Chapter 5

Economics, Ethics and Green Consumerism

Jouni Paavola

1. Introduction

This chapter examines green consumerism — the making of consumer choices at least partly on the basis of environmental concerns. I pursue here two different goals. First, I aim to clarify the promises and pitfalls of green consumerism as a way of transforming current consumption patterns in a more sustainable direction. Second, the chapter seeks to demonstrate that an economic approach can help us to understand the social and environmental dimensions of consumer behaviour.

Green consumerism is an interesting and important object of analysis for several reasons. First, consumer choices have a significant effect on the environment and, therefore, also have the potential to alleviate environmental problems. Second, green consumerism and lifestyles are becoming fashionable and the belief in their ability to improve environmental outcomes is increasingly widely shared (see, for example, Elgin 1993). Finally, as outlined in Chapters 2 and 3 of this volume academia and international policy arenas are focussing greater attention on consumption. It is felt that the potential of publicly regulating production is either not sufficient to remedy environmental problems, or is already largely exhausted (see Cogoy 1999; Crocker and Linden 1998; Georg 1999; Jackson and Marks 1999; OECD 1997a, 1997b, 1998; Røpke 1999).

For other social scientists economics is not by any means an obvious discipline to use to gain a deeper understanding of consumer behaviour. After all, economic theorising in its usual form builds on narrow and counterfactual assumptions concerning human behaviour that render consumption as an object of analysis without symbolic and social dimensions. In essence, the traditional economic approach views consumption as a string of rational choices which individuals make to maximise their personal welfare without regard for the consequences of their choices for other humans and non-humans and without considering the choices made by others and their consequences. Even economists themselves have sometimes considered the theory of consumer choice to be an area that has not progressed since the mid-twentieth century.

Yet some relatively recent developments in economics promise to make it less naïve and more useful for the kinds of inquiries into consumption that interest other social scientists. These developments include the recent revival of interest in the study of interdependent consumer choices, originally pioneered a century ago by Thorstein Veblen (Corneo and Jeanne 1997; Frank 1985, 1991; Veblen 1899). Another area of research at the interstices

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of economics and philosophy has made space for non-welfarist behavioural motivations and examined their implications for economic analysis (Sen 1977, 1979; Anderson 1993; Kavka 1991, 1993). Finally, increasingly popular game-theory provides a heuristic framework that can be used to integrate these new trends in economics.

In essence, as I seek to demonstrate in this chapter, at its best economics enables us to analyse consumer choices as the decisions of agents with plural values who act on socially constructed identities and knowledge. Often their choices are interdependent, in other words they are bound up with the choices made by others. Some agents may seek to display their wealth in the Veblenian (1899) fashion, while others may seek status in their subcultures by actually resorting to green consumerism or lifestyles. This chapter also demonstrates that we can gain policy-relevant insights by analysing consumption games characterised by plural motivations.

In the following discussion, the first section describes the understanding of consumption in conventional economics — a series of independent and welfare-seeking consumer choices — and discusses the limited potential of green consumerism if this model is accepted. The second section demonstrates how the standard model can be expanded to accommodate plural values and a broader notion of green consumerism. The third section examines the significance of accepting the interdependence of consumer choices through the use of game theory and the fourth section works out the implications of value pluralism for interdependent consumer choices. The chapter's final section examines in greater detail the implications of green consumerism when value pluralism prevails.

2. The Standard Model of Consumer Choice

The model of rational choice (see Hargreaves Heap *et al.*, 1992) is a useful starting point for understanding how economics has traditionally approached consumption and, therefore, how it must treat green consumerism. The rational choice model contends that consumers are interested exclusively in their own utility or welfare and that they rank choice alternatives according to how they would enhance individual welfare. The model also assumes that consumers have limitless cognitive capabilities and can obtain perfect knowledge about the choice alternatives they face and that they make choices that do maximise their welfare. Additionally, consumers are not understood to have any control over the available alternatives: market forces generate the menu of choice alternatives they face.

There coexist within economics three different views of how items of consumption relate to the utility or welfare of the choosing agent:

- Items of consumption somehow directly translate into enhanced utility or welfare. This "naïve" view collapses consumption into acquisition.
- Items of consumption have characteristics that are useful for consumers (see Lancaster 1966). This approach is more useful and is able to treat the act of consumption as distinct from the act of buying. However, it still usually incorporates a narrow and problematic notion of consumption as an isolated and individual activity.

- Items of consumption such as steak, wine and candles generate utility only indirectly after being transformed into final goods like candlelight dinners through household production (see Becker 1976; Stigler and Becker 1977).

