SUSTAINABLE CONSUMPTION AND HAPPINESS [1]

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ABSTRACT
One of the reasons for promoting sustainable consumption is that it may give rise to greater happiness for a greater number, at least in the long run. In this paper I explore the strength of that moral account. I take stock of the assumed effects of sustainable consumption on happiness and then review the empirical evidence for such effects on the present generation. I make also educated guesses about the consequences for the happiness of generations to come.
The evidence suggests that a shift to sustainable consumption involve a minor reduction in happiness, at least temporarily, but that we can live quite happily with less luxury. Sustainable consumption by the present generation will only add to the happiness of future generations if it prevents major ecological disasters or if exhaustion of resources will reduce future generations to poverty. Moral justification of sustainable consumption can better appeal to the inherent value of the things it aims to sustain than to human happiness.

1 INTRODUCTION

The 20th century witnessed an unprecedented rise in the material standard of living, first in the western nations and later in most other parts of the world. Presently, affluence is still on the rise. This development fuels widespread progress optimism but also gives rise to unease. There has been growing concern about the depletion of non-renewable resources and the degradation of the eco-system since the 1960s, and this is given rise to a call for more 'sustainable' development. Sustainable development reached the political agenda in the 1980s and is now a major priority.

Sustainable development involves both sustainable 'production' and sustainable 'consumption'. The plea for more sustainable production has been fairly successful and has resulted in cleaner production and more efficient use of resources. This is largely due to state regulations. The case for sustainable consumption is less successful as yet. Though waste handling improved and a niche market for eco-product has developed, the environmental burden of consumption keeps growing. A main reason is that sustainable consumption depends on the decisions of individual citizens in the first place and politicians are reluctant to press voters too hard. The promotion of sustainable

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consumption depends largely on persuasion, both of individual consumers and of policy makers. Persuation needs strong arguments.

In this paper I explore argumentation along the lines of classic utilitarian moral philosophy (Bentham 1789) and inspect whether sustainable consumption is likely to result in 'greater happiness of a greater number'.

I will first consider the probable effect of sustainable consumption on the happiness of present day consumers. If that effect is positive, change to a more sustainable life can be advocated as a matter of self-interest and can be used to justify the paternalistic pressure of the state for the citizen's own good. Next I will guesstimate the effect on the happiness of later generations. If that effect is positive, there is also a moral ground for pressing the present generation to adopt a more sustainable way of consumption.

I start with a conceptual clarification (section 2) and then consider different views on the relation between sustainable consumption and happiness (section 3). Next I take stock of the empirical evidence for these views (section 4) and make a stab at the long-term effects for generations to come (section 5).

2 CONCEPTS

There is much confusion around the terms 'sustainable consumption' and 'happiness'. Both terms carry several different connotations and this gives rise to a confusion of tongues. Therefore I start with a conceptual clarification.

2.1 Notions of sustainable consumption

The idea of 'sustainable consumption' is a derivate of 'sustainable development' and the connotations of the term 'sustainable consumption' correspond with the different meanings conveyed by that notion.

2.1.1 Sustainable development

The term 'sustainable development' came into use in the 1970s and over the years the term has come to convey ever more meanings. It is now more a political slogan than a tight theoretical concept. The very looseness of the concept is probably one of the reasons for its success; it makes the concept appealing for different interest groups, while concealing conflicts between such groups (Redclift 1987). Currently, the term carries at least the following three denotations:

Preservation of non-renewable resources

In the beginning, the term referred to the depletion of non-renewable resources, in particular to the exhaustion of fossil fuels. An economy that is based on the exploitation of these finite resources is clearly unsustainable in the long term. This problem was brought to public awareness in the famous report of the 'Club of Rome' (Meadows 1972). In this context the word 'sustainable development' was introduced to denote change to an economy based on renewable sources, such as wind-power and hydro electricity and on the re-use of materials.

Preservation of the biosphere
Since the publication of Carson's 'Silent Spring' (1962) there has been growing concern about chemical pollution of the environment, which has extended to anxiety about lasting damage to the world's eco-system. In this context, the term 'sustainable development' is used to denote a change to an economy that preserves the biosphere. This notion extends economic utility, since safeguarding of the biosphere is also pleaded on behalf of nature of Gaia and is encapsulated in the concept of Space ship Earth.

Creation of a better society
There is a longstanding unease about modern society and in particular about capitalism, large-scale organization and economic rationality. These sentiments fit the above concerns about depletion of resources and pollution of the environment, and hence this traditionalist force joined the emerging 'Green' coalition. Consequently, the term 'sustainable development' also came to denote changing to a better society and in particular for the restoration of a 'good old' society where small is beautiful. Finally, when the issue of sustainable development reached the international political agenda in the 1980s, international redistribution of wealth was also added to the agenda.

2.1.2 Related notions of sustainable consumption

In line with the above, the following notions of sustainable consumption can be distinguished:

Less consumption
The term denotes in the first place a substantial reduction of consumption. One reason behind this is to stop the depletion of resources, and another inspiration is to leave room for the have-nots. This notion fits the Club of Rome's call for zero-growth and links up with a longstanding ethic of soberness.

Eco-friendly consumption
The term also refers to a pattern of consumption that does not harm the biosphere. In that context it refers to behaviors such as refraining from using harsh household chemicals, separating and recycling waste and giving preference to environmentally friendly produced products. Pollution and CO^2 are mayor concerns in that context. This notion links up with the view that we should respect nature and to a related call for a more 'natural' life.

