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THE COLOUR GREEN
A Structural Approach to the
Environment-Consumption Nexus

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PAPER II: Haanpää, Leena (2007) Cross-national differences in environmental consciousness. In: *Futura*, Vol. 26, No: 2, forthcoming.

PAPER III: Haanpää, Leena (2007) Consumer's green commitment: Indication of a postmodern lifestyle? *International Journal of Consumer Studies*, Online: 10.1111/j.1470.6431.2007.00598.x.

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1 INTRODUCTION

*Sillä jos ensimmäinen kaiken ottaa
viimeiselle selkää kääntää
kaikki omaisuutesi on jonkun toisen
omaisuudesta pois*
(Ensimmäinen kaiken ottaa,
Valvomo)

1.1 Theoretical and motivational grounds of the study

The most appropriate way to begin this dissertation is to think over sociology's fundamental task. Rob White's understanding of what sociology, at its best, could be, has been one of the main guidelines for this work.

Sociology is about people, institutions and behaviours. It is about the social interactions and social structures. Ideally, sociology consists in thinking about the nature of society, and comparing any particular society with what went before and what it is likely to become. The concern is with both 'what is' and 'what ought to be'. The task of the sociologist, in this perspective, is to stand back from commonsense views of the world to investigate where we are and where are going. It is about gaining a sense of historical and global perspective. It is about understanding the structure and processes of a society as a whole, including global societies. (White 2004, 2)

The present study is a journey into some of the dimensions of the environment-consumption nexus. It is an attempt to understand the complex phenomena related to environmental issues. However, one should keep in mind that the scope of the study is naturally restricted, as within the limits of one dissertation only some of its elements can be focused on. By combining two research branches, this work aims to follow the general task of sociology as defined above, to investigate where we are now and where we are heading. For the most part, this study employs an individual, micro-level perspective, except for when gaining a historical and global or macro-perspective is required. Combining these different views i.e. the historical phases of environmental thought and the macro and micro-levels requires the use of more than one discipline. The foundations of this dissertation rest on two sub-

disciplines of sociology, environmental sociology and the sociology of consumption as “Real problems do not respect academic boundaries.” (Daly & Farley 2003, xvii).

Environmental questions demand sociological analysis because concerns about environmental hazards are no longer the preserve of individuals, but problems that have entered the collective consciousness of humankind; the environment is collective property (Spangenberg & Lorek 2002). Despite the growth of environmental studies within both environmental sociology (ES) and the sociology of consumption, research that combines these two disciplines is still in its early stages. Moreover, the vast majority of the research has been conducted in the US (see Dunlap, Gallup & Gallup 1993, 466 for an extensive literature review). In the Finnish context, studies that combine environmental issues and the sociology of consumption are scarce and mostly limited to young consumers’ environmental awareness and actions (see Autio 2006). Comparative international research on individuals’ perception of environmental issues and how those differ between countries is also currently lacking in depth.

Several scholars have acknowledged the shortcomings that environment-consumption research has confronted (e.g. Spaargaren 1997; Dunlap & Mertig 1997; Brechin 1999; Sanne 2002). One of the main problems relates to the fact that the Western lifestyle is spreading around the world. Western consumption-intensive lifestyles directly and indirectly pose a severe threat to the environment and this has led to the growth of research interest within this field. Nevertheless, conceptualising and measuring the interaction between people and the environment remains problematic. Therefore, it is important to find theoretical perspectives on how to perceive and discuss this interaction, and, in particular, study consumption, which is regarded as being of strategic importance within the subject of green consumption research (Spaargaren & Van Vliet 2000, 50).

The role of ES, has been crucial in providing especially theoretical and conceptual tools that researchers have used to get to grips with environmental questions. With the help of ES attempts have been made to translate the sociological understanding of the linkages between consumption and the environment into a theoretical analysis. Thus, despite the short history of ES as an independent research branch within sociology, a wide range of theoretical tools is available for exploring this linkage. The main notions adapted for this dissertation relate to the concept of environmental consciousness, which is a product of 1960’s thought (Jamison 1999, 16).

From the multitude of different topics that are studied within environmental sociology, this research addresses the problematic field of the environment and consumption. According to Princen (1999, 347), “Consumption must be

distinguished conceptually from other approaches to environmental problems.” Traditionally, environmental problems have been approached from the perspective of production or by scrutinising the dichotomy between production and consumption (ibid. 348). Aggregate consumption continues to increase globally, but a significant change in this respect has occurred. Earlier (over-)consumption was connected to the Western world and the lifestyles of Western consumers; in the contemporary world, consumption is also rapidly increasing in the developing world. This entails that studying consumption is even more critical and it has become necessary to enlarge the research scope from the production sphere and extend it out in a consumption-oriented direction.

Given that there is no such sub-discipline which would solely address the environment-consumption relationship, this study also uses the sociology of consumption as stated above. As Spaargaren and Van Vliet (2000, 51) argue, for the further development of consumer studies within ES there is a need to find ways to approach this issue, and the sociology of consumption constitutes one promising way in this respect.

The ideas developed in sociological consumption studies that were adapted to the objectives of this research deal with the various meanings of consumption and the concepts related thereto. The critical consumption research that re-emerged during the 1970’s enthroned such relevant problems as ethical questions about consumption and the growth in consumption’s impact on the environment. Since that time, the Western model of mass consumption is acknowledged to have contributed significantly to global environmental problems. (Uusitalo 2004, 10; Røpke 1999.) “Current “canonical assumptions” of insatiable wants and infinite resources, leading to growth forever, are simply not founded in reality.” (quotes in the original, Daly & Farley 2003, xxi). The criticism of the above quotation is directed against the idea of a constant and unlimited growth of consumption, which is based on the belief that consuming more brings more pleasure to people. However, according to the statistics more than a billion people consume too much in respect to their basic needs. (Princen 1999, 348.) Hence, consumption and consumer goods play an important role in people’s lives.

As Southerton and Chappels (2004, 3) have pointed out, contemporary understandings of consumption have seen a remarkable evolution from the early economic definitions. Consumption is, in general, theoretically a much broader subject than the behavioural process (choice, decision making, consuming, and disposal) allows. It does not only look at models based on individual rationality or market valued commodities but also at non-marketed goods and services and informal exchange systems (ibid.). Therefore, sociological theories of consumption offer different and broader approaches to

the issue. These theories assume, among other things, that consumption is about status, lifestyles, and individuality which all stimulate consumption and indirectly promote global environmental change.

Thus, it is clear that according to these points of view, different aspects of consumption could be accentuated. In this dissertation a difference is first drawn between consumerism and consumption. The focus is on how these two concepts are perceived in the environmental debate. Drawing on the existing literature, sustainable or green consumerism is understood here as a notion which is larger than sustainable or green consumption. Green consumerism is viewed in this study as a concept stemming from two main premises. First, it is seen as being mediated through three levels of environmental consciousness: knowledge, attitudes, and behaviour. According to the relevant studies in the field, these three items are interrelated and have a significant effect on the perception of environmental issues (Rannikko 1996; Diamantopoulos, Schlegelmilch, Sinkovics & Bohlen 2003). Secondly, green consumerism is understood here as a phenomenon which is connected to the structural elements of a society. Institutional dynamics, such as the welfare state, the world market and the mass media constitute the frames of everyday lives and the actions of individual consumers. (Halkier 2001, 27.)

The terms 'sustainable' or 'green' are used synonymously and alternatively in this research to mean the wide range of different terms related to consumption's environmental and social dimensions. Such terms are, for example, environmentally friendly consumption or environmentally responsible consumption. In other words, there exists many terms for expressing the relationship between environment and consumption and thus, for reasons of simplicity, this study utilizes only the terms sustainable consumption and green consumption. On the one hand, the term sustainable is adapted to express the wider sense of the environment-consumption nexus. Sustainable consumption is a derivative of sustainable development, "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (United Nations Department of Economic and Social Affairs 2006), which is an umbrella concept for the various issues this concept has spawned. Sustainable consumption is understood here to encompass both the environmental and social aspects of consumption. On the other hand, the term green contains the narrower meaning of the environment-consumption nexus, referring only to the environmental aspects of consumption, but is used here synonymously with the term sustainable.

The key interest of this dissertation is to shed light on sustainable, green consumption as one manifestation of environmentalism. The term 'environmentalism' stands for the ideological environmental movements that

arose in the 1960's. This was described as a broad and multi-dimensional movement that manifested itself in different forms depending on the time period and the country. (Jamison, 2002, 17, for more about the development of environmentalism see Table 1)

Myriad definitions given to sustainable or green consumption exist. The following two quotations given below encapsulate the general idea used in this study. The sustainability-related definitions are highlighted first in order to present some of the officially declared statements.

Sustainable consumption focuses on formulating equitable strategies that foster the highest quality of life, the efficient use of natural resources, and the effective satisfaction of human needs while simultaneously promoting equitable social development, economic competitiveness, and technological innovation. (Oslo declaration on sustainable consumption, 2005).

Sustainable consumption is the use of goods and services that satisfy basic needs and improve quality of life while minimizing the use of irreplaceable natural resources and the byproducts of toxic materials, waste, and pollution. (Sierra Club, 2007)

A variation on the theme has been presented by the Agenda 21 declaration. Agenda 21 is a comprehensive plan of action that was created in 1992 in Rio de Janeiro. This programme addresses sustainable consumption and lifestyles in the context of the environment and development by dividing responsibility for environmental problems proportionally to a nation's possibilities to act. According to the programme declaration, "All countries should strive to promote sustainable consumption patterns and developed countries should take the lead in achieving sustainable consumption patterns." (United Nations Department of Economic and Social Affairs 2006)

However, achieving sustainable consumption patterns has been primarily left on the shoulders of industrialized, developed countries, who, it is argued, should take the lead in such development. At the same time, it is proposed that developing countries should seek to achieve sustainable consumption patterns according to their development process and guarantee the provision of basic needs for the poor. In principle, countries should be guided by the following basic objectives in their efforts to address consumption and lifestyles in the context of the environment and development. (ibid.)

It is difficult to pinpoint the most common theme from among the different definitions given to sustainable consumption apart from the striving for

sustainability. Some general aspects at the forefront are satisfying the basic needs of humans and the efficient use of natural, non-renewable resources. In addition, environmental aspects and social well-being have been emphasised (Halkier 2001). For the purpose of this study, green consumption is defined as *a multidimensional and complex behavioural pattern, which takes into account both environmental and social aspects in the consumption of goods and services.*

An essential question related to green consumption is whether it is possible for an individual to act according to the declaration of sustainable development. Ideally, green consumption addresses consumption patterns that impact on the environment as little as possible and promote the social well-being of co-citizens. In practice, this is problematic since all consumption has a direct or indirect environmental loading, which in time contributes to an increase in social problems. The objective measurement of the environmental effects of consumption is thus quite impossible. Therefore, this study concentrates especially on the subjective meanings and perceptions people have towards environmental matters and how consumers perceive or experience themselves as 'green'.

The previously presented definitions of sustainable consumption (Oslo Declaration 2005 and Sierra Club 2007) refer to the fulfilling of basic human needs through consumption. These definitions encompass the idea of an ideal and equal consumption that societies should strive for. They also point out that needs are one fundamental factor of individual behaviour. However, there are also other important factors that can explain consumption. For example, situational and socio-demographic factors may better explain certain consumption choices than they do needs (Räsänen 2003, 24). Especially when it comes to green consumption, social norms frame behavioural patterns of consumption (Southerton & Chappells. 2004, 5). Consumption behaviour is therefore argued to be a conscious effort on the part of actors to achieve a reduction in the environmental impact associated with the lifestyle characteristics for that person or group. Conscious effort according to Spaargaren (1997, 151), refers to the process of reflexive monitoring of behaviour by knowledgeable and capable actors, who routinely act according to a set of criteria for ecologically rational behaviour.

Altogether, the greenness of consumption behaviour is prompted by different elements. Figure 1 summarises the determinants of green consumption.

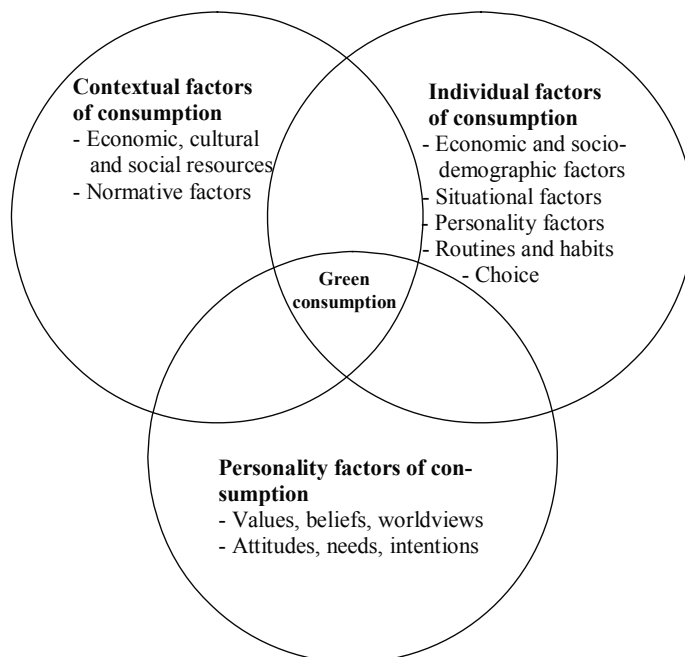


Figure 1. Constituent elements of green consumption

Being and acting green is characterised in the relevant literature by daily consumption trade-offs related to shopping for second hand and recycled products, product choices and other behaviours enhanced by environmental attitudes, values and motives, which can even be considered to be holistic consumption systems (cf. Pantzar & Heiskanen 1995, Laaksonen & Mäntylä 2000). Figure 1 assumes that the nature of green consumption – as well as that of consumption in general (cf. Räsänen 2003, 25) – is contextual by nature. Rather than viewing green consumption exclusively as a matter of personal needs or choice it is understood as mediated through a variety of both constraining and enabling elements.

The first group, the contextual constraints of consumption, brings to the fore the influence of surrounding circumstances on contemporary consumption, which are the economic, cultural and social resources that often operate as constraints of consumption (Räsänen 2003; Sanne 2002; Røpke 1999). For example, infrastructures affect how and where roads are built or heating is organised. They set the conditions for methods of action and affect consumer choice (Southerton, Warde & Hand 2004, 34).

Factors in the second group are elements that are often mediated through contextual factors but are individual characteristics. For instance, lifestyles

and routine patterns of consumption are seen as critical for global environmental change (Spaargaren & Van Vliet 2000; Southerton et al. 2004, 39; Princen 1999, 348). Lifestyles represent a personal and adopted method of consumption. Much consumption is also routine-based and it requires considerable change from both the consumer and the context (e.g. infrastructure) to make a benign contribution to the state of the environment. Moreover, choice plays an important part in people's everyday consumption decisions. For example, Timonen (2002) has demonstrated how consumers bring environmental responsibility into their mundane reasoning in order to make green choices about doing the laundry. Through economic and socio-demographic factors, this research refers to individual-level elements, such as income or gender, which are relevant consumer characteristics for consumption patterns.

The third group of elements in Figure 1 comprises determinants such as needs, beliefs, worldviews and attitudes which can be seen as being almost directly connected to consumption behaviour (cf. Räsänen 2003, 26). In the context of green consumption, recycling for example has been explained by values (Poortinga et al. 2004). The worldview a person possesses may also be a strong motivator for green consumption. Voluntary Simplicity, an ideological movement, which consists of people who voluntarily want to cut down their own consumption is, for instance, a purposely chosen way to consume according to one's worldview and beliefs (Zimmer, Stafford & Stafford 1994, 65). Consumers have also been categorised as more or less green based on their socio-psychological determinants. For instance, it can be assumed that the birth of radical and marginal groups, deep ecologists or environmental movements is motivated by strong environmental values (cf. Kontinen 1999, 46). On the other hand, consumers that have adapted greenness at some level of action as part of their everyday life would seem to be representative of a moderate attitude in their relationship to environmental questions. (Wagner 1997, 25–26, Moisander 2001; Autio & Wilska 2003, 4–5).

In the literature on green consumption patterns the impact of different consumption acts on the ecosystem or biosphere is often stressed (Stern 2000, 408; Stets & Biga 2003; Shove & Warde 2002, 246). According to various scholars (Fuchs & Lorek 2005; Spangenberg & Lorec 2002; Princen 2003), sustainable consumption contains two dimensions: improvements in the efficiency¹ of consumption, and the necessary changes in consumption levels

¹ The efficiency of consumption is not in the focus of this study. However, it is reviewed here briefly in order to give a wider picture of the different issues related to green consumption research. For more about efficiency in consumption see, Princen, Thomas (2005) *The Logic of sufficiency*. MIT Press: Cambridge, MA.

and patterns. An increased efficiency of consumption is usually believed to be attainable via technological improvements, which contribute to the eco-efficiency of consumption. Utilizing energy more efficiently is an example of such an improvement. (Fuchs & Lorec 2005, 262.) The increased efficiency of consumption, however, has not proved to be a sufficient solution to the environmental effects of consumption. According to critical views, the present energy-dominant supply mix – the use of nuclear fuel, coal, oil, natural gas and other fossil fuels – is categorized as unsustainable (Nørgård 2006, 15–16). The use of renewable energy, hydropower for example, also causes significant damage to the environment. Ultimately, an increase in fuel consumption efficiency fails because the general global constraints of nature have not been taken into consideration. (ibid.)

Studies have shown that achievements based on consumption's eco-efficiency alone are not sufficient since energy savings are cancelled out by the growth of volume (Greening, Green & Difulio 2000; Berkhout, Muskens & Velthuisen 2000; Fuchs & Lorec 2005; Sanne 2001; Abrahamse Steg, Vlek & Rothengatter 2005). This so-called rebound effect refers to the use of energy.

*Technological progress makes equipment more energy efficient. Less energy is needed to produce the same **amount** of product, using the same **amount** of equipment – **ceteris paribus**. However, not everything stays the same. (-) because one tends to consume more productive services, and the extra demand for productive services from the equipment implies **more** energy consumption. This lost part of the energy conservation is denoted as the rebound effect. (Berkhout et al. 2000, 426 emphasis in the original)*

Because consumption's efficiency does not lead to environmental improvement, consumption and its patterns are of crucial importance. It is increasingly acknowledged that rising levels of consumption directly contribute to environmental problems (Røpke 1999, 401; Sanne 2002; United Nations Department of Economic and Social Affairs 2006; OECD 2007). This involves the second type of change required, namely, changes in Western consumption patterns and reductions in the levels of consumption of affluent Western countries. In this case, the interest here lies on the driving forces of consumption, most importantly on its individual and structural determinants (Fuchs & Lorec 2005; Sanne 2002). In this study, however, consumption patterns as such are not focused on directly. Instead, the influence of the current consumer society on people's lifestyles and the consumer's ability to take environmental issues into account in their consumption choices is the central issue. Also, in order to gain real environmentally benign changes with

regard to consumption patterns, attention must be paid to the circumstances and forces that surround the individual consumer

1.2 Purpose of the study and research questions

By analysing green consumerism on a large scale, this dissertation seeks to provide a more profound understanding of the structural mechanisms linking the macro and micro-level. It also aims at making a contribution to the ongoing research on sustainable consumption, which seeks to bring about a more sustainable global future by means of more sustainable consumption patterns (Oslo declaration on sustainable consumption 2005, 1).

The purpose of this dissertation is to identify the structural factors involved in causing and portraying the relationship between consumption and environmental issues. In sociology, structural factors refer to different socio-demographic and economic factors, such as age, sex, social class, education, income and type of household, which are considered to be typical micro-level factors (Toivonen 1994; Räsänen 2003, 115). Also a country with its national disparities can be seen as a structural factor that typically represents the aggregate macro-level. The main purpose of the study is divided into the following research questions.

- Research question 1: Do macro-level (institutional) factors systematically explain the environment-consumption nexus?
- Research question 2: Do micro-level (individual) factors systematically explain the environment-consumption nexus?
- Research question 3: What is the relationship (mechanism) between institutional and individual factors?

The first research question focuses on institutional level factors. Its aim is to analyse, both theoretically and empirically, how environmentalism in general and sustainable consumption in particular may be affected by structural macro-level factors. Paper 2 focuses on this first research question and different social structures are addressed at the theoretical level in sub-chapter 3.1.

The second research question concentrates on the structural features of green consumption at the individual level. It provides new perspectives on the debate concerning green consumption and consumers by analysing the effects of both lifestyle and socio-demographic background variables on one's perception of environmental matters. Papers 3 and 4 in particular concentrate on research question 2.

However, in order to produce and portray a larger picture that shows how social structures are associated with environmental issues, e.g. with a pollution

problem, institutional and individual levels are also jointly observed. This is the research aim of research question three. For this question a mechanism-based view of the environment-consumption debate is offered by examining Coleman's (1986) macro-micro-macro model and its applicability to the sustainable consumption context. Paper 1 in particular addresses this question.

1.3 Methodological choices and the description of data

1.3.1 Research design

There are multiple ways of carrying out meaningful research on the perception of different environmental issues. The rationale behind choosing one method over the other depends on the suitability of the methodology and research method for the purpose and context of the study (Creswell 2003, 5; Heiskanen 2005, 189). In essence, three different approaches to the research exist: qualitative, quantitative and a mixed methods approach, of which each offer an alternative way to enter the studied problem by framing the phenomenon from different perspectives (e.g. Bryman 1988). The fundamental question of which method to choose depends mainly on the theoretical perspective or philosophical stance lying behind the method in question (Creswell 2003, 6–12). In social science research various categorizations exist for methodological research practices. The most traditional method has been to distinguish between positivistic and anthropological research traditions (Raunio 1999, 71). A more specific division is offered by Creswell (2003, 6–8), who divides them into four schools of thought: post-positivism, constructivism, advocacy/participatory, and pragmatism. Furthermore, Raunio (1999, 95) proposes two basic orientations: nomothetic and ideographic. These are ideal types of methodologies and difficult to apply as such, while fundamentalism and pragmatism offer a more fruitful approach for a researcher when making methodological choices (ibid., 96, 337–338).

Without going any deeper into the philosophical discussion of the concept of methodology, it is understood here as the foundation that guides the research design and the selection of the method (Raunio 1999, 27) and both fundamentalism and pragmatism are briefly discussed in this context.

The fundamentalist approach emphasises the ontological view of the studied phenomenon. According to this view, a method should be chosen on the basis of the nature of the phenomenon because in the fundamentalist approach reality is seen as given. A *pragmatic approach* is somehow more

liberal when it comes to methodological choices. In the pragmatic view reality is seen as multidimensional and, therefore, different methods complete these different dimensions. It is up to the researcher to decide which of the different methods best helps to gather information on a given phenomenon or research problem. (Raunio 1999, 337–338.)

The theoretical grounding that has guided the empirical research design in this thesis follows a pragmatic approach. Reality, in this case the environment, is seen as multidimensional. As already mentioned, the purpose of this study is to identify structural factors that help to explain the environment-consumption nexus and quantitative methods are regarded as the most suitable method for researching this purpose. By taking this standpoint on the issue the possible structural dimensions of the interplay between the environment and consumption are identified. It is good to be aware that a quite divergent picture of consumers is gained if they are observed via different methods (Heiskanen 2005, 189). As Heiskanen points out (*ibid.*), different data collection methods produce diverse images of green consumers and this applies to research concerning green consumption as well.

In the social sciences a difference is often made between descriptive and explanatory research. While descriptive analysis is interested in questions such as *what*, *what kind* or *how much*, explanatory analysis tries to answer the *why* type of questions. (FSD 2007; Uusitalo 1991, 35; Töttö 2000, 83.) With regard to this dissertation the analytical emphasis has been placed on the latter type of research. All the analyses conducted explain and also aim to understand the environment-consumption relation from different angles. Naturally descriptive measures, e.g. “what kind of” questions are utilised. However, the main goal is to elicit explanations about the interplay between the environment and consumption as it appears to be, according to the results of the statistical analysis.

When it comes to the strengths and weaknesses of quantitative methods, there are several ways of estimating the value of the method. Quantitative methods are claimed to give superficial but reliable information about well-known things. Moreover, quantitative methods refer to a temporal presence and, therefore, express a static image of society. According to Raunio (1999, 344–345), the strengths and weaknesses of quantitative methods depend on whether one wants to analyse phenomena at the macro or micro-level of society, is interested in the structures or processes of social reality and is aware of the degree of generalisation that is possible for the research.

The method applied in the empirical parts of the articles is thus, quantitative. Quantitative research is particularly associated in sociology with the social survey as this is one of the main methods of data collection (Bryman 1988, 11). A survey represents a method conducted by interviewing or by

gathering information via a postal questionnaire, and nowadays also via Internet questionnaires about individual behaviour and the factors affecting individual behaviour (Toivonen 1999, 170; Raunio 1999, 195). Some problems related to the survey method are listed below by Toivonen (1999, 178–185). The survey has been regarded as being too individualistic because people do not often form their attitudes alone, although the results are presented that way. It is considered static, since it produces information about opinions at one moment in time. The survey has also been seen as bourgeois because the lower strata cannot respond to the questions, as they are too difficult for them to understand, while the upper classes are seen as not wanting to respond to the questionnaire. Superficiality is also a criticism directed towards the survey method. For many people it is inconvenient to answer certain kinds of questions, e.g. those related to intimate issues and thus, the relevance of the responses may remain superficial.

However, there are a number of strengths that justify the use of a survey. Its “capacity for generating quantifiable data on large numbers of people who are known to be representative of a wider population in order to test theories or hypothesis has been viewed by many practitioners as a means of capturing many of the ingredients of a science.” (Bryman 1988, 11) A survey enables international comparative research and the collection of both longitudinal and cross-sectional data. For example, a common way to measure consumers’ environmental awareness has been to conduct surveys and gather official statistics. Statistics Finland, for instance, conducts a national survey every five years on environmental issues. Moreover, the Finnish Social Science Data Archive (FSD) provides different data for research and includes environmental surveys. The data utilized in this study were collected by survey methods and represent both national and international cross-sectional studies on, mainly, environmental issues. There are certain restrictions pertaining to cross-sectional studies. First of all, cross-sectional datum sets limits on the comparability of different time periods and therefore, comparisons over time are not possible. Another problematic feature is that the measured items reflect only information obtained at a particular point in time and due to this there is an information bias. (Räsänen 2003, 127–128.)

These kinds of restraint come into question especially when addressing social change over a longer time period. However, as it is not the purpose of the empirical part of the thesis to analyse the nature of change but instead to focus on systematic mechanisms in green consumption patterns and, thereby explain social change, cross-sectional survey data offer the most suitable material.

1.3.2 Datasets and the analysis of the data

A total of four different datasets collected by surveys were utilized and analysed. Each dataset served to examine the specific purposes of the papers respectively, and they all provided means with which to examine contemporary sustainable consumption patterns. The data utilized in the articles are comprised of three datasets. The first represents international survey data, ISSP 2000 (International social survey programme: Environment II, 2000); the second was part of the same survey but it contained only the Finnish part of the study, ISSP 2000: Finnish data; the third comprised data collected by the Department of Marketing of Turku School of Economics, the so-called Mylly Project data (2003). The introductory part of this dissertation also makes use of a fourth dataset collected from the 15 EU countries of 2002, which is called Flash Eurobarometer 123 (EOS Gallup Europe 2002). The use of different datasets was necessary because they approached environmental issues rather differently. The datasets are described in more detail in each article but an overall picture of them is provided below.

The first dataset is comprised of 26 countries from around the world ($N = 31\,042$). Sample sizes were country-specific but varied between 1000 and 1500 respondents in each country. The survey was carried out from 2000 to 2001. Data collection was based on the survey type of questionnaire and it was conducted either by personal interviews or by mail. In 2000, the theme of the survey was the environment and the respondents were asked to express their opinions and attitudes concerning environmental issues. The questionnaire also consisted of questions which measured both respondents' behavioural aspects and their awareness of environmental problems. Such questions related to, for example, the causes of ozone layer depletion, personal sacrifices made for the environment, changes in private motoring and readiness to pay more for green products. (International social survey programme: Environment II, 2000.) These data were used to determine the environmental consciousness construct that can be operationalised to measure people's opinions about and their relationship to environmental questions. ISSP 2000 data make it possible to study this construct and help to reveal how both institutional and individual level structures explain perceptions of different environment related matters.

The second dataset, the Finnish part of the ISSP 2000 study ($N = 1528$), contained, in its main features, the same questions as the international data. In the Finnish questionnaire some arguments or statements were broader, for example, those concerning the recycling of domestic waste. In the Finnish questionnaire, there were three different questions designed to measure recycling: the recycling of newspapers, glass and cans, while in the international questionnaire recycling was measured only by asking whether

the respondent recycled waste in general. The response rate was roughly 61 per cent and it was collected by random sample. (International Social Survey Programme: environment II, 2000: Finnish data.) These data served especially to analyse young Finnish consumers' orientations to environmental issues, how worried they are about pollution and how willing they are to compromise their own standard of living.

The Mylly Project data were utilised in this work to an appropriate extent, since part of the questionnaire's content was developed for other kinds of purposes (for more information about the Mylly Project see Uusitalo & Pitkäaho 2005). The total number of respondents was 1370 and data collection was timed for autumn 2003. The survey represents panel data, since the sample was based on the respondents of the previous study conducted in 2001. The response rate was approximately 59 per cent. The variables selected from the questionnaire measured both attitudinal commitment to green consumption and general consumption styles. Consumption styles and individual background variables, age, education, and type of household were used as explanatory variables. These variables enabled the exploration of the dependencies between green commitment and the effect of both modern structures and postmodern consumption elements.

The last dataset, Flash Eurobarometer 123, covered questions regarding sustainable development and environmental concern. The data are used only to complement the theoretical discussion in the introductory part of chapter 3. The sample size amounts to approximately 500 people in each of the 15 EU countries (in 2002) of persons over 15 years of age, the total number of respondents being 7533. The survey was conducted by telephone interviews in 2002. Each national sample is representative of the continental population. A weighting factor was applied to the national results in order to compute a marginal total that reveals how each country contributes to the total result in proportion to its population. (EOS Gallup Europe 2002.) These data served especially to give a fresher picture about certain environmental values and attitudes within Europe, i.e. how people regard certain environmental threats and how attitudes differ between EU nations. Moreover, the Finnish respondents' attitudes were compared with those of other EU member countries.

The data were analyzed with a statistical program SPSS. The analysis methods vary according to the study objectives of each article. Some of the analysis is descriptive, mainly frequency distributions, cross tabulations and indexes, which allowed the focal statistical parameters to be reported. In order to create meaningful comparisons multivariate relationships were also conducted by utilising two basic techniques, principal component analysis (PCA) as well as analysis of variance (ANOVA). The use of factor or

principal component analysis is a typical method for analysing attitudes. A factor analysis helps in the handling of many different attitude arguments by sorting them out into more than one dimension. (Toivonen 1999, 333.) PCA analysis is used here to reduce the number of factors and gain information about the general dimensions of environment-related items. ANOVA is used to analyse the effect of explanatory variables on dependent ones. In this way information about the degree to which the independent variables have an effect on the dependent variables and whether there exists an interaction effect can be discovered.

The main goal of the analysis is to point out whether the factors explain both perceptions of environmental issues, for example, people's concerns about environment threats, and the linkages between the environment and consumption. In other words, the background explanants represent both aggregate, macro-level and micro-level elements, which aim to give a coherent picture of how sustainable consumption could be explained. Therefore, gender, size of household, education and other typical independent individual level variables are used. Thereafter, macro-level structural variables GDP (Gross Domestic Product) and population density are utilised. By making comparisons at the macro-level (national differences) and searching for relationships on both levels the aim of the tests is to discover whether there exist systematic structures that could explain the relationships between consumption and environmental issues.

1.4 Structure of the study

This dissertation consists of an introductory part and four papers that are either published or accepted for publication. The introductory part has been formed from four chapters. In chapter one, the research is outlined. Chapter two discusses the theoretical foundation of this thesis, environmental sociology and the sociology of consumption. Environmental sociology is addressed first by focusing on its development within sociology as sub-discipline of its own. Thereafter, an overview of the sociology of consumption is provided. Chapter three is built upon the different constituent elements of green consumption (see Figure 1), by discussing each constituent element separately in its own sub-chapter. In chapter four, the articles incorporated in this study are summarised and the contributions of each paper are discussed. The last chapter (chapter 5) of the introductory part is a conclusion, in which a summary of the main results and theoretical implications of the present study are adduced.

The papers assembled in this work aim to contribute to the further understanding of the environment-consumption nexus. Each of the papers

approaches the environment and the sociology of consumption from different perspectives, which has been one criterion for selecting those very articles for this dissertation. One of the papers is mostly theoretically oriented while the other three bind theoretical discussions together with empirical analysis. By having different approaches to the same theme of green consumption an attempt has been made to highlight how multifaceted the phenomenon is. Each paper has its own purpose, which aims to contribute to the purpose of the dissertation, i.e. to identify the structural elements causing and portraying the environment-consumption nexus.

The papers move from the general to the particular. The focus of the study is restricted mainly to structural view points on green consumption however, the importance of other approaches, such as cultural aspects, should not be undermined. The fact that the central focus will be on the relationship of the structural elements of green consumption stems from the practical need to restrict the scope of analysis (cf. Spaargaren 1997). This is implemented in the papers here by starting with theoretical aspects, especially of the environment and, to a certain extent, of consumption. After setting the ground for more specialised research the focus moves to testing theories with empirical international comparative data. As the focus is narrowed down, the scope of the research is shifted to the Finnish context and to another domestic dataset (Mylly Project 2003). Finally, when arriving at the narrow end of the “funnel” the study is restricted to the research of young, Finnish consumers. In the following section the central elements of each article are summarized.

The first paper, “Structures and mechanisms in sustainable consumption research” (Haanpää 2007a) concerns the macro-micro interplay and its connections to environmental discourse. This article was chosen for this dissertation as a point of departure from which a view of the effects of structural elements on sustainable development discourse in general and particularly from the viewpoint of sustainable consumption could be developed. It considers the contextual factors influencing people’s social life and to some extent the fundamental question related to methodological holism and individualism. Various theoretical discussions concerning the structural approach to the environment-consumption nexus are reviewed as they link to macro, meso and micro-levels.

Paper 2, “Cross-national differences in the environmental consciousness” (Haanpää 2007b) focuses in more detail on the theoretical models that have been developed in the (environmental) social sciences to study the interplay between action and structure. The main emphasis is on the two way thesis of environmentalism developed from Ronald Inglehart’s (1977; 1995) post-materialist values thesis and some of its main arguments are tested in the empirical part of the paper. This paper studies linkages between the macro and

micro-levels by exploring the relationship between institutional and individual variables in explaining environmental concern and consumer consciousness about environmental problems.

Papers 3 and 4 take up the task of reviewing some sociological interpretations of consumption. The aim is to point out and analyse in detail the specific dynamics of consumption and its sociological sphere. Paper 3, “Consumer’s green commitment: indication of a postmodern lifestyle?” (Haanpää 2007c) concentrates on the ideas of postmodern consumption as it is manifested in the relationship between lifestyles and green consumerism. Instead of deducing (cf. Spaargaren 1997, 149) the effect of lifestyles by analysing consumption decisions and behavioural patterns, an attempt is made to investigate how consumers’ lifestyles explain green consumption. Paper 3 aims to deepen the understanding of how a more sustainable consumption lifestyle can be promoted.

In the last paper, “Vihreyden tavoittelusta totunnaisiin kulutustapoihin” (From green aims to conventional consumption manners, Haanpää 2005) the attitudes and opinions of young Finnish adults are scrutinized. The paper deals with young peoples’ perceptions on environmental problems at the turn of the millennium. It also looks at their attitudes towards environmentally responsible consumption.

This chapter has presented an overview of the contents of this dissertation. The theoretical starting points for the study were outlined and the purpose and research questions presented. The methodological choices and data were introduced as was the structure of the study.

The next chapter discusses the central aspects of two disciplines important for green consumption studies. It starts with environmental sociology and its main features. The remaining part of the chapter centres on theories within the sociology of consumption.

2 AT THE CROSSROADS OF DISCIPLINES: ENVIRONMENTAL SOCIOLOGY AND THE SOCIOLOGY OF CONSUMPTION

Engaging sustainable consumption means, by definition, taking into account two major themes: sustainability and consumption. The lenses through which these issues are approached in this study are, due to the nature of this work, sociological. This chapter offers an overview of the importance of the two disciplines looked at in the theoretical positioning of the discussion of sustainable consumption. First, this chapter describes the emergence of environmental sociology and thinking. It also addresses paradigmatic development within the discipline. Secondly, the sociology of consumption is discussed. By bringing consumption issues to the fore, this sub-chapter emphasises the significance of the understanding of contemporary consumerism in bringing about environmental change.

2.1 Environment and sociology

It is quite impossible to pinpoint the origin of environmentalism in the world (Brechin & Freeman 2004, 2). However, the term “environmental sociology” entered sociological discourse in the first part of the 1970’s (Dunlap 2002a, 10). At that time, when environmental sociology was still in its formative phases it was defined as “the study of interaction between the environment and society” (Catton & Dunlap 1978a, 44). At the heart of the definition was the mutual relationship between these two: The physical environment was to be taken into account in order to be able to understand society, and vice versa. Catton and Dunlap emphasised that the evaluation of the environment-society relationship required a re-evaluation of traditional sociological approaches. They argued that the Durkheimian tradition of explaining social facts with other social facts disregarded the physical environment (Dunlap & Catton 1979, 244; 1994, 6; Catton & Dunlap 1978a, 44).

The changing conditions of the environment had an influence on mainstream sociology as environmental topics began to increase. Also, the merging of various social, economic, and other institutional changes brought new insights into sociological research on environmental issues in the 1970’s (Lutzenhiser 2002, 6). Not only did real environment catastrophes and the

deterioration of the natural environment caused by industry and consumption lead to the formation of environmental sociology as an independent research branch within sociology, so did the intellectual development of sociology (*ibid.*, 7; Dunlap 2002a, 10–11; Konttinen, Jokinen & Koskinen 2004, 289). However, the pressure of the legacy of sociology restrained the formation of environmental sociology and in its early phases the examination of societal-environmental interactions belonged to the sociology of environmental issues rather than environmental sociology. The historical phases of environmental sociology are returned to in the next sub-chapter.

