past behaviour contributes to future behaviour is not accepted in many accounts of action, particularly in Economics where each purchasing decision is considered independently. Second, 'Conscious deliberation and decision making are not required for performance of such acts'; this is strongly at odds with most accounts of action, *a fortiori* in Economics, but also in the dominant portfolio model throughout the social sciences. Third, the final

point in the passage, which implies that analysing 'unit acts' rather than sequences of actions is problematic, is highly significant in distancing effective explanation of behaviour from decision-making, for example at the point of purchase or in a situation of interaction. People have at their disposal suites of integrally associated actions which constitute building blocks for performances.

Practice and habit

The new psychology of habit, however, is not necessarily wholly opposed to the portfolio model. Some exponents appear to conceptualise a habit entirely within a model of individual, purposive behaviour; repeat behaviours are efficient forms of quasi-rational action, the action initially having arisen from a decision which would be reaffirmed on every occasion of repetition were the actor to be required to think about it or to justify it. There are, however, other ways to conceptualise repeated actions than simply as decayed instrumental decisions. This is apparent in both Pragmatism and Practice Theory.

The former stresses the unfolding and never ending stream of action which subtends human experience, such that it is impossible sensibly to isolate unit acts for examination; there are no start and end points, and rarely is there an identifiable instant at which a decision is made or the consequences of a course of action come to fruition. Pragmatist philosophy, which has always had some impact on social science, founds its account of human behaviour on the concept of habit (eg Joas 1993). Its understanding of habit is not one of mindless repetition, but one where actors have command of a series of capabilities for action which are used repeatedly so long as they provide satisfactory outcomes, but which are continuously monitored such that adjustment or withdrawal is an ever present possibility. Though this idea of 'creative habits' sounds like an oxymoron, for the common use of the term habit does not imply constant reflection, the mechanism of monitoring is readily identifiable from observation and introspection.

Practice theory, while sharing some of the emphases of Pragmatism, considers the spring behind actions to be located in the logic of particular practices; within the parameters of a practice it will be obvious to competent performer how to go on – producing not repetition but rather improvisation in relation to immediate circumstances, depending upon the understanding, competences and commitments available (Warde 2005). Facility in a given practice short-circuits any need to stop to think what to do, for practical sense, based on know-how derived from previous experience, directs the skilled practitioner towards procedures appropriate to the situation; Bourdieu (eg Bourdieu and Wacquant 1992, 21-2) often illustrates this, persuasively, in relation to playing sports. Such accounts are not reducible to the portfolio model with its temporally linear chain of beliefs, desires and

conscious selection of means. Moreover, practice theoretic approaches dealing with consumption tend to emphasise the external affordances and constraints of technologies and infrastructures which ineluctably steer competent behaviour into predictable and repeated procedures (Reckwitz, 2002b; Shove 2003).

Mind and culture

A pure theory of habit, one which deployed exclusively stimulus – response mechanisms after the fashion of Behaviourism, or which consigned all acts to the category of personal, regular, repeated, automatic and unconsidered reaction to situations, could never produce a comprehensive or satisfactory account. It would rely too heavily on unintended consequences of action to explain change, have almost no space for personal or collective projects designed and enjoined precisely to disrupt the usual and the regular, and be unable to attribute any role to deliberation in solving previously un-encountered practical or intellectual problems. However, there is much clear water between a pure theory of habit and the portfolio model. In those waters, developments in cognitive neuro-science have generated currents which drag vessels towards the harbour of habituation.