The third of these approaches can form the basis of a rich and elaborate view of consumption if it is accompanied by the notion of socialised agents acting on plural motivations. However, this is not usually the case (see, for example, Stigler and Becker 1977).

All traditional economic theories assume that consumers are motivated only by the improvement of their personal utility or welfare. These traditional theories also usually fail to make a distinction between utility and welfare and assume that whatever values underpin agents' preferences; the choices made on the basis of them must improve the choosing agent's welfare. Early economic theory justified this close association of utility and welfare. It provided a strong link between utility, welfare and the preferences of agents by associating utility with pleasure or usefulness: agents simply preferred things that made them happier and better off (see Georgescu-Roegen 1968; Sen 1991). However, in the early twentieth century utility came to be redefined as the satisfaction of an agent's preferences, whatever they may be (see Broome 1991; for the original argument see Hicks and Allen 1934). This redefinition left utility without substantial content and severed its connection to the choosing agent's welfare (see Sen 1973).

Therefore, there is no reason why the choices of agents should improve their welfare when the broad notion of utility is accepted: agents may deliberately choose to pursue some other goals. These kinds of motivations are likely to explain why at least some agents engage in green consumerism. However, this discussion cannot adopt the broad notion of utility as the satisfaction of preferences because it aims to understand the implications of different value positions for preferences and choices. It therefore needs to be able to distinguish between them. In what follows, utility will be understood in the classic sense as pleasure or usefulness closely connected with a narrow understanding of the individual's welfare. To put it differently, the agents of the standard economic model are informed by self-centred welfarism, a form of utilitarian values.

Although the rational-choice model suggests that consumers choose between alternatives to maximise their welfare within the constraints of their budgets, this does not necessarily make them short-sighted hedonists. In contemporary scholarship it is usually understood that agents seek to maximise their utility or welfare over their whole lifetime (Deaton and Muellbauer 1980). This may entail postponing consumption, for example when saving for a home before buying one. At other times it may be better to incur debt. However, while lifetime utility or welfare maximisation provides a richer view of consumption than a view that does not consider agents as forward-looking planners, it also overestimates their actual capabilities and downplays the significance of mistakes.

The standard model has another noteworthy feature: no effects are understood to exist between one agent's consumption and another agent's welfare. These kinds of interpersonal effects are called consumption or positional externalities (see Frank 1985, 1991; Hirsch 1995; Leibenstein 1950) and, to put it mildly, the assumption of independent consumer choices is unrealistic. We all know that relatives, neighbours and peers do care about each other's consumption: they may feel better or worse off depending on whether they do or do not have the items of consumption possessed by others. At best we may start

with the assumption of independence, because independent consumer choices form the necessary first step in understanding before we expand the economic analysis of consumption.

No matter what preferences self- and welfare-centred consumers have, the assumption is that they are always better off if they exhaust their budgets, either by consuming now or in the future. Moreover, it is understood that it is better for them to spend their budgets to maximise their welfare regardless of the impact on other humans and non-humans. But this does not mean that the consumers of the standard model of rational consumer choice cannot engage in green consumerism: personal welfare and environmental protection are compatible in a number of choices. For example, consumers may well choose environmentally benign non-material services, such as going to an art exhibition or theatre, if they think doing so will improve their welfare more than material consumption. Consumers may also choose environmentally friendly products, such as organically-grown produce or vegetarian meals if they believe that doing so will be welfare enhancing.

To put it differently, the rational-choice model assumes that all agents revealing environmental preferences obtain welfare gains from expected improvements in environmental quality. It also understands that the seeking of these welfare gains exhausts motivations for environment-friendly behaviour, such as engagement in green consumerism. Monetary valuation of the environment is based on this idea: rational consumers are thought to be willing to pay at least the value of changes in environmental quality to secure these changes for themselves. This line of reasoning suggests that the value of environmental quality or its change could be determined by measuring consumer willingness to pay.

However, positions that suggest consumers engage in environment-friendly behaviour and support environmental protection only because they expect welfare gains are problematic. First, it is difficult to explain all environmentally informed behaviour such as green consumerism as self-interested welfare maximisation because the improvement of personal welfare and desirable environmental outcomes are incompatible in a number of cases. For example, forgoing the use of a car often imposes significant burdens on those who commit themselves to cycling or public transport. The case of dutiful recycling is similar. Finally, the choice of more expensive environment-friendly products may increase expenditure more than is compensated for by any additional welfare benefits. Economists usually explain away these apparent contradictions by claiming that agents obtain some sort of psychological satisfaction from what they do. However, this ploy does not do justice to all consumer choices: individuals do sometimes consider that certain goals are more important than their own welfare. Moreover, references to "satisfaction" do not improve our understanding of what actually motivates people to engage in more environmentally responsible behaviour.