Thus, the emergence of environmental sociology is linked to a societal interest in environment problems. The general growth of the public's awareness of environmental problems during the last three decades of 20th century is connected to the recognition of global environmental change (GEC). People worldwide have come to confront the presence of environmental problems and their influence on everyday life. For example, resource depletion and the unceasing pollution of lands, seas and air have a direct influence on the lives of millions of people (Yearley 1996, 26–50; Barry 1999, 154–155). The social dimensions of environmental problems are the consequences of the overstepping of nature's carrying capacity. Impoverished land areas, excess-fishing, overpopulation and pollution problems in big cities, to mention but a few, cause poverty, infectious diseases, and migration, which deepens the gap between wealthy and poor nations. (Yearley 1996, 51–61; United Nations Department of Economic and Social Affairs 2006.)

The awareness that environmental problems do exist has risen and that awareness has become global as various national and international Gallup polls have shown that people everywhere are concerned about environmental issues (Dunlap et al. 1993; Tulokas 2002). Public concern peaked in the beginning of 1990's, for example, Finnish Business and Policy Forum's (EVA) report (Torvi – Kiljunen 2005, 81) indicated that in 1992, public concern on environmental issues reached an all-time high. According to this report, environmental concern was particularly channelled through a willingness to make personal sacrifices for nature, which three out of four respondents in 1992 were ready to do compared to only 62 per cent in 2004 (*ibid.*, 82). However, the willingness to lower one's personal standard of living was measured, in this report, according to one's attitude to the issue. The attitudinal readiness of the general public of Finland to make these kinds of reductions has always been high (Haikonen & Kiljunen 2003, 177). Environmentalism has become commonplace. As Schultz states (2001, 327), it is difficult today to find someone who would openly be an anti-environmentalist.

The analytical framework of environmental sociology developed by Duncan is based on the concept of the 'ecological complex' a notion developed from the biologists' concept of the ecosystem in order to apply insights from general ecology to sociological human ecology (1959; Dunlap & Catton 1979, 251; 1983, 120). It focuses on the interdependence between population, organization, environment, and technology (P,O,E,T), which emphasises the reciprocity of each element, stressing the 'E' not as a social environment, rather as a physical environment. According to that view, the tasks of environmental sociology were basically to seek answers to two kinds of questions: First, how do interdependent variations in population, technology, culture, social systems, and personality systems affect the physical environment. Secondly, how do changes in the physical environment modify population, technology, culture, social systems, and personality systems, or any of the interrelations among them? (ibid., 252.) In the process of disciplinary development, new influences came to shape the research branch. According to Dunlap, a "real" environmental sociology would have involved the analysis of the causes or the effects of environmental variables in relation to social variables (Dunlap 2002b, 331.) Common for the proponents of environmental sociology during its 30 years journey has been "the application of an ecological perspective to the project of environmental sociology." (Lutzenhiser 2002, 7).

2.1.1 The historical landmarks of environmental thinking

The term 'environment' is a notion, which has no single, universal definition, rather it is defined according to the scope of each particular study. Its roots are in the French word 'environ'. In general, the definition divides the meaning of the term into two parts: on the one hand, 'environment' refers to the physical, non-human world (forests, plants etc.) and, on the other, to the non-natural world (human, social and constructed environment). In other words, environment can mean everything that surrounds everything that exists. However, as Barry states, "(-) we need to know what is surrounded in order to know what *the environment* in question is. That is, without some specified thing to refer to (a species such as humans, or a culture or place) the term 'environment' means very little." (cursive in the original, Barry 1999, 13.)

Barry (1999, 17) has further elaborated the concepts of environment by comparing them with their antonyms. The aim of the dualistic distinction is to make sense of the meaning of the concept by seeing what it is contrasted with. First, environment or nature is an opposite of human society or culture. Trees, for example, grow in spite of human culture and, therefore, are independent of

human society. Secondly, nature or non-human differs from human. Especially for the social theory this opposition is fundamental, since it defines what the human is. Thirdly, naturally occurring things cannot be compared with human made, artificial matters. Such are, for example, weather phenomena, stones, metals etc. And fourthly, nature is different from nurture, i.e., primeval forests represent wild, natural state nature while the forests used by forest industry are typical nurtured environment or nature. (Barry 1999, 16–17.)

In social theory environment is understood as “something to be surrounded by something else” (Spaargaren, Mol & Buttel 2000, 2). Traditionally, the environment has been absent from social systems. Like the city-walls of traditional societies, which separated a town and its surrounding world from each other, the environment was not included in social analysis as a factor that had an impact on society. (Spaargaren et al. 2000, 2–3.)

Environmental sociology stems from human ecology, which was developed in the social sciences at the end of nineteenth century (Jamison 2001, 78). The roots of human ecology can be traced to some of the most influential works of classical sociology’s tradition, those of Marx, Weber, and Durkheim. Although sociological explanations in the classical tradition were, by nature, human induced and emphasised the exemptionalism of human beings, those classical works have had relevance and influenced the emergence and shaping of environmental sociology. (Buttel 1986, 338–343; 2000, 20–24.) This is why in explanations of social phenomena psychological, biological, or physical facts were ignored (Catton & Dunlap 1980, 19, Dunlap 2002b, 331–332).

In its early phases, in the 19th century, human ecology mainly studied the relationship between human beings and the natural world. As it stemmed from the boundaries between the internal, endogenous and the outer or exogenous world that social theory had traditionally emphasised, sociology that regarded environmental issues was predominantly anthropocentric. Social explanations were based only on internal factors. According to the most influential works of environmental sociology (for example, Schnaiberg 2002; Catton & Dunlap 1978a; Buttel 1987) this classical legacy, however, limited mainstream sociology’s ability to understand social change in the modern world.

According to Jamison (2001, 81) human ecology found a contemporary voice in 1960’s, the decade in which the rise of environmental thinking is typically dated to. One name that is almost always mentioned when discussing environment issues is Rachel Carson, the author of *Silent Spring* (see Table 1 below). This book inspired a new generation and gave a new drive and direction to the previously conservative environmental movements (ibid.)

Table 1. Phases of environmentalism. With slight changes to the original adapted from Jamison 2001, 82.

Time	Emphasis	Example
(1) Awakening pre-1968	Public debate Issue identification	World Wildlife Fund <i>Silent Spring</i> , 1962
(2) Ecological era (ca. 1969-74)	Organization Program articulation	Club of Rome <i>The Limits to Growth</i> , 1972
(3) Politication (ca. 1975-79)	Social movement Energy policy	“No nukes” <i>Soft Energy Paths</i> , 1977
(4) Differentiation (ca. 1980-86)	Think tanks “deep ecology”	Greenpeace <i>State of the World</i> , 1984
(5) Internationalisation (ca. 1987-93)	Sustainable development Global issues	UNCED <i>Our Common Future</i> , 1987
(6) Unification (ca. 1994-)	Incorporation Resistance	Agenda 21 <i>Natural Capitalism</i> , 1999

Table 1 illustrates the development of environmental thinking from 1960 onwards. Jamison (2001) has discerned six main phases of environmentalism. The first was the initial period of awakening timed somewhere between the 1950's and the 1960's. The second period was characterised by environmentalism that was institutionalised by making it more explicit and programmatic. During that period new environmental movements were born among them, for example, hippie communes. The hippie movement was an anti-consumption movement that promoted non-material values (Spaargaren 1997, 167). The third phase was set in motion by political debates and social movements, especially when the oil crisis of 1973 and 1974 raised energy issues to the top of the political agenda. At this time environmental studies also became a separate academic field.

During the 1980's, the fourth time period of environmentalism, an ideological shift moved the focus away from environmental questions. During that time, an economic and neo-liberal orientation prevailed in broader society and environmentalist thinking was remarkably restrained (see also Dunlap & Catton 1994, 9–10). A range of new, global environmental problems were associated with the fifth phase of environmental thinking. What was unique to this time period was the development of co-operation between business and governments. Furthermore, industry was challenged to develop its production processes in cleaner and greener directions, which was guided by the quest for sustainable development. The last period involves technological advances and the birth of green business. Also worth noting here is that the number of critics of the globalization of business and the institutionalization of environmental questions has increased at virtually the same pace. So, although production

systems have become more ecologically efficient, the capitalist-oriented ideology of the continuous growth of production and the use of resources would seem to be in conflict with the needs of the constantly growing number of people who are excluded from the benefits of this development.

2.1.2 A paradigm shift within environmental sociology

A brief overview, given above, of the influential scholars in the sociological tradition of the development of environmental sociology during the past three or four decades helps to provide insights into one of the main issues in the sub-branch: the duality of human beings. Due to the pressing legacy of classical sociology, an anthropocentric view has been the prevailing attitude in mainstream sociology during the development of environmental sociology as a sub-discipline of its own. According to Catton and Dunlap (1978a), the fundamental anthropocentrism underlying all of the competing theoretical approaches was the main unifying feature in then-contemporary sociology.² They labelled this worldview the “human exceptionalism paradigm” (HEP), later modified as the “human exemptionalism paradigm” (Catton & Dunlap 1978a; 1978b; Dunlap & Catton 1979, 250). The roots of this paradigm are to be found in the Western cultural tradition, which is anthropocentric by nature. According to the anthropocentric view, humans were seen as unique among the earth’s creatures and therefore, apart from and above nature. This view has been the dominant Western worldview (DWW) during the expansion of Western culture over the past 500 years (Catton & Dunlap 1980; Buttel 1986; 1987; Dunlap 2002b, 333).

Beliefs characteristic of the DWW are assumptions of people’s superiority over the other creatures of the Earth. Another typical assumption is that progress is unlimited, thus for every problem restraining human progress it is thought that there will be a solution (Catton & Dunlap 1980, 17; Dunlap 2002b, 332). The historical influence of imperialism on this world view is clear, since the industrial revolution was highly dependent on the raw materials brought from the New World. The DWW encompasses the idea of humans as masters of their destiny; people can choose their goals and learn alternative ways to achieve those goals. Since the world was thought to be vast it offered limitless opportunities to people, and progress was considered to be never ending (Catton & Dunlap 1980, 17–18). This era has been called an “age of exuberance” and points, in general, towards Western industrialised

² The other, various competing theoretical orientations are not dealt with here (for more about them see Dunlap 2002b).

countries, and especially towards American society, its values and expectations where the abundance was most salient (Potter 1954 in Catton & Dunlap 1980, 17)³.

The HEP paradigm was, as noted earlier, constructed from the dominant Western worldview. In the work of Catton and Dunlap, the background assumptions that described common sociological discipline were stated by the authors as follows:

1. Humans have a cultural heritage in addition to (and distinct from) their genetic inheritance, and thus are quite unlike all other animal species.
2. Social and cultural factors (including technology) are the major determinants of human affairs.
3. Social and cultural environments are the crucial contexts for human affairs, and the biophysical environment is largely irrelevant.
4. Culture is cumulative; thus technological and social progress can continue indefinitely, making all social problems ultimately soluble. (Catton & Dunlap 1980, 24–25.)

During the 1970s and the 1980s Catton and Dunlap reanalysed the changing conditions of society. The most characteristic feature for the past three to four decades is a transfer from the age of exuberance to the “post-exuberance age”. The notion, post-exuberance, contains the strict concern of what effects human actions and behaviour have on the environment. This concern is reflected foremost in environmental change, the growing use of natural resources and energy for human purposes. In contemporary society the environmental changes that were predicted already in the beginning of the 1970s (for example, Ehrlich & Ehrlich 1972) are a reality that people have come to face in one way or another. These “ecological facts of life” (Catton & Dunlap 1980, 31), e.g. that the global ecosystem is finite, have paved the way for realizing that future human society can no longer be built on the assumptions of abundance and the expectations of continuous growth that characterised the age of exuberance.

These changes that started to take place in the 1970s began a process of conceptual retooling in sociological thinking. Catton and Dunlap introduced a third paradigm called the “new ecological paradigm” (NEP) that enabled the raising of sociological attention to environmental problems (Catton & Dunlap 1980). This alternative to the HEP contained in principal the same points but with remarkable differences in its emphasis on the role of human beings:

1. Humans differ from the other species but are dependent on the same

³ Potter, D. M. (1954) *People of plenty: Economic abundance and the American character*. University of Chicago Press: Chicago.

resources important for life (food, shelter, space, water, and so on) as other species.

2. Human life is influenced not only by social and cultural forces but also by the biophysical environment, for example, by pollution.
3. The biophysical context of human activity is paid attention to in terms of health and physical survival, e.g. human health and physical survival are possible only under certain environmental conditions.
4. Technological progress and the social environment do not guarantee limitless growth. Human science and technology cannot repeal ecological principles, although limits exist e.g. in the form of temperature changes. (Catton & Dunlap 1980, 33; see also Buttel 1986, 345; 1987, 470.)

The NEP paradigm thus, emphasises mankind's dependency on the ecosystem. Humans are part of nature and are interdependent with all other species on nature's resources.

The introduction of the HEP-NEP distinction was followed by criticism of the paradigm shift. The criticism included notice that the NEP was not specific enough to allow the testing of the paradigm (Buttel 1978). There were also contradictory views about the core of environmental sociology. Dunlap and Catton (1979, 251) defined its core as the "study of interactions between environment and society" while Buttel (1987, 467) referred to it as "new human ecology", which according to him differed remarkably from the classical human ecology, discussed earlier in this chapter. The new human ecology was in words of Buttel (1987, 468), "genuine" environmental sociology, because it rejected the anthropocentric emphasis of mainstream sociology and stimulated empirical research.

According to Milbrath (1994), a similar kind of paradigmatic division can be seen in a society when the dominant social paradigm (DSP) is challenged by a new environmental paradigm (also abbreviated as NEP). The premises of both paradigms are basically congruent with the DWW-HEP-NEP distinction; however, Milbrath argues that societies organized according to these differing paradigms will be deeply different. The societies dominated by the DSP are unsustainable while those societies that follow the environmental paradigm are sustainable (see also Jokinen, Kaivo-oja & Malaska 1997, 39).

Without going any deeper into environmental sociology's paradigmatic issues, this sub-chapter is concluded by stating that during the last thirty to forty years the significance of the environment within the sociological discipline and its theories has become significantly more important than it was before that time. Environmental problems are no longer seen as insignificant, which is also shown by the growing amount of research attention paid to

environmental phenomena. This leads us to the next discussion issue of sociological studies on consumption.

2.2 Contemporary consumer culture

Sustainable consumption is a key concept for sustainable development. The current, rapidly growing levels of consumption, which are no longer exclusive to high-income countries but increasingly found in developing countries, demand both macro and micro-level actors take action to reduce the elements of consumption harmful to the environment (cf. the declaration of sustainable consumption of the United Nations Department of Economic and Social Affairs 2006). In this sub-chapter, political issues or governmental programs for saving the planet are not discussed, rather the focus lies on contemporary consumer culture and the individual consumer's role. Encouraging and facilitating consumers to adopt less environmentally harmful consumption patterns is one of the major challenges of present societies.

Contemporary Western consumerism is often connected to rampant materialism and mass consumption, in which consumers seem to be celebrating a never ending consumption feast. In brief, they have adopted extravagant lifestyles that have led to excessive and wasteful consumption (Vahvelainen 2001, 3). Such a viewpoint explicitly brings to the fore the negative elements of consumption, the fact that consumption has an intrinsic value in people's life by becoming a principal activity of leisure time and a search for happiness, as Goodwin below demonstrates.

A salient characteristic of a consumer society is that it is one in which a principal focus of leisure or nonwork time is the spending of money. These leisure activities may be both active and passive, including shopping, window-shopping, daydreaming about possessions, and purchasing and displaying possessions. A consumer society promotes the belief that ownership of things and activities that require spending money—and the spending of money itself—are the primary means to happiness. A subtext in such a society is the assumption that happiness is the single real goal in life. (Goodwin 1997, xxx)

The environmental crisis appears when the consumer meets his/her limits in an environment which cannot sustain the needs generated within modern consumer culture (Slater 1999). These kinds of views about consumerism highlight the individual's role and responsibility with respect to environmental issues (cf. Spaargaren & Van Vliet 2000; Sanne 2001). And yet, it is not only

a matter of responsibility, but also of acknowledging the increasing importance of market dynamics and economic agents, in which people as consumers are significant factors. Most people are aware of that when they consume less, whether it is a question about material goods or eco-efficiency in consumption activities, they can see it is good for both nature and for their wallet. But as Sanne states (2001, 120) postmodern society displays a Janus face: people are encouraged to act in a sustainable way but in search of happiness they are also encouraged to consume more.

Paying attention to the role of consumption in general and its various aspects in particular, helps to understand green consumption and consumerism more deeply. Traditionally, occupation and work shaped people's self-identity, but in present-day societies people seek their identity mostly by buying and consuming goods (e.g., Murphy 2001, 11; Gabriel & Lang 1995, 81–100; Shove & Warde 2002, 234–235). Consumption provides hedonistic pleasures (e.g. Campbell 1987; Corrigan 1997). In the context of history it is understandable that consumption has long been regarded as an activity producing enjoyment; while work was considered onerous, consumption was pleasurable (Princen 1999, 348).

2.2.1 Classical foundations of consumption

The history of consumer consumption research has built its foundation on the theories of classical sociologists and social scientists, such as Weber, Marx, and Veblen whose work has been refined during the last century by mostly European sociologists, for example, Jean Baudrillard and Pierre Bourdieu. Marx developed a thesis of commodity logic according to which, human life was ruled by the exchange of goods (Marx 1998). The capitalist critique presented by Marx was redirected by Max Weber's ideas of the protestant ethic (Weber 2001). Both the scholars were interested in the differences and collisions of the classes: the Marxist view emphasised production's role in creating class conflicts while the Weberian viewpoint explained social and class differences through consumption. Moreover, Marx examined the material dimensions of society but Weber concentrated mainly on its ideological and spiritual foundations and saw those as the main generating forces of consumption. The themes of the protestant ethic included, among others, social stratification, which was manifested at three value levels: the symbolic value of the status group, the economic value of social class, and the economic value of party membership. Consequently, the consumption and lifestyle of individuals was especially defined in terms of social surroundings and value hierarchy, i.e. the legitimate social order.

Status was also a central element in Veblen's explanations of consumption. However, Veblen paralleled wealth outright with human esteem in the *Theory of the Leisure Class* (Veblen 1992). He also analysed and criticised the "nouveau riche", the owners of new money, of late nineteenth century America, and their excessive lifestyle, termed "conspicuous consumption". According to Veblen, extreme consumption was necessary among the American social elites of that time, since status and appreciation was difficult to achieve without such a lifestyle. Veblen's coeval George Simmel (1986) observed urban metropolitan people in the beginning of the 20th century and noticed the important role of the middle class in relation to fashion. Fashion was established by the social elite and it trickled down through the classes by the process of emulation.

Fashion and emulation were, thus, connected to esteem and status and goods served to re-enforce this status building. In contemporary society, things are purchased not for what they are, but for what they represent. The necessities of consumption change over time. What was regarded as a luxury before may now be a necessity for consumers. These changes reflect the values that consumers are striving for while making consumption choices (Raijas 2004, 81; Ilmonen 2007, 362–377). The most characteristic feature, "a mystery", of modern consumerism concerns "the very essence of modern consumption itself – its character as an activity which involves an apparently endless pursuit of wants" (Campbell 1987, 37). In sociology, consumption has at least three aspects: identity-formation, differentiation, and the transmission of symbolic meanings. (Burgess 2003, 80, 230, Murphy 2001, 11–12; Warde 2002; Wilska 2002). The traditional values of consumption, the use and exchange of goods (Marx 1998, 53-120) have been replaced by a change of symbolic values, "people define themselves through the messages they transmit to others through the goods and practices that they possess and display. They manipulate and manage appearances and thereby create and sustain a 'self-identity.'" (Warde 1994, 878)

2.2.2 From utilitarianism to differentiation

Identity formation is closely linked to all consumption. According to some scholars, Western consumers can be seen as "thirsting for identity" when evaluating, choosing and buying goods (Gabriel & Lang 1995, 81). Also connections between consumption and lifestyle are closely related to the seeking of identity. Goods are building blocks to lifestyles as they construct a bridge to an ideal lifestyle (McCracken 1988, 113). Furthermore, consumers

use a set of goods, consumption constellations, to define, communicate and perform social roles (Solomon, Bamossy & Askegaard, 1999, 405).

It is suggested that group communication should be considered separately from identity formation (Murphy 2001, 12; Shove & Warde 2002, 235). Such concepts as perceptions of taste and status buying and status symbols express people's tendency to evaluate themselves in relation to others (Solomon et al. 1999, 346–347). The Veblenian term “conspicuous consumption” refers to this very role of consuming goods in order to inspire envy in others (Solomon et al. 1999, 347; Corrigan 1997, 21–26). However, according to some recent theories, in contemporary society the sense of the self and personality is not achieved by gaining social prestige, rather from the “production model of self” (Shove & Warde 2002, 235). With this term the authors refer to the construction of identity through constant consumption, in which the question is no longer about the fulfilling of needs but the fulfilling of wants and desires in the hedonistic playground (Campbell 1987, 69–70; Corrigan 1997, 16; Gronow 1997, 74).

The features connected to contemporary consumer society fit in with the elements of postmodernity. The overproduction and over-determination of messages are deeply rooted in postmodern ideas of consumption and consumerism (Ritzer & Goodman 2002, 164). Having a Baudrillardian view of consumer culture offers an alternative interpretation to the cornucopia of consumption. According to Baudrillard (1993), consumption is about a fashion choice rather than a communication of identity. By comparing consumerism to fashion Baudrillard explains everything that makes “the merry-go-round” with the fashion system. Everything that happens under the topic of the consumer society reveals the superficial circulation of fashion from the choice of food to the choice of clothing. This leads to the interpretation of consumption as superficial and hyper-real. (Baudrillard 1993.) In his book “Consumer society”, Baudrillard interprets consumption also as a symbolic exchange; for him consumption (*consummation*) is, among other things, a system of ideological values and of social function (Baudrillard 1998, 39).

Research within environmental sociology that focuses on the environmental aspects of consumption has gathered a growing interest since the start of the 1970s, although it was modest until the 1990s. The “Treadmill of consumption” adapted from the original ideas of Allan Schnaiberg's “The treadmill of production”⁴ thesis (Schnaiberg 1980; 2002) represents a critical

⁴ The treadmill of production thesis aims to sum up and visualize the core elements that produce politicized production. For example, the spread of industrial production and economic development is enabled by a constant destruction of natural resources. The thesis emphasises the role of business and government in creating the circumstances for this development. Schnaiberg argues that societies are dominated by the conception according to which, the growth of production also solves social and

attitude towards consumption shared by many environmental sociologists (Spaargaren & van Vliet 2000, 51). This thesis, formulated by Dutch social philosophers (Spaargaren 1997, 167), emphasised the negative elements of consumption but as it was influenced by the Frankfurt School was likewise concerned about the spread of mass culture (Bottomore 2002).

This chapter has discussed the main features of environmental sociology and the sociology of consumption to the extent that is necessary as regards this work. The treatment of the concepts of the environment and consumption within the social sciences, sociology and environmental sociology, is summed up in Table 2 below. It moves from a general level description to a more specific definition by distinguishing environmental sociology from the social sciences and sociology.

Table 2. Characteristics of the ‘environment’ and ‘consumption’ within the social sciences, sociology, and environmental sociology

	Social sciences	Sociology	Environmental sociology
Environment	Physical and non-physical surroundings	Cultural and social influences on the entity and its behaviour	The biophysical environment that may influence or be influenced by human societies and behaviour.
Consumption	An action in different cultural, utilitarian or differentialist contexts	An order of significations or social class in society.	The (un)sustainable implications of consumption dependent on the context and psycho-graphic elements

Within the social sciences, both the concept of the environment and the concept of consumption have been defined at an abstract level. This indicates that the meanings of the concepts vary a great deal. For example, the environment within the social sciences can refer to physical or non-physical contexts. In fact, if it does not refer to something it is difficult to give it a precise meaning. Accordingly, the meanings given to consumption contain several aspects. For example, in economics, consumption is regarded as something given and consumer satisfaction is measured only in terms of goods and services consumed or utility maximization (Harris 1997, 269).

In the field of sociology, the concept of the environment has become defined in terms of its cultural or social dimension. Thus, there is no place for

economic problems. However, the treadmill of production thesis argues that it only increases these problems. (Schnaiberg 1980.)

a biophysical meaning until it is placed in the field of environmental studies. When it comes to the term consumption, the sociological view emphasizes the social and symbolic meanings of consumption, while the environmentalist one emphasizes the material implications of consumption, in the light of the potential ecological limits to growth. It must be kept in mind that these characteristics are not exhaustive by any means, but aim to be more a basic summary. The definitions given to these concepts vary naturally according to the scope of research. But what is of importance here is that both concepts have alternative meanings depending on the discipline.

The next chapter offers a synthesis of the mutual relationships between the environment and consumption as presented in the relevant literature. The central focus is on the key determinants of green consumption, according to which the chapter is also outlined.

3 **CONSTITUENT ELEMENTS OF GREEN CONSUMPTION**

*On meillä stereot, televisio,
mikroaaltouuni ja videonauhuri
on pakastin, kahvinkeitin,
mikroprosessori ja pölynimuri
(Onnelliset, Leevi and the
Leavings)*

This chapter discusses how the theoretical offerings of environmental sociology and the sociology of consumption can be applied to green consumption research. This is outlined according to Figure 1, in which three kinds of elements that have an impact on green consumption are put under a closer evaluation. First, contextual factors of green consumption are discussed and these are seen as decisive elements that frame contemporary consumerism. Second, the focus is shifted down to individual-level factors, which may not always be directly connected to green consumption patterns. Last, personality factors with regard to green consumption are discussed.

3.1 Contextual factors of green consumption

Although some groups or organizations have taken initiatives to respond to environmental concerns either by changing their behaviour to become more sustainable or by promoting alternative techniques (Georg, 1999), the majority of people continue to live and consume as they have done before. The main difficulties connected to changes in greener consumption patterns may lie in two factors: structural forces driving consumption and contemporary consumer culture (Sanne 2001; 2002; Casimir & Dutilh 2003; Shove & Warde 20002; Baudrillard 1998; Røpke 1999). Together these factors can be seen to form the constituent elements of green consumption.

It is argued that the surrounding economic, social, and cultural forces create the circumstances of consumption (e.g. Sanne 2002; Røpke 1999, 403; Räsänen 2003, 73). However, only a few scholars in the field of green consumerism have pondered the role of the driving forces behind the growth of consumption (Sanne 2002; Røpke 1999; Spaargaren & Van Vliet 2002; Spaargaren 1997; Southerton et al. 2004). In this part, the meanings of

different forces with regard to sustainable consumption are drawn together. Since the papers included in this thesis deal with the structural forces that frame green consumption only some complementary notes are made here.

According to the most critical viewpoints, turning consumption patterns under present conditions towards a more sustainable direction seems unrealistic (Sanne 2002, 274; Hobson 2002, 113). The prevailing modes of intervention – ways to alter consumption patterns in a more sustainable direction – are typically limited to the “top-down” approaches of informing and educating people of the necessity of behavioural changes. Such is, for example, the EU campaign to slow down climate change by inspiring people to adopt different grass-root behavioural changes (The European Commission, 2007). However, information alone is not a very efficient strategy for contributing to environmental change (Abrahamse et al. 2005, 281). Alternative, “bottom-up” approaches have been, though, offered by some scholars. The redirection of prevailing consumption patterns depends, first and foremost, on the context, the historical factors generated by the industrial revolution which have contributed to the use of resources, existing norms, socio-cultural and economic structures and infrastructures and the exploitation of resources from the South. These frame and limit the success of new initiatives made for sustainability (Georg 1999; Sanne 2002; Røpke 1999).

The influence of surrounding circumstances on contemporary consumption can be placed, based on the existing literature, in two main categories, which are partly mutual and interdependent. On one hand, the circumstances create possibilities for the “willingness to consume” (Røpke 1999); on the other hand, individuals are “locked-in” by surrounding structures (Sanne 2002; Southerton et al. 2004). Røpke’s account of the ‘willingness to consume’ involves three main aspects: economic explanations, socio-psychological explanations, and historical and socio-technological explanations. The economic explanations that focus on macro-level aspects claim that both competition in the field of production and long working hours stimulate increased consumption, and accompanied with the decrease of relative production prices these three elements together spur on consumers to consume more. The socio-psychological explanations are more micro-oriented by nature. These explanations are based on the postmodern and cultural aspects of consumption. Historical and socio-technological explanations belong to the meso-level and those regard consumption as being dependent on everyday life practices and the different systems that condition it. (Røpke 1999, 404–416.)

Røpke’s observations of the frames of sustainable consumption provide theoretical support for Sanne’s approach, but he focuses on structures as interconnected and pressing determinants that lock in consumers. These structural elements are: historical changes, urban structure and consumption,

system change and consumption boost, the consolidation of consumer culture, and work and consumption. Sanne's first account refers to historical changes from traditional farming to industrial society, which operated as the engines for the present individualised society where individualisation is seen in such phenomena as the decrease in household size and specialised single-purpose-only items; through which consumers are taught to buy different equipment for every kind of leisure activity. A second driving force is those urban structures which, in turn, create an acceptance of environmentally unfriendly methods of planning infrastructures (e.g. encouraging the use of cars, cf. Southerton et al. 2004, 33) which then generate massive social problems and inequalities. One example is the fact that city districts are given different values, especially in metropolises. For example, in Rio de Janeiro the majority of citizens live in favelas, the shanty towns of poor people.

The third influential element Sanne points out is technological shift because a seemingly improved systems change aims after all at increased sales. An example of this is the transfer to the digital broadcasting technique that Finland is adopting. This much criticised system change involves the acquisition of completely new technological equipment.

With the fourth element, the consolidation of consumer culture, Sanne claims that, unlike the prevailing conception that consumers are able to make deliberate choices when purchasing, it should be acknowledged that business has got a tight hold of consumers. In other words, even if it is generally accepted that consumers are no longer victims that are manipulated by producers and business, marketing effectively invades lifestyles confirmed by political and technical integration. Finally, Sanne looks at how the present organizing of working hours promotes unsustainable structures by giving employees longer working days instead of splitting the work by having more employees. According to him, the input of labour should be reduced, given that if people work less they also spend less, and vice versa.

The major outcome of Sanne's analysis of the driving forces of consumption is that people as consumers face pressure from two strongly influential parts of society, the business class and the political class. In a democratic society, there is pressure from both sides and in both directions concerning politics and people, in brief political influence flows from governments to people and the other way round. Business affects people directly but also through politics. Today's world may be characterised, in fact, by the term "econocrazy", the mutual dependencies of business and politics that sets frames for people as consumers.

While Sanne's work underscores in principal the government-business-consumer nexus from a "top-down" standpoint, i.e. from an institutional to an individual level, in Susse Georg's study (1999) the focus is on "bottom-up"

initiatives that people, particularly in their roles as citizens, have accomplished. Georg describes how citizens have co-operated to develop technological and social solutions to environmental problems that they are concerned about. The forms of co-operation include, for example, research centres which aim to develop alternative energy techniques and greener goods. “These experiments allow for a positive expression of needs and concerns and for the development of innovative response to these concerns.” (George 1999, 463)

Consumer initiatives can at their best be a remarkable influencer, the power a group of consumers can place on companies can turn into ideological consumer movements, such as Voluntary Simplicity, which consists of people who voluntarily want to cut down their own consumption (e.g. Schor 1999). Broad-based consumer movements can act as counter forces against unfair global marketing structures. In order to make a real change consumer groups have to exercise the power found in masses if they are to make real lifestyle changes. This is especially so as sustainable consumption often requires additional effort and time by the consumer because a change to a more sustainable direction is often not experienced relatively quickly as being self-evident and is instead found to be troublesome.

3.2 Individual factors of green consumption

Paper 3 deals with the postmodern elements of consumption and contemplates the applicability of some of its ideas to the context of green consumption. Some additional remarks are made here. The first consumption model, which draws from sociological postmodern ideas about lifestyle and symbolic consumption and applies them to a green consumption context, is van Vliet’s and Spaargaren’s model of the system of the provision perspective of consumer behaviour (Spaargaren & van Vliet 2000). The authors examine lifestyle and consumption issues on the one hand, from a horizontal distinction perspective and on the other hand, from a vertical system-of-provision perspective. The distinction perspective is mainly based on Bourdieu’s work on style. According to them, “The Bourdieu-inspired stream of thought in the sociology of consumption are important for environmental sociologists because they make us aware of the crucial importance of the social or symbolic dimensions of consumption.” (Spaargaren & Van Vliet 2000, 59) The system-of-provision perspective “expects different commodities or groups of commodities to be distinctly structured by the chain or system of provision that unites a particular pattern of production with a particular pattern of

consumption.” (ibid.) With this concept they refer to consumers’ access and use of different modes of consumption.

For Spaargaren and Van Vliet the relation between structure and actor represents less the socio-psychological elements at the core of the analysis and more the social practices. These social practices involve routines and habitual consumption. For this reason, green consumption should be monitored in terms of consumers’ opportunities to make deliberate choices.

Shove and Warde (2002) discuss the escalating levels of consumption by proposing six mechanisms that they apply in the context of some consumption activities. These mechanisms are social comparison, the creation of self-identity, mental stimulation and novelty, aesthetic matching, the specialization of commodity production and the requirements of socio-technical systems (2002, 233). In this way the authors draw together previous sociological accounts of the forms of consumption. The six mechanisms revolve around what seems to be individual choice and selection and try to capture different features of green consumption. Thus, the model allows the identification of some weakly represented elements of sustainable consumption in the mainstream sociology of consumption. These are: interdependence, the evolution of normal standards, and infrastructure. The first stands for relationships between resource intensity and the management of time in its different aspects. The second ingredient refers to consumers’ proclivity for conspicuous consumption, and the just-in-case purchases people make. An example of such is over-sizing, purchasing for example, an SUV just-in-case there is a future need for space. The last component also takes into account the need to better understand the processes and decisions that frame people’s consumption possibilities with regard to making purchasing choices.

The two models described above contain features of the individual factors of green consumption, individual choice being the most important theme of both. However, the models expand from the circle of individual factors towards the contextual elements of consumption. As stated earlier, individual consumption patterns are often mediated through the context, which can act both as enabling or hindering elements for green consumption behaviour: for example, social campaigns to save energy create normative rules on how to act in a desirable manner and those may act as stimulants to change previous routines and habits.

Several scholars have stressed an important account that has been applied to the green consumption context; people acting in dual roles: as consumers and as citizens (Sanne 2002, 282; Gabriel & Lang 1995, 173–186; Georg 1999; 460; Hobson 2002, 99–103; Spaargaren & Van Vliet 2000). People’s acts as consumers cannot be detached from their actions as citizens especially when it comes to sustainability. In brief, people, as consumers, act with a short-term

orientation looking for the direct fulfilment of needs and wants without considering sustainability. As citizens their actions are guided by a long-term orientation, where the individual takes into consideration environmental matters and also shows responsibility towards others. (Casimir & Dutilh 2003, 322; Sagoff 1997) The concept of a citizen implies both control and balance over rights and duties and active participation as members of society. Moreover, in the role of citizen, individuals are supposed to take a moral standpoint when making their choices. (Gabriel & Lang 1995, 174.)

In recent years the re-emergence of the idea of citizen has been applied, not surprisingly, in the context of environmentalism. Environmental citizenship entails the emergence of exactly the kind of individual described above, an active individual that feels no fear to defend the rights of the majority and who carefully evaluates different alternatives and moral questions when making decisions. He/she also knows, cares and acts with responsibility towards the environment. (ibid.; Hobson 2002, 101.) Environmental citizenship calls for individuals, for example, to take part in government-directed top-down informative campaigns that strive for a better environment via the activation of consumers, such as the EU campaign to reduce climate change mentioned earlier.

3.3 Personality factors of green consumption

Sustainable or green consumption is a broad and a complex issue, and therefore, the orientations and scopes of the research vary a great deal. In today's world where environmental problems are topical, consumers are often seen as a principal "lever of change" (Sanne 2002, 273). This means that consumers and their decisions are expected to redirect consumption so that it becomes more sustainable.

Research focusing on green consumption behaviour has a tradition dating from the latter part of 20th century; environmental sociology and the sociology of consumption is one of the major areas of research (for example, van Liere & Dunlap 1980; Buttel 1987, 472–475). The consumers' role in bringing about environmental change has been considered as decisive, and depending on the discipline different aspects of consumerism have been emphasised (Sanne 2002, 273). Topics related to various determinants of consumption include, for instance, the purchasing process and identity-formation through consumption and ethical issues (Ölander & Thøgersen 1995; Uusitalo 2004; Derksen & Gartrell 1993; Kaiser, Wölfing & Fuhrer 1999; Grankvist & Biel 2001), which are typical orientations also within the field of green consumption research. Consumption is not solely an economic issue, but is a

highly social action and consumers are regarded as social and environmental actors (Cogoy 1999, 386; Georg 1999). “(-) environmental problems are social in sense that they originate from social structures c.q. social arrangements between people” (Spaargaren 1997, i).

In the following sub-chapters the personality factors generating environmentalism and more particularly, sustainable or green consumption are reviewed based on the relevant literature.

3.3.1 Environmental values

Environmentalism in its broad sense is not a new phenomenon. In industrialized countries environmental movements and organizations have actively engaged in behaviour aiming to harm the environment less (George 1999, 456; Jamison 1999). Environmentalism can also be a matter of one’s worldview. Different measures of endorsement of an ecological worldview exist in environmental literature, amongst which the most prominent ones have been instruments seeking to measure ecological or environmental consciousness (Ellis & Thompson 1997 in Dunlap et al. 2000; Schlegelmilch, Bohlen & Diamantopoulos 1996), anthropocentrism versus eco-centrism (Thompson & Barton 1994 in Dunlap et al. 2000) and the New Ecological Paradigm Scale (Dunlap et al. 2000).

