

## Is There a “Double Dividend” in Sustainable Consumption?

Tim Jackson

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### Summary

Industrial ecology has mainly been concerned with improving the efficiency of production systems. But addressing consumption is also vital in reducing the impact of society on its environment. The concept of sustainable consumption is a response to this. But the debates about sustainable consumption can only really be understood in the context of much wider and deeper debates about consumption and about consumer behavior itself. This article explores some of these wider debates. In particular, it draws attention to a fundamental disagreement that runs through the literature on consumption and haunts the debate on sustainable consumption: the question of whether, or to what extent, consumption can be taken as “good for us.” Some approaches assume that increasing consumption is more or less synonymous with improved well-being: the more we consume the better off we are. Others argue, just as vehemently, that the scale of consumption in modern society is both environmentally and psychologically damaging, and that we could reduce consumption significantly without threatening the quality of our lives. This second viewpoint suggests that a kind of “double dividend” is inherent in sustainable consumption: the ability to live better by consuming less and reduce our impact on the environment in the process. In the final analysis, this article argues, such “win-win” solutions may exist but will require a concerted societal effort to realize.

### Address correspondence to:

Prof. Tim Jackson  
Centre for Environmental Strategy  
University of Surrey  
Guildford GU2 7XH  
United Kingdom  
<t.jackson@surrey.ac.uk>  
<www.surrey.ac.uk/eng/scripts/staff.pl?name=JacksonT>

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Over the past decade or so, industrial ecology has successfully focused attention on improving the resource efficiency of the systems of production. Reusing, remanufacturing, and recycling end-of-life products, using the wastes of one production process as inputs to another, and redesigning products, processes, and supply chains for improved efficiency all offer clear environmental benefits to industrial society (Geyer and Jackson 2004; Graedel and Allenby 1995; Guide and van Wassenhove 2004; Jackson 1996).

Over the same decade, it has become increasingly clear that such interventions will not, by themselves, deliver sustainable development. It is not enough for us to devise ever more efficient industrial processes. It is not enough to engineer cleaner and more clever technologies. It is not enough that we design greener and more ethical products. All of these things are clearly important. But none of them will ensure that consumers choose to buy the greener products or that the *scale* of material throughput remains within ecological limits. Purely technological approaches fall short of addressing the crucial dimension of human choice in implementing sustainable technologies and in changing unsustainable consumption patterns (Jackson and Clift 1998; Princen et al. 2002; Rayner and Malone 1998).

Partly in recognition of this fact, attention has turned increasingly to questions of consumption (Jacobs and Røpke 1999; Princen et al. 2002; Reisch and Røpke 2004). The scale and pattern of consumption, the drivers of consumer expectations and behaviors; the nature of consumer decision-making processes, and the importance of shifting consumer attitudes, behaviors, and expectations in favor of cleaner products and reduced environmental impacts: all of these factors turn out to be vital in achieving sustainable development. Reflecting this emerging interest, the term *sustainable consumption* now features as an organizing principle in a wide variety of research agendas and policy initiatives (Cohen and Murphy 2001; DEFRA 2003; Heap and Kent 2000; OECD 1998; UNEP 2001).

As yet no clear agreement has been reached on what sustainable consumption actually means. Some approaches focus on the role of technological innovation and “getting the prices right” and emphasize “consuming differently” rather than “consuming less” (UNDP 1998). Others imply a far more radical critique in which sustainable consumption is about “the management of greed” (Slesser 1997; Trainer 1996) in affluent societies. Neither of these positions is unequivocally useful: the first because it offers little new to existing policy agendas; the second because it underestimates the complexity of human motivations and risks alienating those whose behavior it seeks to change.

Nonetheless, the new agenda demands that we resolve at least some of the critical questions relating to consumption. In particular, we find ourselves confronted by the very real need to ensure that environmental gains achieved through sustainable production are not offset by rebound effects, that entrenched behaviors do not render sustainable technologies redundant, and that the continued expansion of consumer expectation and demand does not simply swamp the efficiency gains made through industrial ecology. In short, we are drawn toward the need for a clearer understanding of consumer behavior and human choice. Why do we consume? What do we expect to gain from material goods? How successful are we in meeting those expectations? What constrains our choices? And what drives our expectations in the first place? All these questions become vitally important in the search for an understanding of consumer behavior to inform sustainable development.

The problem in addressing these questions lies not so much in a dearth of potential models as in a superabundance of possibilities. From the Aristotelian concept of *pleonexia* (the “insatiable desire for more”) to Thorsten Veblen’s notion of conspicuous consumption; from Pierre Bordieu’s analysis of social distinction to Fred Hirsch’s concept of “positional goods”; from Jean Baudrillard’s semiotic analysis to Mary Douglas’s “symbolic interactionism”; from the humanistic psychology of Abraham Maslow and Erich Fromm to the biological analogies of Edward Wilson and Richard Dawkins; from John Kenneth Galbraith’s sociopolitical critique of the



affluent society to Juliet Schor's "downshifting" and Duane Elgin's "voluntary simplicity": the literature on consumption is replete with different approaches to consumption and different models of the ways in which consumers behave.

Each such model arises from a slightly different set of disciplinary assumptions, adopts sometimes radically different underlying assumptions about human nature, and embodies different conceptions of what it means to pursue the good life. Making sense of this diversity is beyond the scope of this, or indeed any single journal article. A number of recent reviews have attempted to review this somewhat "unmanageable" literature (Bagozzi et al. 2002; Bockstette 1993; Edwards 2000; Gabriel and Lang 1995; Jackson 2005; Jackson and Michaelis 2003; Michaelis 2000; Miller 1995; Røpke 1999; Sanne 2002).

The purpose of this article is to explore a specific "dialectical" tension that runs through the literature on consumption and haunts the debate on sustainable consumption. Most simply put, it is the question of whether and to what extent current levels and patterns of consumption are or are not "good for us"—not just in terms of environmental impact but in terms of individual and collective well-being. Some approaches assume that increasing consumption is more or less synonymous with improved well-being: the more we consume the better off we are. Other approaches argue, just as vehemently, that the scale of consumption in modern society is both environmentally and psychologically damaging, and that we could reduce consumption considerably without threatening the quality of our lives. The first perspective tends to regard consumers as free to choose the best way of pursuing the "good life" according to individual tastes and preferences. The second perspective regards modern consumer society as being locked into a kind of "social pathology"—driven to consume by a mixture of greed, social norms, and the persuasive power of unscrupulous producers.

This second perspective is interesting in particular because it tends to suggest that a kind of "double dividend" might be associated with sustainable consumption—just as industrial ecology has argued that a double dividend is associated with sustainable production. If the consumer way of life is—as Paul Wachtel (1989)

has suggested—both ecologically damaging and psychologically flawed, then the possibility remains that we could live better by consuming less and reduce our impact on the environment at the same time. But how realistic is this perspective? Is it consistent with fundamental understandings about consumer behavior and human motivation? Does it reflect socially achievable and culturally relevant ambitions? Or is it simply a delusion based on utopian understandings of human nature? And—to the extent that it is valid—what does this perspective imply in terms of policies for behavioral change in pursuit of sustainable consumption? This article sets out to address these questions through an exploration of the wider literature on consumption and consumer behavior. It argues, ultimately, that the possibility of a double dividend cannot entirely be ruled out, but that realizing it will require considerably more than wishful utopian thinking or angry ecologism.

## Consumption as Well-Being

The starting point for this exploration is an elaboration of the view that, in some simple sense, the consumption of goods and services is an attempt to provide for our individual and (at the aggregate level) collective well-being. This view of consumption is, at its simplest, the one encoded in conventional economics. All transactions in the market are assumed to represent the rational choices of informed consumers. In this "rational choice model," the consumer is visualized as a "rational actor," attempting to maximize well-being or "utility" within the constraints of the market, according to his or her own individual preferences (Russell and Wilkinson 1979, e.g.). This utilitarian model has become so widely accepted that most modern economics textbooks barely even discuss its origins or question its authenticity. Mas-Colell and colleagues (1995), for example, assert that "it is logical to take the assumption of preference maximization as a primitive concept for the theory of consumer choice." Begg and colleagues (2003) simply "assume that the consumer chooses the affordable bundle [of goods] that maximizes his or her utility."