Recent research on the mind and the brain indicates plausible alternatives to the portfolio model. Major current disputes within Psychology concern the relationship between intuition and reasoning, hot and cold mental processes, and automatic and reflective mental processes. Cognitive Neuro-Science, although interpretation of its findings is highly contested, is in the process of radically shaking up orthodox understandings of Mind by suggesting that the extent of deliberation behind most mental events is minimal. Examining the brain from a physiological, mechanical and chemical perspective, as a bodily organ rather than as the locus of Mind *qua* faculty of conscious reasoning, offers a radically different view of human mental functioning. The mind is no longer easily or readily conceived as a storehouse of knowledge and ideas, a repository of values and rules, waiting to be consulted for the purpose of deciding how to act. The processes of the brain seem in the main to support preconscious and automatic responses, driven primarily by emotion and affect, products of the embodied person rather than the disembodied mind. The philosophical implications, as extrapolated for example by Lakoff and Johnson (1999), are almost revolutionary. The challenge to Cartesian accounts, which traditionally have used deliberative mental capacity to draw a sharp and exclusive distinction between humans and other species, is strong. The more that similarities between humans and other animals are acknowledged to be of high degree, the greater is the inclination to interpret human actions in terms of environmental logic, ecological adaptation (to *social* niches), embodied properties, bodily impulses and, therefore, perhaps habit. In such views, mind is distributed across other bodily organs or functions and the external environment. The idea of 'distributed cognition'

– that the resources upon which thinking draws are distributed throughout the body, in the tools available to extend manual and sensory capacity, and among the objects and infrastructures which surround and support activity – portends devastating consequences for orthodox understandings of action. One of the most thought-provoking is Tim Ingold's synthesis of approaches drawn from cognitive science, ecological psychology and phenomenology to give an extended account of the role of perception, through the senses 'which takes place in circuits that cross-cut the boundaries between brain, body and world' (2000, 244). Another highly influential approach is, of course, Actor Network Theory (eg Latour 2005) which is renowned for its axiom that humans and objects should be given symmetrical treatment in accounts of activity.

A different set of implications have been drawn in Behavioural Economics, an emergent sub-discipline with significant and increasing influence in public intellectual and policy-making circles. It thrives on showing that the formal axioms of neo-classical Economics about market behaviour make no empirical sense. People in market situations (and by analogy other situations of 'choice' and decision) do not calculate rationally on the basis of perfect knowledge and in the light of fixed intransitive preferences.⁶ Rather, as Thaler and Sunstein (2008) illustrate, Behavioural Economics adopts claims of cognitive science to the effect that the brain has two systems generating behaviour, one 'automatic', which is uncontrolled, effortless, associative, fast, unconscious and skilled, the other, 'reflective', controlled, effortful, deductive, slow, self-aware and rule-following. The first is far more important. Thus a great deal of behaviour is governed by mental processes which are automatic, intuitive, emotion-driven, and which therefore involve little deliberation or rational thought. The result is said to be biased judgments, difficulties in resisting temptation and a strong tendency to social conformity. In this account, consumers certainly are *not* rational, calculating, self-aware, independently-minded agents. Hence Thaler and Sunstein advocate better 'Choice Architecture' – favourable default settings, good infrastructural design, feedback on the outcomes of actions, and purposefully aligned economic incentives – to steer people away from the detrimental consequences of their naturally rash behaviour. While overall perhaps a rather obtuse solution, since it uses rational individual choice as the yardstick for remedial action, it nevertheless emphasises the normality of repetition and the absence of deliberation in everyday conduct and points to how the external environment steers behaviour.

A long running debate in cultural sociology in the USA regarding the role that culture plays in social action also seeks to gain distance from the portfolio model. The starting point is explicit rejection of the Parsonian paradigm, which assumes

⁶ Reisch (2011) for instance lists a number of ways in which Behavioural Economics suggests that the concept of preferences needs to be amended.

‘that culture shapes action by supplying ultimate ends or values towards which action is directed, thus making values the central causal element of culture.’ (Swidler 1986, 273) Rather, ‘Culture influences action not by providing the ultimate values toward which action is oriented, but by shaping a repertoire or “tool-kit” of habits, skills, and styles from which people construct “strategies of action”.’ (273). Drawing upon Geertz’s (1973) account of culture as a public property rather than internalised personal knowledge, ‘toolkit theory’ puts great stress on the cues and clues provided by the environment in situations of quasi-decision making.