Environmentalism can also be a result of one’s values. At the aggregate level, the two-way thesis of global environmentalism presented in the environmental literature aims at explaining global differences with regard to environmental issues from a mainly cultural or economic perspective (cf. Yuchtman-Ya’ar 2003, 119). The central theme of the thesis is that there are two basic varieties of global environmental concern, divided between rich (Northern) and poor (Southern) societies (Guha 2000; Guha & Martinez-Alier 1997). The first is explained by the *post-materialist values thesis*, according to which, global environmentalism is seen as a derivative of the post-materialist syndrome. Environmental concern is the manifestation of typical post-material (-modern) values in wealthy countries, such as self-expression and the quality of life (Inglehart 1995; Martinez-Alier 1995; Guha 2000, 98; Brechin 1999; Lee & Kidd 1997; Dunlap & Mertig 1997). The second, *objective problems – subjective values thesis*, suggests that citizens’ real experiences of environmental hazards in poor countries has motivated them to protect the environment (Inglehart 1995; Brechin 1999; 2003). Other value-based explanations of environmentalism are the moral norm-activation theory of altruism (Schwartz 1973) and the value-belief-norm (VBN) theory of environmentalism (Stern 2000). The moral norm-activation theory of altruism

specifies conditions, which affect the activation of personal norms and hence their influence on behaviour. This approach presumes that altruistic behaviour occurs in response to personal moral norms, which are activated in individuals who believe that certain conditions pose threats to others. Thus, it can be assumed, according to this approach, that pro-environmental behaviour occurs if an individual perceives that the state of the environment is deteriorating. This is based on the assumption that environmental quality is a collective good, which activates one's altruistic motives and personal norms to act in pro-environmental way and achieve an inverse condition that would not pose a threat to others. (Schwartz 1973; Stern 2000.)

The value-belief-norm theory of environmentalism created by Stern and his colleagues is built on existing theories including the moral norms-activation theory of altruism. They postulate that linking existing theories together is needed in order to indicate that "the consequences that matter in activating personal norms are adverse consequences to whatever the individual values." (Stern 2000, 413) Thus, people who hold altruistic values (e.g. environmental quality) are concerned about other people, as well as the environment and this motivates them to act pro-environmentally.

At the individual, personal level it is argued that values affect environmental attitudes and behaviour (Poortinga, Steg & Vlek 2004; Nyborg 2000; Schwartz 1994). Much of the research on environmental values is based on general theories of values, especially the works of Rokeach (1973) and Schwartz (1994). The value scales of Rokeach and Schwartz have been applied to a variety of research on environmental behaviour, such as the willingness to protect the environment, recycling, and environmental concern (a detailed description of the studies is contained in Poortinga et al. 2004, 71).

Poortinga and his colleagues (2004) analysed the relationship of subjective quality of life (QOL) indicators to values. The QOL dimensions represent what people may find important in life. The researchers found that environmental quality is one dimension of the QOL. This means that environmental concern and environmental behaviour-related items are clearly linked to basic human values, which has become evident in Finnish longitudinal data research as well (Torvi & Kiljunen, 2005; Haikkonen & Kiljunen 2003). One of the main themes of the Finnish Business and Policy Forum EVA has been Finnish attitudes toward the environment, its current state and the actions taken to improve it. According to EVA's report (Haikkonen & Kiljunen 2003, 59), the enjoyment of the natural world around them is regarded as one major aspect of happiness for Finns. In other words, environmental values represent one distinct dimension of the human value scale. (Poortinga et al. 2004, 87–88.)

According to Bazerman and Hoffman (1999), “the numerous environmental problems we are facing are not primarily technological or economic but behavioural and cultural.” (Bazerman & Hoffman 1999 in Hoffman & Sandelands 2005, 142, see also Cogoy 1999). Although technological and economic activity may be the direct cause of environmentally destructive behaviour, it can be argued that cultural, social and institutional values indirectly guide the development of that activity (Bazerman & Hoffman 1999 in Hoffman & Sandelands 2005). Figure 2 below shows the influence of three key areas regarding the quality of life of 15 EU countries’ people. These areas are economic (growth, investment), social (poverty, social exclusion, health, and educational services), and environmental. A comparative analysis between Finnish respondents (N = 500) and 15 EU countries (N = 7533) was conducted.

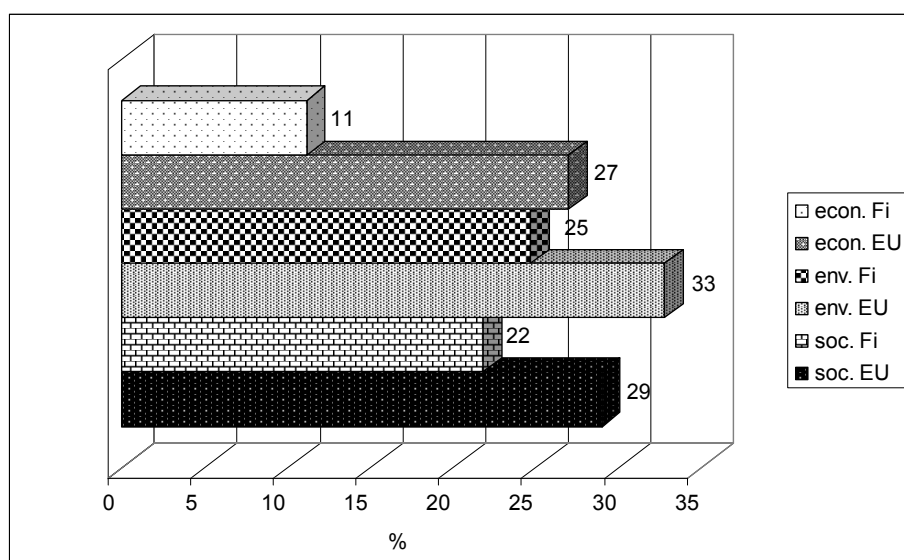


Figure 2. The influence of economic, environmental, and social issues on the quality of life. The percentage share of the response alternative ‘Very much’.
Source: EOS Gallup 2002.

At the EU-level, the state of the environment (33%) is clearly the most important of the factors influencing the quality of life, since the share of economic factors was only 27 per cent and the share of social factors 29 per cent. Slight differences can be found in the opinions of the Finnish people. The influence of the environment on the quality of life is still the most important factor (25%), but the share is only one fourth of all Finns. In addition, compared to the aggregate EU-level, Finnish citizens perceive social

issues (22%) as being considerably more important than economic ones (11%) in their value list. The result strengthens the finding made above in the QOL theory, in which it was shown that the environment has an intrinsic value for people. Furthermore, other, international surveys have found high percentages of respondents who also list environmental problems as foremost among the problems facing their society (Dunlap et al. 1993).

However, it must be noticed here, that this result was based only on some value variables and is not naturally comparable with any value theory. It only aims to point out what people regard as important for their quality of life.

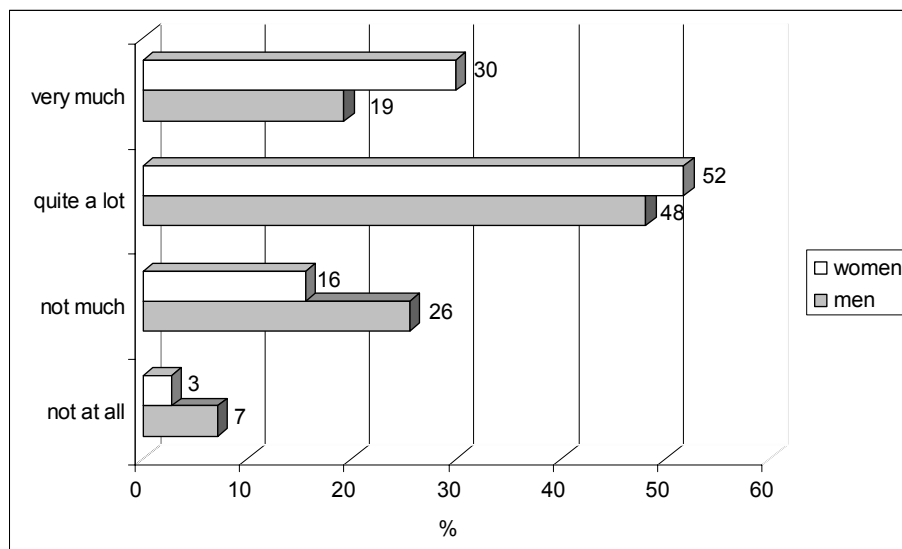


Figure 3. The influence of the environment on the quality of life, according to gender. (Finland, N=496, $p < 0.01$) Source: EOS Gallup 2002.

The above figure, Figure 3, shows one important aspect of environmentalism, that is, its highly gendered nature. Numerous studies have pointed to women's greener values and attitudes and also their willingness to take environmental issues into account in their consumption behaviour (for example, Autio & Wilska 2003; 2005; Roberts 1996, Stern & Dietz 1994). The state of the environment has a stronger influence on women than on men, which is shown by the fact that as many as 82 per cent of women agreed with the statement, whereas the percentage was 67 for men.

3.3.2 Environmental attitudes

In addition to values, the bases for environmentalism can be found in attitudes and other psychographic factors motives, norms, and beliefs. Sociological studies on environmental concern owe much to psychology, where different attitude models have been developed, such as Ajzen's Theory of Planned Behaviour (1985), Triandi's Subjective Culture Model (1977), and Bagozzi & Warshaw's Theory of Trying (1990), which have been used in framing the interaction of attitudes and environmental concerns. The attitude-behaviour paradigm, i.e. measuring environmental awareness and citizens' personal agendas, largely determines the image of the environmental social sciences in the eyes of the public at large (Spaargaren 1997, 126; Uusitalo 1997, 22). The research conducted in this field has focused, for example, on structural micro-elements that explain environmental awareness. Once environmental issues achieved a stable position in Western societies, several opinion polls started to measure the public's concern about and opinions on environmental issues (van Liere & Dunlap 1980; Dunlap & Scarce 1991; Brechin 2003).

Particular attention to environmental behaviour (although not approaching it from a consumer's point of view) was given already in the 1980s (Buttel 1987). Special attention was paid to research on environmental attitudes and values. According to Buttel's extensive literature review, three kinds of literature on attitudes, values, and behavioural research could be distinguished: studies examining the social-structural problematic, studies examining social-psychological theory, and applied studies attempting to determine the social factors related to behaviour associated with the environment (Buttel 1987, 472).

The social-structural aspects of environmental attitudes were based on surveys dealing with public concern about the quality of the environment (*ibid.*, 473–474; see also van Liere & Dunlap 1980, 189). Social-psychological research involved theory testing and the evaluation of studies made in the field. The target of that research was to study the cognitive structure of environmental behaviour and attitude-behaviour congruence. Quite an exceptional argument was proposed by Heberlein (1981, in Buttel 1987, 474) who argued that attitudes, for example environmental concern, were questions about people's opinions rather than attitudes and because opinions are not stable cognitive structures they are not likely to significantly affect behaviour. However, more recent studies have demonstrated that from value-mediated attitudes and beliefs emerge green behaviour patterns (Poortinga et al. 2004; Georg 1999; Stern & Dietz 1994).

A specific area of attitudes that has gained much research attention is substantive research on concerns about environmental problems. Current

research focuses on both the local and global level of environmental concern. Typical orientations in the field cover topics related to the relative importance of environmental problems, the perceived seriousness of environmental problems, green behaviour and the willingness to pay for environmental protection (Dunlap & Scarce 1991; Zimmer et al. 1994). These survey-based studies have shown that people are personally concerned about environmental problems (Brechin 2003, 1999, Dunlap & Scarce 1991; Dunlap, Van Liere, Mertig & Jones 2000), but at the same time largely uninformed about the causes of these problems (Brechin 2003). Awareness about global environmental change affects one's attitudes. However, it must be taken into account that one can be very concerned about wasting energy, for example, but still have quite a low understanding of how the rising consumption of energy creates environmental change itself. In recent Finnish studies (Torvi & Kiljunen 2005, 81–82; Tulokas 2002, 19; Hovi 2003, 175–188) people have expressed their concerns about both global and local environmental threats.

This thematic issue is examined more closely in paper 2, but the alternative measures of environmental concern are briefly discussed here. The scales developed to measure concern are categorized into three sectors: specific environmental issues, environmental issues combined with other social issues or lifestyles, or constructs measuring correlations with environmental concern (Zimmer et al. 1994). The first two of these have been applied mainly to marketing research. However, they also provide important insights into alternative ways to approach the construction of concern. Zimmer and her colleagues refer, through the first measuring scale, to the index of ecological concern originally developed in 1973. This index measured perceptions about detergent brands. The second type of scale combines environmental issues with other social issues or lifestyle factors. An example of a green lifestyle is Voluntary Simplicity, which has been measured according to different scale items. (Zimmer et al. 1994, 65.)

The third method of measuring environmental concern is a concept widely used both in social studies and marketing research, that is, the construct of environmental consciousness. According to Rannikko (1996, 58), environmental consciousness should be differentiated from values and attitudes, since the construct is divided into three components: knowledge about environmental issues, attitudes towards environmental issues, and pro-environmental behaviour. However, as the discussion above has indicated, attitudes and values are in close relationship with all of these components. The value-basis theory suggests that attitudes about environmental issues are the result of more general underlying values, classified as egoistic, altruistic, and, biospheric values, and that different value orientations lead to different attitudes (Stern & Dietz 1994, 69–71; Schultz 2001, 335). Furthermore,

studies have also resulted in strong links between attitudes, values, beliefs, and behaviour (Stern & Dietz 1994; Schultz 2001).

Nevertheless, it is worth keeping in mind that there is no clear causal relationship between the three components of the environment consciousness construct. In other words, in spite of the fact that knowledge about environmental problems would be high it does not necessarily lead to more sustainable consumption behaviour or lifestyles. (Bohlen, Schlegelmilch & Diamantopoulos 1993, 417; Rannikko 1996, 59, Diamantopoulos et al. 2003).

Environmental concern varies along the subject. The figure below (Figure 4) presents an environmental concern index formed of four causes of concern about global environmental problems: “How worried are you about future trends in climate change (N=7492, mean 3.0) / nature (N=7495, mean 3.2) / environment (N=7498, mean 3.4) / natural resources (N=7417, mean 3.3)?” These attitudes were measured by the Likert scale 1 = ‘not at all’ – 4 = ‘very much’. That is, the information given by the four variables was summed up so that it could show the level of environmental concern for each question. In practice, the column ‘not concerned’ in Figure 4 represents the share of those who have responded to each of the four questions with the alternative 1 = ‘not at all’. As can be seen, such a completely indifferent attitude did not come up in this study since the proportion of those is zero per cent. A general conclusion that can be drawn from the index is that over half of the respondents, almost six persons out of ten (58%) are very concerned about future trends when it comes to climate change, nature, the environment, and natural resources. Only five per cent of the general public announced that they don’t worry much about environmental issues.

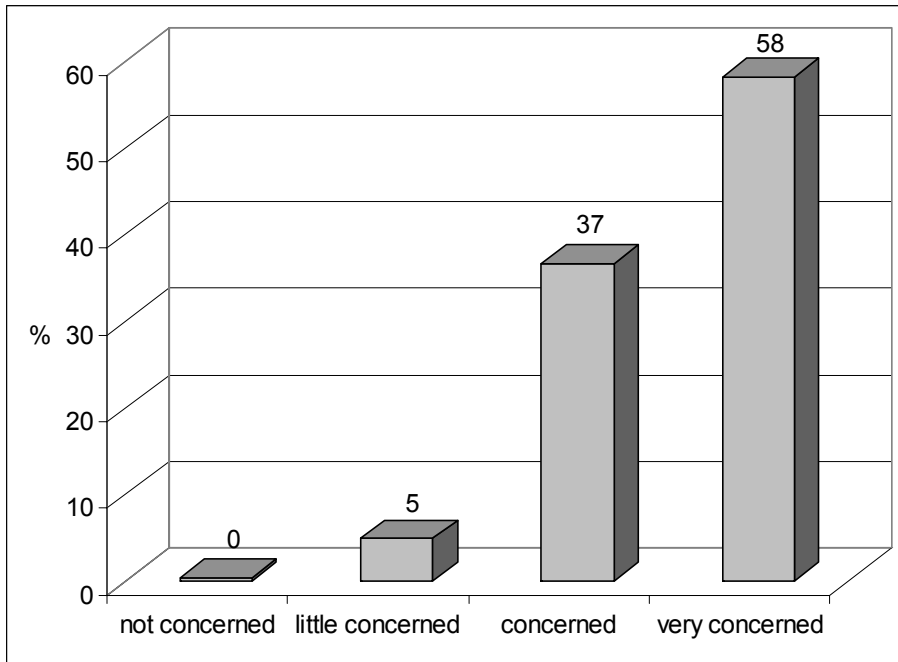


Figure 4. Levels of environmental concern among individuals in 15 EU countries (N = 7350). Source: EOS Gallup 2002.

The next figure (Figure 5) represents a national variation of the same environmental concern index. Only the proportion of the very concerned population in each country was selected. The concern was greatest in Italy (77%), Greece (70%) and Portugal (66%) and lowest in Sweden (31%) and the Netherlands (31%). Finnish anxiety about the future state of the environment is below the EU average of 47 per cent of very concerned citizens. The nation-level comparison reveals that perceptions of environmental issues are regarded quite heterogeneously. The high concern of most Mediterranean countries can surely be explained by their economic dependency on tourism which is largely influenced by their beautiful and still partly untouched nature.

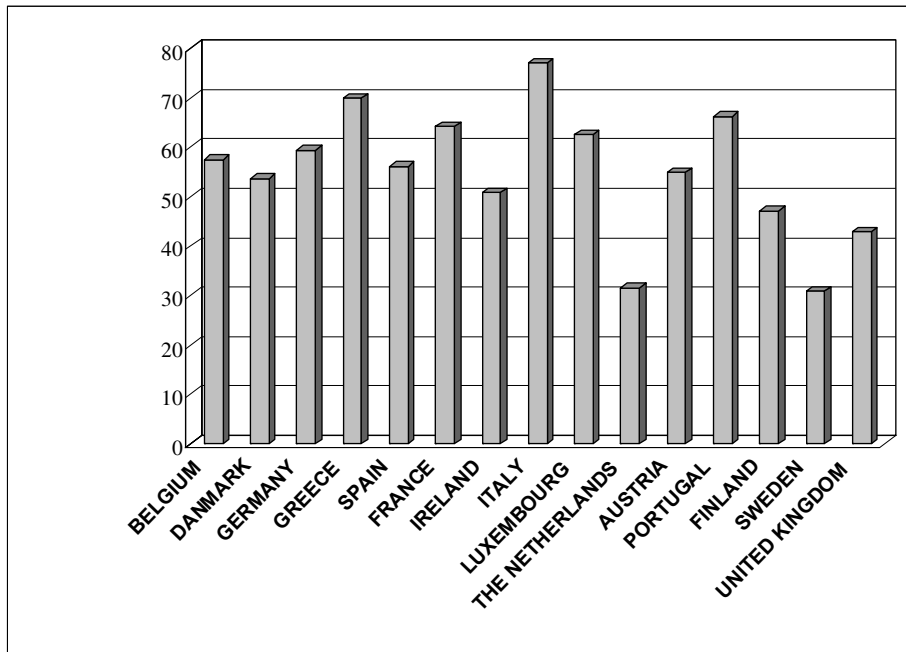


Figure 5. An index of high concern within environmental concern among 15 EU countries (N = 7283). Source: EOS Gallup 2002.

The results presented in the above figures 2 – 5 are in line with previous studies and strengthen the view that the environment both from a value and an attitude perspective is an important part of life for people. Environmental matters are important not only because of their intrinsic value but also because people may feel that their own health is threatened, for example, air or noise pollution are direct consequences of the degradation of the environment in cities.

In this chapter, the constituent elements of green consumption were categorised into three main groups: contextual, individual and personality factors. Contextual factors incorporate the economic, social, and cultural forces that are seen as having a major influence on green consumption patterns. The effect of contextual elements is mainly indirect, since they create the surroundings of consumption. Individual elements are factors that are in closer relationship to individual consumption and may have a direct influence on it. For example, a consumer's economic situation, the money available to them, is a restraint that may hinder many people from making green choices, since green goods are often more expensive. The third group contained personality factors that are in relatively direct connection to consumption behaviour. Individual needs, attitudes and values are, nonetheless, often

affected by the factors of the other two groups. For example, one may have an attitudinal readiness to use public transport instead of using one's own car, but for infrastructural reasons, e.g. a bad bus connection, this is not possible.

4 IN PURSUIT OF SUSTAINABILITY

*Hei ehtymättömänä kuka luulee
et eteenpäin karavaanimme kulkee
vaik' ilta saavuttaa meidät jo
te jatkakaa joilla voimaa on
(Kasvun rajat,
Valvomo)*

In this chapter, the theoretical discussion is drawn together in relation to the four papers incorporated in this thesis. The discussion forges ahead in terms of the order of the papers and addresses the main results and respective empirical contributions of each paper. Although all the articles focus on different dimensions of environmental issues the underlying logic that unites them is the environment-consumption nexus. Green consumption is seen as a social and structural activity which is shaped by institutional and micro-level factors. Also other elements of contemporary consumer society are discussed but the main focus is on the postmodern discourse surrounding consumption.

4.1 Willing consumers, locked-in or unsustainable out of sheer habit?

A hugely important issue in the debate on sustainable consumption is the pressure and influence of circumstances, i.e. contextual and structural factors. In chapter 3, the factors that have an influence on sustainable consumption were highlighted.

The different ideas provided for explaining our relationship to consumption vary between individualistic explanations and institutional factors. Studies on the environment have offered wide-ranging answers to questions regarding the driving forces behind continuous growth, of which the most prominent are writings concerning imperative or given structures. Those refer to alternative orientations on how the context we live in conditions the way we consume. The first view, the “willingness to consume” emphasized that the effect of structural factors on consumption, once understood by an individual, is the voluntary curtailment of consumption, which is, first and foremost, an ethical question (Røpke 1999, 417).

The second view, although partly drawing strength from the first explanation, offered a somewhat more pessimistic view of the forces behind

the growth of consumption. This “locked-in” viewpoint stressed that it is a question of mainly negative incentive structures that lock consumers into maintaining habitual unsustainable consumption patterns (Mayo 2006, 150; Sanne 2002). Economic and political constraints, infrastructures and institutional barriers not only actively encourage unsustainable action, they also cause social inequalities. Such barriers are often created by business, which powerfully lobbies government (Sanne 2002, 281).

Some changes have clearly occurred in contemporary society. “All around the world, society is undergoing radical change – radical in the sense that it poses a challenge to Enlightenment-based modernity and opens up a space in which people choose new and unexpected forms of the social and the political.” (Beck & Lau 2005, 525) Thus, the general “greening” of the climate of opinion of Western society that has taken place during the last three to four decades of the 20th century must not be overlooked. This has led to global goals to achieve a cleaner, more secure, and more sustainable society. According to those who subscribe to this view, the environment is seen as the foundation of society (Peattie 1999, 137), which is supported by social transformations. Social transformations involve not only physical changes concerning environmental disruptions and material flows but also social and institutional improvements (Mol & Sonnenfeld 2000, 5–6; Sonnenfeld & Mol 2002a; Spaargaren 1999). These transformations involve changes in the role of science and technology, the increasing importance of market dynamics and economic agents, transformations in the role of the nation-state, modifications in the position, role and ideology of social movements and, lastly, changing discursive practices and emerging ideologies (Mol & Sonnenfeld 2000, 6). What is of special importance to this study is the role of market dynamics and economic agents, since those are connected to green consumption and consumerism. The terms “market dynamics” and “economic agents” refer to different kinds of actors having many roles, which affect ecological reform and change. Such actors are, for instance, producers, *consumers* and credit institutions.

Debate among scholars has emerged about whether social changes have remained just a theoretical speculation without having actually taken place (Mol & Sonnenfeld 2000, 6). The so-called green awakening of societies and consumers to environmental questions, and to the overall recognition of a collective environmental problem, has not led to considerable changes in, for example, consumption patterns (Olney & Bryce 1991, 695). The improving changes in consumption patterns would especially signify a decrease in consumption, which in fact has not occurred. Instead, consumption in Western industrialised societies has constantly grown. According to the UN’s Human Development Report, global consumption has more than doubled in almost

thirty years, public and private consumption expenditures reached \$24 trillion in 1998 - twice the level of 1975 and six times that of 1950 (Hahn 2002, 41). And on average, resource use per person nearly tripled between 1950 and 1990 (Corson 1994).

It is widely accepted that sustainable consumption requires lifestyle changes (Sanne 2001, 125; 2002, 285). However, the existing structural limits do not allow these changes. That problem is discussed in paper 1, in which the structures, the contextual factors that influence social life broadly and green consumption in particular are presented. The issue is approached on a broad front and the term structure is used in this article as an umbrella concept for the theoretical constructs of 'macrocosmos' and 'microcosmos'. Through the investigation of structures from both the methodological holism and methodological individualism perspectives, a structural approach has been adapted. The relation between macro and micro-society becomes essential when approaching sustainable development – and with specific interest in sustainable consumption – in the global context. By scrutinizing these relations, the article aims to pave the way for the other papers included in this research by discussing various theoretical concepts related to structures. As an empirical phenomenon, consumption is a complex one, which – as this research has many times underlined – cannot be interpreted in terms of cultural or social factors alone. Questions such as why the level of green concern varies between countries, or why people in some countries are more willing than their counterparts in other countries to make personal sacrifices for environmental reasons, cannot be understood by restraining the analysis to only some of its elements.

The main goal of paper 1 was therefore to examine more closely the notion of structure and related concepts, and to evaluate their potential role in sustainable consumption research. Nevertheless, with certain exceptions (Spaargaren & van Vliet 2000; Røpke 1999; Showe & Warde 2002, Sanne 2002, Southerton et al. 2004), previous work that deals with the contextual factors of green consumption only rarely combines structure-actor interplay in analysis and brings it to the empirical level. Therefore, the article elaborates upon some of the major basic concepts and definitions and empirical implications from the relevant literature, which has been merged within other sociological research streams that would help to reveal the relevance of this interplay for environmental research. Paper 1 contributes to this research stream by elaborating upon the concepts of structure and actor, first, at a general level, and second in the green consumption research context. Another contribution to the ongoing debate on this relationship is that the paper produces new conceptual tools for dealing with the macro-micro discussion. That is, it introduces Coleman's (1986) macro-micro-macro model and applies

it to the green consumption context. Last, the applicability of the model is evaluated and a mechanistic approach for studying the structure-actor interplay is proposed. These contributions are discussed in more detail below.

The paper starts with accounts of social structure developed in the theory of structuration by Anthony Giddens' (e.g. Giddens 1984) and Tony Lawson's understanding of it in the context of institutional theories (e.g. 2003). For Giddens, structure is not something stable and congealed but represents rules and resources that are bound up in time and space to social reproduction. Some of the formal concepts of structuration theory provide a more specific meaning for environmental studies, the most promising ones being Giddens' concept of "behavioural or social practices" and their routine-based nature. As structure is bound to the time-space continuum, it is also an inevitable part of everyday life or rather 'day-to-day social activity', the phrase that Giddens uses systematically in order to express its very literal sense in trying exactly to encapsulate the routine character of social life. Another core notion is the concept of the "duality of structure". In fact, the main goal of the theory is to abolish the dualism between structure and actor, since structures are both the media and outcome of human action.

By social structure Lawson means something that comprises all the underlying powers, mechanisms and tendencies that are related to the actual or surface phenomenon. This may be best described in his own words on social reality (Lawson 2005, 181):

I take social reality to be the realm of all phenomena that, for their existence, depend, at least in part, on us. And by asserting that the social realm is structured I claim, in particular, that it consist in far more than actualities such as (actual) human behaviour including its observable patterns. It also consists in features such as social rules, relations, positions, processes, systems, values, and meaning and the like that do not reduce to human behaviour.

How do we understand social (environmental) change and individual behaviour through the lenses used by Giddens and Lawson? What is suggested in paper 1 is that these concepts must then be integrated into the broader theoretical context of institutions, mechanisms and interactions. In other words, the notions of structure and actor are of use when searching for connections between the individual, the macro-level, the micro-level, and society. Elsewhere (Coleman 1986, 1312) has pointed that sociologists take as their starting point the purposive action of individuals. This standpoint assumes that people are well-organised and that they can shape social systems. However, if this were the case, they could easily force, for example, business and markets to develop in a more sustainable direction. As Coleman states,

what matters is that “The action, or behaviour, of the system composed of actors is an emergent consequence of the interdependent actions of the actors who make up the systems.” (ibid.)

Thus, the above-mentioned concepts of institutions, mechanisms and interactions are dealt with in paper 1 as they appear in the social sciences. In order to be able to understand the environmental change caused by human actors, the concepts of the macro, meso and micro-level were elaborated upon in tandem with the others. However, operating with macro and micro-levels is only of use to a certain extent as with this type of analysis the information obtained reveals only which variables best explain certain observations either on the aggregate level of society or on an individual actor’s level, not *why* social processes occur as they do in society (both on the macro and on the micro-level). In the next stage of paper 1, a meso-level approach was introduced, which was aimed at linking together the macro and micro-levels. The notion of meso refers to theorizing on the middle-range, which seeks to capture the interplay between macro and micro. The meso-level approach makes it possible to compare different phenomena from the structural angle and to investigate whether they reveal any consistent patterns or trends (Beck & Lau 2005, 528). Although no empirical investigation was conducted in this article, this theoretical reasoning has helped to understand why the environment-consumption nexus is as multifaceted a phenomenon as it is.

4.2 Global environmental consciousness in focus

Public concern over environmental matters has grown rapidly since the 1960’s. People’s support or resistance towards the environment has been shown to be connected either to environmental crises or economic trends, although this is not to play down the media’s role in making people aware of the environment (Haikonen & Kiljunen 2003, 167–169; Hutchins & Lester 2006). When an environmental crisis takes place, e.g. the explosion of the nuclear power plant at Chernobyl in 1986, public support for the industry involved in that disaster declines, as it did for nuclear power back then (Dunlap & Scarce 1991). This disaster raised environmental problems in the consciousness of Finnish people. Half of all Finns were, at that time, sceptical about the state of the future environment, whereas six years later an attitude survey revealed that visions about the future were much more positive. Two thirds of Finnish people (64%) believed that environmental protection would be successful. (Haikonen & Kiljunen 2003, 170.) Moreover, what is of greater significance is that a follow-up study conducted in the EU about citizens’ relations to environmental issues reveals that people’s concern about the

depletion of the ozone layer has decreased but concern over the extinction of some plant or animal species increased between 1999 and 2002 (Hovi 2003, 175).

As the above debate reveals, the focus has shifted in paper 2 from theoretical analysis to the empirical study of environmental attitudes, knowledge and behaviour. Paper 1 established the theoretical and conceptual foundations of mechanism-based ideas and paper 2 continues to explore social mechanisms in the empirical context. The aim to examine theoretical approaches in empirical design is also a main aim of the paper. All the empirical analysis conducted leans on the theoretical ideas of the post-materialist values thesis (Inglehart 1977) that has been applied to the field of environmental research. This thesis has been used in explaining national differences within the perception of environmental problems. The starting point in paper 2 is to test empirically the post-materialist values thesis (two-way thesis) in the context of the environmental consciousness construct. The study also contributes to environmental research by presenting new information about national differences in the perception of environmental issues and about how structures both at the macro and micro-level impact upon these perceptions. Therefore, the empirical part the paper was two-fold: first, some of the basic ideas of the post-materialist values thesis were tested. Secondly, the analysis aimed at explaining perceived environmentalism in more detail by focusing on the environmental consciousness construct. These three components form, as discussed earlier, the so-called environmental consciousness construct (e.g. Rannikko 1996, 58) that can be operationalised to measure people's opinions about, and relationship to, environmental questions. Environmental issues are monitored through a cross-national data survey (International social survey programme: Environment II, 2000).

Attitudes towards the environment reflect cultural locality (Brechin & Freeman 2004, 2). This is because what Finns or people in other countries consider to be worthy of public concern varies over time. If environmental concern in America grew out of the 1960's (ibid.), in Finland ecological awareness raised its head at the beginning of the 1980's. At the time, soft and hard values were also in conflict in other industrialised countries. (Haikonen & Kiljunen 2003, 167.)

People are worried about different global environment problems, for example global warming. This kind of worry shows a concern for global level problems. The concern can also be local. This means that individuals are concerned about their own surrounding environments, the nature close to their own living areas. Thereby, environmental concern is divided into two levels: global and local. Furthermore, as discussed in paper 2, the level of concern varies greatly among countries and their citizens, thus both between-country

and within-country variations exist. Between-country variation is often explained by the economic situation of the country; the more affluent the country, the higher the level of environmental concern (Inglehart 1995; Kidd & Lee 1997). However, according to various scholars, environmental concern is a universal value, which is not bound to the economic development of one country, rather to the perception of direct, real environmental threats (Brechin 1999; Dunlap & Mertig 1997).

Table 3. The environmental consciousness construct and its connection to levels of affluence

	Environmental concern	Environmental knowledge	Environmental behaviour
Middle-income countries	High	Varying	Low
High-income countries	Low	Varying	High

Table 3 above summarises the connections between national wealth and the distribution of the countries in respect of the environmental consciousness construct. These results are discussed in more detail below.

The analysis of national differences in how the general public perceives environmental threats strengthens the argument above. The results of the analysis in paper 2 pointed out that environmental concern peaks among low- and middle-income countries, such as Chile, Portugal and the Philippines while people in the welfare countries did not manifest high concern, Finnish people were, in fact, the least concerned. (Table 2 in Haanpää 2007b.)

Environmental knowledge is another component of the concept. Studies show that there are great differences in knowledge about environmental issues between people of different countries (Hovi 2003, 181, 183; Mayo 2006, 150). For example, the analysis conducted in paper 2 showed that environmental knowledge about the reasons and effects of green house gases varied to a great extent among countries, from 69 per cent to zero per cent (Table 3 in Haanpää 2007b). Consistent with these results is another Euromonitor study, where it was found that only 14 per cent of the general public knew that not all radioactive waste is very dangerous. According to this study, people were best aware of the matter in The Netherlands, in Denmark and in Sweden. (Hovi 2003, 184.)

Public debate about environmental problems increases people's knowledge and the media also plays a significant role in the shaping of public debate and influencing awareness (Hutchins & Lester 2006, 438). However, there are two sides to the coin: when people get more information about the environment it affects their concern either by increasing or alleviating it (Hovi 2002, 181).

Knowledge about increasing environmental problems can promote not only concern but also anxiety, which may be manifested via frustration with all kinds of the environment debate as was suggested in paper 2 with reference to low worry (Table 7 in Haanpää 2007b).

When it comes to green behaviour, typically the following types of questions are asked: Is one willing to pay more for the environment's sake or to reduce one's personal life standards? The answer can also measure the subjective evaluation of one's opinion as to whether he or she is an environmentalist. The results gained from these kinds of questions reveal the intention to take action for the sake of the environment, not actualised green behaviour, and therefore they often result in depicting an environmentally positive opinion climate, since as was shown earlier in this thesis, environmental attitudes are high. If people are asked instead about their actualised environmentally responsible behaviour, for example, active participation in the actions of environmental organisations or groups, signing a petition about environmental issues, or reductions in car use for the environment's sake, the situation changes dramatically, as the results in paper 2 showed.

The most committed to green behaviour were the people of rich Switzerland. Economic well being seemed to explain green behaviour quite well (Table 4, Haanpää 2007b) which somehow is an expected result, since people in affluent countries have much greater possibilities to provide economic support than most of the people in the developing world. This can be noticed from the results: the top five of the list consisted only of wealthy nations, with the exception of Mexico. Those lowest committed were, then again, countries of low-income, such as Russia and the Philippines. This finding, however, was in contrast with some earlier studies. In Brechin and Kempton's study (1994) it was the poorest countries that exhibited a high willingness to make economic sacrifices. They found a weak relationship between levels of wealth and the willingness to pay for environmental protection. Maybe the most reasonable explanation is that although few people within low-income countries would be ready to pay cash in order to protect the environment, the same people hold high values for the environment. However, the instrument of "willingness to pay" expresses only environmentally responsible intention not actualised behaviour as was discussed earlier.

The questions were, therefore, put to further analyses, which were firstly conducted by the Principal Component Analysis (PCA) and secondly, the factor scores were explored using an analysis of variance (General Linear Model). The item set consisted of a total of 15 variables. The criterion for the selection of these items was that they measured the environmental consciousness constructs: environmental concern, knowledge, or behaviour. In

the conducted analysis, five clearly separate dimensions related to environmental concern and worry and to behavioural support and actualized behaviour as well as to environment knowledge were formed. This five-factor solution was found to be the best fit and it explained 64 per cent of the total variance (Table 6 in Haanpää 2007b). The dimensions were simply labelled in the most informative and descriptive manner: the first dimension was loaded by items of environmental ‘concern’ and, thus, was labelled as such. The second factor consisted of “willingness to pay” type of questions and can be seen as reflecting citizens’ readiness to make behavioural sacrifices for the environment and was simply called ‘willingness’. The third factor, ‘worry’ expressed citizens’ worry but was negatively loaded and, hence, pointed toward negative attitudes about environmental issues. The fourth dimension, ‘behaviour’ consisted of elements of actualized green behaviour, and the last factor, ‘knowledge’, was formed from items related to environmental awareness.

What do those five dimensions tell about the perception of environmental matters? First of all, they reveal the hidden constructs of a general attitudinal dimension. As has been suggested by several theories (e.g. Diamantopoulos et al. 2003; Rannikko 1996), the environmental consciousness construct is formed from three different elements, those of environmental concern, knowledge, and behaviour and this was borne out by the analysis. In the case of this study, the outcome was altogether five dimensions, of which all are related to this very construct. It could certainly be argued that the outcome is such because the original items analysed measured only the environmental consciousness construct. However, it is not axiomatic that all the items tested are statistically significant. Therefore, every item was controlled for its communality, which expresses how much the item explains the factor that it is loaded on. The communalities in the study were acceptable ($h^2 > 0.3$). In sum, all the factors that were formed in the principal component analysis presented in paper 2 are valid.

Once the analysis, like the one in paper 2, has been conducted, the factor loadings, i.e. different dimensions produced are worth putting through further analysis, in order to gain more information about the phenomenon. A suitable way to find out more about environmental consciousness was to put the data in the analysis of variance (ANOVA). This analysis method was used to assess the comparative significance of background variables in order to find out whether they explain environment consciousness at the individual and/or at the institutional level. The results revealed that both micro-level, socio-demographic background variables and aggregate level, macro variables do explain the environmental consciousness. Socio-demographics pointed to significant consistent effects regarding the consciousness construct. All the

variables, education, age, gender, and family income, did explain the dimensions of environmental consciousness. Also macro-level variables, GDP and population density were highly significant explanatory factors.