Economics itself tends to be silent, however, on the nature or origins of individual preferences.



Consumer choice theory, following Samuelson (1938), restricted itself largely to deriving demand functions for consumer goods on the basis of “revealed preferences” in the market. In other words, according to this theory, the best we can say about consumer preferences is what we can infer about them from the patterns of expenditure on consumer goods in the market. If the demand for a particular brand of car, washing machine, or video recorder is high, then we can infer that consumers, in general, prefer that brand over other brands. The reasons for this preference remain opaque within economics, as do the reasons for choosing sports utility vehicles, tumble dryers, and DVD players over, say, ecoholidays or leisure activities (Schor 1998).

More sophisticated attempts to understand the economic basis of consumer preferences were made by Kelvin Lancaster (1966). Lancaster’s proposed that consumer preferences for goods are formed on the basis not of the products themselves, but of the attributes that those products possess and the values of those attributes for individual consumers. The economic theory of choice constructed from this suggestion has proved considerably more complex than conventional preference theory. Nonetheless, it has been widely employed and developed to explore consumer preferences for product attributes in sectors as diverse as food (Crawford 2003; Philippidis and Hubbard 2003, e.g.), luxury cars (Anurit et al. 1999), health care (Ryan and Bate 2001), and renewable energy investments (Bergmann et al. 2004). Once again, however, the theory of consumer choice flowing from the Lancaster model does not attempt to unpack the underlying social or social-psychological structure of consumer preferences. It simply suggests that it is possible to infer these preferences from the choices consumers make in the market.

Consumer preference theory and its extension to attributes were developed to apply specifically to economic transactions, that is, basically, to consumers’ purchasing behaviors. But the same rational choice model has also been applied in the attempt to understand people’s nonpurchasing behaviors. Perhaps the best-known application of rational choice to nonpurchasing behaviors is the work of Gary Becker, whose (1976) *Economic Approach to Human Behavior* and (1981) *Treatise on*

*the Family* won him the Nobel Prize. Becker used the concept of human capital to understand apparently noneconomic household behaviors such as divorce, the increase in women’s participation in the labor force, the distribution of child-rearing and household labor between men and women, and so on.

Consistent with their roots in anthropological theories of social exchange (Homans 1961), rational choice models see exchange as a fundamental determinant of human behavior. The trade in economic goods and services is only one aspect of social exchange. At a broader level, according to this extended rational choice model, we exchange a variety of different goods (time, gifts, labor, critical appreciation, sexual services, and so on) in the expectation that (at least over the long term) these exchanges will benefit our own self-interest. As we shall see in a later section, the importance of exchange is also emphasized by social anthropological perspectives on consumption.

Implicit (and sometimes explicit) within the economic perspective is the assumption that human wants are essentially infinite. The desire for a particular commodity will eventually peak and decline; but the desire for commodities *in general* is taken to be insatiable. Some economists even adopt insatiability as the conceptual foundation for the “economic problem”: namely, the allocation of limited resources in the face of unlimited wants (Anderton 2000). In this way, the insatiability of consumer desire becomes a sort of ideological assumption at the heart of economics. What emerges from this assumption is the idea that the more we consume (in economic terms) the better off we are. Conversely, if the aim of society (and public policy) is to achieve continual improvement in well-being, then the appropriate way of achieving this is to pursue ever higher levels of (economic) consumption (Vincent and Panayotou 1997).

The equation of economic consumption with well-being goes a long way toward explaining the primacy of measures such as GDP in public policy terms (Jackson 2002a). It does not, however, take us very far toward an understanding of the complexity of consumer motivations. Nor does it offer much that is new in the way of policies for sustainable consumption. The principal task for policy,





under this view, is to ensure that the market is working efficiently, that external costs are internalized in resource prices, and that consumers have access to adequate information about their own consumption choices. These strategies are undoubtedly important. But they have not been outstandingly successful in the past in achieving behavioral change. Nor do they exhaust the range of possible policy interventions suggested by a deeper understanding of consumer behavior (Jackson 2005; Jackson and Michaelis 2003).

Ironically, practitioners in the field have been considerably more inquisitive about the nature and origins of consumer motivations than economic theorists have. New areas of inquiry such as consumer psychology, marketing, and “motivation research” have developed a rather rich body of knowledge—a “science of desire” (Dichter 1964)—for producers, retailers, marketers, and advertisers wanting to know how to design and sell products that consumers will buy. Little of this research concerns itself explicitly with the environmental or social impacts of consumption. But its insights are crucial to a proper understanding of consumer behavior. Much of the inspiration for this body of research is drawn from outside economics, from disciplines such as humanistic psychology, sociobiology, and anthropology. Because these fields are discussed in more detail below, discussion of certain key insights from consumer research is deferred to subsequent sections.

## Consumer Culture as a Social Pathology

Though firmly entrenched in modern institutions and policies, the conventional economic view of consumer behavior stands only, if it stands at all, in the face of a storm of protest. The environmental lobby has been particularly vociferous in denouncing the economic model both for its failure to protect the environment and for the oversimplicity of its underlying conception of human nature (Schumacher 1973; Douthwaite 1992; Norgaard 1994; Daly 1996; van den Bergh et al. 2000; Wilson 2001).

Critiques of the consumer society are not confined to the Green lobby; nor are they entirely modern. Even in the seventeenth century, Hobbes had noted the pervasive anxiety of a so-

ciety characterized by unlimited materialist values; in the nineteenth century, Marx (and many others) decried the “fetishism of commodities” that characterized capitalism. On the cusp of the twentieth century, Thorsten Veblen ([1899] 1998) articulated a tendency toward “conspicuous consumption.” In *The Theory of the Leisure Class*, he contrasted the “destructive traits” of the “pecuniary culture” with the “industrial virtues” of earlier times. In the space of less than a century pecuniary culture had established an iron grip on modern social mores. But it had also generated a host of critics, all of whom were skeptical—in slightly different ways—of the power of increased consumption to deliver ever higher levels of satisfaction.

Murray Bookchin (writing in the 1960s under the pseudonym Lewis Herber) argued that human society had “reached a level of anonymity, social atomisation and spiritual isolation... virtually unprecedented in human history” (Herber 1963, 187). Fromm (1976) was alarmed at the alienation and passivity that pervaded modern life, and placed the blame squarely on an economic system predicated on increasing levels of consumption. Ivan Illich (1977) attacked the ideology that equates progress with affluence and needs with commodities. In attempting to discover why “unprecedented and fast-moving prosperity had left its beneficiaries unsatisfied,” Scitovsky (1976) highlighted the addictive nature of consumer behavior and its failure to mirror the complexity of human motivation and experience.

These critics have to some extent been supported by empirical evidence. In *The Joyless Economy*, Scitovsky could already cite the failure of reported levels of well-being to match the growth in GDP (Scitovsky 1976). In 1991, Erik Jacobs and Robert Worcester found that people were marginally less happy than they had been in 1981 in spite of increased personal income (Worcester 1998). A similar result was reported over a longer period by Myers and Diener (1996). Oswald (1997) found that reported levels of “satisfaction with life” were only marginally higher than they had been in the mid-seventies. In some countries, including Britain, they were actually lower. The most recent evidence suggests a weak positive correlation between increasing GDP and



life-satisfaction in some developed nations. But in Britain, the United States, and a number of other countries, reported life-satisfaction has remained almost unchanged for the last 30 years (Donovan et al. 2002).