The existence of non-welfarist motivations, therefore, should be taken seriously. Our understanding of our own behaviour tells us that our choices are not always determined by decisions to improve personal welfare. There is also evidence of non-welfarist motivations and behaviour from surveys that aim to determine the monetary value of environmental quality. For instance, respondents sometimes express strong commitments to environmental protection, but refuse to offer willingness-to-pay estimates (Jorgensen *et al.*, 1999; Spash and Hanley 1995). A number of philosophical and theoretical objections have also been levelled against exclusively welfare-based explanations of human behaviour and

choices (Foster 1997; Sagoff 1988; Sen 1995; Vatn and Bromley 1995). Finally, contemporary research on ethics and economics provides a sound foundation for recognising non-welfarist behavioural motivations. The next section develops the idea of value pluralism, incorporates it into the standard model of rational choice and examines the implications for our understanding of green consumerism.

3. Green Consumerism and Value Pluralism

Extending the rational-choice model to accommodate value pluralism requires us to redefine the idea of rationality. The conventional view in economics is that rationality involves strictly welfare-maximising behaviour. We must substitute for this perspective a wider notion of rationality as deliberated, intentional action (see Elster 1983; Simon 1978). As agents may well base their deliberations and intentions on value positions other than self-centred welfarism, value pluralism can be accommodated only within this wider conception of rationality.

In this chapter I emphasise the formal plurality of values, in addition to their substantial plurality. Two self- and welfare-centred consumers may value taking a bus instead of a car quite differently. They may also hold different views with respect to the consumption of vegetarian meals. At the same time their assessments can still both be based on what they consider is most likely to enhance their welfare (substantial). However, other kinds of values may lead agents to consume in ways that do not improve and may even reduce their welfare (Sen 1977). For example, social welfarists may make personal sacrifices for the common good, however they understand it. Other-centred welfarists may choose so as to maximise the welfare of other humans or non-humans, even at the expense of their own welfare. Similarly, non-utilitarian consequentialists will make personal-welfare sacrifices to achieve the outcome they feel is intrinsically valuable. Moreover, agents may not attach value to the consequences of their choices at all: they may attach it to acting in a particular way. For example, a rule-following Kantian consumer will not consider some choice alternatives because she thinks choosing them is simply wrong. Instead of following rules, consumers may also feel certain choices are virtuous.

Preferences can thus be based on welfarist, non-utilitarian consequentialist or deontological ethical foundations. The preferences of a self-interested welfarist, as depicted in the standard model of rational choice, mean she cannot choose in a way that decreases her welfare. However, preferences based on social or other-centred welfarism, non-utilitarian consequentialism and deontology could allow this. Ethical premises capable of inducing welfare-reducing behaviour do not influence behaviour towards the environment only: they influence many choices and especially institutional ones. For example, attitudes relating to the freedom of private enterprise or freedom from government interference imply that these freedoms are often felt to be intrinsically rather than instrumentally valuable. They may thus be pursued and/or defended even to the detriment of the individual's welfare.

As a result of value pluralism an agent is likely to hold different values each of which could inform choices in a given choice situation (Kavka 1991, 1993). It can be argued that agents deliberate and choose between values when their values are in conflict. Anderson

(1993) argues that we make choices to realise the ideal person we want to be. When values are plural, different agents may also choose on the basis of different values in the same choice situation. This may result in similar or different choices (Anderson 1993). That is, the choice of an alternative, say a vegetarian diet, may be based on different ethical premises. Some may choose vegetarianism to improve their own welfare, while others may base their choice on animal-welfare considerations. Still others may select vegetarianism simply because they consider it a virtuous thing to do. Similarly, agents choose to engage in green consumerism or to adopt green lifestyles for various reasons.

The incorporation of value pluralism into the model of rational choice is relatively straightforward at a general level. In the standard model, an agent's preferences can be understood as that ranking of choice alternatives that maximises her welfare (Sen 1973). When the motivational basis of human behaviour is broadened, it simply means that an agent's preferences do not reflect exclusively her personal welfare any more. Rather her preferences reflect her moral convictions, whatever they are. A consumer that is rational in the wider sense thus chooses so as to realise her values (Anderson 1993).