The main conclusion in paper 2 was in line with some previous studies in the field (Brechin & Kempton 1994; Brechin 1999; Dunlap & Mertig 1997) which have shown that public concern exists globally and is not restricted to affluent, industrialised countries, rather is clearly evident in countries that belong to developing, low or middle-income nations. There were significant differences between high and lower-income countries with respect to environmental concern, which was systematically greater in developing countries. In summary, the results of paper 2 confirmed that both micro and macro-level factors do systematically explain the environmental consciousness construct.

4.3 Postmodern features of green consumption

Different terms are used when explaining the changes that our societies are undergoing. According to some sociologists, this era is described and conceptualised best by referring to the term postmodern (Lyotard 2001; Lyon 1999) while others use the term “second modernity” (Beck & Lau 2005). The “postmodern project”, i.e. what is meant with it, how it should be defined and does such an era even exist, is a discussion that constantly rages (cf. Mustonen 2006, 17–28).

Paper 3 examines the notion of postmodern in the context of the sociology of consumption and ponders to what extent the elements of green consumerism and consumption are applicable to the postmodern discussion of consumption. This theoretical reasoning leans on the discussion of postmodern society where consumption structures are claimed to be more complicated than in modern society. Without taking a stand on the claims of the nature of this time period we are in, i.e. whether to call it postmodern, second modernity, or the post-industrial era, some of its characteristic features are embedded in the debate of green consumption. As in paper 2, paper 3’s theoretical notions are operationalised empirically. The most important contribution of this paper is the new empirical model developed to measure postmodern features of consumption in the context of green commitment. This model allows for the simultaneous evaluation of the effect of both postmodern and modern structural elements with reference to green commitment. Another contribution relates to the postmodern elements of green consumption, which were developed in this study based on the literature review conducted regarding the

writings on postmodern consumption. This was conducted in the theoretical part of the paper. The key features of paper 3 are presented next.

Some ideas about postmodern consumption can be seen to complement the debate of green consumerism. In paper 3, two perspectives were emphasised. First, postmodern explanations of consumption behaviour stress that traditional structural elements do not explain contemporary consumption. In other words, consumption cannot be defined in terms of social categories, such as education, gender, and age, since social reality has become more heterogeneous and people define themselves through their personal desires, abilities and the choices that have become the basis of their lifestyles (Räsänen 2003, 46). For example, Mike Featherstone, one of the postmodern theorists of the sociology of consumption has elaborated upon this idea by discussing Bourdieu's accounts of consumption, distinction and lifestyles (Featherstone 1991, 84–89). According to Featherstone, Bourdieu's insights into how social class determines cultural capital is too direct a projection of the influence of class structure on consumption. Popularization and the marketing of not only cultural but also other consumption goods and the constant introduction of new tastes blur class boundaries (Featherstone 1991; Spaargaren 1997, 180).

The second feature related to postmodern consumer society deals with the notions of lifestyle and choice. Postmodern consumption is said to be driven by diversity and freedom of choice, emphasising difference, which in turn leads towards fragmented and diverse forms of social identity and lifestyles (Featherstone, 1991; Miles, Meethan & Anderson, 2002). The freedom to choose has been called into question by several scholars (e.g. Marcuse 1969; Baumann 1996; Schor 1997). These views challenge an individual's possibilities to exercise freedom of choice and argue that a choice of goods comes at the expense of choice in other (more) important areas of life. Juliet Schor (1997, 48), for instance, has analysed this with regard to work and leisure time by arguing that workers do not have free choice when considering their working hours but instead have been habituated into given working patterns. "*workers want what they get, rather than get what they want.*" (ibid. 48–49 emphasis in the original) A relatively deterministic view of the notion of free choice was presented by Herbert Marcuse, one of the members of the critical Frankfurt School. In his book *The One Dimensional Man* (1969), Marcuse analyses the individual's true and false needs claiming that in fact, these needs are dictated by society. According to him, societal control creates a compulsory need for waste-production and for waste-consumption, a need to cling to such spurious freedoms as the freedom to choose a favourite brand. (Marcuse 1969, 30–31). Thus, postmodern freedom remains just an illusion which is ultimately guided by circumstances. It has also been argued that

values hinder green consumerism. In the consumer society material goods are the primary way of achieving happiness (Goodwin 1997, xxx).

In paper 3 the concept of lifestyle was discussed further, however, some additional remarks are made here. In green consumerism research, the concept of lifestyle is connected to the process of consuming, individual choice and decision making (see e.g. Southerton et al., 2004; Sanne, 2002), but also to the social or symbolic dimensions of consumption (Spaargaren & van Vliet, 2002).

These two features, the erasing of structural background elements and lifestyle-based consumption, were contested by an empirical study concerning general consumption motives and green commitment in the sphere of Finnish consumers. The effect of both socio-economic variables and different consumption styles were analysed in the light of statistical data. The purpose of the empirical analysis was to test whether traditional background variables explain consumers' commitment to green issues when making everyday purchases or whether green commitment was explained by different consumption styles. The results of the study suggested that consumption styles representing lifestyle have a notable effect on green commitment, which was measured in this study by certain consumption-related attitudes. From these items an index measuring consumers' green commitment was formed (Figure 2 Haanpää 2007c).

According to the results, most of the respondents manifested an interest in green issues when making purchasing decisions. The share of the more green-committed group of consumers was clearly higher than that of the low-committed consumers. In the next phase, the dimensions of general consumer styles were produced by utilising PCA (see sub-chapter 4.2 for its description). This was essential, in order to analyse their impact on green commitment, which was regarded in the study as manifesting a commitment to a green lifestyle. Six quite distinct factor dimensions were produced by PCA. These were labelled as 'reluctant' (factor 1), 'trendy' (factor 2), 'quality' (factor 3), 'price' (factor 4), 'convenience' (factor 5), and 'conscious green' (factor 6).

These factors and age, education and type of household representing social background variables (other variables being non-significant), were put into the further analysis. The idea lying behind the test was to bond together those elements that represented postmodern lifestyle features, which in this case were the six dimensions of consumption styles, and traditional background variables, that is, the three explanatory factors above. It was anticipated, as the postmodern writings suggest, that green commitment is better explained by postmodern lifestyle elements than by age, education and type of household.

The analysis strongly points to the fact that green consumer commitment is characterised by postmodern lifestyle features, since those elements had more

influence on it than socio-economic variables. The effects of consumer styles were not uniform, though, since the consumer style 'quality' had no effect on greenness. It could be interpreted that people who are very quality-conscious, for example, for whom it is important to buy brands or who see product quality as more important than price, are not interested in a product's environmental criterion. This is somewhat surprising; given that the manufacturing processes of green products are often well described in their product labels and the raw materials are qualified. However, consumers trust in green products is not always strong (Laaksonen & Mäntylä 2000). This may imply that quality-conscious consumers do not regard greenness and environmental values to be of importance. On the other hand, repeat purchases of everyday food products are made with little awareness when the choice process is more or less automatic and can be controlled by habits or routines (Grankvist & Biel 2001, 405).

Three of the tested styles had a very high effect on green commitment. These were 'reluctant', 'trendy', and 'convenience'. As the labels of the consumer styles already reveal, these consumers differ in many respects from each other when it comes to consumption criteria. The reluctant consumers, who regard themselves in many senses as anti-consumers (see the items that were loaded on this consumption style in table 2, Haanpää 2007c) were most committed to green issues. What instead, unifies them is the fact that the environment is valued by all of them.

The main goal in paper 3 was to test the hypothesis that different consumption styles are influential, or important with regard to green purchase choices. The general conclusion of this study was that consumption styles correspond with the level of green commitment, although socio-economic background variables also had some effect on it.

4.4 The future is in the hands of youngsters: perspectives on green youth culture

Young Finnish people are aware of the environmental problems that contemporary consumerism incurs (Autio 2004; Autio & Wilska 2003, 2005; Haanpää 2005). For the Western world and Western consumers the contemporary era is an age of affluence in which consumption plays a natural part. For the majority of young people this has signified the freedom to consume (Miles 2002, 134). The young adults of today's consumer society are, quite literally, born among all kinds of goods. It is not a question about having a colour TV or a DVD player, rather about how many of each a household possesses (Autio 2004, 105).

In paper 4, young Finnish adults' environment-related attitudes and opinions were evaluated. The sample consisted of 288 (172 girls and 115 boys) respondents whose ages ranged between 15 and 25 years. The survey data were divided into four thematic areas: 1. environmental concern, 2. science, technology and the environment, 3. green consumption attitudes, and 4. environment actions in practice. Each area was analysed separately, first in the light of its means distribution and then by cross tabulation. This study provides new information about young people's perceptions of environmental matters. It also looks for the explanatory factors behind them. In other words, the study contributes both to youth studies and environmental research by providing these research fields with information about Finnish youths' opinions, attitudes and consumption patterns regarding green consumption. The study seeks to provide a coherent picture of how young adults in Finland understood environmental issues at the turn of the Millennium. The main content of paper 4 is dealt with below.

When considering young adults' consumer culture there has been a tendency to generalise certain aspects as fixed. The consumption habits of young people are distinguished by a particular style of consciousness, which is leisure-oriented consumption mixed with other, often conflicting, consumption styles (Osgerby 1998; Saarinen 2001, 45–46; Autio & Wilska 2005). These different aspects connected to youth consumption are also discussed in the last paper, (paper 4). Young adults are expected to be active participants of consumer culture and, furthermore, to pave the way for new consumption styles (Mäenpää 2003, 129–131). It is taken for granted that youth is a consumption-oriented time, although youth sub-cultures should not be detached from the complex social contexts in which youngsters consume or, as Miles argues (2002, 135), more likely do not consume. That is previous research in the field has concentrated on youngsters at either end of the continuum of different consumption styles. On the one hand, young adults are regarded as responsible and rational consumers who carefully think over their consumption choices. According to this view, young consumers take the environmental aspects of consumption into consideration when consuming and they are regarded as being in the vanguard of green and ethical consumption styles (Autio & Wilska 2005, 403). On the other hand, young people are often regarded as egoistic consumers for whom an abundance of consumption possibilities only offers an endless number of needs and desires and encourages them to adopt uncontrollable consumption patterns. (Autio 2004 106–108; Autio & Heinonen 2004; Wilska & Virtanen 2002; Wilska 2003, 441–442.)

Earlier in this thesis it was argued that consumption is bound up with contextual factors. This is the case with young consumers, too, especially

when it comes to sustainable consumerism. Young consumers' preparedness to critically evaluate their consumption styles and habits is connected to the circumstances in which they have grown up (cf. Autio 2004, 118). Today's young adults have been associated with a consumerist culture where almost everything one may wish for is available. From the 1980's onward, when these youngsters were born, Finnish society has undergone a strong decade of growth. And despite the economic depression in the 1990's material growth continued (Heinonen 2000, 18). It is, therefore, not surprising that consumption is – and not only for young people – an important part of everyday life. Consumption as such is regarded as an axiomatic action: in traditional, agrarian societies consuming more than was necessary to fulfil one's basic needs (e.g. eating more than was needed) was regarded as negative and immoral while in contemporary Western societies the modern consumer is thought of as exceptional if he/she does not want to consume. It can be argued, that consumption has become an end in itself (Campbell 1987). Corrigan points out (1997, 10) that traditional consumption was quite fixed and narrowed down into a limited sphere of needs. Today's modern consumer looks for pleasures in emotions that are (Campbell 1987, 69) gained through constant consumption.

It is no wonder then that the ideology of sustainability does not easily reach young consumer groups. Although young people have quite a good understanding of the causes of environmental problems, it does not often lead to changes in their consumer behaviour.

The analysis showed that the majority of young Finnish consumers are favourable to environmental issues. The results also revealed that young people's attitudes towards environmental issues are gendered; the opinions of young women and girls were, overall, more positive than boys and young men regarding environmental issues. Girls were more concerned than boys about the effects of modern lifestyles regarding the environment and they were also more willing to alter their personal behaviour with respect to their own standard of living (Table 1, Haanpää 2005).

Boys proved to be more positive than girls about the statement regarding the possibilities of science to solve environmental problems and the majority of young people thought that environmental protection is needed in order to enable economic growth. Both boys and girls were extremely concerned about the world's population growth. Global questions and quite abstract environmental issues related to economic growth, which in practice are outside the boundaries of individual influence, seem to arouse concern. Statements related to everyday life and behaviour did not evoke much concern. For instance, a willingness to pay higher prices or taxes for the environment's sake was not supported very strongly by young consumers. On

the other hand, youngsters have adopted the habit of recycling; they often recycle waste, especially paper. It is worth noting that the standard deviation was often quite high, which indicates that environmental issues are perceived among young people quite heterogeneously.

There were apparent differences between boys' and girls' attitudes related to environmental threats. Girls were consistently perceived as more worried about environmental threats than boys. Most apparently this is manifested in relation to the argument stating that "Within the next five years, how likely is it that an accident at a nuclear power station will cause long-term environmental damage across many countries?" Over half of the girls subscribed to this statement whereas only one third of boys agreed with it. (Table 2, Haanpää 2005.) These results strengthen the gendered opinions about the environmental issues referred to above.

Young people are favourable to economic growth, yet, they see contradictions between growth and the environment. The discussion about science, technology and the environment is reflected in the opinions of young adults. The results of paper 4 suggested that young people are not very optimistic about scientific solutions for solving environmental problems. These kinds of questions are also quite difficult for young people to take a stand on, either for or against, which can be noticed from the results: 62 per cent of girls and 44 per cent of boys could not take a proper stand on the argument "Economic progress in Finland will slow down unless we look after the environment better".

In considering their own possibilities for influencing the environment's state young people seem quite optimistic. There are gender differences though, especially when it comes to the younger age group. Male teenagers aged 15 to 19 were the most pessimistic about their individual opportunities to affect environmental change, while young women aged between 20 and 25 were the most optimistic. Free-riding, enjoying the environment without making any behavioural changes (Konkka 2002, 235) has been pointed out as a hindrance to greener consumption patterns. The majority of the young adults were not, however, troubled by the fact. (Haanpää 2005, 126.)

An ecological self-image was emphasised by those youngsters who lived in urban areas. One third of them were willing to pay higher prices to protect the environment but what is noteworthy is that among the same urban age group unwillingness was also higher than in other areas. In other words, young urban people placed at both ends of the spectrum. Those living in the countryside or in sparsely populated areas were slightly less committed to environmental issues. (Table 5, Haanpää 2005.)

The study also addressed the issue of testing the curtailment of behaviour related to car use. The finding pinpointed that there is interdependency

between different behavioural aspects and the commitment to greenness. Consistently those who supported cutting down on private motoring in order to help the environment were also the most committed to a variety of green behaviours. The most committed, however, also represented quite a minor share of young adults. 13 percent of the respondents of the survey announced that they almost always curtail car use for the sake of the environment. (Table 6, Haanpää 2005)

Today's young adults do not perceive any contradictions between their own consumption and environmental protection. They are – consistently with the rest of adult population – concerned about different environmental matters but do not see them as personal problems which they are responsible for. Global and abstract problems are considered important but at the same time their own personal sacrifices for a more sustainable future seem to be fairly significant. Most young Finns thus can be characterised as light green consumers. Age and gender best explained most environmental attitudes and behaviour, and in some cases place of residence also explained environmental attitudes and behaviour. To sum up this section, greenness is mainly thought of as affecting one lifestyle choice from a variety of others to be picked from.

This chapter has summarised the articles included in this thesis. The purpose of the chapter was to combine the main content of each article and point out that when providing explanations for the interplay between consumption and the environment no single explanation exists. Rather, green consumption is conditioned by different elements, which often restrict consumption choices.

5 CONCLUSION

The present study has taken a structural approach to environmental attitudes, opinions, knowledge, and consumption patterns. Through the investigation of both international and national data, and by comparing them to the previous studies conducted in the field of environmental research, this study has highlighted the environment-consumption nexus. The data used have offered a representative sample of the multifaceted phenomenon of green consumption. Without the use of such data it would have been difficult to study the interplay between structures and actors, the relationship between institutional factors and individual-level green consumption patterns. As the discussion in this study has pointed out, institutional factors encompass a wide variety of contextual features, from cultural norms related to consumption to institutional elements, for example, the social and economic structures of a country. Without different individual items that measure the range of environmental issues it would not be possible to grasp the interplay between the different levels of society with regard to the environment and consumption.

In chapter 2, a review of the development of environmental sociology was conducted. In addition, consumer culture and its refinement from early classical descriptions to contemporary writings about the sociology of consumption were contemplated. Environmental and social issues have not been regarded as self-evidently belonging together in social studies. In brief, the main idea behind chapter 2 was to reflect the overall character and significance of the development and the current stage of both disciplines in relation to sustainable consumption research. Furthermore, the theoretical reasoning also reviewed the concepts central to these disciplines that are of use in green consumption research.

The discussion in chapter 3 emphasised the basic elements of the environment-consumption nexus. First, it focused on contextual elements that have had an influence on green consumption. Secondly, individual factors of green consumption, such as cultural and postmodern explanations were discussed. Essential to this sub-chapter was the need to draw together existing green consumption studies that have obtained conceptual tools from sociological consumption theories. As well as working with concepts of consumption theories, these models emphasised the importance of taking the context, i.e. infrastructures into account in order to look at how individual choice obscures how other contextual, structural elements affect consumer

choices (Sanne 2002, 273). These explanations point out that people – as consumers and as citizens – are strongly influenced by their surrounding contextual circumstances. In other words; it is not so much a question about consumers' free will and freedom of choice; rather the fact that they are locked into unsustainable consumption patterns by the context. The context here refers to structural forces that drive consumption, such as macro-level institutional factors and micro-level individual factors. (ibid.). Thirdly, it discussed the importance of alternative theoretical implications of how an individual's environmental perceptions and concerns can be approached and measured. In socio-psychological studies, the role of values and attitudes is seen as an important way to canvas perceptions about environmental problems.

In chapter 4 the articles were discussed in relation to their main features. The content of the articles was constructed according to the research design presented in chapter 1. The articles also sought answers to the research questions of the present study, as the following sub-chapter also highlights.

5.1 Summary of the main results

In this sub-chapter the research results are discussed on a more general level. The purpose of this dissertation was to identify structural factors involved in causing and portraying the relationship between consumption and environmental issues. This issue was approached from different viewpoints presented in the four articles incorporated into this thesis. The research questions that were used to shape the main purpose of the study were divided into three areas. These are all reflected here in the light of the main findings of the empirical research.

Research question 1: Do macro-level (institutional) factors systematically explain the environment-consumption nexus?

Based on the results of the empirical analysis conducted in paper 2 it can be argued that macro-level factors explain, quite systematically, the environment-consumption nexus. The empirical findings allow us to underscore the role of national wealth and population density in providing explanations of national differences with regard to environmental issues. However, one must note that only two, although important, factors were chosen to represent the institutional level. This was necessary due to the limitations of the study and also purposeful from the point of view of the theoretical background.

An important fact to note is that the existing literature on the relationship between the post-materialist values thesis and environmental perceptions does not support one of the main ideas of this thesis. That is; the national level of

affluence works contrary to how the thesis suggested it should. It was found that in lower-income countries concern for the state of the environment is higher than in high-income countries. However, some support for a two-way thesis was found because people in affluent countries were more likely to engage in green behaviour than people in countries with a low-income were.

Research question 2: Do micro-level (individual) factors systematically explain the environment-consumption nexus?

The micro-level structural conditions and green consumption patterns were addressed in papers 3 and 4. In many writings concerning contemporary consumption it has been stressed that consumption behaviour does not form a coherent field that can be explained by structural elements. This idea was developed most of all in paper 3. The empirical model tested both postmodern consumption styles and traditional background variables in relation to green consumption commitment. Contrary to previous studies on the relationship between general consumption behaviour and structural conditions (e.g. Räsänen 2003) this study found that postmodern elements usefully explained commitment to green consumption behaviour. In other words, lifestyles do have a notable effect on green commitment and in fact, are more significant than structural background variables. The results of paper 4 were in line with those of paper 3 as they showed that structural elements, such as age and gender were the best predictors of perceived greenness; nevertheless, there were items that neither age nor gender could explain.

Thus, these results did not provide strong support for research question 2. This has led to the consideration of the significance of the context and its indirect effects on green consumption and lifestyle choices. The increasing variety of goods available in a globalised world offers a variety of diverse lifestyles from which to choose including green lifestyles. However, it is important to note that having a lifestyle and then changing to another is not simple, as factors other than consumption-based ones may lie behind lifestyles.

Research question 3: What is the relationship (mechanism) between institutional and individual factors?

Structures were understood in this study as the different social, cultural and economic frameworks that condition green consumption patterns. In particular, paper 1 focused on the mechanisms between macro and micro-levels. In this paper social structure was understood as both having an effect on individual actors and being influenced by it. The most important outcome of the paper was that structures explain social behaviour to a certain degree; however, without a mechanism-based view it is not possible to explore and evaluate the effects of those structures on different social actions.

This led to the research design adapted for this thesis. The underlying logic was to turn the theoretical approaches into an operationalised form so that they could be evaluated via a statistical analysis. Without adopting a mechanism-based view, that is the idea of social mechanisms (e.g. Hedström & Swedberg 1996, Esser 1996), it would not have been possible to look for a systematic relationship between two entities. It is important to emphasise at this point that through the concept of social mechanisms statistical associations and general social processes can be referred to. Mechanism serves as a “theoretical construct that provides hypothetical links between observable events” (Hedström & Swedberg 1996, 39). In other words, it helps to explicate what produces the relationship between the observed phenomena. In this study, the observed phenomena were the interplay of the environment-consumption nexus and through the analysis of different dimensions of green consumption this study aimed at discovering factors that would explain this interplay.

Based on both the review of the literature on previous studies in connection with sustainable consumption research and on the conducted empirical analysis, the results of this study emphasise the significance of contextual factors. The context i.e. the surrounding economic, social, and cultural forces create the circumstances of consumption but are not often directly measurable, although empirical evidence for the effect of structures both on the macro and micro-level was found. From a mechanism-based view the context can be understood by use of the concept of the meso-level. At this level the structure-actor relationship becomes concrete.

The results revealed that taking care of the future environment by means of consumption rests, in today’s society, on the shoulders of marginal, ideological groups or individuals. According to the results of the analysis made in the three empirical papers of this work, consumers who are highly committed to green consumption represent a minority of consumers. The masses of consumers that need to make changes to their consumption patterns have not, at least yet, altered them enough in order to achieve a sustainable direction. The findings of this study point out that economic boundaries frame both sustainable consumption choices and attitudinal readiness to adopt a greener lifestyle. This holds true both at the aggregate and the individual level. To be blunt, being green often requires money to buy more expensively priced green goods and services. This is regarded as the main reason why the results of the comparative international data show that people in developing countries are not very willing to pay more for environmental initiatives, even if their values support that notion. Also, for young adults paying more to be green is not a primary choice or consumption practice.

5.2 Theoretical implications

The overall theoretical contribution of the present thesis is that it unifies various themes related to green consumption into one study. Both the introductory part and the four research papers that this study is built upon argue that green consumption should be seen as a social activity, which cannot be detached from its surrounding circumstances. In sub-chapter 1.1 a model for approaching green consumption was proposed. This helps to categorise the various elements that have had an impact on green consumption. The following theoretical discussion combined the most appropriate concepts of environmental sociology and the sociology of consumption into a theoretical framework and offered conceptual grounds for the deeper examination of the constituent elements of green consumption.

With regard to the conceptual and theoretical discussion it may be argued that a holistic view on green consumption involves taking both contextual and individual elements into consideration. Such factors are for example, infrastructures that condition individual actions or different personality factors that have a direct impact on consumption patterns. The effect of context has been recognised in recent green consumption studies. While previously sustainable consumption was approached via socio-psychological models the focus is now shifting towards studies involving social practices that result from both consumer and producer actions (Southerton et al. 2004, 9). What the present study stresses is that since green consumption is a complex phenomenon, its patterns are influenced by various factors and therefore, the research design should be one that allows the possibility to analyse the underlying mechanisms of the phenomenon. As a result of this presumption, it was considered important to examine the effects of the different constituent elements and understand how they directly impact on green consumption patterns.

In other words, this study has found that socio-psychological factors do play an important role in relation to people's consumption patterns in general and especially when addressing green consumption patterns. In this study, socio-psychological determinants are seen as useful for the empirical part of this study because of their suitability for the operationalisation of theoretical accounts. It is assumed that by analysing large datasets concerning different elements of green consumption, the important linkages between the observed phenomenon and the factors that generate the outcome can be approached more effectively.

This is not to undermine the value of recent developments within green consumption studies. Rather, this study aims to complement existing research by offering another way of seeing the multi-faceted world of sustainable,

green consumption. It must also be emphasised that by adhering only to the sphere of attitudes and values, i.e. those within different personality measures, the importance of other significant determinants may be lost. For example, according to the relevant literature, green values and attitudes have a remarkable importance in relation to consumption patterns; however, the empirical analysis conducted in this work has established that green attitudes do not necessarily lead to actualized behaviour. People's attitudes are often very green, their concern for the environment's state is high and people are also willing to cut down on their personal standards of living. However, this occurs only on an attitudinal level and rarely translates into action that would produce sustainable consumption patterns.

On the other hand, if we take a look at statistics on how much consumption increases per year at the national level an inverse conclusion about the influence of green attitudes could be drawn. An aggregate level comparison indicates that the society we are living in is one defined in terms of consumerism and commodification. In Marcuse's words (1969, 33) "the people recognize themselves in their commodities; they find their soul in their automobile, hi-fi sets and stereos, split level home, and kitchen equipment". People and families spend their weekends consuming and shopping rather than going out and enjoying nature. Outdoor hobbies have been superseded by shopping trips. Without taking too deterministic a viewpoint on consumption it is clear that consumption, consumer goods and services have different, important roles in our lives as consumers.

It is not possible to give any universally applicable suggestions on how to make contemporary consumption patterns more sustainable. However, based on the results of the present study, some general conclusions may be drawn. The importance of paying attention to the personality factors of consumers was referred to above. In addition, the study emphasises that institutional elements and their surrounding context are also of primary importance. In this sense, it is worth considering under what conditions consumers are able to make choices about their consumption decisions or lifestyle choices. It has been suggested that the issue may not be so much about the question of choice, but is instead about that of routines and habits. (Chappels, Van Vliet & Southerton 2004, 145.)

5.3 Limitations and implications for further research

This study has explored the environment-consumption nexus by approaching it in the light of previous studies and theories and by applying this knowledge to empirical analysis. Some limitations concerning this study are noted here.

First, the use of other methods in addition to quantitative data would have increased the study's understanding of the environmental aspects of consumption. For example, with the help of qualitative interviews about what consumers' think themselves of the constituent elements of sustainable green consumption new viewpoints and dimensions on the studied phenomenon would have been opened. However, the use of quantitative data allows for generalizations based on the research results that are applicable in a larger context and can be seen to represent the whole studied population. Also, the use of longitudinal data regarding green consumption patterns would have produced information about the changes in consumption patterns and allowed comparisons to be made over time.

It is also acknowledged that building research upon different articles does not allow for the monitoring of one phenomenon in depth. On the other hand, this kind of research design may shed more light on different dimensions of the same phenomenon.

Reducing consumption in different ways is a crucial question that has produced initiatives ranging from a reduction in the use of electricity to campaign days termed "buy nothing days". Sustainability is not always a matter of replacing one product with another, a greener one, but simply doing without. Nevertheless, it must be kept in mind, that the consumer culture that prevails in Western, affluent countries, has not been within the reach of the mass of the people of the developing world. Nonetheless, there are significant changes going on in the developing world; the standard of living has risen in many countries, for example, in China and in India, the two most populated countries in the world. This signifies a remarkable increase in consumption on a global level, which is lately understood as being a major threat to the environment and a challenge for the Western world. A study that would combine both quantitative and qualitative information about how people experience these changes and whether they perceive themselves as green or not and asks if green consumption matters to them would be worthy of further research.

The world has entered the twenty-first century with the global threats to its future self evident. Climate change is an every day talking point in societal agenda. The growing prominence of environmental issues and the increase in environmental awareness has already produced changes throughout society but those changes are obviously not adequate. There are two parallel trends occurring: on the one hand, the rapid continuation of the growth of the world's economy is being pursued, much to the detriment of the environment, on the other hand, there is the pursuit of a sustainable society.

Consumers' acts directly impact upon the state of the environment. But as global consumption increases, criticism is obviously not the way to solve

environmental problems. On the contrary, once the importance of consumers' roles in bringing about social change and in improving the state of the environment is understood, then the easier it will be to see the dynamics of industrial societies both on the macro and micro-level. The contradiction between sustainable development and the growth of the economy cannot be solved by consumers alone, nor by placing the burden for environmental change on the shoulders of individuals.

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APPENDIX A

This appendix presents the research questionnaires of ISSP 2000, Euroflash 123 and an English translation of the Mylly Project 2003. The original version of Mylly Project questionnaire is available elsewhere (see Mylly Project 2003).

ISSP 2000

BACKGROUND INFORMATION

A) Sex of Respondent

1. Male
2. Female

B) Age of Respondent

1. Age computed from year of birth

C) Education

1. None, still at school, still at university
2. Incomplete primary, compulsory education
3. Primary completed
4. Incomplete secondary, technical school
5. Secondary completed
6. Incomplete + complete semi-higher qualification,
7. Incomplete university, other education
8. University completed

D) Family income

1. Monthly or total net income

E) ENVIRONMENTAL ATTITUDES

In general, do you think that

(Evaluated at a Likert scale from 1=Extremely dangerous, 5=Not dangerous at all)

1. Air pollution by cars is dangerous for environment

2. Air pollution by cars is dangerous for you and your family
3. Air pollution by industry is dangerous for the environment
4. Pesticides and chemicals used in farming are dangerous for the environment
5. Pollution of <Respondent's country's> rivers, lakes and streams is dangerous for the environment
6. A rise in the world's temperature caused by the 'greenhouse effect' is dangerous for you and your family

F) ENVIRONMENTAL KNOWLEDGE

(Evaluated at a Likert scale from 1=Definitely true, 5=Definitely not true)

1. The greenhouse effect is caused by a hole in the earth's atmosphere.
2. Every time we use coal or oil or gas, we contribute to the greenhouse effect.

G) ENVIRONMENTALLY RESPONSIBLE BEHAVIOUR

(1= Yes, 2=No)

1. Are you a member of any group whose main aim is to preserve or protect the environment?
2. In the last five years, have you signed a petition about an environmental issue?
3. In the last five years, have you given money an environmental group?
4. In the last five years, have you taken part in a protest or demonstration about an environmental issue?
5. How often do you make a special effort to sort glass or tins or plastic or newspapers and so on for recycling?
6. How often do you cut back on driving a car for environmental reasons?

H) ENVIRONMENTAL WORRY

(1=Strongly agree, 5=Strongly disagree)

1. We worry too much about the future of the environment and not enough about prices and jobs today.
2. People worry too much about human progress harming the environment.

I) ENVIRONMENTALLY RESPONSIBLE BEHAVIOUR

(1=Very willing, 5=Very unwilling)

1. How willing would you be to pay much higher prices in order to protect the environment?
2. How willing would you be to pay much higher taxes in order to protect the environment?
3. How willing would you be to accept cuts in your standard of living in order to protect the environment?

ISSP 2000, additional questions from the Finnish part of the survey

J) ENVIRONMENTAL ATTITUDES

(1=Strongly agree, 5=Strongly disagree)

1. Almost everything we do in modern life harms the environment.
2. Many of the claims about environment threats are exaggerated
3. Modern science will solve our environmental problems with little change to our way of life
4. In order to protect the environment <R's country> needs economic growth
5. Economic growth always harms the environment
6. Economic progress in <R's country> will slow down unless we look after the environment better
7. It is just too difficult for someone like me to do much about the environment
8. There are more important things to do in life than protect the environment

Mylly Project 2003

BACKGROUND INFORMATION

A) Age of Respondent

1. Age computed from year of birth

B) The size of household

1. In our household lives _____ people

C) My highest education is

1. Primary
2. Secondary
3. Semi-higher
4. University

D) GREEN COMMITMENT

1. The environmental friendliness of the product is an important choice criterion to me
2. It is all the same to me in which country the product has been manufactured
3. I usually choose the organic food alternative even if it was more expensive than the conventional one
4. Nowadays far too many unnecessary goods are bought

E) CONSUMER STYLES

(1=Totally disagree, 5=Totally agree)

1. Shopping is a waste of time
2. I avoid crowded places
3. I often do impulse shopping
4. I am willing to make my home comfortable
5. I constantly look for new ideas and experiences
6. I am mostly a routine shopper
7. I am a DIY-person
8. I follow time and trends
9. Product quality is more important than price
10. I appreciate personal service
11. Buying brands means buying quality
12. I regularly follow stores' advertisements
13. I compare prices carefully before I buy anything
14. Price level is more important than the service
15. New shopping malls are more attractive than city centres
16. Product demonstrations are interesting
17. Net store (www) is to be reckoned as an alternative to traditional shops
18. If I could get the goods in an alternative way I would not go shopping at all
19. If the special boutiques were always open on Sundays I wouldn't shop so often in the stores
20. I prefer to pay for my purchases by bank/credit card
21. Long distance does not matter if the store is good
22. I usually choose the organic food alternative even if it is more expensive than the conventional one
23. The EF of the product is an important choice criterion for me
24. It is all the same to me in which country the product has been manufactured

Euroflash 123

BACKGROUND INFORMATION

A) SEX

1. Male
2. Female

ENVIRONMENTAL ATTITUDES

(1=Very much, 4=Not at all)

B) In your opinion, to what extent do the following factors influence your quality of life?

1. Social factors (such as poverty, social exclusion, health, and education services)
2. The state of the environment
3. The economy (growth, investment)

C) How worried are you about future trends in these areas

1. Climate change
2. Nature and wildlife
3. Environment and health (environment pollution, chemicals)
4. The use of natural resources throughout the world and generation of waste

PAPER 1

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Structures and mechanisms in sustainable consumption research

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Abstract: In discourses related to sustainable development and consumption, one essential and also controversial field concerns the integration of macro- and micro-level structures into research. The question is to what extent these two levels can be combined and applied to sustainable development research. The question is also methodological, given that one of the most common ways to classify social theories is to divide them into those concerning holistic explanations (methodological holism) and individual actors (methodological individualism). This paper addresses the problem of the conceptualisation of structure and its relationship to sustainable consumption research. The purpose of the research is twofold. Firstly, the different aspects of the notion of structure will be examined. A special interest is taken in the relationship between the macro- and micro-level. Secondly, the role of structures in sustainable consumption research will be discussed. Also, an alternative way to integrate macro- and micro-levels will be introduced.

Keywords: sustainability; consumption; structure; interaction; consumers; mechanism; institutions.

Reference to this paper should be made as follows: Haanpää, L. (2007) 'Structures and mechanisms in sustainable consumption research', *Int. J. Environment and Sustainable Development*, Vol. 6, No. 1, pp.53–66.

Biographical notes: Leena Haanpää is a PhD student in Economic Sociology at Turku School of Economics and is working with a dissertation project that addresses the relationships between environmental questions and consumption. The working title of the dissertation is "Dimensions of environmentalism: A comparative study of the structures of contemporary green consumerism". The empirical part of the work is based on the analysis of two datasets, the first related to Finnish consumers' consumption styles and the second to broader data regarding environmental issues; green knowledge, values, attitudes and behaviour. She has published conference proceedings and working papers about the different green consumer behaviour related issues.

1 Introduction

A normative requirement of sustainable development is that economic growth and social development should be such as to meet the needs of the present without denying the opportunities for future generations to meet their needs (Benton, 2002; Hobson, 2002).

In order to achieve this, we must take into account the fact that sustainable development and environmentalism¹ are dependent on the broader society including both its macro-elements, such as institutions and micro-level actors, individual agencies. The methodological and theoretical diversity concerning the relations between macro- and micro-level structures requires more explicit consideration, if we are to improve the conditions of ecological change agents that effect social transformations in contemporary society (Halkier, 2001; Jamison, 2001).

The focus of this study is to analyse the structures and contextual factors that influence social life. The concept 'structure' refers in this study to theoretical constructions of 'macrocosmos' and 'microcosmos'. Through the investigation of structures from the perspective of both methodological holism and methodological individualism, we try to bridge the agency/structure or the micro/macro relationship. The relation between macro- and micro-society becomes essential when approaching sustainable development – taking a specific interest in sustainable consumption – in the global context. The study of these relations is important in order to obtain more information as to why environmentally friendly attitudes do not translate into corresponding behaviour. According to previous studies, the link between attitudes and behaviour emerges only in some social contexts, such as recycling (Derksen and Gartrell, 1993).

The purpose of this paper is as follows: firstly, different aspects of the notion of structure will be examined. A special interest is taken in the relationship between the macro- and micro-levels. Secondly, the role of structures in sustainable consumption research will be discussed. The focus lies on three mainly sociological explanatory schemes, those of *institutions*, *social mechanisms* and *interactions*. By attending to these concepts, an attempt will be made to explain and understand the underlying structures of social action, whether those belong to macrophenomena or to individual practices.² The discussion endeavours to combine environmental studies with sociological theorising leaning on the discourse of sustainable development.

Some limitations concerning this work should be noted: taking the structural approach to environmental issues means that the analysis emphasises theoretical discussion based on different social structures. Structures are understood in this paper as institutions as well as social and economic micro-level structures that condition individual action. Therefore, the interest is mainly in understanding causal relationships, interactions and underlying mechanisms with the interplay of structural levels that makes it possible to explain sustainable consumption. Many other approaches have recently become oriented towards sustainable consumption research, such as situational and lifestyle-based explanations, as well as technology-oriented and user-centred approaches (Autio and Wilska, 2004; Heiskanen et al., 2005; Spaargaren and Van Vliet, 2000). An alternative and equally important means of analysis would be, for example, cultural: a process that takes the content more profoundly into account. Focusing on different approaches at the same time and within a limited space is, however, demanding, if not impossible. For this reason, types of approach other than structural will not be discussed here. The idea of this paper is to include structural explanations drawn mainly from social science disciplines to illuminate the discussion from many sides and to reveal the scope of different explanations.