Meanwhile, in the United States, “rates of depression have been doubling every decade, suicide is the third most common cause of death among young adults in North America, [and] 15% of Americans have had a clinical anxiety disorder” (Wright 1994, p. 53). By a perverse contrast, studies of human happiness reveal that some of the poorest countries in the world—Bangladesh, Azerbaijan, and Nigeria, for example—are among the happiest in the world (Worcester 1998). More recently, Kasser (2002) accumulates an impressive body of evidence to the effect that materialistic behaviors command a high price in terms of human well-being.

This far-reaching social critique of consumer society has drawn considerable strength from the emergence of humanistic psychology and the development of a needs-theoretic basis for human well-being (Maslow 1954; Galtung 1990; Lederer 1980; Doyal and Gough 1991; Max Neef 1991). Indeed, Rousseau’s early critique of industrial society had led him to suppose that industrialization, far from delivering societal well-being, was in the process of creating a whole set of “artificial” (as opposed to “natural”) needs. This position was echoed in the nineteenth century by the critical social theorists. Marx attempted to identify a distinction between “human” and “inhuman” needs, and Marcuse a distinction between “true” and “false” needs (Springborg 1981).

Partly as a response to the discourse of needs employed by the critical theorists, modern economics is curiously reticent on the subject of needs, preferring, as noted above, to cash out consumer choice in the language of wants or preferences. Some economists go so far as to argue that the concept of needs is largely irrelevant to economics. In economics, as Allen (1982, p. 23) points out, need is a “non-word.” “Economics can say much which is useful about desires, preferences and demands,” he insists. “But the assertion of absolute economic ‘need’—in contrast to desire, preference and demand—is nonsense.” Even John Kenneth Galbraith, whose eloquent challenge to the “affluent society” provided the

launch pad for a flood of similar critiques, couches his arguments in terms of “wants” rather than needs, in deference to economic conventions. “The notion that wants do not become less urgent the more amply the individual is supplied is broadly repugnant to common sense,” he writes (Galbraith 1958, p. 124).

Nonetheless, as Durning (1992) reminds us, the philosophical and psychological basis on which conventional economics rests—although deeply imbedded in modern institutions—is relatively recent and relatively narrow. In particular, the assumption of insatiability at the heart of economics (Jackson et al. 2004) is directly counter to certain classical conceptions of human well-being. Pleonexia, the insatiable desire for more, was regarded in Aristotle’s day as a human failing, an obstacle to achieving the “good life.” In the modern consumer society, it is encoded in both the ideological foundation and the institutional structure of the market economy.

A similar argument was made by Fromm (1976), who suggested that modern economic theory finds its philosophical basis in radical hedonism. Though practiced through history, particularly by the richest proportion of the population, hedonism was never until recently “the theory of well-being as expressed by the great Masters of Living” (Fromm 1976, p. 3). Fromm points to an essential distinction, present in the writings of all those concerned with human well-being, between “(desires) which are only subjectively felt and whose satisfaction leads to momentary pleasure” and “objectively valid needs” which are “rooted in human nature and whose realization is conducive to human growth” (Fromm 1976, p. 4).

Modern needs-theoretic approaches to human well-being tend to follow this distinction. Max Neef (1991), for example, has constructed a needs-based theory of development, within which well-being is related to the satisfaction of nine fundamental human needs: subsistence, protection, affection, understanding, participation, idleness, creation, identity, and freedom. The Chilean economist goes on to argue that, although the needs themselves are universal in the human psyche, each culture adopts a different set of satisfiers in its attempts to meet these needs. Moreover, he points out, these different



satisfiers may be more or less successful in meeting the underlying needs. Some kinds of satisfiers may even violate the underlying needs that they are attempting to meet: as an example, Max Neef cites the arms race as a violator of the need for protection.

Perhaps the most interesting question raised by this framework concerns the relationship between economic goods—consumption activities (in the conventional model)—and needs-satisfaction. It is fairly clear that this relationship is highly complex and often nonlinear. More consumption of any particular good does not always mean more needs-satisfaction. In fact, if the social critiques of consumption are to be believed, it is clear that some at least of the spectrum of economic consumption fails to achieve any needs-satisfaction at all, and may even be violating certain needs (Max Neef 1991; Jackson and Marks 1999; Kasser 2002).

Of course, it is clear that not all economic consumption has this character. Even within the Max Neef framework, certain kinds of needs (subsistence and protection, for example) exist that demand the provision of certain material goods (foodstuffs and housing, for example). Managing the environmental impacts associated with the satisfaction of these “material needs” remains a significant challenge. At the same time, it is clear that many of the other needs (affection, participation, understanding, idleness, and identity, for example) are “nonmaterial” in the sense that satisfaction of these needs implies no minimum level of material throughput. Clearly, different cultural satisfiers will have different material implications. For example, attempts in Western culture to satisfy these nonmaterial needs increasingly involve material consumption (Jackson and Marks 1999). If the arguments cited earlier in this section are to be believed, however, attempts to satisfy nonmaterial needs through material consumption will meet with only limited success, if any at all.

Two conclusions follow from this critique—one of them is stark, the other more hopeful. The stark conclusion is that modern society appears to be seriously adrift in its pursuit of human well-being (Illich 1977; Baumann 1998; Kasser 2002). In pursuit of an inappropriate concept of progress, we are not only damaging our environment but also degrading our own psychological

and social well-being. That environmental damage should turn out to be the environmental price we have to pay for achieving human well-being would be unfortunate. That environmental damage is an external cost of a misguided and unsuccessful attempt to achieve human well-being is tragic. Consumer society, in this view, appears to be in the grip of a kind of social pathology.

The hopeful conclusion rests in the scope for improvement that this perspective offers. Environmental imperatives—the demand to reduce the material impact of human activities—are often portrayed and often perceived as constraining human welfare and threatening our quality of life. In contrast, the eco-humanistic critique suggests that existing patterns of consumption already threaten our quality of life, not just because of their impact on the environment, but also because of their failure to satisfy our needs. Reducing the material profligacy of our lives, according to this view, will help the environment. It also offers the possibility of improving the quality of our lives. “Revisioning the way we satisfy our nonmaterial needs is not the bitter pill of eco-fascism,” argue Jackson and Marks (1999, p. 439). “It is the most obvious avenue for renewing human development.”

The humanistic needs-based critique of modern development has informed a range of recent, contemporary social movements aimed at “voluntary simplicity” (Elgin 1993), “downshifting” (Schor 1998), and “ethical” consumption (Shaw and Newholm 2003). What these movements (and the needs-theoretic critique that underlies them) offer is the tantalizing promise that we could live better by consuming less; that reduced material consumption could improve the quality of our lives, particularly where the satisfaction of nonmaterial needs is concerned. Sustainable consumption, in this perspective, appears to offer a very particular kind of double dividend: the ability to live better by consuming less, and by the same token, to reduce our impact on the environment.

## Consumer Behavior as an Evolutionary Adaptation

But this conclusion raises an immediate and glaring question. Why, if consumption signally



fails to satisfy our social and psychological needs, should we still appear to be driven to consume?

One of the possible responses to this question is to suggest that human beings possess what McDougall ([1908] 1923) called an “instinct of acquisition”; in other words, to suppose that we are driven to consume by some kind of biological imperative. The simplistic idea of a universal biological drive to possess material goods is problematic, as Dittmar (1992) points out, from a number of perspectives. In the first place, a universal instinct for material acquisition or possession per se cannot account for the huge differences in “materiality” both between cultures and across time. Moreover, a good deal of evidence clearly exists, for example, of selflessness, gift-giving, and sharing, which would appear to run counter to such an instinct (Belk and Coon 1993). Nonetheless, an accumulating body of research suggests that many of the most intractable aspects of consumer behavior are indeed rooted in instinctive, evolved behavior patterns.