The acknowledgement of non-welfarist behavioural motivations in the expanded model of rational choice gives green consumerism more depth. The consumers of the expanded model are sometimes willing and able to make choices that do not improve, and may actually reduce, their welfare. Many of these choices are not dramatic or extraordinary in any way. For example, consumers sometimes choose environment-friendly products that are costlier than ordinary products. Their choices may not bring about welfare improvements that would compensate for their diminished ability to buy other items, and to obtain the welfare gains promised by them. Still, consumers can make these welfare-reducing choices deliberately to realise their non-welfarist values. Green consumerism will thus be more potent when values are plural. Under conditions of value pluralism consumers will choose in an environmentally-sounder way more frequently than when everybody is concerned only about his or her own welfare. Some consumers will also reduce their ability to consume as a result of the choices they make at the expense of their personal welfare.

However, green consumerism remains a problematic strategy for reducing the environmental impacts of consumption for various reasons. First, although green consumerism will deliver general environmental improvements, the costs are borne exclusively by those who care the most. In some cases the most concerned consumers may obtain no welfare improvements in return for the costs they incur and, moreover, the most concerned consumers are unlikely to be the ones most responsible for environmental impacts. Leaving non self- and welfare-centred consumers to finance environmental improvements for all relieves other parties of responsibility. It allows them to avoid financial penalties in a way that violates the polluter-pays principle and clearly raises free-rider issues. Second, to be effective green consumerism requires environmental concerns to be widely held. It is not clear that this is currently the case in rich countries. Third, potential public policies could reduce the environmental impact of consumption at a lower overall cost compared to that associated with countless individual consumer choices. Finally, relying exclusively on green consumerism to reduce the environmental impact of consumption does not provide agents with the opportunity to agree collectively that they do not wish to be repeatedly

confronted by certain moral dilemmas as they act as consumers. Keeping this possibility open could result in public policies to remove certain choice alternatives.

4. Consumption for Display and Distinction

When one consumer's choices or welfare are affected by how others choose, consumer choices are said to be interdependent. Departing from standard consumer theory to recognise the interdependence of consumer choices adds realism to economic analysis because a number of our consumption decisions are actually affected by how others choose. The interdependence of some choices also influences choices that are not themselves interdependent. For example, Robert Frank (1985) has argued that people spend more on items of interdependent consumption such as cars and houses and save on items that are not readily observable by others, such as food. This kind of behaviour is not by any means irrational from the individuals' viewpoint, because one's relative position in certain areas of life may have important consequences. For example, even if one has a good education, it may not be enough for success if others have an even better one. Physical presentation and attire also often serve as proxies for skills and prowess. Poor relative performance in any of them may eliminate opportunities and prove costly. Yet, from the society's viewpoint, competition for relative position may result in excessive investments in some areas — appearance, for example.

Consumer choices can be interdependent in different ways. Competition for relative position or merit has already been mentioned (see Hirsch 1995). Many of us also want to be fashionable: we sometimes choose a good because others do so and it adds to the value of the good for us. Witness, for example, how the use of personal palm-held organisers has spread in certain walks of life just like the use of mobile phones did earlier. This is called a bandwagon effect in economics (Leibenstein 1950). Others, called "snobs" in economic parlance, deliberately choose differently from others: the fact that others choose a good diminishes its value for them. For some people, the most important dimension of goods like Swiss wristwatches or Italian sport cars may be their price because this communicates to others their ability to consume and hence confers status. This phenomenon is typically known as the Veblen effect (Bagwell and Bernheim 1996; Leibenstein 1950), named after Thorstein Veblen who developed a theory of consumption as a behaviour primarily concerned with establishing status (see Veblen 1899).

Various strands of research in economics explain and treat the interdependence of consumer choices differently. For Becker (1976), for example, consumer choices are interdependent simply because an agent's welfare depends on the income, wealth, welfare or choices of other agents. That is, consumer choices are interdependent because agents have sometimes "nosy" preferences (Sen 1970). Despite its departure from more mainstream modes of treatment, this approach is still unable to treat consumption as a social phenomenon because it individualises the inter-personal dimension of consumption. In other words, there is nothing outside an individual that explains her having so-called nosy preferences in the first place. Because they dress interdependent consumption in the garb of consumer sovereignty approaches that ignore the relational characteristics of consumption make it difficult to justify public policies aimed at alleviating problems that stem from the

conditional and contingent qualities of consumption. It is argued that consumers do truly prefer what they choose when they are interdependent with others and will suffer a loss of welfare if they are denied an opportunity to exercise their preferences.