2 Giddens and Lawson on the use of structure in social science

An explicit use of the term ‘structure’ appears in the writings of two well-known scholars, in Anthony Giddens’s theory of structuration and Tony Lawson’s ideas of routinisation of social life. Both theorists have received much criticism; Giddens’s structuration theory has been accused of being too general and based overly on the traditions of structural linguistic theory (Ilmonen, 1990). Lawson’s logical principles have been seen as theoretically inappropriate, since they operate always from the general to the particular. However, these discussions on the concept of structure provide bases for further theorising and the development of new ways of considering the macro-micro discourse.

Giddens has devoted much of his research to the formulation of what he calls the theory of structuration (Giddens, 1984a,b). The central aim in this theory is to abolish the dualism between structure and actor. For Giddens, structure is not something stable but represents rules and resources that bind time and space to social reproduction. When defining the concept of structure, Giddens wants to make clear that neither functionalism nor structuralism have been able to attend to this notion. He claims that structure has been naively conceived as “some kind of ‘pattering’ of social relations or social phenomena” (Giddens, 1984a, p.16). What is important is that Giddens wants to separate the concepts of structure and system. Social structures exist in society objectively but not directly, rather as structural features of social systems. Structure refers to the structuring properties which reproduce social systems. Social systems, for one, consist of the fixed relations of individuals and groups, which have the greatest time-space extension (Giddens, 1984a). Giddens speaks about structure as rules and wants to distinguish them from the dominant use of rules in the philosophical literature. Giddens’s insights into rules and following them lean on Wittgenstein’s philosophy. According to Wittgenstein, following the rule means knowing how to proceed with action; in other words, knowing how to play with the rules (Giddens, 1984a).

One of the key insights in Giddens’s writings is that human practices are very much routine based, which, for one, are conditioned by structures. According to Giddens, structure exists in disappearing and repeating moments in the flow of time. As structure is bound to a time-space continuum it is also an inevitable part of everyday life or rather ‘day-to-day social activity’, the phrase that Giddens uses systematically in order to express its very literal sense in trying to encapsulate exactly the routinised character of social life (Giddens, 1984a, p.xxiii). Giddens tries to solve “the fundamental question of social theory” (Giddens, 1984a, p.35), the problem of order, by demonstrating that our events and routines in daily life are not one-way directed but the flow is something that does not lead anywhere.

Routinisation is also at the centre of Lawson’s ideas of human practices (Bibow et al., 2005). According to Lawson, human practices and routines are, in a Giddensian spirit, in part an expression of preexisting social structures. This means that routines are products of actions taken and attributions made in the past, not in current situations. Structures (systems, relations) enable the everyday activities of speaking, consuming, moving, since these activities or routines are ready-made by the existing systems. According to Lawson’s view, structures exist prior to the current exercise of the individual agent. Social structure is therefore relatively autonomous from current human action and thus able to exert its own causal influence on human agency (Bibow et al., 2005).

Such a limited viewpoint of interaction between structure and human agency is not unambiguously adopted in this paper. Structures are social because they depend upon the human actor. As Bibow et al. (2005) point out, this dependency upon human agency makes it social. In order to avoid under- and over-socialised explanations of social structure, this paper assumes the presence of a perspective that sees society as “a dynamic process of interaction between pre-existing social structure and current human actor, through which social structure is reproduced and transformed over time” (Bibow et al., 2005, p.522).

Understanding sustainable consumption in the given frameworks implies working with the concepts of structure and actor. It has been demonstrated that a structured, institutionalised programme determines decisively sustainable consumption practices, such as recycling (Derksen and Gartrell, 1993). The macro world’s social context affects human actors in the integration of sustainable consumption into their everyday lives. Such important issues as the consequences of consumption are present in individuals’ lives, but as consumption practices are very much routine based, new, more sustainable consumption practices are difficult to create without taking the structural context into consideration. Pursuing only micro-oriented research on sustainable consumption, for example behaviour-related trade-off situations consumers face in their everyday purchase situations, is not, however, adequate. Bridging the two levels requires paying attention to human agency and structures at the same time and within the same research.

3 The use of structures in social sciences

In social sciences, structures are interpreted in social frameworks. In traditional sociological approaches, for example, the core basis of the analysis is formed by social structures. There is no common agreement of what structure is. The review of academic literature reveals that structures are connected and used also as synonyms for both macro- and micro-level elements. In literature dealing with macrofactors, the idea of structures often exists in the form of institutions. These institutional structures can exist at a national or at international level covering all domains of political, social, cultural and economic life. Micro-oriented theories focus on different socio-demographic, economic or social factors that aim at providing individual level explanations.

In macrostudies, structures explain (inter-)national systems and institutions, for example governmental policy-making, the welfare state, mass market and other existing institutions. Institutions can be classified into different types: two known categories from Scott (2001) and Giddens (1948b) are viewed briefly here. Scott divides institutions into regulative, normative and cultural-cognitive classes. The regulative approach emphasises the role of institutions as social contracts and sanctions; the normative view leans more on the collective pressure that maintains the institutions; while the cultural-cognitive approach accentuates the idea that institutions are driven by cultural meanings, not by sanctions Giddens (1984b) defines the types of institutions as symbolic, political, economic and legal. The classification is based on the type of structure, that is, what kinds of rules and resources an action involves. The symbolic type refers to the formation of meaning. Political and economic institutions differ from each other, the former leaning on obligations and the latter on allocated resources. With regard to legal institutions, Giddens (1984b) refers also to societies where formally defined regulations

do not exist. Moreover, for Giddens, institutions represent social systems that exist for much longer than people. Whereas an individual human being has a limited life span, institutions last much longer.

Institutions or in a broader sense institutionalisms, follow diverse theoretical traditions in different disciplines. Among political scientists, institutions are considered governmental in form; emphasis is given to the ways in which the organs of government interact with one another (Jamison, 2001). For example, Esping-Andersen has demonstrated that there are significant differences among countries in regard to social policy-making. By comparing national similarities and differences in social welfare structures, he has been able to group countries into four welfare regimes (Esping-Andersen, 1999). In management studies, institutional theorists have defined institutions as sets of rules, predefined patterns of conduct generally accepted by the members of a social group (Hukkinen, 1999). Society is likened to a game where the players are members of a social group. The same metaphor is adapted to the theory of new institutionalism in economic sciences, according to which different forms of institutions represent certain kinds of rules of the game. The rules are based on a system of sanctions, which punishes actors if the rules are broken (Heiskala, 2003).

Social micro theories (individual methodologies) focus on individual features, such as knowledge, values, beliefs, norms, attitudes and behaviour. Sociological theorists have traditionally paid lot of attention to finding factors that could explain these individual traits. The assumption is that attitudes and activities – such as concern for the environment or recycling behaviour – are at least partly set in the surrounding structural conditions. Because individuals belong to different economic, social and cultural groups, they also think and act differently. These structural locations influence the ways in which resources are distributed in society (Räsänen, 2003b). The structural micro factors typically used as explanatory factors – invariables – are different socio-demographic determinants such as age, gender, income, type of household, class, education, marital status and place of residence. The use of such factors is especially common in quantitative research while in qualitative studies those are used to a lesser degree.

Despite the simple identification of micro-level factors it is not, after all, very clear what these socio-demographic, economic or social determinants in fact embody and whether they can be understood as structures, as well. For example, class can be understood as both an explanatory structure and descriptive category (Giddens, 1973). In other words, it can explain, for instance, why people belonging to the middle classes have greener values than working class people (Haanpää, 2004). On the other hand, class is a description of people's ranking in a given society. What makes the determinants structures is the assumption that they contain an explanatory mechanism, which the researcher should be able to specify in terms of structural conditions (Räsänen, 2003b). Therefore, it is possible to explain an individual actor's beliefs and activities by using, for example, social factors as an explanandum variable. With this type of analysis, the type of information obtained reveals, however, only which variables best explain certain observations, not *why* social processes occur as they do in society (both at the macro- and micro-level).

In trying to provide an answer to the above question, for what reason the processes occur, the pendulum needs to be shifted from the dichotomy between the macro and micro discourse. In the remainder of this section, a third level, a *meso*-level approach is introduced, aiming to link the macro- and micro-levels. The notion of meso refers to middle-range theorising, which seeks to capture the interplay between macro and micro.

This idea is concretised in the writings of Robert Merton (Hedström and Swedberg, 1996), who rejected the attempts to develop general systems of sociological theory and instead brought together the idea of mechanism with that of middle-range theories. The mechanism-based explanation seeks to provide a “fine-grained and tight coupling between explanans and explanandum” (Hedström and Swedberg, 1996, p.298). We return once again here to the discussion about the very essence of structures and to the assumption adopted of the relationship between structure and human agency. Thus, the meso-level functions as a theoretical field in which the structural mechanisms and the interactions between macro- and micro-levels can be observed. Since the concepts of mechanisms and interactions are the building blocks for the meso-level, those are discussed first.

Social mechanisms are explanatory social processes that can be used in the interpretation of empirical results (Esser, 1996; Hedström and Swedberg, 1996; Räsänen, 2003b). These processes are seen to be produced by structural factors; this means that systematic structures can be found in institutional systems and individual practices, for example using a private car instead of public transport. What is important is that mechanisms are revealing structures, which in themselves do not explain much. Therefore, it is of great significance to note that empirical analysis requires the *interpretation* of these explanatory processes, since empirical research can operate only with measures of particular observations. It is people and not variables that do the acting (Hedström and Swedberg, 1996; Räsänen, 2003a). This very idea is of great importance and takes the argument of social mechanisms in the direction of methodological individualism. It is, however, important to note that methodological individualism does not imply that macrolevel factors would be of no importance or inappropriate in a theoretical sense, rather that macrolevel entities are linked one to another via individual actions (Hedström and Swedberg, 1996).

If mechanisms can be viewed as elementary building blocks of middle range theories, interactions (associations, interdependencies, relationships) form the link between the independent and dependent variables. Interaction effects are important in the interpretation, in determining the relationship between variables. As Esser emphasises (Esser, 1996), sociological explanation should not be exclusively about reporting the interaction effect between dependent and independent variables but should be able to make this relationship apparent. The analysis should not end with the determination that interaction effects exist between variables but should interpret this interaction.

As mentioned earlier, the researcher should not take exclusively into account either the individual (micro-level structures) or the institutional (macro-level structures) context, but instead try to find such mechanisms and interactions between the two levels that help to explain the observed relationship or lack thereof. Implications for a number of current debates for sustainability can be found, for example in studies focusing on environmental awareness and attitudes where either the institutional or the individual context is taken into account. On one hand, it has been argued that the perception of environmental problems can be explained by macrofactors, such as the level of national wealth and post-material values related to it (Inglehart, 1995). On the other hand, the focal target of criticism which considers consumerism as the main source of environmental degradation in modern industrial societies has perceived individual agency as a passive actor which substitutes social relations by commodities (Baudrillard, 1998) and acquiesces in the given structure of society.

However, individuals, when organising their lives, have to move between different fields of social life that affect their life-processes. These fields concern individual inputs, such as skills, commodities and environmental resources and different type of institutions: the market, the state and the rules of society, to mention but a few (Cogoy, 1995). It becomes, therefore, evident that the search for reasonable explanations for environmental issues cannot be limited to one or the other level of social life alone, even if clear interdependence and positive correlations could be found. In order to be able to strive for significant elements that influence on the interdependency we should focus on the interaction between structure and human agency. It is suggested here that by concentrating on the meso-level mechanisms, one could reveal hidden interactions and underlying linkages between micro- and macro-level structures. We shall return to this theoretical contemplation later, but first the structural features of sustainable consumption are analysed.

4 The structural features of sustainable consumption

Drawing together the various ideas discussed above and placing them into a sustainable consumption research context, requires some theoretical examples from all three structural levels, macro, micro and meso. The goal is to show the relevance of structural factors in explaining sustainability or environmentally friendly consumption and also to discuss the related problems. The orientation towards quantitative studies is adhered to here when considering the macro- and micro-levels but when examining meso-level, the scope is more open in order to achieve a broader analysis of its elements. Firstly, a two-way thesis of global environmentalism is briefly discussed as an example of a macro-level approach to explain sustainability problems in the consumption context. Secondly, a micro-level approach to the issue is introduced. This discussion is based on a green attitude-behaviour relationship. Thirdly, meso-level orientation to environmentally friendly consumption research is introduced. The meso-level approach is discussed via mechanism-based orientation.

A two-way thesis of global environmentalism has been presented in the environmental literature. The thesis is based mainly on Inglehart's post-material value thesis (Inglehart, 1997) and on the criticism it has received (Brechin, 1999; Dunlap and Mertig, 1997). The central theme of the two-way thesis is that there are two basic varieties of global environmental concern, divided between rich (Northern) and poor (Southern) societies (Guha, 2000; Guha and Martinez-Alier, 1997). The first is explained with a *post-materialist values thesis*, according to which global environmentalism is seen as a derivation of post-materialist syndrome (Yuchtman-Ya'ar, 2003). Environmental concern is a manifestation of typical post-material (-modern) values in wealthy countries, such as self-expression and quality of life (Brechin, 1999; Dunlap and Mertig, 1997; Guha, 2000; Lee and Kidd, 1997; Martínez-Alier, 1995). The second, *objective problems thesis*, suggests that the citizens' real experiences of environmental hazards in poor countries motivate them to protect the environment (Brechin, 1999; Inglehart, 1995).

According to critics of the theory, the use of postmaterialist values thesis (rich North) and objective problems thesis (poor South) in describing environmental concern is seen as too simplistic (Brechin, 1999; Brechin and Kempton, 1997; Dunlap and Mertig, 1997). Rather than this dichotomy, Dunlap and Mertig (1997) suggest concentrating on revealing the ways in which people perceive environmental problems. According to

Brechin (1999), global environmentalism is a complicated phenomenon, a mixture of regional environmental perceptions and international influences. In posing the two questions How should global environmentalism be described? and How can it be explained? Brechin (1999) implicitly addresses the problem of mechanisms and interactions. Brechin suggests we should try to find conceptual differences at a national level and then compare the results with other countries. As Brechin states, environmentalism is most likely a complex social phenomenon, which cannot be explored without generating more systematic research on the social bases of environmentalism worldwide, both at country level and regional level. He continues that more in-depth analyses of citizens' values and perspectives are needed as well (Brechin, 1999).

The discussion on the two-way thesis points out that there are several driving forces or structural macrolevel factors behind global environmentalism, not only the economic dimension but also the north-south division between countries and the social, political and cultural aspects. However, no other serious attempts in addition to post-material theory and objective problems thesis have been introduced to explain the perception (values, attitudes) of environmental problems in a global context, although the weaknesses of the two-way thesis are acknowledged. One of the main criticisms that Brechin and Kempton (1997) identified from the thesis concerned post hoc explanations, speculations on the possible reasons for people's attitudes and they argued that the explanatory framework should go beyond the two-way thesis. The authors did not, however, reveal the nature of this explanatory framework.

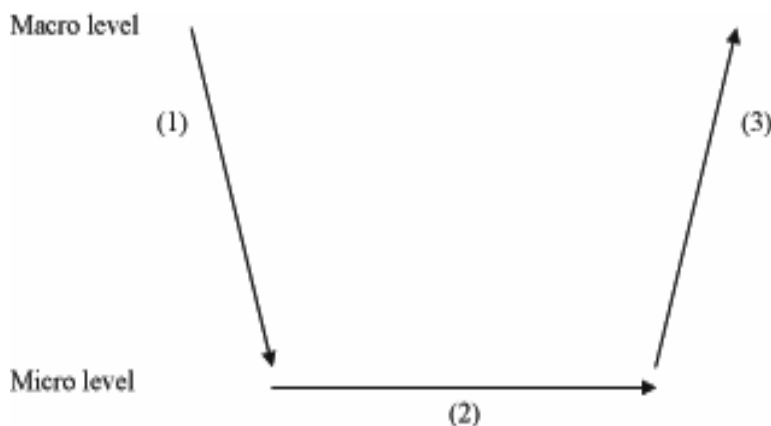
A study on the relationship between environmental attitudes and behaviour is now introduced in relation to micro-level research on environmentalism, in which Diekmann and Preisendörfer (2003) leans on a low- and high-cost hypothesis. The basic idea of the hypothesis is that environmental attitudes influence green behaviour primarily in situations and under conditions connected with low costs and little inconvenience for the individual actor. According to the hypothesis, the lower the cost of an actor's behaviour in a situation, the easier it is for the actor to put the actual behaviour into practice, behaviour that is influenced by similar attitudes. If costs are high, an individual attitude, such as concern for air pollution, is not likely to turn into corresponding behaviour, that is to cease private motoring and start instead to use public transportation.

The discussion related to environmental attitude-behaviour interaction is of crucial importance, especially when the empirical analysis is based on a large scale data, which usually consist of individual attitudes, values and questions concerning behaviour. It must be noted that self-reported behaviour is often biased towards 'ecological correctness', that is, people tend to answer in a socially acceptable way. Behaviour may also mean an intention, not the respondent's actualised behaviour. Consequently, it is known that individual behaviour is the sum of many structural, lifestyle and situational elements as was discussed earlier in this paper. In their paper about Germany, Diekmann and Preisendörfer offer an interaction mechanism, low-cost hypothesis, to explain how attitudes in fact affect behaviour and what are the costs of adopting a certain practice. As they state (Diekmann and Preisendörfer, 2003), the cost of behaviour has much stronger effects on behaviour than environmental concern. In other words, the willingness of the individual to make sacrifices for the environment by cutting down their standard of living (cost) can be explained in terms of low-high-cost hypothesis. For example, whether or not one is willing to go shopping without a car depends on the distance to the store: the further away the store, the larger becomes the cost and the more

likely it is that the car is used for reasons of convenience (Diekmann and Preisendörfer, 2003). The writers suggest that the low-cost hypothesis predicts that environmental attitudes are more important for low-cost activities and under low-cost conditions. For this reason it is also easy to understand why most people recycle paper, at least in the Finnish context. Over 90% of people living in Finland recycle paper often or always.³ The cost of recycling paper is low, because most local authorities have organised the system in such a way that people (households) have their own paper bin in their yard or near where they live. The situation changes, however, if the distance to this paper bin becomes greater, because the cost also becomes higher. As the authors point out, a structural and/or economic approach to the explanation of environmental behaviour is clear (Diekmann and Preisendörfer, 2003).

The relevance of structural elements for sustainable consumption is lastly approached from the meso-level view point. An attempt has been made in this paper to make it explicit that the context of the research, the social framework, is of crucial importance. While it has become even more apparent that there are significant national differences in the ways how societies function (Jamison, 2001), it must be kept in mind that in real life consumers are not uniform entities and their behaviour can be inconsistent and even contradictory (Räsänen, 2003a). Sustainable consumption research is, hence, a study on the interplay between structures and the individual. But how to combine these two levels into one theoretical framework that would function also in empirical research? One proposal offered here is the general mechanism-based approach already discussed earlier in this paper. The typology offered is based on Coleman's model (Coleman, 1986) of how to conceptualise social action. This so called macro–micro–macro model is presented in Figure 1. The proposal is also inspired by Hedström and Swedberg (1996) and Toivonen (2004) who have conducted a wide review of social mechanisms.

Figure 1 Macro–micro–macro relations



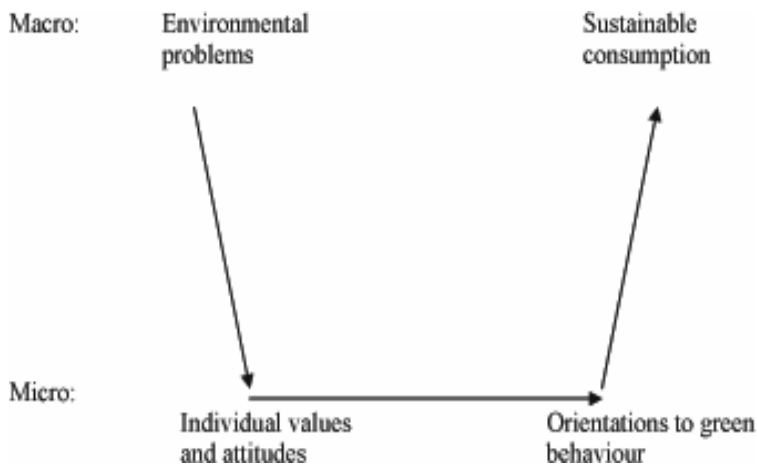
Source: Coleman (1986).

The figure illustrates the three steps or types of mechanism: macro–micro, micro–micro and micro–macro. The first step covers the macro-to-micro transition showing how macrolevel transformation entails changes at the micro-level. Hedström and Swedberg label this step *situational mechanism* (Hedström and Swedberg, 1996). The second step involves micro-to-micro, an *individual action mechanism* and it shows how psychological factors, such as individual desires and values, are turned into a specific

action. The *transformational mechanism*, as Hedström and Swedberg name it, represents the third step and it describes how these individual actions are transformed into a collective outcome, at the micro-to-macro level.

One concrete example that Coleman has used to illustrate how the mechanism functions is the way in which Protestant religious doctrine has, via macro-micro-macro transitions, come to change the economic system into the capitalist system. Motivated by this example, sustainable consumption is described in the same terms, as a structural mechanism which moves from real world problems and transfers from macrolevel to individual perceptions causing changes that finally can be observed in changes occurring at the macrolevel again (Figure 2).

Figure 2 Sustainable consumption according to Coleman's model



The first of these three transitions involves the recognition of environmental problems. How the mechanism works here is that the environmental changes in macrostate affect the formation of individual values and attitudes. Thus, the awareness of environmental problems increases and this awareness affects people's attitudes and in the long run, values. A macro-to-micro step occurs in this stage.

In the second phase, the micro-to-micro transition is illustrated, in which individual attitudes and values are strengthened sufficiently to generate new orientations in consumer behaviour. The behaviour becomes greener and more responsible. This case is about the individual's realisation that their values and attitudes also imply a change in orientation towards greener practices, followed by action to corresponding behaviour.

The last step covers the micro-to-macro transition, which shows how people's interaction with one another generates a collective outcome, sustainable consumption. Several theories could illustrate these specific transformational mechanisms, but such theoretical discussions fall outside the scope of this paper. Instead, the last stage of this paper discusses the suitability of this type of theorising for sustainable consumption research. The aim of Figures 1 and 2 is to present concrete ways in which to approach the multifaceted problem of sustainable development, especially when it comes to linking macro- and micro-level together.

Other sustainable consumption researchers have also reflected on these linkages or mechanisms. Røpke (1999) has demonstrated that behind the growth of consumption there lies a number of driving forces or mechanisms. Røpke divided these mechanisms

into three groups: economic, socio-psychological and historical and socio-technological explanations. What specifically interests us is the way in which the division was made. Røpke points out that the economic explanations in particular focus on macro or systemic aspects, the socio-psychological explanations are more micro-oriented and historical and socio-technological explanations belong to the meso-level. In terms of the meso-level, Røpke refers to everyday practices where structure-actor interplay becomes concrete. Tangible examples of this interplay are the car and television. Both products stand out as important agents of change in relation to everyday life.

“these commodities – as well as other ones – do not have their impact as single products, but as components of socio-technological systems. In the beginning they are introduced as single commodities, but gradually they are integrated in systems of related commodities, infrastructure, social practices and institutions. Such systems gain their own momentum and bring them lock-in effects as well as ‘technological paradigms’ in consumption” (Røpke, 1999, p.417).

The understanding of how the car has become a part of everyday life helps to explain why giving up private motoring is not easy. From a mechanism-based perspective, it can be argued that the spread of private motoring and the car becoming a must involves a value-formation mechanism, which means that when an adequate number of people perform a certain act (possessing and driving the car) they signal to others the likely value or necessity of the action (the car becomes a must), which for one influences other individuals’ choice of action (Hedström and Swedberg, 1996). Car driving or other consumption practices are always embedded in social frameworks that is, in macrostructures. As Røpke (1999) states, the relationship between framework (macro structure) and individual acts (micro structure) is dialectical, there is interaction between the two.

Numerous analogous examples could be given concerning the interaction between the macro- and micro-level via mechanisms. The analysis of mechanism-based sustainable consumption is concluded with the example of environmental behaviour from Halkier (2001), who has pondered the relation between private consumption at household level and institutional dynamics. According to Halkier, private consumption forms an important part of everyday life. Everyday life is connected with social space where people act, by creating and reproducing meaning for their different roles and experiences of life. Apart from the social context, everyday life is also “embedded in larger, ambivalent social dynamics, such as enhanced individualisation and enhanced institutionalisation” (Halkier, 2001, p.27). From that it follows that existing systems and structural elements condition environmental behaviour and, in addition, hinder alternative, more sustainable consumption processes. For this reason, structural and mechanism-based prerequisites of sustainable consumption must be recognised.

5 Conclusion

In this paper, certain conceptual terms have been discussed according to which structural factors can be understood as having effects on social practices. The starting point of the discussion was a central discourse dominating social sciences, the dichotomy between institutions (macro) and individual people (micro). On the one hand, theories connected to methodological holism see society through social structures. According to an alternative perspective, all social explanations are to be based on individual actions.

This theoretical disagreement is suffused with methodological debate. Quantitative studies attend to and try to explain both institutional and individual factors, aiming to find structures in people's actions. A qualitative approach, on the other hand, sees social action mainly as a dynamic interplay between actors (individuals) and thus behavioural patterns of individuals are characterised by contingency, not structures. In order to resolve this juxtaposition, a mechanism-based approach to viewing social phenomena and in this case sustainable consumption, was introduced. The idea is that social life is conditioned both by macro-level, institutional structures and by micro elements, individual practices. In other words, if we analyse the individual level, the context of the action should not be ignored, that is, the driving forces that generate certain outcomes. Conversely, if the institutional, society level perspective is adopted then no comprehensive, proper sociological explanations can be offered without taking the individual actor into account.

The first part of this paper dealt with conceptual meanings of structure. Based on the two well-known views, those of Giddens and Lawson, social structure is understood in this study not only as a mechanism that influences social behaviour but also as one influenced by the human actor. After the conceptual definition, different structures were discussed and their explicative power pondered. It was concluded that structures can explain social processes as variables to a certain extent, but without a mechanism-based approach they cannot explain the deeper, underlying connections between the macro- and micro-level. Thereafter, the meso-level approach was introduced and via examples from theory, the applicability of the meso-level as a concrete working method for a mechanism-based approach was discussed. The most essential theoretical example concerned Coleman's macro-micro-macro model, a model of social mechanisms, which conceptualises social action. This example was then adapted to the context of sustainable development, which was explained in the same mechanism-based conditions. The central intention was to illustrate how sustainability has become a macro-level phenomenon through social mechanisms between structures and individuals.

Finally, sustainable consumption-related examples were combined in order to make clearer the idea of social mechanisms. Although this paper has leaned on the structural approach, the importance of other kinds of approaches with different types of explanations and interpretations is acknowledged.

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Notes

¹With the term 'environmentalism' I try to combine available terminologies related to environmental studies. Environmentalism thus refers as well to socio-economic as to cultural discourses around sustainable development.

²There is a great controversy surrounding the very purpose of sociological theories. According to some scholars, sociology should pay less attention to explanation and more to discourse, while others see the role of theorising merely in its capability to explain (Hedström and Swedberg, 1996).

³The result is based on ISSP 2000. Source: International Social Survey Programme: Environment II, 2000 (Electronic data). Köln: Zentralarchiv für empirische Sozialforschung (producer, distributor), 2003. Yhteiskuntatieteellinen tietoaarkisto (distributor): Tampere. 2004.

PAPER 2

Haanpää, Leena (2007) Cross-national differences in environmental consciousness.

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CROSS-NATIONAL DIFFERENCES IN THE ENVIRONMENTAL CONSCIOUSNESS

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Abstract

Contemporary sociological research on environmental matters has focused on concern for global environmental change, yet mainly concentrated on one country and its citizens. However, worries about environmental hazards are problems of a growing collective consciousness; the environment is collective property. Thus, comparative research on between-country variation is needed. In this study, both macro- and micro-level effects are explored by analysing concern (perceptions, attitudes, behaviour) about environmental issues, focusing on both national level indicators (independent variables: GDP and population density) and on individual level factors (independent variables: age, gender, social class, income, education). This paper addresses, first, whether between-country variance exists in environmental consciousness and, secondly, whether certain structural factors are valid variables to explain the degree of environmental consciousness.

The results suggest that consistent elements influencing environmental consciousness can be found from both macro- and micro-level factors. Particularly income and population density are significant explanatory variables.

Keywords: environment, environmental consciousness, attitudes, micro-level, macro-level

Introduction

It is widely accepted that the global environmental changes, such as ozone layer depletion and deforestation, that modern industrial societies are facing are caused by human agencies (Spaargaren 1997, 5, Barry 1999, 7, Brechin 2003, 16, Dunlap et al. 2000, 426). Along with these environmental problems, public concern has developed rapidly since the 1960s. Previous research has pointed out that a general level of concern exists among people worldwide (Inglehart 1995, Brechin 1999, Inglehart & Abramson 1999). People are worried about different global and local environmental problems, for example global warming.

The level of concern varies greatly among countries. Between-country variation is often explained in particular by the economic situation of the country; the more affluent the country, the higher the level of environmental concern (Inglehart 1995, Kidd & Lee 1997). Institutional factors that are the most common indicators of between-country variation are therefore often economic and commonly measured by a country's GDP.¹ Individual level differences can be sought by analysing the effect of a variety of socio-demographic factors, such as age, gender and education.

This study focuses not solely on environment concern but on a broader scale of environmental variables i.e. environmental consciousness. The matter of interest is not to validate or devalue the various existing measures of environmental concern or endorsement (for more about measures, see e.g. Dunlap et al. 2000), rather to concentrate on the similarities and differences in between-country variation that the analysis reveals. Conceptually, the environmental consciousness construct comprises three elements (e.g. Diamantopoulos et al. 2003, Rannikko 1996), which relate, first, to the individual's social psychological factors, attitudinal elements including in a broad definition also values, opinions and worldviews; secondly, relating to knowledge about environmental issues; and thirdly, to pro-environmental behaviour.

The purpose of this study is, first, to examine whether between-country variance exists in environmental consciousness, and secondly, whether certain structural factors are valid variables with which to explain the degree of environmental consciousness. By analyzing the linkages between individual and institutional level features, explanations are provided to interpret the relationship between society and environment. As a theoretical background we refer to the two-way thesis of global environmentalism presented in the environmental literature. The central theme of the thesis is that there are two basic varieties of global environmental concern, divided between advanced (Northern) and developing (Southern) societies. This thesis is discussed in more detail in the forthcoming sections, and is also empirically tested by analysing environmental arguments from worldwide survey data, ISSP 2000 (International Social Survey Programme: Environment II, 2000).

Environmental consciousness

The notion that environmental problems are very much social in nature is a focus of this study. Consequently, environmental concern can be seen as a manifestation reflecting citizens' attitudes to and opinions about environmental issues. People's awareness of environmental problems has

grown during the last three decades on the coat-tails of environmental movements (e.g. Dunlap & Catton 1994, Konttinen 1999, Brechin 2003, 106–107). The materiality of environmental problems, for example the influence of consumption habits on the environment, has largely been acknowledged by the general public.

Recent cross-national surveys – although limited in number – have shown that people are personally concerned about environmental problems (Brechin 2003, 1999, Dunlap et al. 2000), but at the same time largely uninformed about the causes of these problems (Brechin 2003). For example, according to the studies of Statistics Finland (Tulokas 2002, 19), Finnish citizens are mostly concerned about global and national environmental problems and regard themselves greatly involved with environmental issues. However, it is likely that the barriers, for example situation specific factors, to pro-environmental behaviour strongly influence the attitude-behaviour relationship (cf. Dunlap et al. 2000, 428, Diamantopoulos et al. 2003, 467). Therefore, despite the pro-ecological orientation and high level of environmental concern, the causes and effects of environmental attitudes are to be interpreted with caution. This is especially the case when exploring cross-national differences.

Environmental concern as a concept and by definition is basically founded on the concept of environmental consciousness; i.e. knowledge about environmental issues, attitudes towards environmental issues, and pro-environmental behaviour. That, in turn, is a concept through which the growth of environmental significance in Western societies has been described (Rannikko 1996, 58). To a certain extent, environmental concern is connected to knowledge and understanding about the state of the environment, and its anthropogenic² causes. It may be argued that “in order to be ‘green’, individuals require an understanding of the consequences of their behaviours” (Bohlen et al. 1993, 417). Awareness about global environmental change affects also one’s attitudes, but it must be taken into account that one can be very concerned about land pollution, for example, but still have quite a low understanding of the very causes of the environmental change itself (cf. Diamantopoulos et al. 2003, 467).

Two-way thesis of environmentalism

Environmental concern and the environmental consciousness construct are domains that are influenced by many factors. One thing that essentially affects the level of concern is the real existence of the problem. Those at risk from environmental problems are presumably more willing to find out about the causes of environmental nuisance (Diamantopoulos et al. 2003, 477, Wexler

1996). The effect describes also the space dimensionality, local-global aspects of environmental problems. In the 1990s, “global environmentalism” was discovered (Brechin 2003, 107, Brechin & Kempton 1994). This finding implied that there existed a worldwide environmental concern. The new aspect was that people were concerned both in poor and rich countries alike. At the time, over a decade ago, theories argued that public concern for the environment was a consequence of economic wealth, thus environmentalism was considered an exclusively Western phenomenon (Brechin 2003, 107–108.) This meant that only people in rich countries, basically in North America, Europe and Japan, were and could afford to be worried about the state of the environment. This argumentation, referred to as the postmaterialist values thesis, emphasised that environmental concern was typically a postmaterial ideal (Inglehart 1995, 1997)³.

The two-way thesis of global environmentalism presented in the environmental literature aims at explaining the global differences with regard to environmental issues, from a mainly cultural or economic perspective (cf. Yuchtman-Ya’ar 2003, 119). The central theme of the thesis is that there are two basic varieties of global environmental concern, divided between rich (Northern) and poor (Southern) societies (Guha 2000, Guha & Martinez-Alier 1997). The first is explained by the postmaterialist values thesis, according to which, global environmentalism is seen as a derivative of postmaterialist syndrome. Environmental concern is a manifestation of typical post-material (-modern) values in wealthy countries, such as self-expression and quality of life (Inglehart 1995, Martinez-Alier 1995, Guha 2000, Brechin 1999, Lee & Kidd 1997, Dunlap & Mertig 1997). The second variety of concern is explained by the objective problems – subjective values thesis, which suggests that citizens’ real experiences of environmental hazards in poor countries motivate them to protect the environment (Inglehart 1995, Brechin 1999, 2003).

Postmaterialist values thesis

Industrialization and its consequences – the economic growth and achievement motivation – have traditionally been seen as core elements of modernity, whereas postmodernity de-emphasizes the instrumental rationality. “Postmodernization is a shift in survival strategies. It moves from maximizing economic growth to maximizing survival and well-being through lifestyle changes.” (Inglehart 1997, 66.) Connected to these need-based aspects, the shift from materialist values (economic and physical security) to postmaterialist values (freedom, self-expression and quality of life) becomes

crucial in postmodernity (Inglehart 1977, 1995, 57, Inglehart 1997, 4–6, Inglehart & Abramson 1999, 665).

Inglehart's postmaterialist values thesis presents one dimension on the cultural change continuum. As Inglehart points out, cultural changes occur in numerous areas of life, from sexual norms to religious outlook (1997, 109). During the last decade, scholars raised a debate on whether this thesis was useful in explaining global environmentalism (Martínez-Alier 1995, Abramson 1997, Dunlap & Mertig 1997, Brechin & Kempton 1997, Kidd & Lee 1997, Lee & Kidd 1997, Abramson 1997, Brechin 1999). The key feature of this debate was whether or not environmentalism is a product of cultural values and, thus, related to the postmaterialist values thesis. This brings us to the main argument of the debate suggesting that environmentalism, if a postmaterial value, is typical of the affluent countries. The affluent Western countries are characterised by high environmental concern, which has been explained by "decreasing marginal utility" (Martínez-Alier 1995, 2), i.e. in affluent, post-industrial societies, environmental movements are postmaterialist expressions, although the environmental degradation is not directly life threatening. Based on Maslow's Hierarchy of Needs, it has been argued that once – either at an individual or at the national level – a certain stage of economic wealth has been achieved, less basic needs, environmentalism for example as one dimension of quality of life, become valuable (Brechin & Kempton 1997, 17, Kidd & Lee 1997, 3, Guha 2000, 99). Consequently, because developing, low-income societies are mainly still in the modernization phase, people in these countries hold materialist values, which then again are achievement-oriented (Inglehart 1997). Therefore, according to the postmaterialist values thesis, rich and poor countries differ in terms of their stage of environmental concern.

The question is not only one of attitudes but also of behaviour and its materialist dimensions. Contemporary sociology views consumption as having many fragmented forms. The "production model of self" (Shove & Warde 2002) involves consumption being more than a pursuit of use-values and fulfilment of basic needs. In other words, the higher the standard of living, the more people redesign themselves through the purchase and consumption of goods. The search for personal identity can be seen as an adoption of environmentally responsible consumption behaviour and commitment to environmental issues. If this theoretical reasoning is correct, it means that people who have lower standards of living cannot "afford" to consume responsibly, because their basic needs, such as hunger and safety, must be met first. For that reason, the possibilities for self-development and self-growth through consumption are limited, if acknowledged at all.

This assumption has been the object of the critique directed at the postmaterialist values thesis (Brechin & Kempton 1997, Brechin 1999, Dunlap & Mertig 1997). According to the critics of the thesis, explaining environmental concern in terms of change in cultural values towards self-expression and quality of life is not apt.

Objective problems – subjective value thesis

The broadly accepted consensus that economic wealth and security explain environmental concern perceived at either the national or individual level was challenged at the beginning of the 1990s. This conventional wisdom – “that only rich people and nations are environmentally concerned” (Brechin & Kempton 1997, 16) – was impugned by several studies, which brought data from low- and middle-income countries (see Brechin & Kempton 1997, 794, Guha 2000, 99). These studies clearly pointed out that people from poor countries were as or even more concerned about environmental threats than those in rich countries. Thus, according to these results, a nation need not undergo changes (improvements) in its economy in order to generate a high level of concern for nature. As Dunlap and Mertig state (1997, 24), national wealth is negatively rather than positively related to people’s environmental awareness and concern. According to various scholars, environmental concern is a universal value, which is not bound to the economic development of one country but rather to the perception of direct, real environmental threats (Brechin 1999, 794).