Tradition-friendly consumption
In line with the anti-modernist connotation of sustainable 'development' the term sustainable 'consumption' also denotes a preference for old-fashioned goods and traditionally produced goods. The preference for time-honored goods manifests i.e. in a liking for the products of grandmothers' kitchen and in the rejection of modern electronic 'frills' such as the microwave oven. The preference for traditionally produced goods manifests i.e. in the buying of 'biological' food, if possible produced by small farmers

locally and retailed in small shops. A niche market has developed around this kind of consumption, with specialized shops and quality labels.

2.2 Notions of happiness

When used in a broad sense, the word happiness is synonymous with 'quality of life' or 'well-being'. In this meaning it denotes that life is good, but does not specify what is good about life. The word is also used in more specific ways, and these can be clarified with the help of the classification of qualities of life presented in **Scheme 1**.

2.2.1 Four qualities of life

This classification depends on two distinctions. Vertically there is a difference between chances for a good life and actual outcomes of life. Chances and outcomes are related, but are certainly not the same. Chances can fail to be realized, due to stupidity or bad luck. Conversely, people sometimes make much of their life in spite of poor opportunities. This distinction is quite common in the field of public-health research. Pre-conditions for good health, such as adequate nutrition and professional care are seldom confused up with health itself. Yet means and ends are less well distinguished in the discussion on happiness.

Horizontally there is a distinction between 'external' and 'internal' qualities. In the first case the quality is in the environment, in the latter it is in the individual. This distinction is also quite commonly made in public health. External pathogens are distinguished from inner afflictions, and researchers try to identify the mechanisms by which the former produce the latter and the conditions in which this is more or less likely. Yet again this basic insight is lacking in many discussions about happiness.

Together, these two dichotomies mark four qualities of life, all of which have been denoted by the word 'happiness'.

Livability of the environment

The left top quadrant denotes the meaning of good living conditions. Often the terms 'quality-of-life' and 'wellbeing' are used in this particular meaning, especially in the writings of ecologists and sociologists. Economists sometimes use the term 'welfare' for this meaning. 'Livability' is a better word, because it refers explicitly to a characteristic of the environment and does not carry the connotation of paradise.

Politicians and social reformers typically stress this quality of life.

Life-ability of the person

The right top quadrant denotes inner life-chances. That is: how well we are equipped to cope with the problems of life. This aspect of the good life is also known by different names. Doctors and psychologists especially use the terms 'quality of life' and 'wellbeing' to denote this specific meaning. There are more names however. In biology the phenomenon is referred to as 'fitness'. On other occasions it is denoted by the medical term 'health', in the

medium variant of the word[2]. Sen (1992) calls this quality of life variant 'capability'. I prefer the simple term 'life-ability', which contrasts elegantly with 'livability'.

This quality of life is central in the thinking of therapists and educators.

Utility of life

The left bottom quadrant represents the notion that a good life must be good for something more than itself. This presumes some higher value, such as ecological preservation or cultural development. In fact, there is a myriad of values on which the utility of life can be judged. There is no current generic for these external turnouts of life. Gerson (1976: 795) referred to these kinds as 'transcendental' conceptions of quality of life. Another appellation is 'meaning of life', which then denotes 'true' significance instead of mere subjective sense of meaning. I prefer the more simple 'utility of life', admitting that this label may also give rise to misunderstanding[3].

Moral advisors, such as your Pastor, emphasize this quality of life.

Satisfaction with life

Finally, the bottom right quadrant represents the inner outcomes of life. That is the quality in the eye of the beholder. As we deal with conscious humans this quality boils down to subjective appreciation of life. This is commonly referred to by terms such as 'subjective wellbeing', 'life-satisfaction' and 'happiness' in a limited sense of the word. Life has more of this quality, the more and the longer it is enjoyed. In fairy tales this combination of intensity and duration is denoted with the phrase 'they lived happily ever after'.

There is no professional interest group that stresses this meaning, and this seems to be one of the reasons for the reservations surrounding the greatest happiness principle.

Which of these four meanings is most appropriate for evaluating the value of sustainable consumption? The answer depends on the view we take. If we consider value for the environment, the focus is on the 'utility of life' left bottom in **scheme 1.** The question is then to what extend sustainable consumption really adds to environmental preservation. If we consider the outcomes for the people, the focus is on 'satisfaction' right bottom, **scheme 1**. The question is then whether sustainable consumption will make life more or less enjoyable.

In this paper I explore the strength of a utilitarian justification of sustainable consumption, that is, on the consequences for the happiness of humans. Hence I focus on subjective satisfaction.

2.2.2 Four kinds of satisfaction

This brings us to the question of what 'satisfaction' is precisely. This is also a word with multiple meanings and again we can elucidate these meaning using a simple scheme. **Scheme 2** is based on two distinctions; vertically between satisfaction with 'parts' of life versus satisfaction with life 'as-a-whole', and horizontally between 'passing' satisfaction and 'enduring' satisfaction. These two bi-partitions again yield a four-fold taxonomy.

Pleasures
Passing satisfaction with a part of life is called 'pleasure'. Pleasures can be sensory, such as a glass of good wine, or mental, such as the reading of this text. The idea that we should maximize such satisfactions is called 'hedonism'. Epicure was an advocate of that view. He refers to pleasure as αταραχια (ataraxia)[4], which is commonly translated as 'happiness'.

Part-satisfactions
Enduring satisfaction with a part of life is referred to as 'part-satisfaction'. Such satisfactions can concern a domain of life, such as working-life, and aspects of life, such as its variety. Sometimes the word happiness is used for such part-satisfactions, in particular for satisfaction with one's career. In the same vein the word has sometimes been used for satisfaction with one's consumer life.