In comparison, other economists argue that the interdependency of consumer choices results from the characteristics of certain consumer goods. For example, items that satisfy our preferences as self-interested, welfare-centred and independent agents are called non-positional goods (Frank 1985). Other goods such automobiles and dwellings may signal status and wealth and thereby affect the choices or welfare of others. Goods that have this signalling capacity are called positional goods (Frank 1985; Hirsch 1995). Still, as Dugger (1985) has argued, a good does not by itself communicate anything about the status of its owner. It must be understood in the society to be a positional good to function in such a capacity. The bottom line is that consumption involves interdependent consumers and there are important relational aspects.

Some contemporary economists (see Corneo and Jeanne 1997) consider that positional goods do not contribute to the welfare of their consumers. This problematic argument suggests that there are altogether superfluous goods that only serve to make distinctions and other goods that serve "genuine needs" intimately related to the agents' welfare. The familiar concepts of "necessities" and "luxuries" reflect this understanding. Yet it is difficult, if not impossible, to separate the symbolic use of goods from their mundane use for satisfying needs. Therefore, the desire to distinguish oneself should be understood to enter into all consumption choices. This includes those forms of consumption that appear to be primarily linked to the satisfaction of "needs". As a result, we spend more money on all items of consumption than would be necessary to obtain their basic services. The extra increment is linked to characteristics that have symbolic importance.

Paying a premium for the symbolic functions of consumer goods does not alone raise environmental concerns as it amounts to taxing oneself and cutting back on one's ability to engage in material consumption. Given that adverse environmental impacts are usually directly related to the quantity of material consumption this may be a good thing from an environmental perspective. However, the situation is different if consumption for status causes more adverse environmental impacts than ordinary consumption. This is true in the case of many positional goods, such as cars and houses. Competition for status also influences the life span of many goods, such as clothes, furniture, household appliances and cars. Furthermore, it may cause environmentally adverse structural changes in consumption if consumers maximise the public display of their possessions or expenditure (see Veblen 1899).

Interdependent consumer choices can be analysed as games in which self- and welfare-centred agents seek to distinguish themselves. In these games agents make their choices aware of the alternatives faced by others, but without being able to communicate or collaborate with them (Kreps 1990). The competition for status and distinction follows the logic of the Prisoners' Dilemma game exemplified below in Table 5.1. If Consumer A chooses to distinguish herself when Consumer B does not, she earns a high pay-off of four in comparison to the low pay-off of 1 received by B, and vice versa. If both try to distinguish themselves at the same time they fail to do so and both earn a relatively low pay-off of two. Had both decided not to distinguish themselves they would each have earned a payoff of three and the maximum joint outcome in this game (see Kreps 1990; Schelling

Table 5.1: Payoffs in the consumption game among self- and welfare-centred agents.

A \ B	**Does not signal**	**Signals**
Does not signal	(A = 3, B = 3)	(A = 1, B= 4)
Signals	(A = 4, B = 1)	(A = 2, B = 2)

1978:216–17). This outcome would also have been the most desirable one from the environmental viewpoint, if the assumption that consumption for status has worse environmental impacts than ordinary consumption is accepted.

The game's expected outcome is that both Consumer A and Consumer B try to distinguish themselves, because it is the best choice for both of them individually, regardless of whatever the other does. However, it is the game's worst outcome in welfare and environmental terms. The self- and welfare-centred consumers of the standard rational-choice model are not able to avoid this outcome within the accepted constraints of the usual two-person, one-shot Prisoners' Dilemma-type game. The same applies in a multi-person Prisoners' Dilemma game that better characterises status seeking in real societies (see Schelling 1978). However, the consumers can avoid status competition in an endlessly repeated game (see Axelrod 1984). In this game the players can discipline those who do not conform to the jointly best strategy through their choices. This action amounts to rudimentary communication and collective action that is ruled out of the two-person, one-shot Prisoners' Dilemma game in the beginning.

The recognition of the interdependence of consumer choices highlights problems related to choosing green consumerism and lifestyles in societies where competition for status is rife. In the standard model of independent rational choice, individuals informed by self- and welfare-centred values could choose in an environment-friendly way if it improved their welfare. When we recognise the interdependence of consumer choices, the very same choice by the same agent may have significant adverse consequences for her. She may face high costs or forgo important opportunities if she attains a poor relative performance in important areas of interpersonal competition and comparison when seeking to realise welfare improvements related to the environment. This also means that there may be a number of agents who would view environmentally benign behaviour as welfare improving for themselves, but who are discouraged from acting according to their preferences. For these agents, public policies requiring changes in consumption or lifestyles and eliminating the sanctions linked to competitive status consumption could be welcome. The next section examines the implications of value pluralism for interdependent rational choice.