Proponents of the postmaterial thesis have then shown that environmentalism is to a certain extent “a function of actual environmental conditions” (Abramson 1997, 21) – people are motivated in environmental protection by direct experiences. Acknowledgement that not only the people of affluent countries are capable of perceiving environmental concern has brought forth a new explanation: the objective problems thesis, which proposes that in poor countries environmentalism is spawned by a citizen’s direct experiences of environmental hazards (Inglehart 1995, Brechin 1999, 794–795). Environmental concern is thus seen as a subjective value (Inglehart 1995) caused by real environmental degradation. According to the objective problems – subjective values (OPSV) thesis, the level of the economy does, nonetheless, play a decisive role in making a difference in the perception of environmental concern.

However, the description of environmentalism as a combination of the objective problems and postmaterialist orientation (or subjective values), has not been sufficient in the contemporary debate concerning global

environmentalism. First, Inglehart (1995) has documented that the relationship between postmaterialism and the degree of environmental concern varies from society to society according to economic development. Abramson (1997) and Kidd and Lee (1997) are in step with Inglehart in suggesting that postmaterialist values contribute to support for environmental protection with different levels of economic development.

Guha (2000) uses an umbrella term “the environmentalism of the poor” to indicate the varied forms of social action in struggles against environmental degradation in low- and middle-income countries. Guha’s central assumption is that global environmentalism varies between rich and poor. The Northern environmentalism is characterised by value change (postmaterialism) while Southern environmental movements are rooted in material, natural resource-based conflicts (2000, 122).

Lastly, according to Brechin (1999), Brechin and Kempton (1997) and Dunlap and Mertig (1997), the use of the OPSV-thesis is too simplistic in describing environmental concern. Rather than this dichotomy, Dunlap and Mertig suggest concentrating on revealing the ways people perceive environmental problems (1997).

The empirical part of this study is inspired by recent studies on environmentalism. This study concentrates both on testing the two-way thesis of global environmentalism by comparing the national differences in the level of environmental consciousness, and on revealing other factors that could offer possible explanations for cross-country variation.

Data and methods of analysis

A study was conducted to test empirically the two-way thesis in the context of the environmental consciousness construct. In seeking to uncover cohesions in people’s environmental consciousness worldwide, between-country variation was analyzed and linkages between the macro- and also micro-level were scrutinized by including socio-demographic background variables in the analysis. In this way, the study aims to reveal the latent patterns of environmental consciousness among countries of different economic status. The effects of macro- and micro-levels were tested using GDP and population density as macro-level variables and age, sex, income and education as micro-level variables. The concept of environmental consciousness was operationalized using items evaluating environment knowledge, attitudes and environmentally responsible behaviour, which were measured on a four- or five-point Likert scale.⁴ Different question sets were utilised to measure environmental consciousness (see appendices). The descriptive analysis

highlights the differences between countries, while the multivariate analysis aims to explain perceived environmentalism in more detail. The cases have been weighted using weighting variable in order to represent each country respectively.

The data utilized are from the International Social Survey Programme 2000: Environment (ISSP 2000), which comprises a total 26 countries around the world: Austria, Bulgaria, Canada, Chile, the Czech Republic, Denmark, Finland, Germany⁵, Great Britain, Ireland, Israel, Japan, Latvia, Mexico, the Netherlands, New Zealand, Northern Ireland⁶, Norway, the Philippines, Portugal, Russia, Slovenia, Spain, Sweden, Switzerland, and the United States. All the countries that the data included have been part of this study in order to give the most representative view of environmental perceptions (more about the ISS programme in International Social Survey Programme: Environment II, 2000).

The survey was conducted between 2000 and 2001 either by mail or through personal interviews. The age of respondents varied from 18 years and above. The total number of respondents in the weighted data was 30959. In 2000, the theme of the ISSP survey was the environment, and the respondents were asked to express their opinions and attitudes concerning environmental issues. Besides attitudes, the questionnaire also contained questions which measured both the respondents' behavioural aspects, and their knowledge of environmental problems; such questions related to, for example, behavioural sacrifices made for the environment and knowledge of the causes of climate change. It is acknowledged that a cross-sectional empirical data sets limits to the understanding of the underlying dynamics of environmental consciousness. However, it does allow a possibility to the researcher to explore the conceivable relationships between theory and perceptions of environmental issues in current world. This international data set provides the means to approach this purpose both from macro- and micro-levels.

Two institutional level variables are used in the study: GDP per capita in the year 2000 was employed as a marker of the economic stage of development of the country, and population density to describe the living context of different societies. Population density and especially overpopulation has a direct influence on human societies. In highly populated countries, overpopulation occurs when the population density is so great that it causes an impaired quality of life, serious environmental degradation, or long-term shortages of essential goods and services. (Jackson 2004.) However, overpopulation is not simply a function of the number or density of individuals, but rather the number of individuals compared to the resources. Although population density is only a raw gauge to measure a population's distribution across the land, national population density counts are expected to

associate with people's perceptions on environmental issues, since high population density place more pressure on natural resource (cf. Hironaka et al 2000, 105). Also indices measuring environmental concern, environment knowledge, and environmentally responsible behaviour were presented. In the final part of the analysis, a Principal Component Analysis (PCA) was conducted and the factor scores were explored using an analysis of variance (General Linear Model).

Table 1 shows the population density of each country in the data and the countries are clustered based on their economic level into middle-income and high-income countries. The criterion for the division employed the World Bank's classification and previous studies on the field which have utilized World Bank's income criterion: high income (gross national income per capita of \$9,386 or more), middle income (\$766–\$9,385) and low income (\$765 or less) (World Bank 2006; Dunlap & Mertig 1997; Brechin 1999). However, ISSP 2000 data do not contain countries which fall into the lowest income category according to the World Bank classification, for the lowest GDP/capita in the data was for the Philippines, \$977, which is above the low-income criterion. Thereafter, twenty of the countries in this sample are placed in the high-income category and six in middle-income categories.

Table 1. Macro-level variables used in the study

Country	Population density pop/km ²	GDP per capita in 2000 (USD)	Middle-income countries	High-income countries
Austria	95.5	28 024	Bulgaria	Austria
Bulgaria	72.6	1 474	Chile	Canada
Canada	3.1	28 286	Latvia	Czech Republic
Chile	20.1	4 922	Mexico	Denmark
Czech Republic	130.2	13 869	The Philippines	Finland
Denmark	123.7	29 647	Russia	Germany
Finland	15.3	25 321		Great Britain
Germany	230.3	25 871		Ireland
Great Britain	246.3	24 640		Israel
Ireland	54.1	30 133		Japan
Israel	299.6	19 004		The Netherlands
Japan	335.7	37 436		New Zealand
Latvia	36.7	3 016		Northern Ireland
Mexico	51.0	5 957		Norway
The Netherlands	383.5	23 425		Portugal
New Zealand	14.3	13 294		Slovenia
Northern Ireland	246.3	24 640		Spain
Norway	13.9	37 164		Sweden
The Philippines	254.4	977		Switzerland
Portugal	110.7	10 537		United States
Russia	8.5	1 779		
Slovenia	98.1	9 528		
Spain	79.6	14 092		
Sweden	20.1	26 970		
Switzerland	174.0	33 329		
United States	28.9	34 003	$\Sigma=6$	$\Sigma=20$

Descriptive analysis

In the descriptive analysis, three indices of environmental consciousness were formed: environment concern, environment knowledge, and environmentally responsible behaviour. Between-country variation is shown in the following tables (Tables 2, 3 and 4). The formation of the indices is explained in Appendix A. Key figures for all the items included in the PCA are presented thereafter (Table 5).

In Table 2, below, occurrences of high concern (5 = “extremely dangerous” and 4 = “very dangerous”) within variables measuring environment concern were totalled and an index was formed (cf. Research Methods Web Resource 2004). The information given by six variables⁷ are summed up so that they show the number of highly concerned respondents for each question.

Table 2. Public concern for environment threats

Percentage scoring "high" on environmental concern index			
Nation	%	Nation	%
Chile	54	Slovenia	21
Portugal	53	Bulgaria	20
The Philippines	52	Germany	20
Spain	37	Switzerland	19
Mexico	32	United States	17
Russia	31	Austria	17
Japan	31	Ireland	16
Czech Republic	25	Latvia	15
Canada	24	Denmark	13
New Zealand	24	Sweden	12
Northern Ireland	24	Norway	9
Israel	22	The Netherlands	6
Great Britain	21	Finland	5

A comparison of the relative proportions of high concern reveals that middle-income countries exhibit evidently greater worry in relation to those of high income-countries. The first six countries represent nations of a modest economic status, while the last five countries belong to so-called Nordic welfare countries. The results show that there is a clear difference in perception of environmental hazards expressed most strongly by lower income countries. The citizens of middle GDP countries tend to view environmental pollution threats more dangerous than those of other countries, since the concern of respondents in Chile, Portugal and the Philippines rises over 50 per cent whereas in Norway, the Netherlands and Finland it remains under 10 per cent. Altogether, environmental attitudes related to different environmental threats are evidently higher among the respondents of less economically developed nations than among those of high GDP countries.

When thinking about different explanations of environmental concern the results above suggest that environmental concern peaks in lower income nations. This result fits partly with the findings of the proponents of the OPSV thesis when it comes to the environmental attitudes of low- and middle-income countries (Inglehart 1995, cf. Brechin 1999). Support for the postmaterial values thesis is vague, since it does not explain the low concern. In particular, the claim according to which Nordic countries that have both the cultural postmaterial effect and represent high economic status should express higher environmental concern than other countries. On the contrary, income per capita seems to be negatively correlated with high concern for environmental issues.

Table 3 shows the shares of high environment knowledge. The index was formed in a similar manner to that of the environment concern index by simply calculating positive responses 4 = "definitely true" and 3 = "probably

true” to indicate high environment knowledge. In respect of environmental knowledge, the situation changes to a certain extent. The knowledge varies greatly among countries. Causes of the greenhouse effect were well recognized in Northern Ireland, Ireland and Chile where over two-thirds of the respondents can be classified as having high environment knowledge, but in Latvia no responses were placed in this category. Quite surprisingly, the Nordic welfare countries are also placed in the lower half of the list within this index, with Japan and the USA however now among them. These results are parallel to the findings of Brechin: despite the slight improvement of citizens’ understanding regarding the anthropogenic causes of global warming, many people still remain uninformed of the environmental problems (Brechin 2003).

Table 3. Environment knowledge

Percentage scoring “high” on environment knowledge index			
Nation	%	Nation	%
Northern Ireland	69	Switzerland	49
Ireland	69	Canada	49
Chile	67	Spain	48
Great Britain	59	Norway	47
Germany	59	Denmark	44
Israel	59	Russia	44
Austria	57	Sweden	43
Portugal	57	United States	40
Mexico	56	The Netherlands	40
New Zealand	55	Bulgaria	39
Czech Republic	51	Finland	32
Slovenia	51	Japan	30
The Philippines	50	Latvia	0

The last index, environmentally responsible behaviour, brings together six different behavioural items⁸ (see Appendix A). The results with regard to environmentally responsible behaviour reveal clear changes in comparison to the previous two indexes. The table shows that environmentally responsible behaviour is exiguous. In general, the respondents that can be classified as (the way the question setting allows) environmentally responsible in their behaviour are very limited in number. The list is turned quite clearly on its head, and economic well being seems to explain the environmentally responsible behaviour quite well. The greatest number of these committed greens is to be found among the Swiss; 19 per cent of respondents have taken environmental issues into account in their behaviour, and Switzerland is also one of the world’s wealthiest countries. Lower income countries are at the other end of the list, in which the proportion of environmentally responsible behaviour is very modest.

Table 4. Environmentally responsible behaviour

Percentage of the most committed on environment behaviour index			
Nation	%	Nation	%
Switzerland	19	Japan	3
The Netherlands		Norway	3
Canada	10	Northern Ireland	3
Mexico	10	New Zealand	2
Austria	8	Israel	2
Finland	7	Portugal	2
Germany	7	Slovenia	2
United States	6	Bulgaria	1
Great Britain	6	Chile	1
Denmark	5	The Philippines	0.8
Sweden	5	Czech Republic	0.5
Ireland	4	Latvia	0.4
Spain	3	Russia	0.2

Reflecting back on the theory and the two-way thesis, environmentally responsible behaviour is expected to be higher among the citizens of high-income countries, since, according to the theory, “countries that have relatively Postmaterialistic publics, rank relatively high in their readiness to make financial sacrifices for the sake of environmental protection” (Inglehart 1995, 57). This is true with a few exceptions, as Table 4 shows. However, when it comes to environment knowledge and concern, it is difficult to explain the results with the postmaterialist thesis. As wealthier societies contain more postmaterialists, it should be reflected in these analyses as well.

Next, the distribution of means within the questions measuring environmental consciousness is analyzed against income distribution (Table 5). The results strengthen previous perceptions: environment concern is across all six questions higher among respondents of middle-income than high-income countries. This result means that people in low GDP countries seem to be generally more concerned about pollution and environmental change than those in high-income countries. The finding, thus, supports the objective problems thesis, i.e. the citizens of relatively poor countries tend to view the quality of different environmental threats as more concerning than their counterparts in affluent countries.

Table 5. Attitude items measuring environmental consciousness by GDP (means and standard deviations)

Questions	Low-/middle-income			High-income			sig.
	N	Mean	SD	N	Mean	SD	
Air pollution caused by cars for env.	7 463	4.01	0.888	22 697	3.63	0.860	0.000
Air pollution caused by cars for fam.	7 447	3.89	0.965	22 508	3.33	0.947	0.000
Air pollution caused by industry	7 516	4.24	0.783	22 669	3.92	0.811	0.000
Pesticides in farming	7 448	4.06	0.882	22 528	3.67	0.886	0.000
Water pollution	7 509	4.18	0.861	22 608	3.80	0.901	0.000
Rise in the world's temperature	6 543	3.95	0.912	21 277	3.74	0.944	0.000
We worry too much about progress harming the environment	6 926	3.10	1.146	21 860	2.75	1.118	0.000
We worry too much about the future environment	7 157	3.04	1.225	22 243	2.81	1.213	0.000
Protect environment: pay much higher taxes	7 304	2.51	1.266	21 895	2.57	1.161	0.000
Protect environment: pay much higher prices	7 334	2.63	1.292	22 233	3.04	1.123	0.000
Protect environment: reduce your standard of living	7 236	2.58	1.305	22 232	2.84	1.157	0.000
Effort: sort glass for recycling	5 313	1.88	0.969	21 212	3.10	0.990	0.000
No car driving for environmental reasons	2 746	1.61	0.867	18 209	1.78	0.847	0.000
Greenhouse effect: use coal oil gas	6 071	3.13	0.891	20 206	3.18	0.765	0.000
Greenhouse effect: hole in the earth's atmosphere	5 151	3.12	0.923	19 547	2.80	1.032	0.000

Source: ISSP2000

What is interesting is that the slightly different question set measuring worry about environmental issues produces an opposite result. The respondents of high GDP countries express more worry about the future environment than those of lower income. When it comes to 'willingness to do' type questions, i.e. protect the environment by making economic sacrifices, no great attitudinal differences can be detected. The citizens of high-income nations are only slightly more willing to protect the environment than people in lower income nations.

The greatest differences are related to environmentally responsible behaviour, to the items measuring recycling and sorting waste. In high-income countries, the mean is clearly higher, 3.10, compared to that of low- and middle-income countries, 1.88. An institutionalized recycling system does not exist in all the countries in the data, which explains the great differences related to recycling. On the other hand, environmentally responsible behaviour can be explained by cost-hypothesis, which is connected to the actualized behaviour. Environmental attitudes influence environmentally responsible behaviour primarily in situations and under conditions linked with low costs

and little inconvenience for the individual actor. According to the hypothesis, the lower the cost of one's behaviour in a situation, the easier it is for an actor to put into practice the actual behaviour, which is strengthened by similar attitudes. This is often the case with regard to recycling. (Diekman & Preisendörfer 2003.) If costs are high, the individual's attitude, for example concern for air pollution, is not likely to turn into corresponding behaviour, that is to cease private motoring and start to use public transportation instead.

Since the two-way thesis has only partial explanation power, other explanatory factors are studied. In order to analyze in greater detail the different elements of environmental consciousness, its potential dimensions are scrutinized. These results are discussed in the following section.

Determining dimensions of environmental consciousness

National differences within environmental consciousness do not provide adequate insights into the ways people value environmental issues. The starting point for the following analysis has emerged from the literature, which suggests that revealing the different ways in which people form environmental perceptions tells more about environmental concern than trying to explain global environmentalism with (only) the postmaterialist thesis (Dunlap & Mertig 1997, 27). Therefore, a more detailed analysis was conducted where environmental consciousness was examined and explained by background variables. First, principal component analysis (PCA) was conducted and, secondly, the factor scores were put into further analyses, namely that of variance (ANOVA). Succeeding analyses aim to reveal the effect of background (macro- and micro-level) variables on environmental consciousness.

Resulting from the differences in scales, some questions that measured environmentally responsible behaviour and that were used in the previous analysis were left out and another set of questions on a five-point scale were examined by PCA and Varimax as a rotation method. The item set consisted of a total of 15 variables which formed in the analysis five clearly separate dimensions related to environment concern and worry and to behavioural support and actualized behaviour as well as to environment knowledge. This five-factor solution was found to be the best fit and it explained 64 per cent of the total variance (Table 6)⁹. The aim of PCA is not to define the environment consciousness construct as such, nor to try to find the construct's possible properties or dimensions from data items. The focus lies instead on the explanants of environment consciousness and therefore the number of factor dimensions was not restricted.

Table 6. Dimensions of environmental consciousness

	Concern	Willingness	Worry	Behaviour	Knowl- edge	h ²
Air pollution by cars for the environment	.772					.625
Air pollution by cars for you and family	.775					.629
Air pollution by industry for the environment	.775					.610
Water pollution for the environment	.727					.531
Pesticides in farming for the environment	.707					.513
Rise in world's temperature for the environment	.646					.520
Protect environment: pay much higher taxes		.876				.762
Protect environment: pay much higher prices		.862				.778
Protect environment: cut your standard of living		.755				.636
We worry too much about progress harming environment			.822			.683
We worry too much about the future environment			.809			.687
Effort: sort glass for recycling				.801		.678
No car driving for environmental reasons				.764		.638
Greenhouse effect: use coal, oil, gas					.757	.599
Greenhouse effect: hole in the earth's atmosphere					.707	.651
Eigenvalue	3.333	2.199	1.540	1.295	1.173	
Explained (%)	22.222	14.658	10.268	8.633	7.820	63.602

In the first factor, termed *Concern*, attitudes reflecting high environmental concern were loaded. This factor consisted solely of statements already tested in the above sections. All the questions were related to environmental threats caused by pollution. The factor explained environmentalism well, explaining 22 per cent of total variance. The second factor, labelled *Willingness*, consisted of “willingness to pay” type questions and can be seen as reflecting citizens’ readiness to make behavioural sacrifices for the environment. It must be taken into account that people easily respond positively to such statements because of social pressure (Breachin 1999, 804). The explained share of the Willingness dimension is also quite high with its 15 per cent and the eigenvalue stood at 2.199.

The third factor, *Worry*, was loaded by two items measuring people’s worry about environmental issues. In fact, the way the statement was constructed in these two questions emphasised whether nowadays people worry too much

about the state of the environment and too little about other social issues. The positive loadings in this case refers to the acceptance of this argument, i.e. that we worry too much about human progress harming the environment and about the future of the environment, and not enough about prices and jobs today. This dimension is, thus, pointing towards the negative end of the attitude scale. One could speculate whether the results express a certain kind of frustration and fatigue about environmental conversation. It is evident that in the values of the respondents who support these ideas, the environment is not first on the list; they are more worried about the economy and modern life and do not see a contradiction between the environment and economics. This factor still explained environmentalism quite well; the share was 10 per cent and eigenvalue 1.540.

The fourth factor, *Behaviour*, also covered two items, efforts to sort waste and cut back on motoring for environmental reasons. The explained share for this dimension was 8.6 per cent with an eigenvalue of 1.295. The last factor was loaded with environmental awareness related items, and was named *Knowledge*. The share was quite low, 8 per cent, but still the factor loadings and communalities were adequate to accept this as the last dimension of environmentalism in the realms of the studied data.

In Table 7, the results of the analysis of variance, which utilized the general linear model (GLM), are presented. This analysis method was used to assess the comparative significance of background variables; whether those explain environment consciousness at the individual and/or at the institutional level. The independent variables were used to test their explanation power on the variance of the factor scores in different environmental consciousness dimensions. The differences in effects between subjects were measured by a comparison of parameter estimates (β). At the bottom of the table, the shares of the total variance ($100 R^2$) are presented. Although some information may be lost, family income was transformed into a categorical variable in order to be able to analyse the effect of different income levels on the perception of environmental issues. Social class was excluded from the analysis because in some countries (for example Great Britain) this question was not included in the questionnaire.

All the five factors were explained well by almost all background variables. Family income and population density were statistically highly significant explanants within all the tested factor dimensions. The first factor, Concern, was explained well by all background variables. In this international data set, the young and women are more environmentally concerned than older citizens and men. And connected to the young age, those still at school¹⁰ and with a low income are also more concerned than other groups. Education is usually considered as having a significant effect on the perception of environmental

issues, and especially highly educated people belong to the category which usually expresses the most concern. As the data show, this was partly the case. The explained share of total variance, $100 R^2$, was quite good at 10.2 per cent. To sum up, it could be argued that age, gender, income and education together have a remarkable effect on the perception of environmental problems. But the results also show that at the macro-level, the GDP and population density has explanation power as well. Already the descriptive analysis revealed that lower income nations are more worried than people in affluent countries. Moreover, the results point out strongly that concern is greater among the citizens that are from high population density countries.

The second factor, Willingness, is explained well by all determinants except gender. $100 R^2$ was, however, low at 4.3, which means that although significant, the variables do not explain much of the variance of the factor in question. The analysis shows that educational status functions in this context in the opposite way to which it did with the Concern factor. Those still at school, and in general all not having a university degree, seem according to these results to be unwilling to reduce their standard of living or to pay more taxes and higher prices to protect the environment. The most unwilling are also those with the lowest income levels. In fact, willingness grows with income. To put it simply, it seems logical that willingness to make economic sacrifices is strongly linked to income. Those belonging to the lowest income levels are young and less educated, as well. Institutional level factors also have a remarkable effect. One could expect that the economic criterion favours high-income countries as it did as a micro-level factor. But still lower income countries are more willing than wealthier countries to protect the environment using these means. When it comes to population density, there seems not to be any logical order, although the effect is statistically very significant.

All the chosen independent variables have influence on the third factor, Worry. This factor was explained best; all the background variables had a statistically highly significant effect on worry about the environment and $100 R^2$ was 12.0 per cent. Senior male respondents with a relatively low family income feel characteristically the least worry concerning the future state of the environment. When it comes to the age effect, it is the oldest age group, senior citizens, that express the lowest worry about environmental problems. In other words, the younger the respondents the greater the worry. Institutional factors, GDP/country and population density have an opposite effect on the third factor compared to the first. Low- and middle-income status points towards low worry and is highest in countries with a low population density.

The fourth factor, Behaviour, was also well explained, with 10.5 per cent of the variance. Environmentally responsible behaviour is according to the results again more a feminine than masculine feature, however strongly connected to

the elderly age groups. Income is also a significant factor but, surprisingly, education has no effect on recycling or on limiting private motoring for environmental reasons. The results show that environmentally responsible behaviour is strongest in the family income category 15 000 – 25 000 USD/year, while it is negatively affected by lower income levels. The institutional factors were statistically highly significant; environmentally responsible behaviour was linked to high-income and in the countries representing a population density of 100-200 pop/km².

The last factor dimension, Knowledge, was the poorest explained by the background variables; the share was only 2.7 per cent. Despite this, many of the tested background variables had a highly significant effect on knowledge. Education's effect is very interesting; those still at school and people with the lowest education level exhibit according to the results the highest knowledge of environmental issues, in this case of the reasons for the greenhouse effect. Gender and income have an effect also on knowledge as well as population density. The economic status of the country did not explain environmental knowledge.

Table 7. Environment consciousness explained by certain background variables

		Concern	Willingn	Worry	Behav.	Know.
Adjusted parameter estimates (β)						
Age class	N	p<0.001	p<0.001	p<0.001	p<0.001	nsf.
≤25	1 172	.157	-.140	-.302	-.526	
26-45	5 030	.146	-.157	-.295	-.415	
46-65	3 862	.072	-.049	-.199	-.203	
≥66	1 039	0(a)	0(a)	0(a)	0(a)	0(a)
F		9,266	12.646	30.142	89.584	
Sex		p<0.001	nsf.1	p<0.01	p<0.001	p<0.001
Male	5 965	-.175		.061	-.135	-.071
Female	5 138	0(a)		0(a)	0(a)	0(a)
F		91.167		11.570	56.461	14.039
Education		p<0.001	p<0.001	p<0.001	nsf.	p<0.001
still at school	105	.128	-.459	.200		.205
primary	1 950	-.061	-.424	.471		.212
secondary	5 461	-.068	-.374	.292		.116
semi-higher	1 428	.068	-.213	.117		.080
university	2 159	0(a)	0(a)	0(a)	0(a)	0(a)
F		7.312	65.067	67.845		11.247
Family income (USD)		p<0.001	p<0.001	p<0.001	p<0.001	p<0.001
<1000	321	.453	-.356	.447	-.775	-.200
1 000–5 000	1 001	.411	-.228	.428	-.564	-.062
5 000–15 000	2 211	.394	-.124	.373	-.169	.079
15 000–25 000	1 992	.185	-.098	.197	.046	.076
>25 000	5 578	0(a)	0(a)	0(a)	0(a)	0(a)
F		71.136	15.212	69.959	86.794	8.398
Population density		p<0.001	p<0.001	p<0.001	p<0.001	p<0.001
≤50	4 360	-.118	-.220	-.108	-.028	-.053
51–100	1 927	-.078	.043	-.067	-.204	.280
101–200	1 535	.103	-.192	-.009	.189	.053
≥201	3 281	0(a)	0(a)	0(a)	0(a)	0(a)
F		21.589	48.181	8.687	46.818	49.189
GDP/Country		p<0.001	p<0.001	p<0.001	p<0.001	nsf.
low-/middle	1 091	.539	.153	.444	-.176	
high	10 012	0(a)	0(a)	0(a)	0(a)	0(a)
F		200.438	15.429	140.037	22.058	
100R ²		10.2	4.3	12.0	10.5	2.7

(a) This parameter is set to zero because it is redundant; 1 = not significant

The results suggest that there exists a clear consistency with respect to socio-demographic predictors. Family income as the micro-level factor was statistically a very significant explanant in the case of all the factor dimensions. Income was, as previous studies have also pointed out, negatively connected to behavioural factors, when it comes to intention, willingness to make economic sacrifices and actualised environmentally responsible behaviour. One might still ask why low income level also corresponds with low recycling behaviour or cutting back on driving a car. The explanation may lie in the before-mentioned lack of access to a structured recycling program.

In the sample of 26 countries, lower educated people think that too much attention is paid to environmental issues in comparison with other social issues, while higher education refers to a willingness or intention to make financial sacrifices in order to protect the environment. However, when it comes to environment concern, education's role changes and students (presumably higher educational level students) are the most concerned. Based on the findings of this analysis, it can be argued also that there is interaction between education, age and gender, since younger citizens are in the contemporary world more likely to be better educated than older ones. Environmental consciousness is particularly gendered, as several previous studies have shown (for example, Diamantopoulos et al. 2003, Autio & Wilksa 2003). Both population density and the economic status of the country have a strong effect on the different dimensions of the construct as well.

The inconsistent global environmentalism

This study has examined the levels of environmental consciousness both at the institutional and individual level. The theoretical discussion was based on alternative views of the two-way thesis of global environmentalism; that of the postmaterial values thesis and OPSV-thesis. Neither of the two approaches has received unanimous support, because it is not a simple task to explain environmental concern by referring to national indicators of wealth alone; by dividing nations into wealthy (high-income/Northern) or poor (low- or middle-income/Southern) societies. As sympathizers with the two-way thesis suggest, high- and low-income countries alike have, as well, postmaterialists and materialist individuals, who value different aspects of their lives. But by explaining environmental attitudes solely in terms of postmaterialism or direct experiences (OPSV) of environmental problems, i.e. by macro-level factors, we cannot provide a satisfactory solution. As the results show, people in lower income countries are in fact more worried about pollution and related matters than people in wealthy countries.

One explanation for this has been that in lower income countries direct experiences of environmental hazards, i.e. local environmental problems, motivate people to rank environmental issues high. Based on the results of this study, people in lower income countries exhibit stronger concerns also towards more global environmental problems, not only local aspects of environmental problems. However, as Brechin puts it “Few individuals, if any at all, have experienced direct effects from a truly global problem.” (1999, 807). Rather, environmental attitudes and concern form a complex social phenomenon, a mixture of regional environmental perceptions and international influences. In low- and high-income countries alike, support for environment consciousness varies. Therefore, the aim in this paper was to uncover the latent dimensions of environment consciousness, formed by three diverse elements of environmentalism: knowledge, attitudes, and behaviour. The analysis of these elements or dimensions aimed to reveal whether any consistent structures existed that helped to explain environmentalism.

The first section of the empirical part focused on national differences in environmental consciousness. This analysis underscored clearly that GDP explains significantly the level of environmental consciousness. According to the results, citizens in middle-income countries demonstrated a strong attitudinal concern for the state of the environment. This was confirmed in the second part with multivariate analysis of the data, where GDP/country and population density were used as explanatory background variables. Therefore, it can be argued that macro-level comparisons have explanation power, since both the variables significantly explain environment consciousness. Some support can be found also for the OPSV-thesis; it is logical that the presence of real environmental problems is manifested in the levels of concern.

What is of remarkable importance is that one out of five environment consciousness dimensions referred to negative or reluctant attitudes towards the environment. This attitude was supported especially by low income (both family income and at national economic level), low education, high age, and male gender. Also high population density countries correlated with low worry. Environmental questions are, after all, just some of the many other important problems that people in the developing world are facing.

However, the analyses of micro-level socio-demographic variables point to outstanding consistent effects regarding the consciousness construct. All the socio-demographic variables, education, age, gender, and family income, did explain the dimensions of environmental consciousness. Family income was the most significant factor; it explained in a statistically very significant way all five factors. Overall, high family income is a marker of the stronger environmentally responsible behaviour and willingness to make personal

behavioural sacrifices. The effect is turned on its head when concern is the focus: low family income is an indicator of high environment concern.

One conclusion of the study is that global environmentalism is clearly gendered. Females apparently feel more concern and experience greater worry about different environmental issues, and are more apt to make behavioural changes for the sake of the environment. Furthermore, education plays an important role in environmentalism, since it increases knowledge of environmental problems.

The results of this study are naturally in some sense indicative because the analysis conducted did not include within-country analysis. In order to gain a more comprehensive view of environmental consciousness, a comparative study of within-country effects should be conducted.

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Appendix A) Measures, original questions presented in the questionnaire and the coding of variables

Measure	Question	Coding
Environment concern	<p>In general, do you think that</p> <ol style="list-style-type: none"> 1. air pollution caused by <ol style="list-style-type: none"> a) cars is dangerous for the environment b) cars is dangerous for you and your family c) industry is dangerous for the environment 2. pesticides and chemicals used in farming are dangerous for the environment 3. pollution of <R's country's> rivers, lakes and streams is dangerous for the environment 4. a rise in the world's temperature caused by the 'greenhouse effect' is dangerous for you and your family 	Formed an index of environment concern by calculating positive responses (4 'very dangerous' and 5 'extremely dangerous') from all the related questions.
Environment knowledge	<ol style="list-style-type: none"> 1. The greenhouse effect is caused by a hole in the earth's atmosphere 2. Every time we use coal or oil or gas, we contribute to the greenhouse effect 	Formed an index of environment concern by calculating positive responses (3 'probably true' and 4 'definitely true') from the questions.
Environmentally responsible behaviour	<ol style="list-style-type: none"> 1. Are you a member of any group whose main aim is to preserve or protect the environment 2. In the last five years, have you signed a petition about an environmental issue 3. In the last five years, have you given money an environmental group 4. In the last five years, have you taken part in a protest or demonstration about an environmental issue 5. How often do you make a special effort to sort glass or tins or plastic or newspapers and so on for recycling 6. How often do you cut back on driving a car for environmental reasons 	<ul style="list-style-type: none"> • From questions 1-4 response alternative 2 'yes' selected • For questions 5-6 first a recoding of response alternatives 4 'often' and 5 'always' as 2 and the others as 1. Then selected alternative 2 'often/always'. • Formed an index of green behaviour by calculating positive responses (coded as 2) from all the questions.

Appendix B) Additional scale items for dependent variables in PCA and ANOVA

Worry

We worry too much about the future of the environment and not enough about prices and jobs today.

People worry too much about human progress harming the environment.

Environmentally responsible behaviour

How willing would you be to pay much higher prices in order to protect the environment?

How willing would you be to pay much higher taxes in order to protect the environment?

How willing would you be to accept cuts in your standard of living in order to protect the environment?

¹ Contemporary research has argued that this traditional way of explaining the level of environmental concern by measuring environment-economic trade-offs is neither accurate nor acceptable, since residents of poorer nations are inherently disadvantaged (Dunlap & Mertig 1995). Kidd and Lee (1997, 2) have argued that using GDP per capita to separate countries into wealthy and not wealthy is over-generalizing the postmaterialist thesis. However, in national-level data, GDP/capita has been employed as an independent variable in pointing out the relationship between the economic development of countries and materialist/postmaterialist values (Inglehart 1997, 151). So, employing the same logic it seems to be appropriate to use GDP also to indicate the relationship between economic development and environmental consciousness.

² Understanding of how human activities actually contribute to environmental problems.

³ More about the original ideas of the post-modernization thesis, the emergence of post-industrial society and cultural change post-industrial society in Inglehart (1977).

⁴ 1 = "not dangerous at all", 5 = "extremely dangerous for the environment"; 1 = "strongly disagree", 5 = "strongly agree"; 1 = "very unwilling", 5 = "very willing"; 1 = "definitely not true", 4 = "definitely true".

⁵ In the original data, the sample collection in Germany was divided into two parts: East Germany and West Germany. Because all of Germany is taken as the unit of analysis, a weighting variable is necessary.

⁶ The Northern Ireland survey was conducted separately from Great Britain and for this reason was also analysed separately.

⁷ Respondents are classified as "high" in concern for environmental problems if they answered "very dangerous" or "extremely dangerous" to the following questions: (1) Air pollution caused by cars for the environment AND (2) Air pollution caused by cars for you and your family AND (3) Air pollution caused by industry for the environment AND (4) Pesticides in farming for the environment AND (5) Pollution of rivers, lakes and streams for the environment AND (6) Rise in the world's temperature for you and your family.

⁸ The most committed greens are those who have supported with their behavioural choices environmental issues at least in four alternatives out of six items.

⁹ Factor points saved as standardised values. Kaiser-Meyer-Olkin Measure of Sampling Adequacy = .800; Bartlett's Test of Sphericity 54122.927; Sig. = .000 Extraction Method: Principal Component Analysis. Rotation Method: Varimax rotation. Rotation converged in 5 iterations.

¹⁰ In the questionnaire, the alternative 'still at school' within education meant also university studies and in some countries no education at all. The results also suggest that those at school could be university or higher-degree students, since the lower educated are less green conscious.

PAPER 3

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Consumers' green commitment: indication of a postmodern lifestyle?

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Keywords

Environmental attitudes, green consumerism, lifestyle, postmodernism.

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Abstract

Green consumer behaviour is one of the key focuses of contemporary research on the sociology of consumption. The constant presence of environmental issues related to consumption and the changes consumer society has faced during the 20th century are presumed to reflect on present consumer behaviour.

the postmodern elements of consumer society will be discussed; second, the study analyses to what extent these elements of postmodernism fit with the phenomenon of contemporary green consumerism. The empirical part utilizes Finnish consumer behaviour-related data from 2003, which were analysed by applying various statistical methods. In this part, the study reports of the connection between lifestyle and green commitment. Lifestyle is measured by consumption styles and green commitment by certain environment-related consumption choices. The results suggest that different lifestyles explain green commitment better than traditional socio-economic background variables. The effect of postmodernism on green consumer behaviour is, thus, discussed.

Introduction

Different explanations have been offered to illustrate the contemporary consumer society. One of the most important features concerns the shift from individual, 'microcosmic' actors towards a 'macroscopic' perspective that takes social and other contexts of consumption into account (McCracken, 1988). One of these contextual factors is the environment. In fact, public concern about environmental problems has developed rapidly since the 1960s (Dunlap and Catton, 1994). Gradually, nature has been conceptualized as something more than just an oil well or a coal mine and 'concern for the environment has become almost a cultural constant or norm in western society. Environment attitudes are now socially acceptable and desirable, but may not have much intrinsic meaning' (Derksen and Gartrell, 1993, p. 434). While the negative effects of consumption on the environment have been widely admitted (e.g. Worldwatch Institute, 2006), green consumption choices have become commonplace (Autio and Wilska, 2003, 2005).

The determinants of environmentally responsible or green behaviour vary according to the scope of research. Types of green behaviour include a wide variety of ways to act in an environmentally responsible manner. Working in environmental organizations, taking part in environmental movements or demonstrations, buying eco-labelled products, or recycling, are examples of the different types of behaviour that take environmental issues into account (Grankvist and Biel, 2001). An examination of these different approaches to the broad issue of green behaviours reveals that

environmentally responsible consumption and consumer behaviour form just one level within the field of study.

Contemporary understandings of what constitute environmentally responsible consumption or consumerism spring from different starting points. One of the main theoretical divisions is made between representations or constructions of green consumers and applied, empirical green consumer behaviour research (Heiskanen, 2005). Whatever the approach to the issues is, green consumer behaviour generally originates at least from matters of world view or values, norms, beliefs and ideologies (for a more profound review, see Stern, 2000 and McCarty and Shrum, 2001). Green consumerism determined this way includes definitions ranging from ethical orientation to political struggle (Moisander and Pesonen, 2002; Klintman, 2006). Another research stream to promote understanding of green consumer behaviour has focused on the relationship between socio-demographic factors and environmental attitudes and behaviours. Several studies have investigated the relationship between socio-demographic variables and environmental attitudes, showing mixed results with respect to the impact of these variables on environmental behaviours (e.g. Straughan and Roberts, 1999; Zelezny *et al.*, 2000; Autio and Wilska, 2003; Diamantopoulos *et al.*, 2003).