Lizardo and Strand (2010), contrasting the account of Swidler (1986, 2003) with Bourdieusian ‘strong practice theory’, commend the fact that neither account requires that we postulate individuals who are highly conscious, reflexive, thoughtful and knowledgeable. The necessary knowledge for the accomplishment of everyday life is available either in the external environment (*qua* ‘scaffolded cognition’) or has, through *habitus*, and the ‘mindful body’, an embedded and embodied set of practical skills located in practical consciousness which acts as ‘a fast *associative engine* and *pattern-completion* system’ (Lizardo and Strand 2010, 213).⁷ Lizardo and Strand (2010, 223) applaud both critiques because they ‘offload a lot of the cognitive work that previous approaches inscribed in the mental make up of the agent outside towards the world of institutions and external structure afforded by the environment in which the actor is embedded.’

Bolstered by findings about brain functioning, some sociologists of culture and social theorists have set about examining the potential implications of cognitive science for theories of social action (eg Turner 2002; DiMaggio 1997 and 2007; Cerulo 2010). Among the key features attracting attention are the speed of mental response and the absence of a storage capacity for knowledge of the kind envisaged by orthodox representations of mind and memory. If the brain operates by drawing on minimal schemata which trigger rapid and flexible responses in the face of the requirement for action, the likelihood increases that the springs of action are less in the individual mind and more in effective elements of culture located in an external environment.

What all these accounts have in common is that they postulate low levels of conscious cognitive processing in advance of action and thoroughly dispense with value-led, deliberative explanations of what people do. They do suggest that more systematic attention should be given to the phenomenon of habituation – to routines, habits and conventions. They point to types of action with implications for consumption very different from those of the standard model of the sovereign consumer. Echoes of a concept of habit are found in the idea that a significant

7 For Bourdieusians ‘socialization implies the acquisition of irreducibly embodied schemes of action, stored in procedural memory, and manifested as a form of “skill”.’ (Lizardo and Strand 2010, 212)

component of action is often the response to a stimulus or cue in the environment. Bodily dispositions, rather than calculative deliberation and reflective reasoning, drive much conduct. The largely automatic and seamless flow of conduct which characterises most social performances (and which introspection and observation of others suggests to be the normal mode of acting (see Collins 2010) decreases the plausibility of models giving priority to decisions made in a series of unconnected unit acts. However, although these seem to be essential and exciting developments in the theory of action, with considerable importance for understanding consumption, there is no solid, systematic, dominant or agreed formulation about how to conceptualise habituation. The ensuing articles offer instructive, if significantly differing, accounts of how action might be analysed.

The articles

In the articles that follow, consumption remains mostly in the background as the nature of habit itself is explored. Some contributors express greater discontent than others with the dominant model of the autonomous individual, which is partly a feature of different disciplinary points of departure. Sociologists and anthropologists seem more comfortable when contemplating explanations in terms other than individual action than do philosophers, psychologists and political scientists. All, nevertheless, are prepared to confront ways of exploring the possibility that much of human activity can be subsumed under the habit phenomenon and what the implications of that might be not only for consumption but also for general accounts of social action.

Antti Gronow celebrates the revival of Pragmatism and offers a clear account of how its concept of habit might be made relevant to contemporary sociological analysis through the linking of action to social structure. He is especially concerned with how habitualisation, 'dispositions to act in the same manner in familiar situations', leads to social reproduction. Employing Mead and Dewey to emphasise the practical and social embeddedness of action, he contends that habits are shared through transactions between people and the environment. The capacity for people to find common ground, which makes interaction possible, reflects the powerful human sensitivity to social situations arising from awareness of the attitudes and experiences of others. Mutual intelligibility is a foundation for collective institutions and a basis for regularised social coordination of actions. From the point of view of the individual, experience of social and shared conditions engenders the disposition to act in common ways in familiar situations. Institutions and habits are symbiotic.

Erkki Kilpinen, also a strong advocate of Pragmatist theory, focuses more closely on habit as a type of individual action than on how it generates institutions.