The foundation for such a view of human behavior was laid down by Darwin himself. In the final chapter of *On the Origin of Species*, he suggested that “in the distant future” the study of human psychology would be based on an evolutionary footing (Darwin [1859] 1985). He himself ventured some way toward this project in *The Descent of Man*, where he set out the notion of sexual selection, namely, that evolutionary adaptations were selected, in part, according to their success in attracting mates. In *The Expression of the Emotions in Man and Animals* he posited that the development of emotions was itself an example of an evolutionary adaptation.

It is only a small step from these two insights to suggest that the form and expression of human emotional and behavioral characteristics are determined in no small part by their success as evolutionary adaptations. In the hands of a whole new generation of biologists and psychologists these insights have become a new and powerful theory about human nature (Cronin 1991; Miller 2000; Ridley 1994; Wright 1994). The complex ramifications of evolutionary psychology need not concern us here. But a general understanding of its implications does turn out to

be highly relevant to the question of consumer behavior (Jackson 2002b).

Ridley (1994) sets out the evolutionary psychology stall persuasively. Human nature, he argues, is fundamentally influenced by the strategies and ploys of what Dawkins (1976) called the “selfish gene.” By definition, those genes that have survived so far are those that convey traits and characteristics that are conducive to survival—or to be more precise: characteristics that would have been conducive to genetic succession in the ancestral environment (Tooby and Cosmides 1990). In particular, evolutionary forces have conditioned us continually to strive to position ourselves in relation to the opposite sex and with respect to our sexual competitors.

Moreover, this fundamental element of sexual competition never abates, according to evolutionary psychology. Rather, we find ourselves conditioned to run faster and faster as time goes by, like the Red Queen in Lewis Carroll’s *Through the Looking Glass*, precisely because our competitors are all engaged in the same unending struggle. As a (male) reviewer of Ridley’s book noted with some glee: “animals and plants invented sex to fend off parasitic infection. Now look where it has got us. Men want BMWs, power and money in order to pair-bond with women who are blonde, youthful and narrow-waisted”!

The idea that consumption may have something to do with sex has a clear resonance with common wisdom. Advertisers and media executives have developed an extraordinary creativity in using sex and sexual imagery to sell their products. Plenty of evidence is available to suggest that consumers themselves relate both the activity of shopping and the products they shop for to sexual motivations, either implicitly or explicitly (Falk and Campbell 1997; Rosenblatt 1999). In a recent article entitled *The Fires of Desire*, the veteran consumer researcher Russell Belk and his coauthors conducted a cross-cultural survey in which they tested the hypothesis that desire plays a vital role in shaping and motivating consumer behavior (Belk et al. 2003). In all three of the cultures examined, the authors found that consumer motivations were (often inextricably) entwined in the language and imagery of sexual desire.





Among the behaviors suggested by the evolutionary psychology of consumerism are those concerned with display and status (Howarth 1996). We have already drawn attention to some of these behaviors. Veblen highlighted the “invidious” nature of social comparison and was derogatory of the culture that encourages it. Preferring to condemn than to condone, Veblen offered little in the way of understanding of the underlying motivations for consumer behavior. Evolutionary psychology, on the other hand, clearly has something to offer here. Specifically, the arguments from sexual selection suggest that at least some “conspicuous” consumer behaviors occupy the role of sexual display. That is, they advertise availability, fertility, potency, fidelity, and a variety of other characteristics desirable to the opposite sex.

Display consumption is not limited to sexual display, however. Other kinds of display speak less directly to sexual availability, but represent a means of establishing social position within status hierarchies. The notion of a status hierarchy is an important one in evolutionary psychology. It is derived from earlier work by the Norwegian biologist Schjelderup-Ebbe on the now-familiar concept of a “pecking order.” According to evolutionary psychology, status hierarchies play a rather complex but extremely important role in the social organization that controls both rights and access to resources. High positions in the hierarchy—according to the theory—correspond to improved access, not only to financial or physical resources, but also to sexual resources (potential mates), to social resources (friends, family, community), and to information—vital in its turn to protect the long-term social interests of the individual and his or her progeny. This latter view is reinforced, as we shall see below, by research from social anthropology.

The more general notion that certain kinds of consumption are used to advertise status, power, and social position has been explored extensively in the sociological discourse on consumption. Following Veblen’s work, the French sociologist Pierre Bourdieu (1984) has suggested that patterns of consumer behavior provide the mechanism for defining and maintaining class distinctions in modern society. A more general variation

on this idea is provided by Fred Hirsch’s concept of *positional* consumption.

Hirsch ([1977] 1995) suggested that once our material needs are met, we are led to consume “positional goods,” goods that have the characteristic of allowing us to “position” ourselves socially with respect to our fellows. The defining quality of such goods is their social scarcity; and it is this scarcity that provides the vehicle for social positioning. If the goods were freely available, their value in positioning us in relation to our fellows would be diminished. Once enough people possess these goods, moreover, their value in positioning us ahead of the crowd declines, and those wishing to stay ahead must engage in a search for new goods with social scarcity.

In this way, Hirsch argues, the positional economy engages us in a never-ending struggle—reminiscent of the Red Queen argument of evolutionary psychology. “It is a case of everyone in the crowd standing on tiptoe and no-one getting a better view,” he suggests (Hirsch [1977] 1995, p. 49). At the start of such a process, a few individuals gain a better view by standing on tiptoe. But the upshot is that others are forced to follow just so that they can maintain their original position. But “if all do follow ... everyone expends more resources and ends up with the same position.” The vigorous pursuit of positional consumption, according to Hirsch, turns out to be nothing more than a kind of “zero-sum game.”

Given the apparent futility of this Red Queen race, it is tempting to label all such behaviors as either pathological or morally reprehensible. This rebuke has certainly been implicit (and sometimes explicit) in the writings of social theorists such as Veblen, Hirsch, and Bourdieu. Evolutionary psychology, however, appears to have turned the moral concern of social commentators on its head by offering an evolutionary “legitimation” for display consumption. From this perspective, status-seeking consumer behavior cannot be regarded as either irrational or pathological—at least from an individual point of view. Rather, it is an expression of behavioral traits that have been successful in ensuring the survival of the species for generations.



Some very good arguments exist, as we shall see below, for not taking this “legitimation” too seriously. On the other, this should not discourage us from acknowledging the importance of status-seeking behaviors to an understanding of consumer motivation. Nor should it stop us from using that understanding to inform sustainable consumption policies. Some interesting suggestions along these lines have already been made. A recent report to the U.K. Prime Minister’s Strategy Unit, for example, has suggested the idea of taxing positional goods (Donovan et al. 2002).

It is also important to note that not all of the behaviors that emerge from evolutionary psychology are self-serving, sexually aggressive behaviors. The theory also offers an account of moral, social, and altruistic behaviors. Key theories in evolutionary psychology suggest that such behaviors evolved in humans precisely because they offer selective advantages (Wright 1994). An important body of work also shows how the individual choice between competitive behavior and cooperative behavior depends crucially on the social and institutional context. Axelrod (1984) showed how a conditional form of altruism could flourish even in competitive societies. In very competitive societies, self-serving behavior tends to be more successful than altruism. But in a society characterized by cooperation, socially responsive behavior tends to be favored over competition.

Some clear policy lessons emerge from all this. First, of course, evolutionary psychology points to the limitations of appealing to the “better nature” of consumers. Exhortations to individual restraint are likely to be met with limited success, particularly where social conditions militate against altruistic behavior. Conversely, this perspective highlights the crucial importance of the social and cultural context in shaping and constraining individual choice. The dominant view of human nature emerging from evolutionary psychology may be one in which, in Dawkins’s words, “sustainability doesn’t come naturally” (Dawkins 2001). But it also highlights the importance of policy intervention to nurture, support, and sustain moral and social behaviors. It cannot entirely be taken as ruling out the possibility of living better by consuming less, but it does suggest that

achieving this double dividend will require sophisticated understandings of and interventions in human behavior.