The absence of a confirmed structure of background variables in profiling green consumers is due to several reasons. According to Berger (1997), the role of structural factors such as income and education may be a complex one, and other factors, such as institutional structures, may mediate the relationship between these variables and behaviour. Environmentally responsible post-

consumption behaviour, typically recycling or sorting waste, is affected not solely by the social background variables but also by broader institutional and economic factors: more affluent living areas may have better access to recycling facilities than indigent residential areas, and a household's recycling may therefore be conditioned as much by the economic factors of the community as by that household's own income level (McCarty and Shrum, 2001; OECD, 2002). Instead of a unitary, undifferentiated class, green behaviour should be described in terms of several distinct behavioural types that are determined by different combinations of causal factors (Stern, 2000).

Another possible mediating reason is the changing consumer society. Contemporary society is characterized by rapid social, cultural and economic changes that are reflected in consumer behaviour. The changes that occurred during the last century encompass a cultural shift in social theory, leading to the use of the term 'postmodernism' (Firat *et al.*, 1994; Lyon, 1999; Miles *et al.*, 2002). In postmodern society, consumption structures are claimed to be more complicated than in modern society. Postmodern consumer society is driven by diversity and freedom of choice, emphasizing difference, which in turn leads towards fragmented and diverse forms of social identity and lifestyles (Featherstone, 1991; Miles *et al.*, 2002).

In sociology, consumption has at least two aspects: identity formation and group communication between members (Murphy, 2001; Burgess, 2003). According to the sociological literature on postmodernism, consumption and the creation of different lifestyles are the means by which personal identity and self are constructed (e.g. McCracken, 1988; Lyon, 1999; Miles, 2000; Miles *et al.*, 2002; Wilska, 2002). Postmodern conditions of consumption are created when structural elements do not provide adequate explanations for contemporary consumerism (Sanne, 2002; Räsänen, 2003). Changing lifestyles have been seen as one of the key driving forces, which have supported more individualized buying styles (Lyon, 1999; OECD, 2002). Green consumerism is an area where one could expect that identity plays an important role. Green attitudes and consumption styles can be regarded as a lifestyle-based expression of an individual consumer's concern about the state of the environment, and therefore, different lifestyle-based elements are expected to affect consumers' green attitudes and consumer behaviour.

As we are primarily interested in understanding the nature of contemporary consumer culture and its effects on green consumer commitment, one reasonable way to approach this is to examine general consumption styles, whose effect might explain, to a certain degree, green consumer behaviour. This study argues that by scrutinizing the lifestyle-related factors of consumption, a new explanation for green consumer behaviour can be proposed. The purpose of this paper is to investigate, both theoretically and empirically, the notions of postmodernism in consumer studies and its applicability to the green consumption context. The effects of both consumption styles and background variables are examined utilizing empirical data on Finnish consumer behaviour from 2003.

Postmodern, lifestyle and green consumption

In a sociological context, the concept of postmodern has been brought up in various connections to characterize contemporary

society. This is done to such an extent that criticism of its ubiquity has arisen (Beck, 1990; Firat *et al.*, 1994; Räsänen, 2003). However, it is still a valid concept, which carries much content. In a number of writings (Featherstone, 1991; Firat *et al.*, 1994; Miles *et al.*, 2002; Ritzer and Goodman, 2002), postmodernity is analysed in comparison with the modern era. During modernity, the changes that have taken place in institutions' structures (production, reproduction, consumption, infrastructure, etc.) and in the field of the economy, social life and behavioural patterns, have created the foundations of postmodernity. It has been argued that consumption is replacing production as the fundamental process in the economy and society (Bouchet, 1994; Dholakia and Firat, 1998).

Postmodernism as a sociological notion has many dimensions and meanings, and therefore the definitions given to it vary a great deal. Giving it an agreed, exhaustive meaning is thus impossible. One feature common to all the definitions is that postmodernity 'directs our attention to changes taking place in contemporary culture' (Featherstone, 1991). The postmodern era is seen in the literature as a time of individualism and changing values, manifested in freedom of choice, changes of lifestyles (consumption and leisure time) or new social movements, such as environmentally conscious consumer groups (Bauman, 1996). The claim that consumption has been fragmented emphasizes difference, and consumers deliberately seek for material goods as status symbols of their lifestyles.

Sociological definitions given to lifestyles vary a great deal from a Weberian manifestation of class membership to recognizability (Veal, 2000). According to Miles (2000), lifestyle is a material expression of identity and Veal defines it as 'the pattern of individual and social behaviour characteristic of an individual or a group', emphasizing the approach that lifestyle is primarily a matter of activities or behaviour affected by values and attitudes. Lifestyle has also become a synonym for the concept of behaviour patterns (Spaargaren and van Vliet, 2000) and refers to the degree of coherence, which can be found in an individual's behaviour (Spaargaren and van Vliet, 2000). In green consumerism research, the concept of lifestyle is connected to the process of consuming, individual choice and decision-making (see, e.g. Sanne, 2002; Southerton *et al.*, 2004), but also to the social or symbolic dimensions of consumption (Spaargaren and van Vliet, 2000).

In postmodern theories, consumption becomes a main factor behind lifestyles and culture (Miles *et al.*, 2002), and different dimensions of consumption cause consumers to cluster into new tribes (Maffesoli, 1996). For example, environmentally conscious consumers do not form a solid, homogeneous consumer segment but act in many different ways. Different new consumption activities and lifestyles arising from social ideologies represent typical postmodern structures (Bouchet, 1994). For instance, green consumption is said to express the consumer's new values – concerns for matters both environmental and related to well-being (Inglehart, 1997; Stern, 2000; Wilska, 2002). Although most green consumer behaviour connects to mainstream consumption, manifested, for example, in recycling and sorting waste, or buying environmentally friendly products (e.g. Autio and Wilska, 2005), it is worth taking into account that green consumer behaviour differs from general consumer behaviour in the level of commitment, which is an expression of taking an ideological standpoint

deep green consumerism, see Moisander and Pesonen, 2002). Partaking of general consumer behaviour encompasses an assessment of likely benefits and costs relevant solely to the individual consumer demonstrating the behaviour. Also, the benefits or costs of certain kinds of behaviour are most probably realized immediately or in the near future, while green consumer behaviour is unlikely to deliver instant personal benefits or pleasure, but rather a future-orientated outcome (e.g. a cleaner environment) that often benefits society as a whole (McCarty and Shrum, 2001). For example, people with low environmental concern tend to prefer free-market solutions rather than government policy, and shift the responsibility for solving environmental problems on others (Poortinga *et al.*, 2004). Moreover, green consumers are more likely to control their consumption in comparison to more traditional consumers and therefore, the environmental impact of green behaviours is direct. For example, the decision on whether or not to purchase a car tends to have much greater environmental impact than changes in the use of the same vehicle (Stern, 2000). This aspect involves the consumer's responsibility to control her/his consumption choices.

Despite the difficulty of giving a precise definition of a postmodern consumer, many elements can be found from it that aptly describe green consumerism. Social, cultural and economic factors of society are assumed to set the framework for green consumerism. Figure 1 shows values that typically dominate in societies where the level of affluence is high, and where individuals are no longer struggling with basic material needs, such as nutrition and basic security. The information given in this diagram is by no means exhaustive, but captures some main elements that are applicable to the purposes of this study.

The theory of postmaterialist values (e.g. Inglehart, 1997) is based on the assumption that cultural and economic factors affect individual values. Within this theory, environmentalism has been explained as being an expression of values such as quality of life, self-expression and freedom. 'Postmodernization is a shift in survival strategies. It moves from maximizing economic growth to maximizing survival and well-being through lifestyle changes' (Inglehart, 1997). Bauman argues with his notion of *ethic paradox* that, while in postmodernity strong individualization leads to freedom of choice, it also transfers the responsibility of choices to individuals. Simultaneously, when there seem to be no limits to choices, the consequences of the same choices are put on the shoulders of individuals. The ethic paradox in postmodernity is that it restores the opportunity to make moral choices and the full responsibility, but does not provide any support at the level of society (Bauman, 1996).

For instance, if we think about green consumption and purchase situations, individuals are put in trade-off situations where they

Lifestyle, identity, ideology, choice Moral, ethics, responsibility Quality of life, health issues
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Figure 1 Postmodern elements of green consumerism.

have to make choices between the environment and their own needs, wants and desires. The battle between individual needs and the environment easily leads, however, to a moral and puritanical standpoint that consumption 'is a bad thing we should do without' (Slater, 2001). In environmental debate, such standpoints come up in the context of modern consumer culture, which, on one hand, deregulates desire and, on the other hand, operates as an engine for generating an endless amount of new desires. (Slater, 2001; Autio, 2005).

The literature concerning postmodern consumption refers to possessive individualization encouraged by conspicuous consumption, which offers opportunities for the pursuit of distinction (Warde, 2002). Strong individualization, in turn, has a negative echo in environment debate, because it leads to increased consumption and acquisition of ever more goods. The puritanical position, that is, condemnation of consumption as such, may be theoretically untenable, because it requires that consumers need constantly to prioritize what is important to them in their everyday lives. However, there is evidence that green consumer behaviour is influenced by altruistic norms and motives (Stern, 2000; Grankvist and Biel, 2001). Theories of altruistic behaviour suggest that personal moral norms make people responsible for their decisions. Such behaviour involves replacing normally routine decisions with actions guided by responsible choices, evaluated by moral rather than economic standards (Heberlein, 1972; Stern, 2000). For example, awareness of the consequences that consumption has on the environment inspires altruistic behaviour and environmentally sound consumption decisions.

Green consumerism as a moral and postmodern phenomenon seeks to critically evaluate consumer identity. Research shows that the individual and his/her own identity guide behaviour at a general level (Burke and Reitzes, 1981). When it comes to green identity, Stets and Biga (2003) have revealed that environment identity combined with identity theory accounts significantly for environmentally responsible behaviour and also for environment attitudes. The authors have conceptualized environment identity as a person's identity, including self-meanings and attributes that are important to a person, and represent the things he/she values. Identity is conceptualized in terms of three elements: prominence, salience and commitment. Prominence reflects how a person ideally sees him/herself and what is important to the individual while the salience of an identity focuses on a likely behaviour. The degree of commitment to an identity influences salience (Stets and Biga, 2003).

By incorporating into the analysis the environment identity, we can examine more closely the effect of lifestyles. We are not, however, interested in the identity process itself, but we bring to the analysis one component of identity, the environmental commitment. We understand here that personal identities, including environment identity, are defined in terms of personal attitudes, morality and values related to consumption, and the more one is committed to environmental issues, the more positive are the attitudes towards green consumer behaviour. Moreover, as we assume that postmodern elements characterize contemporary green consumption to a certain extent, we expect that lifestyle elements have a stronger impact than socio-economic structures on green consumer behaviour. In the next section these effects are explored empirically.

Description of the data and results of the study

In this section, the theoretical discussion of the elements of post-modern consumption in green consumerism is tested in the light of statistical data. The data for the present investigation were obtained from a Finnish data set (Myllyproject, 2003) collected by a postal survey in 2003. This survey was carried out by utilizing the random sample method among all households in Turku region (Southwest Finland comprising 11 municipalities). The total number of respondents included in the study was 1370. Because the sample of the data was not representative of the whole Finnish population (Statistics Finland, 2006), women being strongly over-represented (87%), a weighting variable was applied. The weighted percentage for women was 77% ($n = 1185$) and for men, 23% ($n = 358$).

First, a descriptive analysis of consumers' green attitudes is provided. We analyse four attitudinal items in order to form an index of consumers' environmental commitment. In the next stage, multifactor analysis is conducted using the principal component method. Last, the impacts of both lifestyle-related and socio-economic factors on green consumption decisions are evaluated by conducting an analysis of variance (ANOVA). ANOVA is a statistical method that explains the variance of selected background variables (Toivonen, 1999). This analysis method was used to assess the comparative significance of background variables. The concept of lifestyle is operationalized in this study using consumption styles, which are measured by consumption attitudes. The aim is to elucidate whether consumption attitudes (lifestyles) are connected to green consumption. Although consumption is just one expression of lifestyle, it should, according to postmodern theories, be the most dominant one (Miles, 1998) and, accordingly, green patterns of behaviour can be determined in terms of lifestyle.

The content of the survey was designed to canvas consumers' attitudes, choices and behaviour related to choice of shopping mall and purchases. Due to the focus of the present paper, only one area of the questionnaire was chosen. This section measured arguments related to consumption and shopping. Twenty-four items were included in the final analysis. The response categories were in a 5-point Likert-type format, anchored by 'totally disagree' (=1) and 'totally agree' (=5).

First, the correlations between four environment-related arguments were tested in order to make sure that interaction existed between the variables (Table 1). These arguments were 'The environmental friendliness (EF) of the product is an important choice criterion to me', 'It is all the same to me in which country the

product has been manufactured', 'I usually choose the organic food alternative even if it was more expensive than the conventional one', and 'Nowadays far too many unnecessary goods are bought'. As can be seen, statistically significant correlations – some even quite strong – do exist between all the variables except between the first and the second item. The country of origin and EF of the product did not correlate with each other. It seems that consumers do not perceive country of manufacture as an environment-related argument, while, on the other hand, there is a clear correlation with the arguments related to organic food and country of manufacture. Based on the results of the correlation analysis, the four items were accepted as relevant factors measuring consumers' commitment to environmental consumption decisions.

Figure 2 illustrates an index of the summated variables. The index was formed by calculating positive (response alternatives 4 and 5) accounts of each of the four statements presented above. The new scale measures environmental commitment, as it describes the division of respondents' attitudes towards green consumption choices. The scale indicating the level of commitment is created according to the original scale with slight changes. That is to say, the scale has been recoded so that scale item 1 indicating zero commitment to greenness (1 = totally disagree) has been incorporated into alternative 2 (disagree), and these accounts stand in the column 'low committed'. Respectively, scale item 5 (totally agree) has been incorporated into alternative 4 (agree) and labelled as 'highly committed' while the column 'partly committed' shows the percentual share of those between the two counterpoints.

The highest proportion of the respondents (63%) can be defined as partly committed on green issues when making purchase decisions. Twenty-five per cent of consumers represent a clearly more environmentally committed group of consumers, and this column includes the highest committed group (1%). With these data, the share of low-committed consumers turns out to be quite minor, only 12%, including the non-committed consumer group (1%).

We have hitherto depicted a picture of the level of green commitment. As the scope of the study is to find out the effect of both postmodern lifestyles and traditional socio-economic factors on green consumer behaviour, the analysis was broadened. In the coming section, different consumption styles were first created by conducting a multivariate analysis of different consumption-related attitudes. Twenty-four scale items were analysed with principal component analysis (PCA) to identify the underlying dimensions of shopping motives (Table 2). PCA – like factor analysis – is a multivariate statistical technique that is concerned with the identification of structure within a set of observed variables. The analysis involves the study of interrelationships among

Table 1 Correlations between four green-related consumer attitudes

		The EF of the product	Country of manufacture	I usually choose organic food	Unnecessary goods are bought
The EF of the product	Pearson	1	-0.012	0.471***	0.405***
Country of manufacture	Pearson		1	-0.083**	0.153***
I usually choose organic food	Pearson			1	0.237***
Unnecessary goods are bought	Pearson				1

** $P < 0.01$; *** $P < 0.001$.

Cronbach's alpha 0.5.

EF, environmental friendliness.

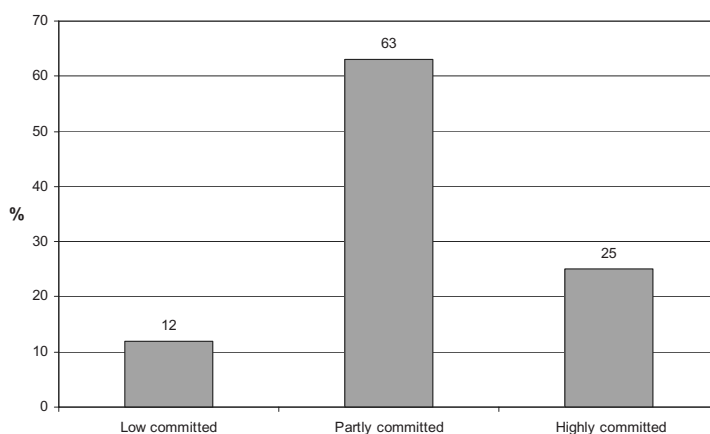


Figure 2 Level of commitment measured by green consumption attitudes (%).

Table 2 Consumer styles by principal component analysis

Variables	Standardized factor loadings						H ²
	Reluctant	Trendy	Quality	Price	Convenience	Conscious green	
Shopping is a waste of time	0.74						0.580
I avoid crowded places	0.54						0.303
I often do impulse shopping	-0.52						0.349
I am willing to make my home comfortable		0.68					0.500
I constantly look for new ideas and experiences		0.67					0.572
I am mostly a routine shopper		-0.56					0.552
I am a DIY-person		0.48					0.419
I follow time and trends		0.43					0.472
Product quality is more important than price			0.69				0.556
I appreciate personal service			0.66				0.559
Buying brands means buying quality			0.56				0.439
I regularly follow stores' advertisements				0.69			0.506
I compare prices carefully before I buy anything				0.56			0.505
Price level is more important than the service				0.52			0.524
New shopping malls are more attractive than city centres				0.52			0.416
Product demonstrations are interesting				0.51			0.428
Net store (www) is to be reckoned as an alternative to traditional shops					0.68		0.488
If I could get the goods in an alternative way I would not go shopping at all	0.576				0.59		
If the special boutiques were always open on Sundays I wouldn't shop so often in the stores					0.58		0.374
I prefer to pay for my purchases by bank/credit card	0.304				0.47		
Long distance does not matter if the store is good					0.29		0.301
I usually choose the organic food alternative even if it is more expensive than the conventional one						0.79	0.654
The EF of the product is an important choice criterion for me						0.66	0.594
It is all the same to me in which country the product has been manufactured						-0.65	0.480
Eigenvalue	2.09	1.99	1.93	1.89	1.81	1.74	
Variance explained (%)	8.7	8.3	8.1	7.9	7.5	7.3	47.7

Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.717; Bartlett's Test of Sphericity = 4529.155; d.f. = 276; sig. = 0.000. EF, environmental friendliness.

Table 3 Green commitment explained by parameter estimates (β) of variance model

	<i>n</i>	Main effects of the unadjusted parameters (β)	Model 1	Model 2	Model 3
Age class					
18–24	39	–0.24	–0.26		–0.25
25–34	199	–0.18	–0.21		–0.22
35–44	248	–0.22	–0.23		–0.04
45–54	356	–0.14	–0.13		–0.08
55–64	323	–0.05	–0.10		0.13
65+	316	0 (a)	0 (a)		0 (a)
F		5.23***	3.76**		2.76*
Education					
Primary	427	–0.04	–0.14		–0.12
Secondary	424	–0.12	–0.15		–0.17
Semi-higher	343	–0.14	–0.14		–0.12
University	287	0 (a)	0 (a)		0 (a)
F		3.69*	3.75*		4.07**
Household type					
Single households	473	0.09			
Couples without children	556	0.12			
Single-parent family	85	–0.01			
Couples with children	293	0 (a)			
F		3.08*	ns		ns
Consumer style: reluctant	F	93.58***		97.78***	73.43***
Consumer style: trendy		30.65***		33.55***	35.76***
Consumer style: quality		ns		ni	ni
Consumer style: price		6.76**		7.54**	4.04*
Consumer style: convenience		18.04***		19.94***	23.75***
R^2			2.7	11.0	13.9

* $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$.

0 (a) = redundant.

ni, not included; ns, not significant.

variables and the purpose is to find new variables fewer in number than the original variables. PCA is a data reduction technique and it aims at establishing dimensions that the original variables illustrate as hidden (Stewart, 1981).

A few items were excluded from the analysis because their communalities were under 30. Using the PCA method, six quite distinct factor dimensions were produced. These were labelled as 'Reluctant' (factor 1), 'Trendy' (factor 2), 'Quality' (factor 3), 'Price' (factor 4), 'Convenience' (factor 5) and 'Conscious green' (factor 6). The factors together explained 47.7% of the variance. The first factor, *reluctant*, refers to unwillingness to shop and consume since shopping is seen as a waste of time. The questions concerning trends, fashion and interior decoration were loaded into the second factor, *trendy*, and the third factor, *quality*, was composed around questions related to product quality and personal service. The fourth factor, *price*, was formed of five items representing consumers for whom buying cheap products and saving money is essential. This factor also contained arguments concerning shopping as an attractive activity. The factor, *convenience*, covered items such as shopping on the Internet and the preference of paying by credit card. These and the other three questions referred mostly to the ease and convenience of shopping. The sixth factor labelled as *conscious green* represents consumption guided by environmental and ethical aspects. All the variables of this factor clearly emphasized this dimension of consumption.

In the last phase, the study explored the dependencies that explain green commitment. This was done through the ANOVA.¹ Table 3 presents the results of ANOVA. In addition to the socio-economic variables, five consumption style-related explanatory items – factors 1–5 from the PCA analysis – were tested. The last factor, *conscious green*, was excluded from the model because it partly contained the same items as the dependent variable, level of commitment. The factor loadings were saved as factor scores and the explanation power of these dimensions was tested on the variance of the level of green commitment formed and described above in Fig. 2 and Table 2. The differences in effects between subjects were measured by a comparison of parameter estimates (β). At the bottom of the table, the shares of the total variances (100R²) are presented. Type of household and age were transformed into categorical variables in order to provide more information about the influence of each level.

Only three socio-economic variables turned out to be statistically significant in the final model: age, education and type of household, although the effect of other available variables, gender, monthly income and marital status was also tested. In the first column, the main effects of unadjusted parameter estimates are

¹ANOVA was conducted using the univariate technique of General Linear Model as an analysis method.

shown. Each item was tested separately. Then the model was built so that first, in model 1, the effect of socio-economic background variables was tested, next, in model 2, the effect of consumer styles was examined, and last, in model 3, all the independent variables were analysed together.

The most important observation that emerges from the ANOVA is that consumption/lifestyle variables explain very well green consumer commitment while socio-economic factors do not. In the first model, both age and education explained the level of greenness quite well, while type of household had no effect. Commitment to greenness decreases within younger age groups. Consumers less than 45 years of age are clearly less committed than the middle-aged, and, according to the analysis, it is the elderly consumers who appreciate greenness the most. According to Roberts (1996), elderly consumers were more committed to green issues and, in mid-life, the personal and social responsibilities peak. Middle-aged people are also more willing to give donations to charities, as their sense of commitment and responsibility increases. The level of education effects green attitudes in a similar manner to that reported in previous studies and a positive relationship exists between higher education and environmental concern.

Compared with models 2 and 3, the social background variables only moderately explained the variance of the first model, with just a 2.7% share. This is considerably less than the explanatory share of the second model where the effect of factors indicating consumer lifestyles is tested. These factors explained 11% of the variance; however, the third factor, *quality*, did not have any effect on the green involvement in the first main effect analysis, and therefore it was not included in model 2. On the other hand, the other factors had a statistically high significance level. When all the explanants are placed in the same model, the explained variance increases to 13.9%. The effect of education strengthens while age has only a minor effect. This can be interpreted as education having a stronger effect on green concern than age. In the case of consumer styles, reluctant, trendy and convenience styles were all statistically very significant explanants. The effect of factor four, *price*, had reduced slightly.

An important finding of this analysis is that consumption styles strongly affect the level of green commitment, although socio-economic background also had some effect on it. As a result, we can conclude that consumer styles in general seem to correspond with green consumer attitudes.

Discussion and conclusions

In this study, theories of postmodern consumer culture and green consumer behaviour have been discussed, and the effect of both socio-economic and different consumption styles have been analysed in the light of statistical data.

In the first part of the paper, we have pondered the question of what actually constitutes a green lifestyle, and how it should be brought into theoretical and empirical analysis. The attention of the theoretical discussion was focused on the applicability of postmodern consumption theories in a green consumption context. The aim was to discuss the environment–consumption relationship in the postmodern consumption sphere, and to investigate the role of lifestyles in the explanation of green behaviour.

Much of the sociological literature concerning consumer culture refers to the features of postmodernity, which emphasizes the expression of individuality via consumption. This is reflected, on the one hand, in the concept of choice and individual identity construction, and, on the other hand, in the concept of lifestyle. In Western societies and for Western consumers, the possibility of making choices is self-evident. However, it is worth keeping in mind that not all consumers have equal levels of consumption, nor do they have uniform capabilities and possibilities to make choices (Wilska, 2002; Mustonen and Honkanen, 2005). Lifestyle is thus not only influenced by choice but also connected to socio-economic factors, such as economic resources (Wilska, 2002). It can also be asked how 'free' the choices actually are, because social setting sets the framework for every choice.

On the basis of this research, it seems, however, that consumption styles representing lifestyle have a notable effect on green commitment, which was measured in this study by certain consumption-related attitudes. According to the empirical analysis, greenness is characterized by postmodern lifestyle features, because those elements had more influence on green commitment than socio-economic variables. Adapting Maffesoli's thoughts on new consumer tribes, it could be suggested that green consumer behaviour can be explained in a uniform set of consumption patterns (Maffesoli, 1996). In other words, green consumption decisions can be understood as striving for a green lifestyle, which is stable only in terms of a set of consumption styles. We cannot, however, ignore that consumption is a combination of different lifestyles, and other issues, such as demographic and social structures and material conditions, play an important role in determining it. The influence of both traditional background variables and lifestyle elements were thus examined using data that allowed the analysis of both factors.

It appeared that lifestyle-based factors were best able to explain the variance in green commitment measures of environmental behaviour. As expected, consumption styles had a major effect on green behaviour, while traditional measures of respondents' backgrounds did not clarify so well green purchase choices or consumption. This means that when it comes to green issues, individual consumption choices are influenced not only by socio-economic factors, but also by many other forces striving to affect consumers. Nonetheless, it is important to note that social background factors could explain a significant, if minor, amount of green commitment. It is worth keeping in mind also, that lifestyles and identity formation are not only a matter of choice or identity construction. For example, Wilska (2002) in her study has suggested that consumers do not always consciously create their identity via consumption, but factors other than consumption-based ones may lie in the background. Such factors are typically socio-economic and demographic variables. She also found evidence of the strong effect of socio-economic and demographic background variables on lifestyles.

One must also bear in mind that consumption choices are 'buried in the social goings-on of everyday life' (Lutzenhiser, 2002). Although many of the consumers of Western societies are aware of environmental problems and the impact that their own behaviour has on the environment, favouring green products at an attitudinal level is often an expression of going along with social norms, which govern the appropriate and expected ways in which things ought to be done in a culture.

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PAPER 4

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LEENA HAANPÄÄ

VIHREYDEN TAVOIT- TELUSTA TOTUNNAISIIN KULUTUSTAPOIHIN

Tarkastelen artikkelissa vuosituuhannen vaihteen nuorten näkemyksiä ympäristöongelmista, kuten heidän huolestumistaan ympäristön tilasta ja käsityksiään tieteen voimasta ratkaista näitä ongelmia. Pohdin myös nuorten kuluttajien suhtautumista ympäristövastuulliseen kulutukseen tarkastelemalla muun muassa sitä, miten valmiita he ovat muuttamaan omaa kulutuskäyttäytymistään suojellakseen ympäristöä ja kuinka aktiivisesti he itse toimivat ympäristön puolesta. Artikkelin aineistona käytetään Suomessa syksyllä 2000 kerättyä kyselytutkimusta, jossa selvitettiin vastaajien mielipiteitä ja ajatuksia ympäristöön liittyvistä asioista. Tutkimusaineisto on osa laajempaa kansainvälistä yhteiskuntatutkimusohjelmaa, jonka teemana ympäristö oli vuonna 2000 (International Social Survey Programme: environment II, 2000). Satunnaisotannalla valittujen 15–25-vuotiaiden nuorten lukumäärä on aineistossa 288 (tyttöjä/naisia 172, poikia/miehiä 116).

Termejä vihreä tai ympäristövastuullinen kulutus¹ käytetään usein hyvin vapaasti erilaisissa konteksteissa viittaamaan yhtäältä marginaalisiin, tiukan syvänvihreisiin aatteellisiin kulutustapoihin ja toisaalta – ja nykyisin yhä useammin – arkipäiväisiin kulutuskäytäntöihin, joiden osaksi ympäristöajattelu on tullut (Wagner 1997, 25–26; Autio & Wilska 2003, 4–5). Voidaankin väittää, että vihreä kuluttajuus, kuluttaja ja kulutuskäyttäytyminen näyttättyy paitsi

osana kulutuskuulttuurin moninaista kirjoa, myös retorisenä puhetapana, joka liittyy luontevaksi osaksi kuluttajien – niin nuorten kuin vanhempien ikäluokkien – rakentamaa identiteettiä.

Nuoret ja vihreän kuluttajuuden virstanpylväät

Länsimaissa nuoret kuluttajat on nähty omana erityisryhmänään jo 1950-luvulta alkaen (Wilska & Virtanen 2002, 87). Sen sijaan nuorten kuluttajien ympäristövastuullisuus on noussut kulutustutkimuksen omaksi alueeksi vasta viime vuosikymmenellä. Tämä johtuu ensisijaisesti siitä, että vihreä kulutus itsenäisenä kuluttajuuden muotona tai kulutusmotiivina on varsin uusi ilmiö. Kiinnostus ympäristönsuojelua kohtaan on virinnyt pääasiallisesti vasta 1960-luvulla. Usein ensimmäiseksi merkkipaaluksi mainitaan vuosi 1962, Rachel Carlssonin kirjan *Hiljainen Kevät* (Silent Spring) ilmestymisvuosi, jolloin ympäristöongelmat alkoivat hitaasti nousta suuren yleisön tietoisuuteen. 1960- ja 70-luvuilla ympäristöongelmien syinä nähtiin kuitenkin ensisijaisesti tuotanto, ei niinkään kulutus. 1970-luvulla kansalaisia puhuttivat etenkin maailmanlaajuinen energiakriisi (1973–1974) ja luonnonresurssien rajallisuus (Dunlap & Catton 1994, 7–9). Tutkimuksin alettiin kerätä tietoa myös ihmisten ympäristöasenteista ja ympäristöhuolen tasoista (mm. Kuisma 2001, 48). Koska kulutuksen ympäristövaikutuksia ei vielä varsinaisesti tutkittu, kuluttajuuden sosiaalisten rakenteiden piirteisiin ei kiinnitetty huomiota, puhumattakaan siitä, että nuorten näkemyksiä kulutuksen ja ympäristön suhteesta olisi tutkittu erillisesti. Historiallisesti tarkasteltuna ympäristövastuullisen kuluttajuuden juuret voidaan silti jossain määrin liittää nuoriin, sillä vihreyden ensimmäistä nousukautta 1970-luvulla edustivat pääosin nuorista koostuvat hippiliikkeet ja niiden myötävaikutuksesta syntyneet ensimmäiset ympäristöliikkeet.

1980-luvulla talouden nousukauden myötä ympäristöasiat jäivät hieman taka-alalle, kun

valtaosin nuorten ja nuorten aikuisten juppi-kulttuuri vahvisti kansallista kulutusmielialaa yhä materialistisemmaksi (Wilksa & Eresmaa 2001). Kun 70-luvulla kansalaisia askarruttivat puheet kasvun rajoista², 1980-luvulla kulutusta leimasi pikemminkin loputtoman kasvun ja vaurauden tavoittelu. Kyseinen vuosikymmen nähdäänkin kulutuksen kultakautena: vaikka kansalaisten ympäristötietoisuus kasvoi, ei kovien taloudellisten ja pehmeiden ekologisten arvojen yhteensovittaminen ollut ristiriidaton. Suomalaisten ympäristöasenteet vuonna 1986 osoittivat erilaisten arvomaailmojen kädenväännön. Yhtäältä luonnon ja ympäristön tila arvioitiin pikemminkin hyväksi (50 %) kuin huonoksi (30 %), mutta toisaalta ihmiset olivat lisääntyvässä määrin huolissaan ympäristön tilasta (Haikonen & Kiljunen 2003, 170).

Huoli ympäristön tilasta on yhä edelleen lisääntynyt; se kuuluu eittämättä tutkimuksen tärkeimpiin sanomiin. Huomion kiinnittäminen ympäristöpolitiikkaan ei ole enää mikään vihreän liikkeen osa- tai rinnakkaisilmiö. Se näyttää laajojen kansalaispiirien mielissä olevan vahva yhteiskuntapolitiittinen asenne, johon on kiinnitettävä jatkuvaa huomiota. (Haikonen & Kiljunen 2003, 168.)

1990-luvulle tultaessa uusi lama koetteli maailmantaloutta, joka heijastui kulutukseen ja ihmisten asenteisiin ympäristöä kohtaan. Asenneilmasto Suomessa muuttui 90-luvulla edelliseen vuosikymmeneen verrattuna ympäristöä kohtaan suotuisammaksi. Esimerkiksi tiedusteltaessa kansalaisilta heidän valmiuttaan tinkiä omista eduistaan ympäristön hyväksi, oli suopeus suurimmillaan (75 %) lamavuonna 1992 (Haikonen & Kiljunen 2003, 177). Toisaalta kuluttajien asenteisiin myötävaikuttii myös lisääntynyt tietoisuus ympäristöongelmien laajuudesta yleensä ja erityisesti kulutuksen merkityksestä ympäristöongelmien tuottajana. Vihreys jalkautui siis vähitellen kolmen vuosikymmenen aikana suomalaiseseen yhteiskuntaan. Varsinaisen vihreän kuluttajuuden syntyä kuluttajuuden erillisenä (tutkimus)kategoriana voi-

daan asemoida vasta viime vuosikymmenelle.

Nuorten kuluttajien mielipiteet ja käsitykset ympäristöasioista ovat nousseet tutkimuskohteiksi vasta 90-luvulla. Tosin ensimmäisten tutkimusten päämääränä oli vihreiden kuluttajien segmentoiminen, profiloiminen markkinointia varten, jolloin iästä tuli yksi keskeinen luokitteluperuste (ks. esim. Roberts 1996). Ensisijaista ei ollut siis hankkia tietoa niinkään siitä, mitä kulutuksen ympäristövastuullisuus nuorille merkitsi tai miten se ilmeni, vaan puhtaasti tyyppitelä kuluttajat eri kategorioihin.

Nuoret kulutusmentaliteettien ristiaallokossa

Yleinen käsitys liittii nuoret kuluttajat tavallisesti kahteen toisilleen osin ristiriitaiseen kulutusmentaliteettiin. Yhtäältä nuoria pidetään valveutuneina vihreinä kuluttajina, aktiivisina ja tiedostavina kansalaisina, jotka kantavat vastuuta kulutuksensa aikaansaamista ympäristövaikutuksista. Toisaalta nuoret kuluttajat mielletään itsekeskeisiksi materialisteiksi, joiden elämäntavat liittyvät hedonistiseen, nautinnonhakuiseen kulutukseen ja teknologiahuumaan (Autio & Heinonen 2004; Saarinen 2001, 46–56; Wilksa 2002, 205–207; Saarikoski 2003). Nuorten aikuisten oletetaan olevan ”kulutuskulttuurisesti aktiivisimmassa iässä” (Mäenpää 2003, 129). Nuoret ja nuoret aikuiset ovat siis sosiaalistuneet korkean kulutuksen yhteiskuntaan, jossa niin materialistiset kuin eettiset näkökulmat vaikuttavat heidän kulutuspäätöksiinsä (Autio & Heinonen 2004, 140). Koska nuoret ovat lisäksi arvomaailmaltaan ja kulttuurisilta asenteiltaan aikuisväestöä hajautuneempi ryhmitys, ei ole ihme, että kulutusyhteiskunta tavoittelee nuorisoa monelta suunnalta (Mäenpää 2003, 131).

Tämän tutkimuksen aineistona olevat nuoret ja nuoret aikuiset olivat kyselyn keräämisajankohtana 15–25-vuotiaita. Se merkitsee sitä, että koko vastaajajoukko on syntynyt aikana, jolloin ympäristöasiat ja luonnonsuojelu ovat yhteiskunnallistuneet: luonnonsuojelusta on

tullut yksi keskusteluareena ja se on käsitteellistetty (Kuisma 2001, 77). Nuoret ovat kasvaneet yhteiskunnassa, jossa ympäristöasiat ovat olleet jatkuvasti enemmän tai vähemmän pinnalla. Voidaankin väittää vihreän kuluttajuuden olevan nuorille siinä määrin arkipäiväistynyt asia, että lähes kaikki tietävät jotain ympäristöongelmista ja niiden tuottajista, vaikkakaan eivät välttämättä ota niitä huomioon omassa kulutuksessaan ja kulutuskäyttäytymisessään.

Taulukko 1 käsittelee nuorten asenteita ja mielipiteitä ympäristöasioista. Taulukkoon on koottu yhteen tämän artikkelin sisällölliset teemat, jotka on muodostettu kyselylomakkeen eri osioista. Tulokset esitetään ensin tutkimusjoukon, 15–25-vuotiaiden nuorten, keskimääräisinä mielipiteinä ympäristöasioita kohtaan, jotta saadaan yhtenäinen kuva mielipiteiden jakautumisesta koko aineiston sekä sukupuolen mukaan asteikolla 1–5 (1 = täysin eri mieltä/erittäin haluton, 5 = täysin samaa mieltä/erittäin halukas) tai 1–4 (1 = en koskaan, 4 = aina). Kutakin osa-aluetta tarkastellaan myöhemmin tarkemmin ristiintaulukoimalla ympäristöväittämät. Taulukosta 1 näkee, että enemmistö nuorista suhtautuu – ainakin asenteellisella tasolla – myönteisesti ympäristöasioihin. Myös sukupuolittaista eroa mielipiteissä on havaittavissa: tyttöjen ja nuorten naisten keskiarvot poikkeavat koko aineiston keskiarvoista kaikissa teema-alueissa ympäristön kannalta positiivisempaan suuntaan. Kaikissa väittämässä sukupuolten väliset erot eivät olleet kuitenkaan tilastollisesti merkitseviä. Silloin, kun sukupuoli selittää eroja, on keskiarvo esitetty lihavoituna.