He notes the similarity between the accounts of pragmatist philosophy in the earlier 20th century and contemporary 'embodied cognitive science'. Both reject the Cartesian mind/body dualism and find human power of action in embodied habits. Categorically, action is not a matter of making thousands of separate decisions daily in order to select goals and the means to achieve them. Nevertheless, habits should not be characterised by mindless automaticity or frequent repetition. Rather, habit is the prototypical form of action and, as such, the bedrock also of reflective conduct. Acquired habits permit effortless performance, so long as nothing occurs to disrupt the normal continuous flow of action. If habits fail, people stop to think in order to restore the flow. Thus can people recognise and reflect upon their habits. Rather than being diametrically opposed to one another, habits and reflection are complementary, even to the point of occurring simultaneously. This distinctive view of the creativity of habit (see also Joas, 1993) severely qualifies the role of mindless automaticity, while at the same time recognising that a great deal of ordinary behaviour occurs in familiar circumstances and without reflection. Kilpinen's account dovetails with interpretations of cognitive science which emphasise the facility for adjustment to a known social environment, fostering thereby a generally successful practical sense of what needs to be done.

Omar Lizardo's article also draws on cognitive science, but as seen through the lens of American sociology of culture. He too addresses general problems of a theory of action and is concerned to explain how individuals mostly generate unerringly fluent and acceptable lines of conduct without either consciously planning their actions or making discrete decisions about what to do next. He outlines a radical *procedural* theory of acculturated action, but not conceptualised as a matter of habit. A further development and elaboration of US cultural sociology's assault on the Parsonian theory of action, Lizardo asserts a profound separation between personal culture and public Cultural forms and artefacts. Cultural competence arises not from internalising and storing cultural understandings of the kind objectivated in public culture. He forcefully rejects the 'incorporation – encoding – retrieval model of learning and so-called long-term memory' (p.6). Despite this view being highly popular, and thus hard to dispel, the capacities and the mode of functioning of the human brain are not such as to support the idea that it stores cultural representations in the form of propositional knowledge. Rather, we groove procedures from past experience of practice, rather than specifically prior thought, in order to be able to do things effectively even when we may not be able to articulate how. Thus people acquire differential skills fitted to different environments, with variable capacities for the production of culture, but not as a consequence of having *internalised* public Culture. In some respects Lizardo displays affinities with Bourdieu's understanding of *habitus*; procedures are learned, practiced through repetition, such that enskilling occurs in an embodied form. However, he puts much greater emphasis on the external environment – the social encounters and material

artefacts that are available in public Culture – which, so to speak, informs action without ever entering the Mind.

Hal Wilhite is equally concerned with the impact on courses of action of the environment, not only the social but also the material environment. He addresses explicitly the implications of habits for sustainable consumption policy. He finds sources of habit, and the knowledge that it unconsciously draws upon, not only in embodied skills but also in the material artefacts and tools which constitute the capacity for action. Hence he espouses a concept of distributed agency. Habits are not perpetuated by personal decisions, but rather through embodied skills and knowledge embedded in the environment. Wilhite considers that repetition matters, particularly with respect to strongly embodied habits; consider for example the way in which athletes train themselves precisely to have dependable bodily habits. He explicitly addresses the formation of embedded habits in order to identify which circumstances lead to habits being repeated without any reflection and which are conducive to being tempered by 'cognitive choices and verbal communication'; habits, he reasons, are less open to flexible application because they obliterate the element of deliberation which is more likely to arise in association with weak habits. Thus Wilhite operates with the common sense of habit, which postulates people doing the same things in the same ways, aiming at constant goals and standards, using tried and tested methods, achieving stability and a degree of certainty. That is precisely the manner in which habits, for the most part, impact on sustainable consumption. Wilhite particularly emphasizes the interfacing of habit and technology; machines script how we carry out particular procedures, and we tend repeatedly to re-visit the paths previously trodden even when other options are available. One of his key examples is air-conditioning in the home; he writes that habituation to air conditioning is structured by changes in the material (built) environment. A building built for air conditioning cannot be lived in without it. Furthermore, comfort habits have developed around mechanical cooling which will be very difficult to change without providing building designs and structures which can be cooled naturally.