## “Ordinary” Consumption and Consumer Lock-in

Veblenesque display consumption has occupied a central role in many of the sociological debates on consumption over the last century. Recently, however, the emphasis on this aspect of consumer behavior has itself been criticized. A handful of writers have argued that a great deal of consumption in fact takes place *inconspicuously* as a part of the ordinary, everyday decision-making of millions of individual consumers. “Ordinary” consumption, argue these authors, is not oriented particularly toward individual display. Rather it is about convenience, habit, practice, and individual responses to social norms and institutional contexts (Gronow and Warde 2001; Shove 2003; Shove and Warde 1997).

The concept of “inconspicuous consumption” is important to an understanding of consumer behavior for several reasons. In particular, it has a clear resonance with our day-to-day experience of consuming. High-street shopping for fashion goods may explicitly engage our display motivations on selected occasions. Apart from compulsive or addictive shoppers, however, we do not as a rule spend our day-to-day lives engaged consciously in this kind of consumption. Much everyday consumption is almost invisible, even to ourselves.

In particular, the regular payments that leave our bank accounts to cover our mortgages, insurance payments, utility bills, and local taxes appear to have very little in the way of display or status associated with them at all. Even when they change electricity or gas suppliers, for example, very few people tend to be motivated in their choice of new supplier by any attempt to improve their social standing. Indeed, there would be little point in engaging in such a strategy. As well as being inconspicuous to ourselves, such choices are virtually invisible to our social peers, our sexual competitors, and the world at large.

A closer examination reveals that some at least of our “ordinary” consumption conceals important display and status aspects. In particular,



of course, many everyday household consumption decisions are shaped by a single and very significant consumption decision with clear display and status connotations: namely, our choice of dwelling. A larger house in a better neighborhood may offer social and personal advantages to its owner or tenant. It also entails larger mortgage (or rent) payments, higher utility bills, higher local authority (council) taxes, heavier insurance premiums, and a greater demand for furniture and fittings. Having made the “critical” consumption choice of house purchase (or rental), we may then find ourselves locked into a variety of other consumption decisions that have little or nothing to do directly with status. Nonetheless, the status component in such decisions is difficult to deny. It is clear, however, that critical consumption decisions—such as house or vehicle purchase—are only one of many components that influence everyday consumer choice. A key lesson from the literature on ordinary consumption is that these day-to-day choices are constrained within a rather complex decision architecture, which includes historical, social, institutional, and even political components.

To take one simple and rather familiar example, the fuel consumption associated with heating our homes is determined (among other things) by the available fuel supply, the efficiency of the conversion devices, the effectiveness of thermal insulation in the dwelling, and the level of thermal comfort programmed into our thermostats. These factors in their turn are constrained by the historical development of the fuel supply and appliance industries, the institutional design of the energy service market, the social norms associated with personal convenience and thermal comfort, and our own personal responses to those norms. The process of socialization of these norms is itself a complex one, often involving incremental changes over long historical periods (Shove 2003). Typically, at the point of everyday decision, the ordinary consumer will have little or no control over most of this decision architecture.

The message that flows from this analysis, therefore, is that consumers are a long way from being willing actors in the consumption process, capable of exercising either rational or irrational choice in the satisfaction of their own needs and desires. More often they find themselves “locked

into” unsustainable patterns of consumption, either by social norms that lie beyond individual control, or else by the constraints of the institutional context within which individual choice is executed.

Emphasizing that these circumstances are “often deliberately created by producer and business interests” (Sanne 2002, p. 286), proponents of this view have something in common with the critical social theory of Bourdieu and others. They also offer some support for the idea that consumer society is suffering from some kind of social pathology. But the later writers locate the pathology in a different place than do the earlier social critics. Specifically, they claim, this pathology does not reside within the remit or control of the individual consumer. Nor is it some disembodied feature of “consumer culture.” Rather it is to be located quite specifically within the institutional architecture of everyday choice (Wilhite et al. 1996; Ger et al. 1998). Once again, the message of this strand of the literature is to emphasize that wishful thinking about behavioral change will not deliver sustainability. If there are win-win solutions to the problem of overconsumption, they will require intervention and change at the societal level, rather than simplistic appeals to the good nature of individuals to realize them.

## The Symbolic Role of Consumer Goods

Proponents of “ordinary consumption” downplay the importance of Veblenesque explanations about consumer behavior. But one underlying feature of display consumption is scarcely deniable and has much wider connotations than its application to status-seeking behaviors. This is the insight that, in addition to their purely functional characteristics, material commodities possess vitally important symbolic properties.

Once again this idea has some resonance with popular psychology about our relationship with material objects. A child’s first teddy bear, a woman’s wedding dress, the club shirt of the football fan, the torn and frayed photograph of an old friend, the stamp collector’s prized first-day cover, the very latest chart CD, this year’s executive toy, the souped-up, low-sprung sports car of the “boy racer”: all these examples suggest that much more



is at stake in the possession of material artifacts than simple functional value.

Over the second half of the twentieth century, a body of intellectual thought has emerged that sets this popular wisdom about the symbolic nature of consumer goods on a much more robust and sophisticated footing. This school of thought has arisen from the confluence of some rather diverse intellectual influences, including the social critiques of Simmel (1950) and Bourdieu (1984), the semiotics of Charles Morris (1946), the structuralist philosophy of Roland Barthes (1973), the poststructuralist social philosophy of Baudrillard (1968, 1970), the social anthropology of Marshall Sahlins (1976) and Mary Douglas (1976), and the consumer and motivation research of Ernest Dichter (1964), Elizabeth Hirschmann and Morris Holbrook (Hirschmann, 1980), Russell Belk (1988), and others.

Again it would be impossible to do justice to this enormous literature within the scope of one short article. Nonetheless, the most important lesson from this huge body of work is rather clear: material commodities are important to us, not just for what they do, but for what they signify (about us and about our lives, loves, desires, successes, and failings) both to others and to ourselves. Material commodities are not just artifacts. Nor do they offer purely functional benefits. They derive their importance, in part at least, from their symbolic role in mediating and communicating personal, social, and cultural meaning. Douglas and Isherwood ([1979] 1996, p. 40) make the case persuasively:

Forget the idea of consumer irrationality. Forget that commodities are good for eating, clothing and shelter; forget their usefulness and try instead the idea that commodities are good for thinking; treat them as a nonverbal medium for the human creative faculty.

One of the most obvious applications of this broad thesis lies in the role of material commodities in constructing and maintaining personal identity. The idea that we tend to regard possessions as parts of ourselves dates back (at least) to the philosopher William James, who argued that:

A man's Self is the sum total of all that he can call his, not only his body and his psychic

powers, but his clothes and his house, his wife and his children, his ancestors and friends, his reputation and works, his lands, and yacht, and bank-account. All these things give him the same emotions. If they wax and prosper, he feels triumphant; if they dwindle and die away, he feels cast down—not necessarily in the same degree for each thing, but in much the same way. (James 1890, pp. 291–292)

The implications of James's observation for consumer behavior have been explored in considerable depth in consumer research and of course employed widely in advertising and marketing consumer goods (Fine and Leopold 1993). In a comprehensive survey of the relationship between possessions and the "extended self" Russell Belk (1988) explores the functions of possessions at different stages of human development, from their role in enabling the infant to distinguish between self and environment to their function in achieving a sense of continuity and preparation for death in older adults. He also undertakes a comprehensive survey of the various psychological and social processes whereby consumer possessions are "cathected" or incorporated into the extended self.