Top-experience
Passing satisfaction can be about life-as-a-whole, in particular when the experience is intense and 'oceanic'. This kind of satisfaction is usually referred to as 'top-experience'. When poets write about happiness they usually describe an experience of this kind. Likewise religious writings use the word happiness often in the sense of a mystical ecstasis. Another word for this type of satisfaction is 'enlightenment'.

Life-satisfaction
Enduring satisfaction with one's life-as-a-whole is called 'life-satisfaction' and also commonly referred to as 'happiness'. This is the kind of satisfaction Bentham seems to have had in mind when he described happiness as the 'sum of pleasures and pains'. Elsewhere I have delineated this concept in more detail and defined it as: 'the overall appreciation of one's life-as-a-whole' (Veenhoven 1984, 2000).

In this paper I focus on this latter meaning and hence I will use the words 'happiness' and 'life-satisfaction' interchangeably.

3 THEORY
Presumed effects of sustainable consumption and happiness

Sustainable consumption is meant to be good for the environment and probably is so. Yet this is not to say that that it also works out positively for people. Opinion about the effects on human happiness differs widely. There is disagreement about the effects of each of the three aspects of sustainable consumption discerned in section 2.2 and also differences of opinion about the effects in the short term and the long run. Two contrasting positions can be distinguished, which I label as the 'Green' versus the 'Greedy'.

3.1 'Green' views

Critics of consumer society expect that a shift to more sustainable consumption will make life more satisfying, not only for the next generations but also for the present one. Both a

reduction in the amount of consumption and change to a different kind of consumption are seen to affect happiness positively.

Happier with less consumption

A main ground for this expectation is the idea that we consume too much and that the last decade's rise in material affluence has actually made life less satisfying. Various reasons for this counter-intuitive effect have been mentioned. Hirsch (1976) observed that mass consumption involves various crowd-out effects, for instance sailing is no longer a pleasure because there are now too many boats on the lake. Scitovski (1976) contends that consumption has become ever less satisfying, since modern mass consumer goods provide typically only superficial 'comfort' and lack the deeper satisfaction of 'challenge'. Much of this criticism is summarized in Robert Lane's (2000) book 'The loss of happiness in advanced market society', in which Lane also makes the case that pressures to maintain material consumption keep us away from intrinsically more satisfying activities, in particular from spending time with friends and relatives.

Another argument holds that the satisfactions of lavish consumption are offset by the frustrations involved in earning the money required to support such levels of living. This reasoning links up with studies about increasing time stress, such as 'The overworked American' (Schorr 1991). It also fits the notion that work is no fun anymore, as exemplified in Braverman's (1974) 'The degradation of work in the 20th century'.

A common theme in these critical analyses is that consumers do not know what they really need. They are seen to be victims of the drive to keep up with the Jones's and to be misled by the advertisement industry. Consumer 'wants' do not reflect real 'needs' and hence consumption does not buy happiness.

All this is seen to create a pattern of 'unhappiness in affluence' and in that line it is expected that further growth in consumption will go with a decline in happiness. A formal statement of that view can be found in Zolatas (1981).

The case for reduced consumption has also been made on the ground that depletion of non-renewable resources now will harm the happiness of the following generations. This argumentation does not fit too well with the above claims about the negative effects of consumption. If downsizing adds to happiness in the present, it will do so in the future, unless the reduction drives consumption below a necessary minimum.

Happier with eco-friendly consumption

The idea that we will happier with eco-friendly consumption concerns the long term in the first place. Sustainable consumption is seen as one of the ways to avoid degradation of the biosphere, such that resulting from global warming and reduced bio-diversity. It is assumed that this will preclude unhappiness of future generations.

Another driver is the concern that ongoing urbanization will reduce our contact with nature and that this will also reduce human happiness in the long run. This worry links up with 'Biophilia' theory, which holds that evolution left us with a preference for green and open environments, and hence that we cannot thrive in modern cities. (Gullone, 2000).

Next to these long-term considerations there is also the belief that eco-friendly consumption grants more satisfaction in its self. A major element in this belief is that eco-products are healthier, in particular 'biological' foods.

Happier with tradition-friendly consumption
Likewise, some believe that time-honored products yield more satisfaction than modern mass produced products do; the soup grandmother served tasted better than today's canned soups in the supermarket, reading books is more satisfying than surfing the web, etc. This view fits the above-mentioned contention of Scitovski that modern mass consumer goods provide mere 'comfort'. The belief roots also in notions of there being seasoned wisdom inherent in these products.

The gain in happiness is not only seen in the consumption of traditional goods, but also in their production. Traditional crafts are seen as a source of fulfillment, whereas modern factory work is seen as alienating, this view links up with Braverman's claims about 'degradation of work'.

Tradition friendly consumption is also seen as a way to preserve pockets of 'good old society', which is deemed to be more livable than the modern mainstream society. Unease with modern society is in fact a major symbolic element in sustainable consumption.

3.2 'Greedy' views

The other position is that sustainable consumption is detrimental to happiness, surely in the short term and probably also on the long run. This view is the most common these days.

Happier with more consumption
Happiness is commonly associated with a high material standard of living and many purchases are driven by the expectation that they will make life more satisfying, in particular the buying of durable consumption good such as houses and the spending of money on holidays. This common sense is echoed in mainstream economic theory, which assumes that we get happier when we consume more, even though the marginal utility may decline.

This conjecture about the present is typically accompanied by an optimistic view on the future, in which scientific progress and market rationality will provide alternatives for depleted resources.