Elizabeth Shove takes up the themes identified by Wilhite – strong and weak habits, skills and knowledge, and materiality – but inverts orthodox approaches to habit. As a thought experiment she asks what happens, analytically, if habits are deemed to capture or acquire people – a reversal of the orthodox position that people acquire habits. An exercise consistent with practice-based approaches to consumption, it brings to the fore questions surrounding how habits take particular forms, compete with one another, and thus emerge, persist and diminish. Shove argues that all habits are practices (although not all practices are habits) which are performed recurrently and consistently by variably committed practitioners. In these terms, whether a habit is strong or weak is a matter of degree of commitment. Practices recruit practitioners, and to become habitual require

that practitioners, once recruited, faithfully perform the practice time and again. Recurrent performances take a grip through establishing cultural conventions which exhort people to perform practices in specific recurrent ways and sequences (laundry practices being a good example), because institutional and infrastructural organisation of the practice demands certain patterns of performance (as with Wilhite's interface between habits and technologies). Shove's thought experiment also leads her to consider how practices effectively compete with one another to recruit people. To become habitual practices need to colonise time-slots, thereby displacing other practices, and need to attract practitioners not already locked into, or who are able and prepared to defect from, the rhythms or sequences of other existing practices. Thus, habitual practices can only be understood in relation to each other. In conclusion, Shove considers some implications for policy: not all habits are problematic; policy-making is already, inadvertently, in the business of promoting, reproducing and undermining habit-demanding practices; and, by recognising practices rather than individuals as the source of habits the inter-relatedness of practices becomes the central problem.

David Evans, Andrew McMeekin and Dale Southerton turn more directly to policy matters in their discussion of practice-based approaches and behaviour change initiatives. Extending Shove's concluding discussion of interventions, they tackle head-on the accusation that 'non-choice' models of consumption and behaviour – particularly practice theoretical accounts of habitual action – lack policy application. They contend that given the scale and urgency of the challenge such alternative models of action present the more realistic frameworks for developing effective policy. They reflect on a number of recent behaviour change policies that have been implemented in many different countries, reframing and re-interpreting initiatives from a practice-based perspective. Practices of mobility, eating and sheltering are considered to reveal how such initiatives might look if, as opposed to the individual attitudes, choices and behaviours, practices were addressed, showing: that often it is not habitual practices but their provisioning which needs to change; that while appropriation of goods and services matters, the use of things and services, and how usage unfolds in relation to emergent habitual practices, matters more; and that effective policy making requires emergent programmes (reflexive governance) in which the core focus are practices, whether habitual or not. The main argument concerns the last point; human action is ordered in complex ways, necessitating programmes which recognise complexity, contingent processes of change, and the sequence and mix of policy mechanisms that seek to (re-)direct behaviours.

The implication for policy of habitual behaviour is also the focus of John Thøgersen's article. Thøgersen, analysing a Danish initiative to reduce commuting by car, defines habits as automated, serial and repetitive actions. The policy question is how to disrupt the automated sequence of action – a notion broadly consistent with Kilpinen's argument that people reflect and change their actions

when their habits fail. Thøgersen examines an economic incentive scheme which offers free bus passes to car-driving commuters and monitors the extent to which they switch to public transport. In light of the hypothesis of habit discontinuities – that habitual behaviour is subject to change at moments in people’s lives when automated behaviours are called into question – it is revealed that people who had changed their place of residence or work in the three months prior to the scheme were far more receptive than were those who had not. In other words, the timing of relatively simple behaviour change initiatives can have a significant impact by taking account of moments when life changes and disrupts established habits.

Michele Micheletti, Dietlind Stolle and Daniel Berlin provide the final article in the volume. They explore the concept of sustainable citizenship, examining survey evidence regarding support for political consumerism. They make the case that, in the light of social and environmental problems of sustainability, political activity should now be seen to include lifestyle choices and purchasing behaviour, matters previously considered to belong to the private realm. Evidence of engagement in boycotts and buycotts (purchasing particular goods because of their ethical and environmental commitments) is used to compare the political behaviour of younger and older Swedes. While on a number of indicators younger respondents (those under 30 years of age) are less politically engaged, they nevertheless score significantly more strongly on measures of political consumerism and the solidaristic values associated in particular with buycotting. By emphasizing the importance of information gathering, a positive political role for market transactions and change in political values, Micheletti *et al* present a different perspective on solutions to unsustainable consumption. They speculate that shopping politically will become an increasingly important good habit in the spread of sustainable citizenship.