Perhaps the most obvious example of the role of material artifacts in the construction of identity is provided by the case of the car noted above, as the following wonderful anecdote from the New York columnist Benjamin Stein makes abundantly clear:

Sometimes I test myself. We have an ancient, battered Peugeot, and I drive it for a week. It rarely breaks, and it gets great mileage. But when I pull up next to a beautiful woman, I am still the geek with the glasses. Then I get back into the Porsche. It roars and it tugs to get moving. It accelerates even going uphill at 80 . . . It makes me feel like a tomcat on the prowl . . . with the girls I shall never see again pulling up next to me, giving the car a once-over, and looking at me as if I were a cool guy, not a worried, over-extended, 40-year-old schnook writer. (Stein 1985, p. 30)

But the symbolic importance of possessions is not confined solely to personal identity. Symbols are by their nature socially constructed. The value attached to symbols is constantly





negotiated and renegotiated through social interactions within a specific cultural context. For a symbol to serve its purpose of conveying social meaning, as Hirschman (1980) explains, “there must be at least two parties—the symbol possessor (perhaps a consumer desiring to express his/her identity to others via a display of symbols) and the symbol observer (perhaps another individual to whom the consumer wishes to communicate his/her identity).”

In the hands of Baudrillard (1970) and more recently Baumann (1998), this insight has become the basis for a view of consumer society in which the individual consumer is locked into a continual process of constructing and reconstructing personal identity in the context of a continually renegotiated universe of social and cultural symbols. The principal object of consumption in the consumer society is not, according to Baudrillard, material goods or even economic value, but signs, symbolic value. As Baumann (1998) argues, there are convenient resonances between this process of perpetual reconstruction of identity and the impermanent transient properties of modern consumer goods. “Aggregate identities,” he argues, “loosely arranged of the purchasable, not-too-lasting, easily detachable and utterly replaceable tokens currently available in the shops, seem to be exactly what one needs to meet the challenges of contemporary living” (Baumann 1998, p. 29). A very similar thesis is advanced in Lewis and Bridger’s (2001) book *The Soul of the New Consumer*.

In a sense this model of the perpetual reconstruction of identity through material goods appears to reinforce the idea explored in an earlier section that consumer society is in the grip of some kind of social pathology. But as some of the proponents of this kind of symbolic interactionism are keen to point out, this is not a pathology located within the individual consumer. Douglas and Isherwood ([1979] 1996) set out a view of consumer society that is based firmly on anthropological studies of primitive societies. In this view, it is entirely “rational” for consumers to employ material artifacts in a wide range of social contexts to provide symbolic functions. In particular, they draw attention to the importance of material goods in providing “marking services”—social rituals that serve to embed the consumer

in his or her social group, cement social relations within the group, and play a vital role in maintaining information flows within the social group. These information flows, claim Douglas and Isherwood, go far beyond the invidious “display consumption” offered by Veblenesque critiques of consumerism. They serve a vital purpose in helping the individual to maintain and improve social resilience in the face of cultural shifts and social shocks. Research from an entirely different quarter appears to reinforce these ideas. The importance of gift giving in exchange relations has been widely explored in consumer psychology and motivation research (Belk and Coon 1993).

Perhaps even more surprising insights emerge from the literature that connects the symbolic role of consumer goods to what Maslow (1954) called the “higher” actualization needs for understanding, meaning, and transcendence that human beings experience. Fascinating research on the sacred meaning of money (Belk and Wallendorf 1990) and the sacred and profane aspects of consumption (Belk et al. 1989) identifies a “ritual substratum” of consumer behavior in which consumers are continually engaged in a process of sacralizing and desacralizing material goods. McCracken (1990) argues that consumers are engaged in a continual pursuit of “displaced ideals” by investing symbolic meanings in consumption goods. Campbell (1987, 2004) suggests that consumption plays a vital role in allowing people to “dream” and to explore fundamental metaphysical questions about who they are and what the world is like.

These insights are clearly vital where our understanding of consumption is concerned. It is already clear that no purely functional account of material goods is going to deliver a robust model for understanding consumer behavior, because functionality is not the point (or at least not exclusively the point). We consume not just to nourish ourselves or protect ourselves from the elements or maintain a living. We consume in order to identify ourselves with a social group, to position ourselves within that group, to distinguish ourselves with respect to other social groups, to communicate allegiance to certain ideals, and to differentiate ourselves from certain other ideals. We consume in order to communicate. Through consumption we communicate



not only with each other but also with our pasts, with our ideals, with our fears, and with our aspirations. We consume in pursuit of meaning.

Clearly, this view of consumption as a vital form of social communication suggests that simplistic appeals to consumers to forego consumption opportunities just will not wash. Indeed proponents of this view dismiss the eco-humanistic idea of “living better by consuming less” as “naïve, absurd and moralistic” (Jackson et al. 2004). In short, the symbolic interactionist perspective on consumption appears once again to support the argument that consumption goods—even at very high levels of throughput—are essential elements in the pursuit of human well-being. It takes us, in one sense, right back to the place from which we started.

## Discussion

It should be obvious from the preceding discussion that the various discourses on consumption are shot through with a kind of dialectical tension. The eco-humanist view of consumption as a social pathology arises as a dialectical response to the conventional economic insatiability of wants. In place of insatiability, the eco-humanists place sufficiency in the satisfaction of needs, and they emphasize the social and psychological dangers of materialism. The consumption-as-evolution avenue warns against any simplistic adoption of this perspective by emphasizing the evolved nature of consumer behaviors, whereas the consumption-as-meaning school attacks the eco-humanist approach for failing to account for the symbolic nature of material goods. It emphasizes the vital social and cultural roles that consumer artifacts are called upon to play.

A part of this dialectical tension clearly revolves around the concept of human needs and the role that these might play in developing alternative views of human development. Economics plays down needs; humanistic psychology places them at the center of its ideas about human motivation and behavior; and it is interesting to note that symbolic interactionism is as scathing about needs as economics is (Jackson et al. 2004). Baudrillard (1968, p. 24) for example, insists that “the desire to moderate consumption or to establish a normalizing network of needs, is naïve and

absurd moralism.” Douglas and Isherwood ([1979] 1996) are equally dismissive of this agenda.

But where do these arguments leave the double dividend argument? How should we now construe the idea that it is possible to live better by consuming less? Should this simply be abandoned as an unrealistic reading of a much more complex situation? Or is there still room for maneuver in negotiating a less materialistic society that is also capable of delivering improved well-being?

The sociological rejection of the needs-theoretical framework is, at first sight, particularly damaging for the eco-humanists’ double dividend argument. For if material artifacts play vitally important roles in relation to social interactions, for example through marking services, and these marking services play such vital roles in maintaining information networks and protecting our resilience to social shocks, then it becomes extremely problematic for any set of people to suggest to another set of people—or to society at large—that their needs might be served by foregoing the benefits of material artifacts. Indeed it would appear to be a clear recipe for exploitation of one social group by another. Unfortunately, however, we are driven at the same time away from the possibility that we might seek dematerialization of these social and cultural needs.

On the other hand, it seems to me that the symbolic interactionist approach does offer some particularly promising insights for sustainable consumption. At the very least, the social anthropology and philosophy of consumer behavior does not preclude the possibility of negotiating or renegotiating the conditions and the means under which “marking services,” for example, are exchanged. Moreover, the insight that a certain amount of consumer behavior is dedicated to an (ultimately flawed) pursuit of meaning opens up the tantalizing possibility of devising some other, more successful and less ecological damaging strategy for pursuing personal and cultural meaning.

This is not, in any sense, a simple task, nor one that can easily be pursued by any given individual or set of individuals. On the contrary, it is a fundamentally social and cultural project, which will require sophisticated policy interventions at many different levels (Jackson and Michaelis 2003; Jackson 2005). Nonetheless, it remains a



very real possibility that we could collectively devise a society in which it is possible to live better (or at least as well as we have done) by consuming less, and become more human in the process.