Not happier with eco-friendly consumption
A key assumption is that consumers are rational actors and they typically know best what they need. In this view there is little point in putting pressure on consumers to buy 'green' products, at least not for the sake of their own happiness. If people do not want to pay for tomatoes raised biologically, this product is unlikely to add to their happiness, especially not when they are well informed.

The issue of the long-term benefits of eco-friendly consumption is not very prominent in the Greedy mindset. Though it is acknowledged that chemicals can have deleterious effects in the long run, it is generally assumed that these dangers can be

averted by regulations and as yet undeveloped technology and that it is in the self-interest of the producers to reduce such effects. There are claims that food sold in present day supermarkets is safer than ever (Lomborg 2000).

Not happier with tradition-friendly consumption
For the same reasons it is not believed that traditional products will give more satisfaction. The fact that these products tend to become obsolete is seen to convey that modern products do better.

4 EVIDENCE
Observed relations between consumption and happiness

Below I will explore the empirical evidence for these claims. I will first consider the micro-level to see whether individuals who consume in a sustainable way tend to be happier than those who do not. I will consider the ample cross-sectional data and a few relevant follow-up studies. Next I will turn to the macro-level and assess the reality value of the claim that modern consumer society breeds unhappiness, again in this case most data are cross-sectional, but I will also consider the available trend data.

4.1 Measurement of happiness

The evidence presented draws on a considerable body of survey research in which happiness is measured by single questions such as:

Taking all together, how satisfied or dissatisfied are you currently with your life as a whole?

1	2	3	4	5	6	7	8	9	10
Dissatisfied									Satisfied

Many more questions and answer formats have been used. All acceptable items are documented in full detail in the 'Item bank' of the World Database of Happiness (Veenhoven 2003).

Validity
Though these questions are fairly clear, responses can be flawed in several ways. Responses may reflect how happy people think they should be rather than how happy they actually feel and it is also possible that people present themselves as happier than they actually are. These suspicions have given rise to numerous validation studies. Elsewhere I have reviewed this research and concluded that there is no evidence that responses to these questions measure something other than what they are meant to measure (Veenhoven 1984,1996). Though this is no guarantee that future research will never reveal a deficiency, we can trust these measures of happiness for the time being.

Reliability
Research has also shown that responses are affected by minor variations in wording and ordering of questions and by situational factors, such as the race of the interviewer or the weather. As a result the same person may score 6 in one investigation and 7 in another. This lack of precision hampers analyses at the individual level. It is less of a problem when average happiness in groups is compared, since random fluctuations tend to balance. This is typically the case when happiness is used in policy evaluation.

Comparability
Still, the objection is made that responses on such questions are not comparable, because a score of 6 does not mean the same for everybody.

A common philosophical argument for this position is that happiness depends on the realization of wants and that these wants differ across persons and cultures. Yet it is not at all sure that happiness depends on the realization of idiosyncratic wants. The available data are more in line with the theory that it depends on the gratification of universal needs (Veenhoven 1991, 1997).

A second qualm holds that is happiness a typical western concept that is not recognized in other cultures. Yet happiness appears to be a universal emotion that is recognized in facial expression all over the world and for which words exists in all languages.

A related objection is that happiness is a unique experience that cannot be communicated on an equivalent scale. Yet from an evolutionary point of view it is unlikely that we differ very much. As in the case of pain, there will be a common human spectrum of experience.

Lastly there is methodological reservation about possible cultural-bias in the measurement of happiness, due to problems with translation of keywords and cultural variation in response tendencies. Elsewhere I have looked for empirical evidence for these distortions, but did not find any (Veenhoven 1993: chapter 5).

All these objections imply that research using these measures of happiness will fail to find any meaningful correlations. Research has shown that this is not true. At the individual level we can explain about 40% of the observed differences in happiness and at the societal level about 80% (Veenhoven 1997).

4.2 Micro level: consumer behavior and happiness

The relation between sustainable consumption and happiness not been studied systematically as yet. Still there are several indicative findings.

4.2.1 Income and happiness

How much people consume depends largely on how much they earn, hence we can get a first indication by considering the relation between income and happiness. An overview of these findings is available in the World Database of Happiness, Correlational Findings, subject-section I 1 'Income' (Veenhoven 2004). The correlations are typically positive, the rich being happier than the poor.

The bar chart in **scheme 3** depicts the relation between happiness and income in Britain. The richest are not the happiest in this case, but happiness is highest in the upper-

middle income bracket. This convex pattern is observed in several other western countries, but in most nations of the world the relation is simply linear.

This does not support the contention that a frugal life-style will be more satisfying, but is no proof against that hypothesis either. The higher happiness in the high-income brackets is not necessarily due to more consumption, but could also result from other things. One alternative explanation is that high earners tend to be more active and healthy and for that reason feel happier. Another reason may lie in the cultural capital of the well-to do and in particular the art-of-living passed on by their parents. Statistic control for such variables does not reduce the correlation to insignificance (World Database of Happiness, Correlational findings, section I 1 'Income).

Many possible confounds are eliminated in longitudinal studies. Hence a next question is whether happiness follows a rise or decline in income.

There is good evidence for short-term effects. For instance, in a 2 year follow-up in Germany and Russia Schyns (2003) observed that an above average rise in income was accompanied by a small gain in happiness and that a relative drop in income was followed by a substantial decline in happiness (chapter 6). Yet other studies show that income-change affects happiness only among male income earners (Bradburn 1969: 104) and that happiness is unrelated to the ratio of pre- and post-retirement income among retirees (Maxwell, 1985: 31).