5. Interdependence and Value Pluralism

The two-person consumption game introduced in the previous section also enables us to examine the implications of non-welfarist environmental values and value pluralism for interdependent consumer choices. It also helps us to draw some conclusions concerning green consumerism more generally when agents' consumption choices are interdependent.

Since we do need two consumers for their choices to be interdependent, there are two different kinds of situations to analyse. On one hand, both consumers may have non-welfarist environmental concerns. On the other hand, one consumer may have these non-welfarist environmental concerns while the other consumer is informed by the self- and welfare-centred values that are usually assumed in economic analysis. I will address the situation where both consumers share non-welfarist environmental concerns first and after that will move on to discuss the situation where consumers hold formally different value positions.

It is necessary to modify the consumption game slightly before analysing the situation in which two consumers have non-welfarist concerns for the environment. First, as these two consumers are not motivated by their personal gain when making their choices, the term "pay-off" is not really a satisfactory way to describe the desirability of choice alternatives. It is more useful to talk about index values that reflect the desirability of an outcome from the viewpoint of a particular player in the game, given her motivations. Second, non-welfarist consumers assess and rank choice alternatives differently compared to welfarist agents as will be indicated below.

When Consumers A and B have non-welfarist concerns for the environment the best outcome for both is the one where neither of them distinguishes themselves. The second best outcome for both is to not distinguish themselves when the other player does so. The third best outcome for Consumers A and B is to distinguish themselves when the other does not. Clearly, the second and third outcomes are equal in environmental terms, but for a rational agent an outcome brought about when she acted according to her moral convictions must be preferable to a similar outcome that was brought about when she did not so act. The worst outcome for both Consumers A and B is the one in which they both try to distinguish themselves. The desirability index values for the different outcomes are depicted below in Table 5.2 by integers four, three, two, and one, listed in order from the best outcome to the worst one.

Table 5.2 indicates that consumers who have non-welfarist concerns for the environment are able to avoid competitive consumption for status and its environmentally adverse consequences in a two-person, one-shot consumption game. Committed agents are able to achieve this solely on the basis of their individual deliberated consumer choices, without government assistance or intervention. The result indicates that green consumerism is potentially a very powerful way to change aggregate outcomes and partly explains the increasingly shared confidence in different forms and expressions of green consumerism and lifestyles.

However, Table 5.2 presents a rather typical analysis in game theory that understands another set of values to dissolve the relationship of interdependence. Therefore, the above described one-shot, two-person game does not shed adequate light on the potentially

Table 5.2: Consumption game with universal non-utilitarian environmental concerns.

A \ B	**Does not signal**	**Signals**
Does not signal	(A = 4, B = 4)	(A = 3, B= 2)
Signals	(A = 2, B = 3)	(A = 1, B = 1)

Table 5.3: Payoffs in a non-welfarist green consumption game.

A \ B	**Does not signal**	**Signals**
Does not signal	(A = 3, B = 3)	(A = 1, B= 4)
Signals	(A = 4, B = 1)	(A = 2, B = 2)

problematic consequences of a game for distinction on non-welfarist merits among green consumers. This game is described below in Table 5.3 with the pay-offs from the standard consumption game presented in Table 5.1. The index values indicate that this game is likely to lead to undesirably stoic conduct among competing green consumers, a phenomenon that finds empirical support from the behaviour of environmentalists: some of them drift towards more extreme positions in a (usually undisclosed) search for status, esteem and authority.

The game-theoretic result confirming the capability of committed individuals to resolve the dilemma of interdependent consumption without government intervention is theoretically and practically important and is replicated in game-theoretic analyses of many other interdependency situations as well. It is also important to recognise that a new set of values may simply result in undesirable competition in another direction. Yet these games do not characterise well the interdependency issues involved in actual societies. After all, they do consist of numerous consumers who have both formally and substantially different values. Therefore, I will now examine a two-person game in which values are plural and that goes one step further towards a more realistic understanding of the actual social dilemma posed by interdependent consumer choices.

Values are plural in the formal sense when Consumer A is informed by self- and welfare-centred values and Consumer B would, because of her values, protect the environment or behave in an environmentally-benign way, even at the expense of her personal welfare. Table 5.3 describes a game between these two consumers that have different values. Consumer A's pay-offs can be obtained from Table 5.1 and Consumer B's ranking of alternatives is available in Table 5.2. The pay-offs and the desirability index values are indicated below in Table 5.4 by integers four, three, two, and one in order from the best outcome to the worst.