Final remarks

The articles which follow, then, deal in different ways with the phenomenon of habituation, the importance of which is not in dispute. They offer a general challenge to explanations based on autonomous, thoughtful, individual decision-making. Although they find inspiration in the concept of habit, they avoid its strongest portrayals, typically associated with Behaviourism, which see habit as conditioned response, wholly automatic, and repeated in an identical manner in similar circumstances. Each modifies in significant ways such a portrayal because it cannot capture enough of the contingency, flexibility, fluidity and purposefulness of everyday life and ordinary consumption. One variant involves re-defining habit in terms of disposition – a propensity or tendency to act in a particular manner when suitable circumstances arise. Dispositions can provide an impetus to action both in situations which do not necessarily occur very frequently and, by virtue of transposition, in situations not previously encountered. This relaxes somewhat

the criteria of automaticity and repetition which are found in behaviourism, or indeed in the contemporary modelling exercises of some social psychologists. Another option is to re-interpret habits as procedures, previously learned and ready to hand, waiting to be drawn upon when appropriate circumstance present themselves. Automaticity herein arises from general practical competence, rather than continuous conditioning, but still supports seemingly effortless performances which need occur only sporadically. A third alternative, which may or may not expressly be called habit, emphasises the role of the external environment, whose embedded social and material properties script or channel behaviour. People carry out courses of action guided by social signals or by equipment which more or less orchestrates their performance.

Thus, one of the principal contrasts in accounts of habituation revolves around whether to approach by way of behaviour or disposition. Seeing habit as a disposition to act in a particular manner if and when a situation requires it, leaves the anticipation of future action relatively open-ended and free of the particular situation. This appeals more to advocates of phenomenological and pragmatist theory, but is also basic to Lizardo's procedural theory. Psychologists, by contrast, at least those who seek to model in causal terms the probability of a specific individual conducting a particular behaviour, on the basis of the strength of that person's habits and the frequency into which s/he enters a familiar situation, require more constrained parameters for identification of habit. However, to estimate and understand aggregate outcomes may often be sufficient for social explanation and policy purposes, in which case, although they do not readily lend themselves to causal modelling, accounts in terms of dispositions should be adequate.

Other points of contention arise, including the role of cognition in the enactment of habits. Some have no difficulty with the idea that habits may be rational in their inception and their effects. Others see habit as one type of action among several and seek the circumstances in which habit is preferred to rational action. Yet others allow actions, or practices, to be simultaneously partly habitual and partly deliberate, raising the question of just how much preparatory thinking might be involved without disqualifying an act as habitual.

A further important line of investigation arises from the contrasting, but equally critical, alternatives to orthodox accounts of action provided by Kilpinen and Lizardo. Neither explicitly addresses consumption and climate change, but both provide fresh and non-orthodox accounts which bear directly on questions of how continuity and coherence in everyday life depend on recurrent or habitual forms of action. Although they reach very different conclusions, both commence from consideration of the implications of recent developments in cognitive science and philosophy of mind, which are not as yet fully incorporated into general social science. Exploration of the nature and role of cognition does, however, suggest

that portfolio models of the actor, which rest on individual mental deliberation and decision making, require severe modification to accommodate aspects of embodiment, automaticity, emotion and affect. Habituation requires explanation.

We began by emphasising the need for rapid and radical (at least with respect to dominant trajectories of social change in the modern period) change in the resource-intensity of everyday life. Orthodox models of consumption – of preferences, intentions, goals and choices shaping what people do – grossly simplify processes of consumption, and human action more generally. The limited success of previous policy initiatives testify to this point. Attention to habits points towards a conceptual framework for thinking beyond choice-based, deliberative models of action.