Vastaajat tunsivat melko selkeästi huolta ympäristön tilasta: keskiarvot osoittavat, että nuorten mielestä ympäristöongelmia ei liioitella vaan pikemminkin päinvastoin. Tämä tulos on samansuuntainen Minna Aution ja Terhi-Anna Wilskan (2003, 8) tutkimuksen kanssa, jonka mukaan 16–20-vuotiaat nuoret eivät pitäneet ympäristöongelmia liioiteltuina. Kysytessä nuorten mielipidettä väitteelle ”Melkein kaikki nykyisessä elämäntavassamme vahingoit-

taa luontoa ja elinympäristöämme”, keskiarvo (ka.) lähenee samaa mieltä olevien suuntaa (ka. 3,41). Tytöt olivat jonkin verran enemmän huolissaan ympäristöstä kuin pojat.

Tieteen, talouden ja ympäristöongelmien välistä suhdetta tarkasteltaessa havaitaan, että kyselyyn osallistuneiden nuorten mielestä kaksi ensin mainittua ympäristöongelmien ratkaisukeinoa eivät ole riittävät. Väitteen ”Nykyaikainen tiede ratkaisee ympäristöongelmat ilman että elämäntapamme muuttuu juuri lainkaan” osalta keskiarvo lähenee eri mieltä olevaa vaihtoehtoa (2,14). Aiemmissä tutkimuksissa on tullut ilmi poikien teknologiamyönteisyys (ks. Autio & Wilska 2003, 10–11).

Tässä aineistossa ei tutkittu teknologiaa, mutta poikien tyttöjä myönteisempi suhtautuminen (ka. 2,35) tieteen tarjoamiin ympäristöongelmien ratkaisumahdollisuuksiin antaa viitteitä sukupuolten erilaisista orientaatioista ratkaisumalleja kohtaan. Nuorten enemmistön mielestä ympäristönsuojelu ei edellytä talouskasvua (ka. 2,46), mutta Suomen talouskasvun uskottiin hidastuvan, jollei ympäristöä hoideta (ka. 3,19). Toisin sanoen nuoret ovat keskimääräisesti tarkasteltuna sitä mieltä, että talouskasvu on riippuvainen ympäristöstä eikä päinvastoin. Nuorten näkemykset eivät siis ole yhdenmukaiset yleisen, julkisen näkemyksen kanssa, joka pitää talouskasvua hyvinvointiyhteiskunnan perusedellytyksenä. Vallitseva näkemys olettaa myös, että kulutuksen lisäys lisää hyvinvointia (Tulokas 2002, 29). Kuten survey-kyseilyssä yleensä, myös tässä tutkimuksessa tulkin-tojen tekeminen asenteellisista keskiarvoista on spekulatiivista. Voidaan kuitenkin olettaa, että hyvinvointiyhteiskunnan nuoret ymmärtävät jossain määrin myös näiden kysymysten taustalla olevia vaikuttimia ja niiden merkitystä heidän omalle hyvinvoinnilleen. Hyvinvointiyhteiskuntaan liittyy paitsi talouskasvu, myös hyvinvoiva ja puhdas elinympäristö, joka tarjoaa kansalaisille mahdollisuudet virkistäytymiseen ja liikumiseen.

Taulukko 1. Nuorten mielipiteitä ympäristökysymyksistä.

	Kaikki	Pojat	Tytöt	KH
Huoli ympäristöstä*				
Liika huoli ympäristön tulevaisuudesta	2,52	2,49	2,54	1,08
Nykyinen elintapamme vahingoittaa ympäristöä	3,41	3,14	3,60	,98
Liika huoli ihmiskunnan kehityksen aiheuttamista ympäristöongelmista	2,11	2,45	2,00	,93
Monet väitteet ympäristöuhkista liioiteltuja	2,12	2,29	1,91	,94
Tiede, talous ja ympäristö				
Tiede ratkaisee ympäristöongelmat	2,14	2,35	2,00	,97
Ympäristönsuojelu edellyttää talouskasvua	2,46	2,58	2,37	1,03
Talouskasvu vahingoittaa aina ympäristöä	2,83	2,51	3,06	1,09
Talouskasvu hidastuu, jollei ympäristöä hoideta	3,19	2,98	3,35	,92
Maapallo ei kestä väestönkasvua	3,99	4,02	3,97	1,03
Vihreät kulutusasetteet				
Vaikeus toimia ympäristön hyväksi	2,10	2,37	1,92	,90
Teen minkä voin ympäristön puolesta	3,16	3,05	3,24	,82
Tärkeämpiäkin asioita kuin ympäristönsuojelu	3,09	3,39	2,88	1,00
Ei kannata toimia yksin ympäristön puolesta	2,15	2,31	2,04	,97
Halukkuus maksaa korkeampia hintoja**	2,76	2,63	2,85	1,00
Halukkuus maksaa korkeampia veroja	2,28	2,11	2,39	1,00
Halukkuus tinkiä elintasosta	3,17	2,84	3,38	,99
Käytännön ympäristötoimet***				
Kierrätän lasia	3,28	3,30	3,27	,94
Kierrätän tölkkejä	3,02	2,96	3,06	1,02
Kierrätän sanomalehtiä	3,60	3,39	3,74	,80

Jo aiemmissa tutkimuksissa on tullut esiin myös se, että maailmanlaajuiset ympäristöongelmat koskettavat koko väestöä enemmän kuin paikalliset tai kansallisen tason ongelmat (esim. Tulokas 2002, 67). Näin oli myös tässä tutkimuksessa, sillä erityisen selvästi nuoret tunsivat huolta nykyisestä väestönkasvusta, vastausten keskiarvo oli 3,99. Skeptinen päätelmä tästä olisi, että on helpompi olla huolissaan kaukaisista ja oman suoran toiminnan vaikutusten ulottumattomissa olevista ongelmista kuin sellaisista, joihin omalla käyttäytymisellään voisi vaikuttaa. On kuitenkin todettava, että medialla on suuri merkitys myös ympäristöongelmien esiin nostajana. Globaaleja ympäristöongelmia käsitellään joukkoviestimissä selvästi useammin kuin arkipäivän elämään liittyviä kysymyksiä. Kun media maalailee uhkakuvia vaikkapa väestönkasvuun ja ympäristökatastrofeihin liittyvistä ongelmista ja niiden seurauksista, on selvää, että asenteellinen huoli juuri tällaisia asioita kohtaan kasvaa.

Kun tarkastellaan nuorten ja nuorten aikuisten suhtautumista kulutusta koskeviin väittämiin, havaitaan, että tämän tutkimusaineiston nuoria voidaan luonnehtia asenteiltaan jossain määrin ympäristövastuullisiksi. Aineistosta selviää, että niin kauan kuin kyse on puhtaasti asenteista, suhtautuminen on melko positiivista, mutta kun mukaan tarkasteluun tuodaan elintaso käytännön tasolla leikkaavia tai muuttavia toimia, ei halukkuutta löydy samassa määrin. Lisäksi keskiarvoista nähdään, että pojat ovat keskimäärin hieman haluttomampia toimimaan ympäristön hyväksi kuin tytöt. Pojat ja nuoret miehet kokevat yksilön vaikutusmahdollisuudet pienemmiksi kuin tytöt ja nuoret naiset. Pojat (ka. 2,37) suhtautuvat myönteisemmin väitteeseen ”Minun kaltaiseni ihmisen on kerta kaikkiaan liian vaikeaa tehdä juuri mitään ympäristön hyväksi” kuin tytöt (ka. 1,92). Vielä selvemmin erot korostuvat kysyttäessä ympäristönsuojelun ja muiden elämänalueiden tärkeyttä, ”Elämässä on tärkeämpiäkin asioita kuin ympäristönsuojelu”. Poikien vastauksissa kes-

kiarvot (3,39) asettuivat selvästi ylempään kuin tyttöjen (2,88). Nuoret eivät ole kovin halukkaita maksamaan korkeampia hintoja tai veroja, molemmissa koko vastaajajoukon keskiarvot jäivät alle kolmen. Haluttomuutta rahallisiin uhrauksiin selittää osaltaan se, että nuorten tulotaso ei ole niin korkea kuin muiden ikäluokkien. Sen sijaan nuoret näyttäisivät olevan hieman halukkaampia tinkimään elintasoistaan. Koko aineiston keskiarvo oli 3,17 ja etenkin tytöt ovat halukkaita alentamaan omaa elintasoaan ympäristön hyväksi (3,38).

Viimeiset kolme väittämää taulukossa 1 selvittävät sitä, kuinka aktiivisesti nuoret osallistuvat kierrätykseen. Tämä käytännön tapa toimia ympäristövastuullisesti näyttäisi vakiinnuttaneen asemansa osaksi nuorten arkista kulutuskäyttäytymistä. Nuoret kierrättävät sekä lasia, juomatölkkejä että sanomalehtiä vähintään usein, sanomalehtien osalta keskiarvo (3,60) lähenei vaihtoehtoa ”aina”. Etenkin tytöt kierrättivät sanomalehdet lähes aina.

Nuoret ja huoli ympäristöstä

Tilastokeskuksen vuoden 2002 tutkimuksen mukaan nuoret uskoivat ympäristön tilan heikenevän tulevaisuudessa (Tulokas 2002, 17). Sama tutkimus osoittaa myös, että 15–24-vuotiaiden nuorten huolestuneisuus ympäristöstä on hyvin sukupuolittunutta. Tämä tarkoittaa sitä, että tytöt ovat selvästi poikia enemmän huolissaan monista ympäristöä uhkaavista tekijöistä, kuten luonnon monimuotoisuuden häviämisestä sekä ympäristön kuormituksesta ja sen vaikutuksesta ihmisten hyvinvointiin (emt., 50). Seuraavissa taulukoissa (ks. taulukot 2–4) sukupuolten välisiä eroja tarkastellaan vertailemalla mielipiteiden jakautumista prosentuaalisiin osuuksiin. Viisiasteikkoiset vastausvaihtoehdot on tiivistetty kolmeen.³

Taulukosta 2 nähdään, että suurin osa vastaajista, 58 %, on enemmän huolissaan ympäristön tulevaisuudesta kuin nykyisestä hintatasosta tai työpaikkojen riittävydestä, joihin ympäristöhuolta väitteessä verrattiin. Toisaalta su-

kupuolten välillä ei ollut eroa, vaan tulevaisuuden ympäristön tilasta kantavat yhtäläisesti huolta sekä tytöt että pojat.

Sen sijaan tytöt tunsivat poikia enemmän huolta siitä, että ihmiskunnan nykyisestä kehityksestä on haittaa ympäristölle. Väitteen kans-

sa eri mieltä olevien tyttöjen osuus oli 76 %, kun poikien vastaava luku oli 65. Nuorista vain 10 %a asettui väitteen taakse, eli tunsii, että yhteiskunnassamme kannetaan liikaa huolta kehityksen vaikutuksista ympäristöön.

Sukupuolten väliset huolestuneisuuden erot

Taulukko 2. Nuorten huolestuneisuus ympäristöongelmista.

Olemme liian huolissamme ympäristön tulevaisuudesta mutta kannamme liian vähän huolta tämän päivän hintatasosta ja työpaikkojen riittävydestä?			p>0,05
	Kaikki	Tytöt	Pojat
	n=283	n=170	n=113
Eri mieltä	58	56	60
Ei samaa eikä eri mieltä, ei osaa sanoa	21	22	21
Samaa mieltä	21	22	19
Olemme liian huolissamme siitä, että ihmiskunnan kehitys vahingoittaa ympäristöä.			p<0,6
	n=283	n=170	n=113
Eri mieltä	72	76	65
Ei samaa eikä eri mieltä, ei osaa sanoa	18	17	20
Samaa mieltä	10	7	15
Nykyinen elintapamme vahingoittaa luontoa.			p<0,001
	n=283	n=170	n=113
Eri mieltä	23	18	32
Ei samaa eikä eri mieltä, ei osaa sanoa	21	16	26
Samaa mieltä	56	66	42
Monet väitteet ympäristöuhkista ovat lioiteltuja.			p<0,001
	n=282	n=169	n=113
Eri mieltä	68	75	58
Ei samaa eikä eri mieltä, ei osaa sanoa	24	22	28
Samaa mieltä	8	3	14

tulivat selvästi esiin nuorten mielipiteissä elintavan vaikutuksista luonnonympäristöön. Kaikista nuorista 56 % allekirjoitti väitteen, että nykyiset elintapamme vahingoittavat luontoa. Tytöistä kaksi kolmannesta (66 %) oli väitteen kanssa samaa mieltä, kun taas pojista vain 42 %.

Tyttöjen ja poikien välinen asennoitumisero ympäristöuhkiin oli ilmeinen. Tytöistä 75 %, mutta pojista 58 % oli sitä mieltä, etteivät väitteet ympäristöuhkista ole liioiteltuja. Tytöt siis suhtautuvat ympäristöuhkien mahdollisuuteen vakavammin kuin pojat, vaikka toisaalta suurin osa pojistakin koki uhat todellisina. Yli puolet tytöistä (59 %) piti myös mahdollisena sitä, että seuraavan viiden vuoden aikana jonkin ydinvoimalaonnettomuuden seurauksena syntyy useihin maihin ulottuvia pitkäaikaisia ympäristövahinkoja. Pojilla vastaava luku oli vain 27 %. Lisäksi tytöistä 60 %, mutta pojista vain 30 %, piti ydinvoimaloita vaarallisina ympäristölle.

Tieteen mahti ja teknologian voima

Vaikka talouskasvu nähdään hyvinvoinnin lähteenä, suhtautuminen ympäristökysymysten ja talouskasvun suhteeseen ei ole ongelmattonta. Teknologian ja talouskasvun voi parhaimmillaan odottaa tarjoavan ratkaisuja ympäristöongelmiin, toisaalta jatkuva kasvu asettaa kapuloita kestäväen kehitykseen rattaisiin (Tulokas 2002, 10). Tilastokeskuksen vuoden 2000 tutkimuksen mukaan vastaajista lähes puolet (45 %) arvioi, että tiede ja tekniikka ratkaisevat tulevaisuudessa ympäristöongelmat, kun taas eri mieltä olevien osuus oli 51 % (emt., 68).

Talouden, tieteen ja ympäristökysymysten ympärillä käytävä keskustelu heijastuu myös nuorten kansalaisten asenteisiin. Aution ja Wilskan tutkimus (2003, 10–11) osoitti, että poikien vihreys ilmenee lähinnä teknologiaoptimismina: yli 70 % tutkimuksen pojista, mutta vain hieman yli 40 % tytöistä, uskoi teknologian mahdollisuuksiin. Tässä aineistossa tyttöjen ja poikien asenteet eivät eronneet tilastollisesti toisistaan. Nuorista selkeä enemmistö (66 %) oli esitetyn väitteen, ”Tiede ratkaisee ympäristö-

ongelmat”, kanssa eri mieltä (ks. taulukko 3).

Nuorten suhtautuminen ympäristön ja talouskasvun väliseen suhteeseen ei ole yksiselitteinen. Nuorten enemmistö ei pidä talouskasvua ympäristönsuojelun edellytyksenä, mutta yli kolmannes vastaajista ei ollut varsinaisesti puolesta eikä vastaan. Vielä vaikeampi nuorten oli muodostaa mielipidettä ympäristön hyvinvoinnin vaikutuksista talouteen, 37 % nuorista ei ollut väitteen ”Talouskasvu vahingoittaa aina ympäristöä” puolella eikä vastaan. Etenkin tyttöjen (42 %) oli vaikea sanoa mielipidettään kyseisestä väitteestä, kun taas pojista selkeä enemmistö (51 %) oli eri mieltä.

Pojista puolet ja tytöistäkin 46 % vastusti väitettä, jonka mukaan ympäristönsuojelu edellyttää Suomen talouden kasvua. Tämä viittaa ehkä siihen, että nuoret asettavat ympäristön- ja luonnonsuojelun talouskasvusta riippumattomaksi asiaksi. Kaiken kaikkiaan tytöt suhtautuvat poikia pessimistisemmin talouskasvuun. 33 % tytöistä uskoi talouskasvun vahingoittavan ympäristöä, pojista vain 18 %. Nuorten oli selvästi vaikea asennoitua taulukon viimeiseen väitteeseen, sillä yli puolet (55 %) ei osannut sanoa mielipidettään. Etenkin tytöille (62 %) talouskasvun ja ympäristön keskinäiset suhteet tuntuivat vieraalta, mutta pojat asettuivat hieman selkeämmin väitteen puolesta (27 %) tai vastaan (29 %) ollen jonkin verran optimistisempiä talouskasvun suhteen.

Nuorista vastuullisia kuluttajia ja aktiivisia kansalaisia?

Monien tutkimusten mukaan vanhemmat ikäluokat suhtautuvat nuoria myönteisemmin vihreään kuluttajuuteen (Wilska 2002, 207; Haanpää 2005, 44). Esimerkiksi erään brittiläistutkimuksen mukaan vanhemmat ihmiset kierrättävät nuoria enemmän jätteitä (Diamantopoulos ym. 2003, 475). Samoin vanhemmat ikäluokat (yli 45-vuotiaat) pitävät tuotteen ympäristöystävällisyyttä nuorempia selvästi tärkeämpänä tuotteen valintakriteerinä (Haanpää 2005, 44). Selityksenä tähän on tarjottu muun muassa sitä,

että keski-ikässä ja sitä myöhemmin korostuvat moraalisen toiminnan arvot. Vaikka nuoriso mielletäänkin tärkeään rooliin nykyisen kulutus-kulttuurin suunnannäyttäjänä (Mäenpää 2003, 128), nuorten vihreä kulutus ei yhdisty tähän linjaan. Vaikuttaa pikemminkin siltä, että vanhemmat ikäpolvet ovat vihreän kulutuksen saralla suunnannäyttäjiä. Tässä suhteessa nuorilla

on siis vielä opittavaa ja omaksuttavaa vanhemmiltaan.

Näyttäisi kuitenkin siltä, että ympäristövas-tuullisuus lisääntyy jo nuortenkin joukossa. Tämä selviää, kun nuoret jaetaan ikäryhmiin. Taulukossa 4 vastaajajoukko on jaettu kahteen ikäryhmään, 15–19- ja 20–25-vuotiaisiin, ja lisäksi asenteita tarkastellaan sukupuolittain. Suh-

Taulukko 3. Nuorten suhtautuminen tieteen ja talouden ympäristövaikutuksiin.

Tiede ratkaisee ympäristöongelmat			p>0,05
	Kaikki	Tytöt	Pojat
	n=282	n=169	n=113
Eri mieltä	66	70	58
Ei samaa eikä eri mieltä, ei osaa sanoa	24	21	30
Samaa mieltä	10	9	12
Ympäristönsuojelu edellyttää Suomelta talouskasvua			p<0,001
	n=281	n=168	n=113
Eri mieltä	48	46	49
Ei samaa eikä eri mieltä, ei osaa sanoa	37	44	26
Samaa mieltä	15	10	25
Talouskasvu vahingoittaa aina ympäristöä			p<0,001
	n=279	n=168	n=111
Eri mieltä	36	25	51
Esm, eos	37	42	31
Samaa mieltä	27	33	18
Suomen talouskasvu hidastuu ellemmme huolehdi ympäristöstä			p<0,001
	n=282	n=168	n=114
Eri mieltä	17	9	29
Ei samaa eikä eri mieltä, ei osaa sanoa	55	62	44
Samaa mieltä	8	3	14

tautuminen yksilön vaikutusmahdollisuuksiin muuttuu poikien kahden ikäluokan välillä merkittävästi. Väitteen ”Minun kaltaiseni ihmisen on vaikea tehdä mitään ympäristön hyväksi” kanssa eri mieltä 15–19-vuotiaista pojista on 55 %, mutta 20–25-vuotiaiden joukossa erimielisyys on kasvanut lähes viidenneksellä, 74 %:iin. Muutos tyttöjen eri ikäluokissa ei ole niin selvä, sillä he uskovat kaiken kaikkiaan omiin vaikutusmahdollisuuksiinsa poikia enemmän. Muutos näiden ikäluokkien välillä oli 80:stä 85 %:iin. Kysyttäessä nuorilta mielipidettä väitteeseen ”Teen mikä on oikein ympäristön kannalta, vaikka se maksaa enemmän ja vie enemmän aikaa”, 34 % ilmoitti olevansa samaa mieltä. Sukupuolella tai iällä ei ollut merkitystä.

Se, että osa ihmisistä on ympäristöasioissa vain vapaamatkustajia – hyötyvät muiden ympäristövastuullisesta toiminnasta, vaikka itse eivät siten toimi – ei näyttäisi nuoria haittaavan, sillä 78 % tytöistä ja pojistakin 68 % piti yksilön omaa ympäristön huomioon ottavaa toimintaa järkevänä, vaikka muut ihmiset eivät toimisi samoin. On kuitenkin selvää, että vapaamatkustajuus on kulutuksen vihertymiskehitykselle ongelmallinen tekijä. Yhteisen hyvän ja oman välittömän hyödyn välillä on ristiriita, joka heijastuu toteutuneeseen käyttäytymiseen. Osa nuorista haluaisi ehkä toimia vastuullisemmin, mutta koska kaikki kuluttajat eivät ole valmiita

Taulukko 4. Vihreät kulutusasenteet ikäluokan ja sukupuolen mukaan.

Minun kaltaiseni ihmisen on vaikea tehdä mitään ympäristön hyväksi.				p<0,01
	15–19-v. pojat	15–19-v. tytöt	20–25-v. miehet	20–25-v. naiset
	n=51	n=88	n=62	n=81
Eri mieltä	55	80	74	85
Ei samaa eikä eri mieltä, ei osaa sanoa	22	15	11	11
Samaa mieltä	23	5	15	4
Elämässä on tärkeämpiäkin asioita kuin ympäristönsuojelu.				p<0,01
	n=51	n=88	n=62	n=81
Eri mieltä	18	34	24	37
Ei samaa eikä eri mieltä, ei osaa sanoa	25	38	26	37
Samaa mieltä	57	28	50	26
Halukkuus tinkiä elintasosta ympäristön suojelemiseksi				p<0,001
	n=51	n=88	n=62	n=81
Haluton	45	19	32	15
Ei haluton eikä halukas, ei osaa sanoa	29	37	39	28
Halukas	26	44	29	57

Taulukko 5. Vihreät kulutusasetteet asuinpaikan mukaan.

Minun kaltaiseni ihmisen on vaikea tehdä mitään ympäristön hyväksi.	p<0,05			
	Kaupungin keskusta	Esikaupunki, lähiö	Kuntakeskus, taajama	Maaseutu, haja-asutus-alue
	n=60	n=138	n=55	n=29
Eri mieltä	80	78	71	62
Ei samaa eikä eri mieltä, ei osaa sanoa	10	17	13	14
Samaa mieltä	10	5	16	24
Halukkuus maksaa korkeampia hintoja ympäristön suojelemiseksi	p<0,05			
	n=59	n=137	n=55	n=29
Haluton	52	39	47	45
Ei haluton eikä halukas, ei osaa sanoa	14	31	38	41
Halukas	34	30	15	14

muuttamaan kulutustapojaan, eivät myöskään nämä nuoret halua vapaaehtoisesti lähteä muuttamaan arkipäivän rutinejaan ympäristövastuullisempaan suuntaan (vrt. Georg 1998, 456).

On huomattava, että poikien ikäryhmissä vähintään puolet pitää muita asioita ympäristöasioita tärkeämpänä, vaikka ympäristönsuojelu vahvistaa asemiaan iän karttuessa. Kannatus kasvaa poikien joukossa kuudella prosentilla siirtyessä vanhempaan ikäluokkaan (24 %). Tyttöjen väliset erot eivät sen sijaan ole huomattavat, ja molemmissa ikäjoukoissa kolmannes pitää ympäristönsuojeluun liittyviä asioita tärkeimpien elämään liittyvien asioiden alueena.

Taulukossa 5 tarkastellaan vihreää kuluttajuutta asuinpaikan mukaan. Kaupunkinuoret ovat asenteiltaan haja-asutusalueiden nuoriin verrattuna jossain määrin vihreämpiä. Ensimmäinen väittäminen osoittaa, että mitä kauemmas kaupunkikeskustoista liikutaan, sitä vähäisemmäksi sitoutuminen vihreyteen käy. Kaupunki-

laisnuoret (80 %) ovat selkeästi optimistisempia omien vaikutusmahdollisuuksiensa suhteen kuin haja-asutusalueiden tai maaseudun nuoret (62 %). Kyse voi olla siitä, että maaseudun nuoret kokevat luonnon itseisarvona, joka on ja pysyy. Luonto, metsät ja pellot ovat osa maaseudun nuorten elämää toisin kuin kaupunkilaisnuorilla, jotka luonnonhelmaan halutessaan joutuvat menemään usein kauaskin sinne päätäkseen. Voi olla, että tästä johtuen maaseudulla asuvat nuoret kuluttajat eivät kaupunkilaisnuorten tapaan niin voimakkaasti kiinnitä huomiota suhtautumiseensa.

Toisaalta, kun tarkastellaan halukkuutta taloudelliseen uhraukseen ympäristön hyväksi, asetelma muuttuu. On ensinnäkin huomattava, että riippumatta asuinpaikasta nuorten enemmistö ei ole valmis omakohtaiseen panostukseen. Nyt haluttomimpia ovat nuoret kuluttajat kaupunkikeskustoissa (52 %). Toisaalta ekologista minäkuvaa ylläpitävät myös kaupun-

Taulukko 6. Auton käytön rajoittamisen suhde kulutusasenteisiin.

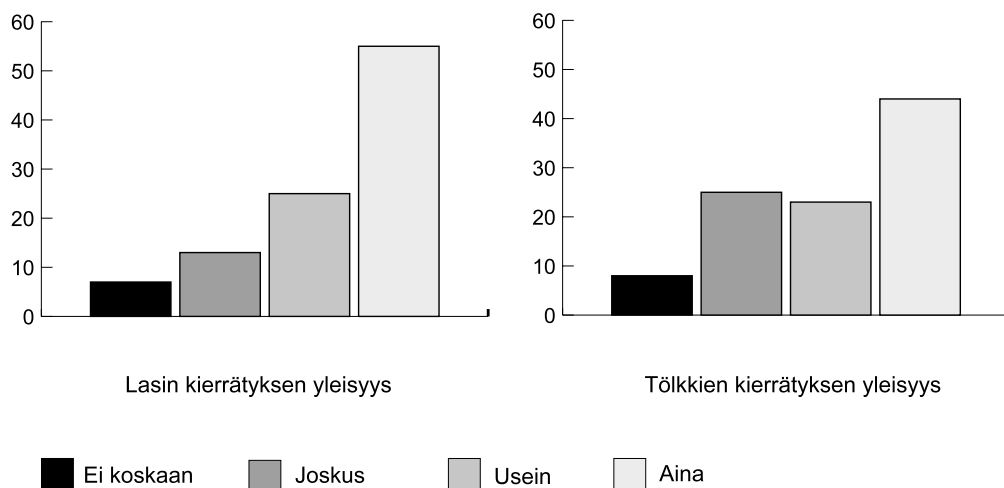
	Rajoitan auton käyttöä ympäristösyistä		
	Ei koskaan	Joskus	Usein/aina
Teen, minkä voin ympäristön puolesta. (p<0,05)	n=61	n=70	n=21
Eri mieltä	28	20	14
Ei samaa eikä eri mieltä, ei osaa sanoa	44	41	19
Samaa mieltä	28	39	67
Minun kaltaiseni ihmisen on vaikea tehdä mitään ympäristön hyväksi. (p<0,05)	n=61	n=70	n=21
Eri mieltä	60	79	86
Ei samaa eikä eri mieltä, ei osaa sanoa	20	15	9
Samaa mieltä	20	6	5
Halukkuus tinkiä elintasosta ympäristön suojelemiseksi (p<0,01)	n=61	n=70	n=21
Haluton	39	17	10
Ei haluton eikä halukas, ei osaa sanoa	33	33	19
Halukas	28	49	71

kilaisnuoret, 34 % keskustassa asuvista, mutta vain 14 % maaseudun nuorista on halukkaampia maksamaan ympäristön suojelemiseksi korkeampia hintoja.

Aineiston nuorista ajokortin omisti hieman yli puolet, 54 %. Heistä lähes yhdeksän kymmenestä (87 %) ei kokenut tarpeelliseksi rajoittaa auton käyttöä ympäristösyistä. Sukupuolella ei ollut merkittävää vaikutusta eroihin. Haluttomuus yksityisautoilun rajoittamiseen osoittaa, kuinka ristiriitaista nuorten kulutuskäyttäytymisen itse asiassa on. Vaikka nuoret siis toisaalta ovat tiedostavia kulutuksen ympäristövaikutuksista, he eivät lopultakaan ole valmiita muuttamaan omia tottumuksiaan tai elintapojaan.

Taulukossa 6 on testattu sitä, miten ympäristömyönteisyys ilmenee kulutuskäyttäytymisen eri osa-alueilla. Ympäristömyönteisyysel-

lään erottuvat nuoret (13 %), jotka lähes aina rajoittavat autoilua ympäristösyistä. Ensimmäisen väitteen taakse asettui 67 % ja toisen, toiminnan vaikeutta selvittävän väitteen kanssa, oli eri mieltä 86 % näistä nuorista. Halukkuutta elintasosta tinkimiseen oli 71 %:lla. Myös ei osaa sanoa -vastauksia oli tällä ryhmällä selvästi vähemmän. Vastaaajajoukko edustaa aatteellisesti selvästi muihin vastaajiin verrattuna syvemmän vihreitä nuoria. Näitä nuoria on kuitenkin vain reilu kymmenes koko vastaaajajoukosta, eikä heistäkään kaikilla ympäristömyönteisyys yhdisty kulutuksen eri osa-alueilla. Loput 87 %, eli valtaosa tämän tutkimuksen aineiston nuorista, edustaa tyypillistä suomalaista nuorta, joka kylä hallitsee ympäristökeskustelun, mutta ei välttämättä sitoudu omakohtaisesti elintason muutoksiin.

Kuvio 1. Miten usein lajittelet lasia tai tölkkejä kierrätystä varten?

Sitä, miten aktiivisesti nuoret itse haluavat arjen tomissaan ottaa ympäristön huomioon, tarkastellaan seuraavaksi. Kuten edellä, myöskään käytännön ympäristötoimintaa, kierrätystä, eivät selitä mitkään demografiset tekijät. Poikkeuksena on kuitenkin sanomalehtien lajittelu, jossa sekä ikäluokka että sukupuoli vaikuttavat. Se, että taustamuuttajat eivät selitä lajittelua, kertoo yksinkertaisesti siitä, nuoret ovat omaksuneet kierrätyksen ja jätteiden käsittelyn osaksi kulutuskäyttäytymistään. Nuoret määrittelevät ympäristöystävällisen kulutuksen nimenomaan jätteiden lajitteluksi ja kierrättämiseksi (Autio & Wilska 2003, 15). He osallistuvat aktiivisesti kierrätykseen: Lasia kierrättää usein tai aina 80 % nuorista. Juomatölkkiä kierrätys on hieman vähäisempää, usein tai aina tölkkiä lajitteluun osallistui 67 % kaikista nuorista. (ks. kuvio 1). Tätä selittää osaltaan se, että juomatölkkiä palautusjärjestelmä on paljon uudempi kuin pullojen, ja nuoret eivät ole vielä täysin sitoutuneet siihen.

Sanomalehtien lajittelussa oli sukupuolittais- ja ikäryhmittäistä vaihtelua. Kuten taulukko 7 osoittaa, nuorempien ikäluokassa tytöt ovat selvästi poikia aktiivisempia sanomalehtien la-

jittelijoita. Samoin on laita nuorten aikuisten ikäluokissa: nuorista naisista lähes kaikki ilmoittivat aina lajittelevansa sanomalehdet kierrätystä varten, kun taas vastaava luku nuorilla miehillä oli 72 %.

On myös huomattava, että iän karttuessa sekä tyttöjen että poikien kierrätysaktiivisuus lisääntyy. Siirryttäessä nuoremmista tytöistä vanhempiin lajittelu lisääntyi 24 %:lla ja poikien ryhmässä vastaavasti 17 %:lla.

Nykynuorten vihreys

Voidaanko puhua nuorista vihreistä kuluttajista? Tämän tutkimuksen perusteella vaikuttaa siltä, että nuoret tuntevat huolta ympäristön tilasta ja ovat jossain määrin tietoisia ympäristöasioiden ja kulutuksen välisestä ristiriitaisuudesta. Enemmistö ei kuitenkaan ole valmis muuttamaan omaa toimintaansa kestävämmäksi, vähemmän ympäristöä kuormittavaksi. Tutkimus tukee aiempia tutkimustuloksia siten, että nuoret eivät koe ristiriitaiseksi asenteellista vihreyttänsä ja toteutunutta materialistista elämäntapaansa (vrt. Autio & Wilska 2003, 15). Nykynuorten vihreydessä näyttäisikin olevan kyse pikemminkin yhdestä kulutusmotiivista mui-

Taulukko 7. Miten usein lajittelet sanomalehtiä kierrätystä varten?

	15–19-v. pojat	15–19-v. tytöt	20–25-v. miehet	20–25-v. naiset
	n=53	n=89	n=61	n=81
Ei koskaan	9	3	5	0
Joskus	17	9	7	1
Usein	19	17	16	4
Aina	55	71	72	95

den joukossa kuin kokonaisvaltaisesta sitoutumisesta ympäristövastuulliseen kulutuskäyttäytymiseen. Nuorten sitoutuminen ympäristöasioihin vaihtelee, ja näitä eroja selittää demografisista taustamuuttujista parhaiten sukupuoli ja ikä. Joidenkin kulutukseen liittyvien asennekysymysten osalta myös asuinpaikalla oli vaikutusta.

Se, että nuoret tuntevat huolta ympäristön tilasta, ei tee heistä vielä vihreitä kuluttajia. Vaikka he ilmaisevatkin huolensa, pelkkä huoli ei riitä motivoimaan ympäristövastuulliseen kuluttajuuteen. Tulokset osoittivat, että käytännön ympäristöteot ovat verrattain vähäisiä, nuoret eivät esimerkiksi ympäristösyistä ole valmiita rajoittamaan yksityisautoilua, vaikka toisaalta kierrätykseen nuoret osallistuvat selvästi aktiivisemmin. Kulutuskäyttäytymiseen liittyvät tulokset viittaavat siihen, että nuoret – kuten valtaosa ihmisistä – seuraavat niin sanottua minimalistista periaatetta (ks. Ungar 1994, 290–296). Sillä tarkoitetaan, että muutoksia ympäristövastuullisen käyttäytymisen suuntaan tapahtuu, jos ne vaativat vain minimaalista vaivannäköä ja henkilökohtaisia kustannuksia. Jos ympäristöä voi suojella vähäisin (taloudellisin) kustannuksin ja vaivattomasti, ympäristöhuoli konkretisoituu käytännön toiminnaksi. Tästä syystä nuoret esimerkiksi kierrättävät ahkerasti jätteitä, mutta eivät ole valmiita luopumaan auton käytöstä, sillä silloin kustannukset – epämukavuus, kun ei käytä omaa autoa – nousevat liian suuriksi. Nuoret eivät välttämättä ole valmiita luo-

pumaan monestakaan asiasta, vaikka etenkin tyttöjen vastaukset osoittivat halukkuutta tinkiä elintasosta. Toisaalta, nuorten aktiivinen osallistuminen kierrättämiseen osoittaa sen, että kun ympäristövastuullinen käyttäytyminen tehdään yhteiskunnan taholta helpoksi, myös toiminta tehostuu. Kyse voi myös olla tiettyjen käytäntöjen institutionalisoitumisesta ja nuorten sosiaalistumisesta valtavirtaan; kun riittävän moni osallistuu samaan toimintaan, se tulee hyväksytyksi toimintatavaksi, näin etenkin kiertätyksen osalta (vrt. Georg 1999).

Ovatko nuoret menettäneet kiinnostuksena ympäristöasioihin tai välittivätkö he siitä ennenkään? Tämän tutkimuksen valossa näyttää siltä, että nuoret kuluttajat ovat asenteellisesti myönteisiä ympäristöasioille ja vihreälle kuluttajuudelle. Samanaikaisesti he eivät ole kuitenkaan valmiita tinkimään juuri mistään, esimerkiksi maksamaan korkeampaa hintaa ympäristöystävällisistä tuotteista. Kyse ei ole kuitenkaan täysin yksilökeskeisestä nuorisokulttuurista. Yhteiskunnallisen vihertymisen keskeisenä esteenä on se, että taloudellinen uhraus ei houkuta tai kannusta ympäristönsuojeluun. Vihreys ei puhuttele nuoria, ainakaan omakohtaisesti. Vaikka ympäristöasioista on tullut jossain määrin merkittävä elämäntyölin määrittäjä ja vaikutin kulutuspäätöksiin, ne ovat vain yksi kulutusmotiivi muiden joukossa. Tämän tutkimuksen tuloksissa haluttomuus ilmeni etenkin poikien vastauksista. Tytöt sen sijaan ovat perintei-

sesti arvomaailmaltaan ”pehmeämpiä” ja poikia valmiimpia kantamaan oman kortensa ympäristömyönteisyyden kekkoon.

Viitteet

1. Lisäksi on olemassa runsas joukko muita synonyymejä, esimerkiksi ympäristöystävällinen, -myönteinen, -myötäinen ja kestävä, joita käytetään viitattaessa ympäristövastuulliseen kuluttajuuteen. Sitoutumisen määrää ympäristövastuulliseen kuluttajuuteen luonnehtivat myös vihreyden eri asteet, jotka vaihtelevat ”vaaleanvihreästä” ”syvänvihreään”.
2. Rومان Klubi julkaisi vuonna 1972 raportin *Kasvun rajat* (Limits to Growth), jossa keskeisenä viestinä oli, että tuotannolle ja kulutukselle on olemassa rajat, jotka luonnonympäristö asettaa.
3. Tämä on tehty yhdistämällä vastausvaihtoehdot 1 ja 2 (täysin eri mieltä ja eri mieltä) samaksi muuttujaksi 1 ”eri mieltä”, samoin kuin vaihtoehdot 3 ja 6 (ei eri eikä samaa mieltä ja ei osaa sanoa) muuttujaksi 2 sekä vaihtoehdot 4 ja 5 (samaa mieltä ja täysin samaa mieltä) muuttujaksi 3 ”samaa mieltä”.

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