Table 5.4 indicates that in this game the right column's outcomes would never be chosen, because they are inferior for both agents. The game's worst outcome in welfare and environmental terms could thus be avoided on the basis of deliberated individual consumer choices even when value pluralism prevails. However, if the self- and welfare-centred Consumer A always seeks to distinguish herself, as she is thought to do under the usual assumptions, she would bring about, of the two remaining alternatives, the environmentally more undesirable one. On the other hand, a good question is whether the green consumer would "qualify" as a participant in competition for status for Consumer A. That is, she might not be able to successfully distinguish herself from the green consumer by choosing goods that have signalling capacity. The choices of Consumers A and B may thus not continue to be interdependent. As a result, Consumer A may reassess her valuation of outcomes to reflect their contribution to her welfare as an isolated consumer. This could mean that Consumer A would also choose not to signal, if doing so would improve her welfare.

Table 5.4: Consumption game with value pluralism.

A \ B	Does not signal	Signals
Does not signal	(A = 3, B = 4)	(A = 1, B= 2)
Signals	(A = 4, B = 3)	(A = 2, B = 1)

To conclude, the analysis of the implications of value pluralism for interdependent consumer choices indicates that the existence of consumers who are committed to non-welfarist environmental goals could dampen the competition for status in consumer choices. That is, green consumerism could also influence the choices of those consumers who act on self- and welfare-centred values, by creating an incentive for them to make their choices as isolated individuals rather than as participants in status competition. Of course, the degree to which this could actually happen depends on the relative numbers of welfarist and non-welfarist consumers and how welfarist consumers respond to non-welfarist ones. The ordinary two-person, one-shot consumption game does not shed light on these issues. The next section seeks to remedy the problem by examining the implications for interdependent consumption choices under value pluralism of a greater number of consumers.

6. Multi-Person Games, Plural Values and Sub-Cultures

A multi-person game describes the interdependence of consumers in society more realistically than the two-person games analysed above. However, as the multi-person game is significantly more complex, and usually entails quite technical analysis, this section only seeks to draw out some heuristic lessons to enrich the discussion. In what follows, an analysis will first be conducted assuming that all consumers are informed by self- and welfare-centred values. The implications of introducing consumers informed by non-welfarist values into the game are discussed at the end.

In multi-person games pay-offs linked to choosing particular alternatives are depicted by lines or curves. The horizontal axis represents the number of individuals making the choice. The vertical axis describes the magnitude of the pay-off (Schelling, 1978). For example, Figure 5.1 below shows an interdependence situation in which consumption for status yields a higher pay-off (Curve S) than ordinary consumption (Curve N) no matter what others do, and in which consumption for status yields a higher pay-off when fewer consumers choose it. This is indicated by the fact that the right end of the pay-off Curve S yields a higher pay-off than the left end. The collective outcome in welfare terms is shown by the dotted line that lies between the pay-off curves. It indicates that in welfare terms it would be better if nobody signalled.

Consumption for status is the dominant choice in the multi-person game described in the Figure 5.1. Correspondingly, the game has an equilibrium that is represented by the left-hand end of the collective outcome curve: everybody engages in consumption for status to the detriment of private and collective welfare. Not consuming for status results in a welfare loss before a critical number (K) of consumers choose it. The critical coalition size

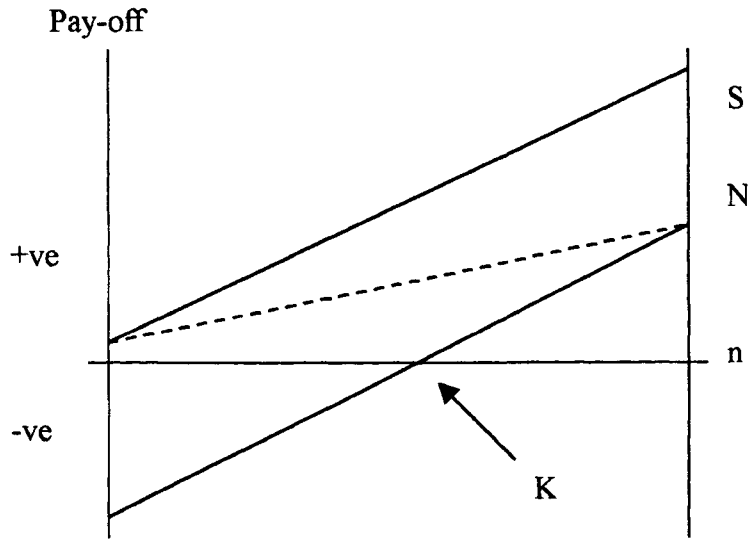

Figure 5.1: The consumption game among n players.