References

- Anderson, K. and A. Bows 2011. Beyond “Dangerous” Climate Change: Emission Scenarios for A New World. *Philosophical Transactions of the Royal Society A*, 369, 20–44.
- Bennett, T. 2011. Habit, Instinct, Survivals: Repetition, History, Biopolitics. In Simon Gunn and James Vernon (eds.) *The Peculiarities of Liberal Modernity in Imperial Britain*. Berkeley CA: University of California Press, 102–118.
- Bourdieu, P. 1977 (1972). *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.
- Bourdieu, P. 1984 (1979). *Distinction: A Social Critique of the Judgement of Taste*. London: Routledge & Kegan Paul.
- Bourdieu, P. 1990 (1980). *The Logic of Practice*. Cambridge: Polity.
- Bourdieu, P. & L. Wacquant 1992. *An Invitation to Reflexive Sociology*. Cambridge: Polity Press.
- Camic, C. 1986. The matter of habit. *American Journal of Sociology* 91(5), 1039–87.
- Cerulo, K. 2010. Mining the intersections of cognitive sociology and neuroscience. *Poetics* 38, 115–132 .
- Collins, H. 2010. *Tacit and Explicit Knowledge*. Chicago Il: Chicago University Press.
- Crossley, N. 2010. Habit and habitus. Mimeo. University of Manchester.
- Defra 2008. *A Framework for Pro-Environmental Behaviours*. Department for Environment, Food and Rural Affairs Report, January.
- Darnton, A, Verplanken, B., White, P. and L. Whitmarsh 2011. *Habits, Routines and Sustainable Lifestyles: A summary report to the Department for Environment, Food and Rural Affairs*. AD Research & Analysis for Defra, London.
- DiMaggio, P. 1997. Culture and cognition. *Annual Review of Sociology* 23, 263–87.
- Dolan, P., Hallsworth, M., Halpern, D., Kin, D. and Vlaev, I. 2010. *MindSpace. Influencing Behaviour through Public Policy*. London: The Institute for Government and Cabinet Office.
- Geertz, C. 1973. *The Interpretation of Cultures*. New York: Basic Books
- Gronow, J. and A. Warde 2001. *Ordinary Consumption*. London: Routledge.
- Ingold, T. 2000. *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*. Chicago, Il: University of Chicago Press

- Jackson, T. 2009. *Prosperity without Growth: Economics for a Finite Planet*. London: Earthscan.
- Joas, H. 1993. *Pragmatism and Social Theory*. Chicago, IL: University of Chicago Press.
- Lakoff, G. and M. Johnson 1999. *Philosophy in the Flesh: The Embodied Mind and Its Challenge to Western Thought*. New York: Basic Books
- Latour, B. 2005. *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford: Oxford University Press.
- Lebergott, S. 1993. *Pursuing Happiness: American Consumers in the Twentieth Century*. Princeton: Princeton University Press.
- Levett, R., I. Christie, M. Jacobs and R. Therivel 2003. *A Better Choice of Choice: Quality of Life, Consumption and Economic Growth*. London: Fabian Society Report.
- Lizardo, O. and M. Strand 2010. Skills, Toolkits, Contexts and Institutions: Clarifying the Relationship between Different Approaches to Cognition in Cultural Sociology. *Poetics* 38, 204–227
- Martin, J. L. 2010. Life's a beach but you're an ant, and other unwelcome news for the sociology of culture. *Poetics* 38, 228–43
- Mauss, M. 1973. Techniques of the Body. *Economy and Society* 2, 70–89
- McKenzie-Mohr, D. 2000. Promoting Sustainable Consumption: An Introduction to Community-Based Social Marketing. *Journal of Social Issues* 56 (3), 543–554.
- Micheletti, M. 2003. *Political Virtue and Shopping: Individuals, Consumerism, and Collective Action*. New York: Palgrave.
- Minx, J.C., Baiocchi, G., Wiedmann, T. and Barrett, J. 2009. *Understanding Changes in CO₂ Emissions from Consumption 1992-2004: A Structural Decomposition Analysis*. Report to the UK Department for Environment, Food and Rural Affairs by Stockholm Environment Institute at the University of York and the University of Durham, DEFRA, London, UK.
- Munasinghe, M., Dasgupta, P., Southerton, D., McMeekin, A. and Bows, A. 2009. *Consumers, Business and Climate Change: Copenhagen 2009*. Sustainable Consumption Institute
- Neal, D., Wood, W. and Quinn, J. 2006. Habits – A Repeated Performance. *Current Directions in Psychological Science* 15 (4), 198–202.
- Ortner, S. 1984. Theory in Anthropology since the Sixties. *Comparative Studies in Society and History* 26, 126–66.
- Oulette, J. and Wood, W. 1998. Habit and intention in everyday life: the multiple processes by which past behaviour predicts future behaviour. *Psychological Bulletin* 124(1) 54–74.
- Peterson, M. 2010. "But it is my habit to read the Times": metaculture and practice in the reading of Indian newspapers. In Bräuchler B and Postill J (eds.) (2010) *Theorising Media and Practice*. New York: Berghahn Books, 126–145.
- Princen, T. 2006. Consumption and Its Externalities: Where Economy Meets Ecology. In T. Jackson (ed.) *The Earthscan Reader in Sustainable Consumption*. London: Earthscan, 50–66.
- Raupach, M. R., G. Marland, et al. 2007. Global and regional drivers of accelerating CO₂ emissions. *Proceedings of the National Academy of Sciences* 104 (24), 10288–10293.
- Reckwitz, A. 2002. The status of the "material" in theories of culture: from "social structure" to "artefacts". *Journal for the Theory of Social Behaviour* 32 (2), 195–217.
- Reisch, L. 2011. Preference formation. In D. Southerton (ed.) *Encyclopaedia of Cultural Consumption vol.3*. London: Sage, 1142–45.