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## References

- Allen, W. 1982. *Midnight Economist: Broadcast essays III*. Los Angeles: International Institute for Economic Research.
- Anderton, A. 2000. *Economics*. Third edition. Ormskirk, UK: Causeway Press.
- Anurit, J., K. Newman, and B. Chansarker 1999. *Consumer behaviour of luxury automobiles: A comparative study between Thai and UK customers*. Discussion paper, Middlesex University Business School, London.
- Axelrod, R. 1984. *The evolution of cooperation*. New York: Basic Books.
- Bagozzi, R., Z. Gürnao-Canli, and J. Priester 2002. *The social psychology of consumer behaviour*. Maidenhead, UK: Open University Press.
- Barthes, R. 1973. *Mythologies*. London: Paladin.
- Baudrillard, J. 1968. *The system of objects*, extracted in *Selected writings* [1988]. Cambridge, UK: Polity Press.
- Baudrillard, J. 1970. *The consumer society—Myths and structures*. Reprinted 1998. London: Sage Publications.
- Baumann, Z. 1998. *Work, consumerism and the new poor*. Maidenhead, UK: Open University Press.
- Becker, G. 1976. *The economic approach to human behavior*. Chicago: University of Chicago Press.
- Becker, G. 1981. *A treatise on the family*. Cambridge, MA: Harvard University Press.
- Begg, D., S. Fischer, and R. Dornbusch 2003. *Economics*. Seventh edition. Maidenhead, UK: McGraw-Hill.
- Belk, R. 1988. Possessions and the extended self. *Journal of Consumer Research* 15(2): 139–168.
- Belk, R. and G. Coon. 1993. Gift-giving as agapic love: An alternative to the exchange paradigm based on dating experiences. *Journal of Consumer Research* 20(3): 393–417.
- Belk, R. and M. Wallendorf. 1990. The sacred meaning of money. *Journal of Economic Psychology* 11(1): 35–67.
- Belk, R., M. Wallendorf, and J. Sherry. 1989. The sacred and the profane in consumer behaviour—Theodicy on the *Odyssey*. *Journal of Consumer Research* 16(1): 1–38.
- Belk, R., G. Ger, and S. Askegaard. 2003. The fire of desire: A multi-sited inquiry into consumer passion. *Journal of Consumer Research* 30(3): 326–351.
- Bergmann, A., N. Hanley, and R. Wright. 2004. Valuing attributes of renewable energy investments. Paper presented at Applied Environmental Economics Conference, 26 March, London.
- Bocock, R. 1993. *Consumption*. London: Routledge.
- Bourdieu, P. 1984. *Distinction—A social critique of the judgement of taste*. London: Routledge and Kegan Paul.
- Campbell, C. 1987. *The romantic ethic and the spirit of modern consumerism*. Oxford, UK: Blackwell.
- Campbell, C. 2004. I shop therefore I know that I am: The metaphysical basis of modern consumerism. In *Elusive consumption*, edited by K. Ekström and H. Brembeck. New York: Berg Publishers.
- Cohen, M. and J. Murphy. 2001. *Exploring sustainable consumption—Environmental policy and the social sciences*. Oxford, UK: Pergamon Press.
- Crawford, I. 2003. *Variations in the price of foods and nutrients in the UK*. Working paper WP03/19. London: Institute for Fiscal Studies.
- Cronin, H. 1991. *The ant and the peacock—Sexual selection from Darwin to today*. Cambridge, UK: Cambridge University Press.
- Daly, H. 1996. *Beyond growth—The economics of sustainable development*. Boston: Beacon Press.
- Darwin, C. 1985. *On the origin of species by means of natural selection*. 1859. Reprinted 1985. London: Penguin Classics.
- Dawkins, R. 1976. *The selfish gene*. Oxford, UK: Oxford University Press.
- Dawkins, R. 2001. Sustainability doesn't come naturally: An evolutionary perspective on values.



- "Values Platform for Sustainability" Inaugural Lecture presented at The Environment Foundation, Wednesday, 14 November 2001, The Royal Institution, London.
- DEFRA (Department of Environment, Food and Rural Affairs). 2003. Changing Patterns: UK government framework for sustainable consumption and production. London: DEFRA/DTI.
- Dichter, E. 1964. *The handbook of consumer motivations: The psychology of consumption*. New York: McGraw-Hill.
- Dittmar, H. E. 1992. *The social psychology of material possessions—To have is to be*. New York: St. Martin's Press.
- Donovan, N., D. Halpern, and R. Sargeant. 2002. Life satisfaction: The state of knowledge and implications for government. London: Cabinet Office Strategy Unit.
- Douglas, M. 1976. Relative poverty, relative communication. In *Traditions of social policy*, edited by A. Halsey. Oxford, UK: Basil Blackwell.
- Douglas, M. and B. Isherwood. 1996. *The world of good—Towards an anthropology of consumption*. 1979 Reprint edition. London: Routledge.
- Douthwaite, R. 1992. *The growth illusion—How economic growth has enriched the few, impoverished the many and endangered the planet*. Bideford, UK: Green Books.
- Doyal, L. and I. Gough. 1991. *A theory of human needs*. London: Macmillan.
- Durning, A. 1992. *How much is enough?* New York: W.W. Norton.
- Edwards, T. 2000. *Contradictions of consumption: Concepts, practices and politics in consumer society*. Milton Keynes, UK: Open University Press.
- Elgin, D. 1993. *Voluntary simplicity*. New York: William Morrow.
- Falk, P. and C. Campbell. 1997. *The shopping experience*. London: Sage.
- Fine, B. and E. Leopold. 1993. *The world of consumption*. London: Routledge and Kegan Paul.
- Fromm, E. 1976. *To have or to be?* London: Jonathan Cape.
- Gabriel, Y. and T. Lang. 1995. *The unmanageable consumer: Contemporary consumption and its fragmentations*. London: Sage.
- Galbraith, J. 1958. *The affluent society*. Harmondsworth, UK: Penguin.
- Galtung, J. 1990. International development in human perspective. In *Conflict: Human needs theory*, edited by J. Burton. New York: St. Martin's Press.
- Ger, G., H. Wilhite, B. Halkier, J. Lassoe, M. Godsken, and I. Røpke. 1998. Symbolic meanings of high and low-impact daily consumption practices in different cultures. Presented at Second ESF Workshop on Consumption and Everyday Life, July, Lancaster University, Lancaster.
- Geyer, R. and T. Jackson. 2004. Supply loops and their constraints. *California Management Review* 46(2): 55–73.
- Graedel, T. and B. Allenby. 1995. *Industrial ecology*. Englewood Cliffs, NJ: Prentice Hall.
- Gronow, J. and A. Warde. 2001. *Ordinary consumption*. London: Routledge.
- Guide, D. and L. van Wassenhove. 2004. Special issue on supply chain management. *California Management Review* 46(2): 1–141.
- Heap, B. and J. Kent. 2000. *Towards sustainable consumption—A European perspective*. London: The Royal Society.
- Herber, L. 1963. *Our synthetic environment*. London: Jonathan Cape.
- Hirsch, F. 1995. *Social limits to growth*. 1977. Revised edition. London: Routledge.
- Hirschman, E. 1980. Comprehending symbolic consumption—Three theoretical issues. In *Symbolic consumer behaviour, proceedings of the conference on consumer esthetics and symbolic consumption*, edited by E. Hirschman and M. Holbrook. New York: Association for Consumer Research.
- Homans, G. 1961. *Social behaviour: Its elementary forms*. London: Routledge and Kegan Paul.
- Howarth, R. 1996. Status effects and environmental externalities. *Ecological Economics* 16(1): 25–34.
- Illich, I. 1977. *Towards a history of needs*. New York: Pantheon Books.
- Jackson, T. 1996. *Material concerns: Pollution, profit and quality of life*. London: Routledge.
- Jackson, T. 2002a. Quality of life, sustainability and economic growth. In *Environment and Welfare*, edited by T. Fitzpatrick and M. Cahill. London: Palgrave Macmillan.
- Jackson, T. 2002b. Evolutionary psychology in ecological economics: Consilience, consumption and contentment. *Ecological Economics* 41(2): 289–303.
- Jackson, T. 2005. *Motivating sustainable consumption—A review of models of consumer behaviour and behavioural change*. A Report to the Sustainable Development Research Network. London: Policy Studies Institute.
- Jackson, T. and R. Clift. 1998. Where's the profit in industrial ecology? *Journal of Industrial Ecology* 2(1): 3–5.
- Jackson, T. and N. Marks. 1999. Consumption, sustainable welfare and human needs—With reference to UK expenditure patterns 1954–1994. *Ecological Economics* 28(3): 421–442.