There is less evidence for long-term effects of income change on happiness. In a nine-year follow-up in the USA, Diener et al (1993) found hardly any effect of greater happiness among the peoples who had done well financially than among those who had not; in fact, the income increase group was somewhat lower in happiness. Other studies have yielded variable effects (Diener & Biswas-Diener (2002). Though this matter is not fully settled as yet, it is clear that the long-term effects of income change are modest at best.

This lack of a substantive lasting effect could be due to habituation. Schyns (2003) found that the gains of income increase indeed washed away in rich West Germany, but not in poor Russia. Diener et. al. (1993) found no such difference between richer and poorer parts of the USA.

These longitudinal data are more in line with the Green perspective. In rich nations at least, more buying power does not seem to add substantially to happiness in the long term.

4.2.2 Consumer goods and happiness

We come closer to the issue of sustainability if we consider consumption it self. A few studies have assessed the correlation between possession of consumer goods and happiness. The correlations are typically small, but positive. The haves tend to be happier than the have-nots. **Scheme 4** presents some illustrative findings.

These correlations do not prove that possessing more of these goods makes us happier. Firstly, the statistical relation can be spurious; for instance because married people have more consumer goods and are also happier than singles are. Such possible effects have not been investigated systematically as yet. All I found was a study that controlled

income. This did not reduce the correlation between happiness and possession of 15 consumer goods; the partial correlation was +. 12 (Wilkening & McGranahan 1978).

Secondly, the correlation can be due to an effect of happiness on consumption rather than reversely; possibly the happy are more inclined to invest in durable goods. A test of this interpretation requires longitudinal data. Unfortunately follow-up studies on this matter are scarce; as yet there is little available data on this. All I found was a study in Japan, which observed a slight positive change in happiness in the year after purchase of a cloths-dryer and a mobile phone (Ozawa & Hofstetter, 2004).

4.2.3 Energy consumption and happiness

Energy use is a major issue in sustainability, so it is also worth inspecting how this relates to happiness. Recently, this matter has been investigated in the Netherlands. The findings are reported in **scheme 5**

Again we see a pattern of small but positive relationships; heavy energy users tend to be happier. This pattern is particularly strong in the case of energy used for driving a car, r = +.16 and this correlation remains significant after control for income (Gatersleben 2000: 216). It is worth noting that the respondents in this study were well aware of the environmental impact of car use, but also deemed a car essential for a good quality of life.

These data neither support the idea that less consumption will make us happier.

So much for the *amount* of consumption; there is less to say about the *kind* of consumption, and in particularly not about the effects on happiness of eco-friendly and tradition friendly consumption. Though there is quite some market research on consumer preferences and satisfactions, there is typically little interest in the consumer's overall happiness.

4.3 Macro level: Happiness in consumer society

Social critics in the Green tradition see a lot of misery in modern consumer society (cf. section 3.1). Is life really dissatisfying for the average citizen in affluent nations? **Scheme 6** presents a frequency distribution of the responses to the above-mentioned question on life-satisfaction in Britain. These data show the contrary; the great majority enjoys their life.

4.3.1 Income per head

This pattern is typical for all affluent nations of this era. This is shown in **scheme 7**, in which average happiness in nations (vertical) is plotted against buying power per head (horizontal).

In this scattergram all the affluent consumer societies are located right top. Exemplary cases are Switzerland and the USA. Average happiness is relatively low in affluent Japan, but still far above neutral. There are no cases of 'unhappiness in affluence'.

The pattern is less clear in the right half of **scheme 7**. At the bottom-right we see a lot of poor and unhappy nations, typically former communist countries, but left top there are also examples of poor but happy nations. Some of these cases are not beyond doubt, in particular China, Columbia and Ghana[5].

If we leave these dubious cases out, a convex pattern emerges, which is indicated by the sloped line in **scheme 7**. This pattern suggests that the law of diminishing returns applies; the higher the level of affluence, the smaller the happiness returns of further increases in affluence are. The bend-off curve is between an equivalent of US $ 10.000 and $ 20.000 per capita. The line flattens after the latter point, but does not seem to become quite horizontal. We need more cases for a precise estimation of the curve.

It is worth noting that there is no sign of lower happiness among the most affluent nations. Zolatas' prediction of a reversed U-shaped pattern is not confirmed. As far as happiness is concerned, we cannot apparently have too much affluence.

The higher happiness in the affluent nations need not be due to lavish consumption. Affluent nations are typically also democratic and well governed, and these political merits could affect happiness more. It is even possible that the predicted negative effect of opulence is veiled by such intervening variables.

One way to check this hypothesis is multi-variate analysis in which such variables are controlled. This approach has several limitations; one is that we can control only one or two variables, given the number of cases. Another problem is that this statistical procedure attributes all the common variation to the factor that is controlled. Still it is worth mentioning that the partial correlations remain sizable, for instance, after control for political rights, economic freedom and quality of governance the correlation is still +.47!

Another method for estimating the effect of consumption as such is to consider change over time. If buying power rises over the years while average happiness remains at the same level, the added consumption is unlikely to have added to happiness. This pattern is in fact observed in the USA and was first described by Easterlin (1974). It is currently know as the 'Easterlin paradox'. **Scheme 8** shows that this pattern also exists in the UK, where buying power has more than doubled since the 1970's, while average happiness has not changed.