- Richardson, K., Steffen, W., et al. 2009. *Climate Change, Global Risks, Challenges & Decisions Synthesis Report*. Climate Change Scientific Congress, Copenhagen, International Alliance of Research Universities.
- Schatzki, T. 1996. *Social Practices: A Wittgensteinian Approach to Human Activity and the Social*, Cambridge: Cambridge University Press.
- Schatzki, T. 2002. *The Site of the Social. A Philosophical Account of the Constitution of Social Life and Change*. University Park, Pa: Pennsylvania State University Press.
- Schatzki, T., Knorr Cetina, K. and von Savigny, E. (eds.) 2001. *The Practice Turn in Contemporary Theory*. London: Routledge.
- Shove, E. 2003. *Comfort, Cleanliness and Convenience: the social organization of normality*. Oxford, Berg.
- Spaargaren, G. 2003. Sustainable Consumption: A Theoretical and Environmental Policy Perspective. *Society & Natural Resources: An International Journal* 16(8): 687–701.
- Stern, N. 2007. *The Stern Review. The Economics of Climate Change*. Cambridge: Cambridge University Press.
- Swidler, A. 1986. Culture in action: symbols and strategies. *American Journal of Sociology* 51, 273–86.
- Swidler, A. 2003. *Talk of Love: how culture matters*. Chicago, Il: University of Chicago Press.
- Thaler, R. and C. Sunstein 2009. *Nudge: improving decisions about health, wealth and happiness*. Harmondsworth: Penguin.
- Turner, S.P. 1994. *The Social Theory of Practices*. Cambridge: Polity.
- Turner, S.P. 2002. *Brains / Practices / Relativism: social theory after cognitive science*, Chicago, Il: Chicago University Press.
- Vermier, I. and Verbeke, W. 2006. Sustainable Food Consumption. Exploring the consumer attitude – behavioral intention gap. *Journal of Agricultural and Environmental Ethics* 19(2): 169–194.
- Verplanken, B. and Aarts, H. 1999. Habit, attitude, and planned behaviour: is habit an empty construct or an interesting case of goal-directed automaticity? *European Review of Social Psychology* 10, 101–134.
- Verplanken, B., Myrbakk, V. and Rudi, E. 2005. The measurement of habit. In T. Betsch and S. Haberstroh (eds.) *The Routines of Decision Making*. Mahwah NJ: Lawrence Erlbaum, 231–47
- Warde, A. 2005. Consumption and theories of practice. *Journal of Consumer Culture* 5(2), 131–153.
- Warde, A. (ed.) 2010. *Consumption (Volumes I-IV)*. London: Sage, Benchmarks in Culture and Society Series.
- Weber, M. 1978 (1922). *Economy and Society*. In G. Roth and C. Wittich (eds.) *Economy and Society: An Outline of Interpretive Sociology*. 2 volumes. Berkeley: University of California Press.
- Whitford, J. 2002. Pragmatism and the untenable dualism of means and ends: Why rational choice theory does not deserve paradigmatic privilege. *Theory & Society* 31, 325–63.