- Jackson, T. and L. Michaelis. 2003. *Policies for sustainable consumption*. London: Sustainable Development Commission.
- Jackson, T., W. Jager, and S. Stagl. 2004. Beyond insatiability—Needs theory and sustainable consumption. In *Consumption—Perspectives from ecological economics*, edited by L. Reisch and I. Røpke. Cheltenham, UK: Edward Elgar.
- Jacobs, M. and I. Røpke. 1999. Special issue on consumption. *Ecological Economics* 28(3).
- James, W. 1890. *The principles of psychology*. New York: Henry Holt.
- Kasser, T. 2002. *The high price of materialism*. Cambridge, MA: MIT Press.
- Lancaster, K. 1966. A new approach to consumer theory. *Journal of Political Economy* 7(3): 132–157.
- Lederer, K. 1980. *Human needs—A contribution to the current debate*. Cambridge, MA: Oelgeschlager, Gunn and Hain.
- Lewis, D. and D. Bridger. 2001. *The soul of the new consumer: Authenticity—What we buy and why we buy it*. London: Nicholas Brealey.
- Mas-Colell, A., M. Whinston, and J. Green. 1995. *Microeconomic theory*. Oxford, UK: Oxford University Press.
- Maslow, A. 1954. *Motivation and personality*. New York: Harper & Row.
- Max Neef, M. 1991. *Human-scale development—Conception, application and further reflection*. London: Apex Press.
- McCracken, G. 1990. *Culture and consumption*. Bloomington, IN: Indiana University Press.
- McDougall, W. 1923. *An introduction to social psychology*, 1908. Eighteenth edition. London: Methuen.
- Michaelis, L. 2000. *Sustainable consumption—A research agenda*. Oxford, UK: Commission on Sustainable Consumption.
- Miller, D. 1995. *Acknowledging consumption*. London: Routledge.
- Miller, G. 2000. *The mating mind—How sexual choice shaped the evolution of human nature*. London: William Heinemann.
- Morris, C. 1946. *Signs, language and behaviour*. New York: George Braziller.
- Myers, D. and E. Diener. 1996. The pursuit of happiness. *Scientific American* 27(5): 70–73.
- Norgaard, R. 1994. *Development betrayed—The end of progress and a coevolutionary revisioning of the future*. London: Routledge.
- OECD (Organisation for Economic Cooperation and Development) 1998. *Towards sustainable consumption patterns: A progress report on member country initiatives*. Paris: OECD.
- Oswald, A. 1997. Happiness and economic performance. *Economic Journal* 107(445): 1,815–1,831.
- Philippidis, G. and L. Hubbard. 2003. Modelling hierarchical consumer preferences: An application to global food markets. *Applied Economics* 35(15): 1,679–1,687.
- Princen, T., M. Maniates, and K. Conca. 2002. *Confronting consumption*. Cambridge, MA: MIT Press.
- Rayner, S. and E. Malone, eds. 1998. *Human choice and climate change*, Vol. 1. Washington, DC: Battelle Press.
- Reisch, L. and I. Røpke, eds. 2004. *Consumption—Perspectives from ecological economics*. Cheltenham, UK: Edward Elgar.
- Ridley, M. 1994. *The Red Queen—Sex and the evolution of human nature*. Harmondsworth, UK: Penguin Books.
- Ropke, I. 1999. The dynamics of willingness to consume. *Ecological Economics* 28(3): 399–420.
- Rosenblatt, R., ed. 1999. *Consuming desires: Consumption, culture and the pursuit of happiness*. Washington, DC: Island Press.
- Russell, R. and M. Wilkinson. 1979. *Microeconomics: A synthesis of modern and neoclassical theory*. New York: John Wiley.
- Ryan, M. and A. Bate. 2001. Testing the assumptions of rationality, continuity and symmetry when applying discrete choice experiments in health care. *Applied Economics Letters* 8(1): 59–63.
- Sahlins, M. 1976. *Culture and practical reason*. Chicago: University of Chicago Press.
- Samuelson, P. 1938. A note on the pure theory of consumers' behaviour. *Economica* 5(17): 61–71.
- Sanne, C. 2002. Willing consumers—Or locked in? Policies for a sustainable consumption. *Ecological Economics* 42(1–2): 273–287.
- Schor, J. 1998. *The overspent American—Upscaling, downshifting and the new consumer*. New York: Basic Books.
- Schumacher, E. 1973. *Small is beautiful*. London: Abacus.
- Scitovsky, T. 1976. *The joyless economy*. Oxford, UK: Oxford University Press.
- Shaw, D. and T. Newholm. 2003. Consumption simplicity among ethical consumers. In *Advances in Psychology Research* volume 20, edited by S. P. Shohov. Hauppauge, NY: Nova Science Publishers.
- Shove, E. 2003. *Comfort, cleanliness and convenience: The social organisation of normality*. Oxford, UK: Berg.
- Shove, E. and A. Warde. 1997. Noticing inconspicuous consumption. Paper presented to the



- European Science Foundation TERM Programme Workshop on Consumption, Everyday Life and Sustainability, Lancaster, UK: University of Lancaster.
- Simmel, G. 1950. The metropolis and mental life. In *The sociology of George Simmel*, edited by K. Wolff. London: Collier Macmillan.
- Slessor, M. 1997. *Management of greed: Bio-physical appraisal of economic and environment potential*. Edinburgh: Resource Use Institute.
- Springborg, P. 1981. *The problem of human needs and the critique of civilisation*. London: George Allen and Unwin.
- Stein, B. 1985. The machine makes this man. *Wall Street Journal*, 13 June, 30.
- Tooby, J. and L. Cosmides. 1990. The past explains the present: Emotional adaptations and the structure of ancestral environments. *Ethology and Sociobiology* 11: 375–421.
- Trainer, T. 1996. *Towards a sustainable economy—The need for fundamental change*. Oxford, UK: Jon Carpenter Publishing.
- UNDP (United Nations Development Programme) 1998. *Human development report 1998*. Oxford, UK: Oxford University Press.
- UNEP (United Nations Environment Programme) 2001. *Consumption opportunities: Strategies for change*. Paris: UNEP.
- Van den Bergh, J. C. J. M., A. Ferrer-i-Carbonell, and G. Munda. 2000. Alternative models of individual behaviour and implications for environmental policy. *Ecological Economics* 32(1): 43–61.
- Veblen, T. 1998. *The theory of the leisure class*. 1899. Reprint edition, Great Minds Series. London: Prometheus Books.
- Vincent, J. and T. Panayotou. 1997. Consumption: Challenge to sustainable development . . . Or distraction. *Science* 276(5309): 53–57.
- Wachtel, P. 1989. *The poverty of affluence*. Philadelphia: New Society Publishers.
- Wilhite, H., H. Nakagami, T. Masuda, and Y. Yamaga. 1996. A cross-cultural analysis of household energy use in Japan and Norway. *Energy Policy* 24(9): 795–803.
- Wilson, E. O. 2001. *The future of life*. New York: Alfred Knopf.
- Worcester, R. 1998. More than money. In *The good life*, edited by I. Christie and L. Nash. London: DEMOS.
- Wright, R. 1994. *The moral animal—Why we are the way we are: The new science of evolutionary psychology*. London: Abacus.

## About the Author

**Tim Jackson** is Professor of Sustainable Development at the Centre for Environmental Strategy (CES) in the University of Surrey, Guildford, United Kingdom. He currently holds a research fellowship in sustainable consumption funded by the Economic and Social Research Council and leads the Ecological Economics Research Group at CES. He is also chair of the Economics Steering Group of the U.K. Sustainable Development Commission and sits on the U.K. Round Table on Sustainable Consumption.