Yet this is not the whole story. In most nations the last decade's rise in wealth has gone together with a rise in average happiness. Italy is one of these nations, and the trends in this country are presented in Scheme 9. Russia is another case; her happiness has dropped steeply following the economic decline in the late 1990s. In fact, the Easterlin paradox has only occurred only in the USA and the UK. The available trend data are discussed in more detail elsewhere (Hagerty & Veenhoven 2003).

4.3.2 Ecological footprint

Let us now consider the consumption of non-renewable resources in particular. This kind of unsustainable consumption is quantified in the so-called 'ecological footprint'. I also plotted this variable against average happiness in nations. See **scheme 10**. Not surprisingly, the scattergram bears much resemblance with the plot of buying power

against happiness presented in **scheme 7**. Yet the correlation is stronger in this case and the shape of the relation more linear. So happiness is not only higher in the nations that consume most, but even higher in the ones that do so in an unsustainable way.

Together, these macro-level data do not suggest either that a turn to sustainable consumption will make us happier. It is more likely that such a turn will go at the cost of happiness, at least temporarily.

Yet these data also show us that we can be fairly happy with less. In **scheme 7** we have seen that the Mexicans are about as happy as the British in spite of the fact that they consume less than half the amount the British do. Likewise **scheme 8** has shown that the British could live equally happy at that level of consumption of 30 years ago. So we must be able to adjust to a substantial reduction in consumption.

5 GUESSPECTATIONS about effects on the happiness of next generations

The data presented so far concern the present generation, while the call for sustainable consumption is also inspired by concern for following generations. How would a change to sustainable consumption now affect our descendents later? We can only speculate about this, but the available findings allow an educated guess.

5.1 Less consumption

One of the concerns is that the current depletion of non-renewable resources will severely reduce the standard of living for the following generations. In this reasoning it is assumed that technological innovation does not produce sufficient substitutes. If so, would this put the happiness of future generations at risk?

A first thing to note is that non-renewable resources will be depleted anyway, so we deal with the consequences for one or two generations; our children and grandchildren. Will they be less happy if we do not size down our consumption now?

The answer depends on the degree to which these generation will have to live with less. Happiness will decline if they are reduced to poverty, that is, when they end up below the equivalent of US $ 10.000 per capita in **Scheme 7**. Yet a considerable reduction above that level is unlikely to depress the level of happiness lastingly in the currently rich nations. As we have seen, the British lived happily at half the current level of consumption in 1970 and the Mexicans live happily at such a level today. Why could our grandchildren not live in 2050 live happily on the same scale?

Still, the happiness of future generations is at stake if the standard of living drops below the $10.000 per capita level. In that worst-case, there is a moral obligation for the present generation to save for the next. **Scheme 7** explains why. If we go down the slope of the utility function, the happiness returns of units of consumption get larger, in particular when we have passed the absolute poverty line at about US $ 10.00 per capita. In this case our children would get more out of the same resources than we do now. According to the greatest happiness principle we should leave these resources to them.

5.2 Eco-friendly consumption

As noted in section 3.1, another reason for sustainable consumption is to protect of the biosphere. This is for the sake of the following generations in the first place, since this is mainly about long-term effects of cumulative environmental degradation. In this context, it begs the question whether future generations will live happier if we preserve the biosphere now.

Again the answer depends on the change assumed. A collapse of the eco-system will probably reduce the happiness of future generations to quite an extend, especially if it involves shortage in the supply of food and dramatic climate change. Yet we can probably live with lesser deterioration in the biosphere, which is more likely to occur.

A reduction of bio-diversity as such seems to be a tolerable decay. Though variety of species is highly valued, there is no innate need for bio-diversity. We can probably live without bio-diversity, just as we could live without concert halls. We deplore the extinction of Dodo's, but it does not reduce our happiness.

Likewise, the future generations can probably live quite happy with less nature. Evidence for the biophilia-theory is weak. There are anecdotal accounts of patients healing better in green environments (Gullone 2000), but no solid research. Life in the country appears to be no more satisfying than city life (Veenhoven 1994) and city-dwellers with access to parks and gardens do not thrive better.

As far as happiness is concerned, preservation of the biosphere is warranted only for averting ecological disaster.

5.3 Tradition-friendly consumption

The effect of tradition friendly consumption on the happiness of later generations depends on the degree to which that contributes to the realization of the underlying view of the good society.

Suppose that tradition-friendly consumption would indeed lessen the pace of modernization or even reverse societal development to some extend, would that add to the happiness of later generations? Probably not, the available evidence shows undeniably that we live better in modern society than in the 'not so good' old days. Happiness relates positively to all indicators of modernity (Heylighen & Bernheim 2000) including individualism (Veenhoven 1999). This evidence from comparative epidemiological studies in present day nations adds to an important finding in historical anthropology. The quality-of-life seems to have been worst in the agrarian phase of societal evolution, largely because of the restraints to freedom in that kind of society (Sanderson 1995:336-57). Modernization is seen to have opened the 'social cage' (Marianski & Turner 1992). This body of knowledge is summarized in **scheme 11**. In this light, the idea of pastoral paradise is mere mythology, which would be well advised not to put into practice.

Still there can be value in maintaining pockets of tradition, or at least social niches that claim to do so. Modern society does not fit everybody equally well, thus the availability of lifestyle alternatives is likely to work out positively on average happiness.

6 CONCLUSION

There is no evidence for ‘unhappy affluence'; the data rather show modest positive effects of material wealth. Hence a shift to sustainable consumption will not result in greater happiness for a greater number in the present generation, but will involve a modest of sacrifice happiness, at least temporarily. Sustainable consumption by the present generation may add the happiness of following generations if this averts massive poverty and major ecological disaster. Otherwise, no substantive effects are to be expected.