K is found at the intersection of the Curve N and the horizontal axis. When more than K consumers do not consume for status, their choices result in a positive individual pay-off. If everybody chooses to withstand status consumption, it will be a better outcome in terms of both collective and individual welfare compared to the case where everybody signals. This is indicated by the fact that the right-hand end of the collective pay-off curve is at its highest while the right-hand end of Curve N is at a higher level than the left-hand end of Curve S. However, this outcome is difficult to attain. Everybody is inclined to consume for status when it is not a common strategy because it yields a very high pay-off.

Although this brief analysis of a multi-person consumption game is based on assuming welfarist agents, it is easy to assess the implications of value pluralism because signalling is an equilibrium solution that is difficult to dispense with. A sizeable coalition of consumers is required not to signal before it can become a viable strategy in welfare terms. That is, the environmental vanguard engaging in green consumerism may suffer significant welfare losses if they cannot enlist enough support. The self- and welfare-centred consumers assumed in standard economic analysis do not voluntarily choose to the detriment of their personal welfare. Therefore, they cannot form the critical coalition.

In contrast, the consumers that hold non-welfarist concerns for the environment are able and willing to make personal welfare sacrifices for the environment. The crucial question is, are they numerous enough to make withstanding status competition a preferable choice also for welfarist agents. This is an important question. An outcome in which a small minority ($N < K$) of non-welfarist consumers withstands status competition while a large majority ($N > n–K$) of welfarist consumers engages in it may not differ significantly from the "everybody does it" outcome from an environmental viewpoint.

Green consumerism may also result in elitist green sub-markets and lifestyles because of non-welfarist status competition. In this scenario, deeply committed green consumers

make their choices at the expense of their personal welfare to realise their values. While seeking to earn status in their own sub-culture by exhibiting non-welfarist environmental concerns and consumer choices that are compatible with them, they continually revise the standards of conduct that confer esteem. Over time, this leads to the widening of the gap between the green sub-culture and the mainstream consumer culture, making it increasingly difficult to move across the cultural divide.

The emergence of an elitist green culture is a problematic possibility, because demanding environmental lifestyles and sub-markets may not be able to command enough support to successfully transform a whole society. Broader use of environmental alternatives could lower the cost of environmental choices, turn them potentially into welfare-improving choices, and invite consumers who are informed by self- and welfare-centred values to alter their level and pattern of consumption.

The analysis raises the question of whether it is wise to leave determination of the feasibility of creating a critical coalition of green consumers to uncoordinated individual action. Collective action could modify the alternatives and/or pay-offs in order that agents realise collectively the most desirable outcome. For example, one can contrast a consumer boycott of an environmentally harmful product versus the establishment of formal institutional rules that prevent it from being offered altogether. Being able to act morally may satisfy the informed consumer, but it may not prevent an undesirable outcome that is preventable by collective action.

7. Conclusion

This chapter has examined green consumerism and its implications for human welfare and the environment. The analysis began with a simple model of rational choice. This was gradually expanded to take into account the fact that our choices are not informed exclusively by our concerns for our own personal welfare, and that sometimes our consumption choices are interdependent with those of others. The aim was in part to demonstrate that economics can yield insights into consumption that are not as simplistic as those built into many conventional models.

The standard model of rational choice, and its expansion to take into consideration non-welfarist concerns for the environment, yields a somewhat optimistic view of green consumerism and its potential to deliver more sustainable consumption patterns. In essence, it contributes an overly optimistic understanding, according to which sensitising consumers to environmental values and concerns, or otherwise bringing about a change of values, will be enough to change behaviour. Models that recognise the interdependence of consumer choices substantiate the promise of green consumerism perhaps even more powerfully. It is evident that we could fundamentally transform our consumer choices if only all of us shared non-welfarist concerns for the environment.

On the other hand, the models that recognise the interdependence of consumer choices also equally strongly remind us of the fragility of the promise of green consumerism. To begin with, universally shared non-welfarist values are unlikely in pluralist societies. Moreover, the models demonstrate that it may be costly for consumers to change their consumption patterns, as long as relative performance in certain areas of consumption matters. Values would thus

need to change more broadly to bring about any environmentally benign changes in consumption. The other alternative these models remind us about is public policy, which may expand opportunity sets and alter the relative costs and benefits of alternatives.

Perhaps the most worrying aspect of green consumerism is its potential transformation into an elitist alternative lifestyle. In this case what are traditionally understood as welfare sacrifices become a sub-culture's means for distinction. This politics of distinction would prevent the expansion of the lifestyle and the incorporation of the bulk of consumer households into it. Under such circumstances, green consumerism might not be able to deliver environmental benefits, although it could deliver moral satisfaction for the alternative minority.

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