On the other hand there is also good ground to expect that we can live quite happy with less consumption. Thirty years ago the British and the Americans lived equally happy with half and today the Mexicans live quite happy at the same level of consumption.

All in all, the utilitarian case for sustainable development is not too strong; it holds only if one buys strong assumptions about future disasters. Moral justification of sustainable consumption can better appeal to the inherent value of the things it aims to sustain. In that context an additional argument can be that this will hardly harm human happiness.

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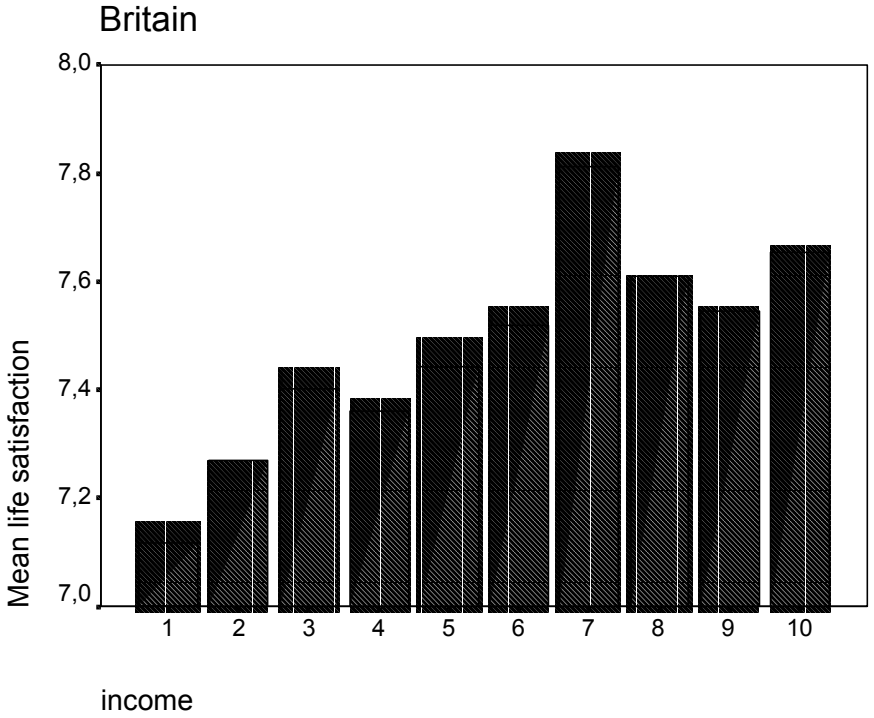
Scheme 1
Four qualities of life

	Outer qualities	**Inner qualities**
Life-chances	**Livability of environment**	**Life-ability of the person**
Life-results	**Utility of life**	**Satisfaction**

Scheme 2
Four kinds of satisfaction

	Passing	**Enduring**
Part of life	**Pleasure**	**Part-satisfaction**
Life-as-a-whole	**Top-experience**	**Life-satisfaction**

Scheme 3
Personal income and happiness



Source: World Value Study 1995

Scheme 4
Possession of consumer goods and happiness

Housing		
• Detached (vs. apartment)	r = +.10	p<.05
• Living room in m^2	r = +.12	p<.05
Household appliances		
• Micro wave, dish-washer	r = + 15	p<.05
Leisure items		
• Holiday articles	r = +.07	p<.05
• Hobby articles	r = +.19	p<.05

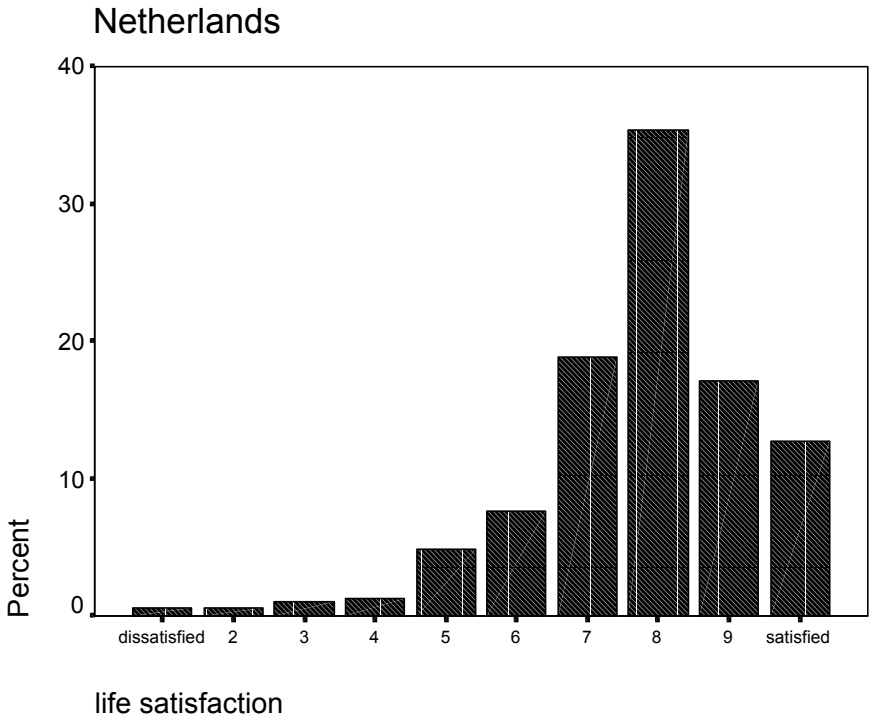
Source: Boelhouwer 1999. Data: survey Netherlands 1997, N = 3700

Scheme 5
Energy use and happiness

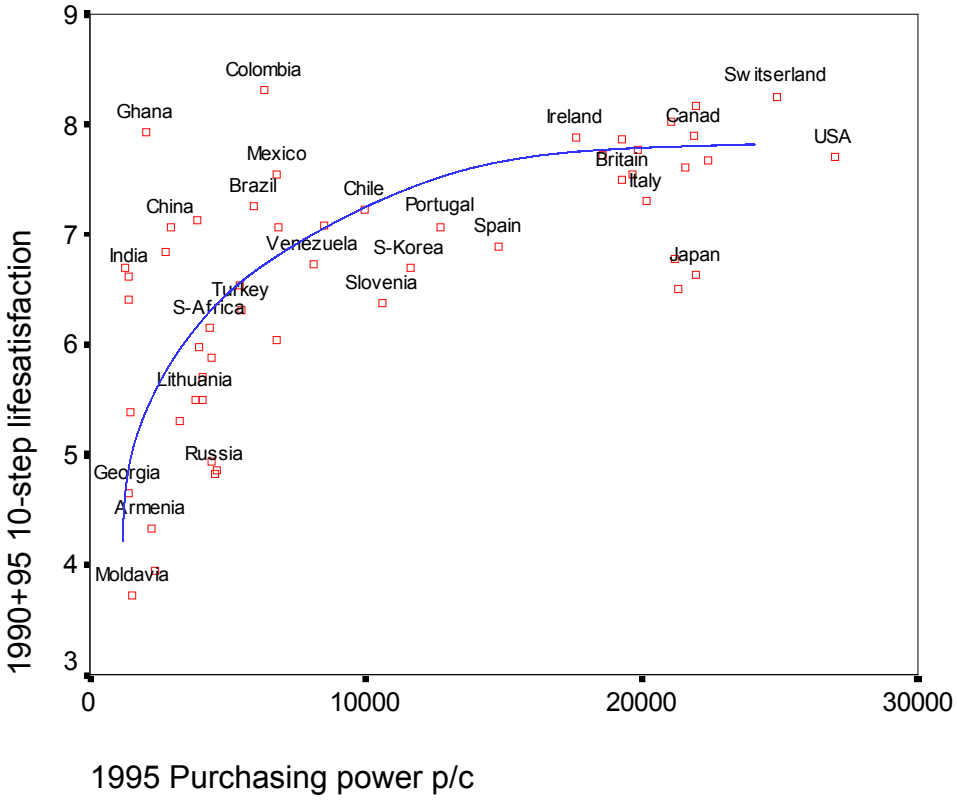
Energy use for	*correlation*	*significance*
Home heating	r = +.05	ns
Washing	r = +.04	ns
Bathing	r = +.09	p<.01
Cooking	r = +.08	p<.01
Audio/video	r = +.06	ns
Computer	r = +.07	p<.05
Car	r = +.16	p<.001
Holidays	r = +.06	p<.05

Source: Gatersleben 2000: 137. Data: Netherlands 1997, N = 1250

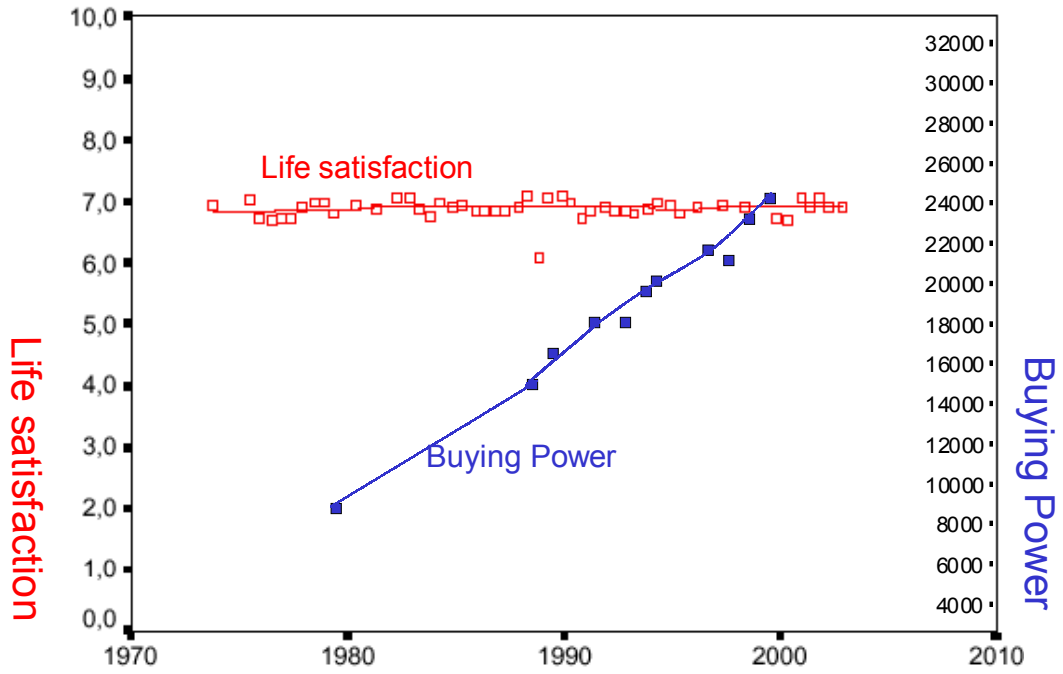
Scheme 6
Happiness in a modern affluent nation



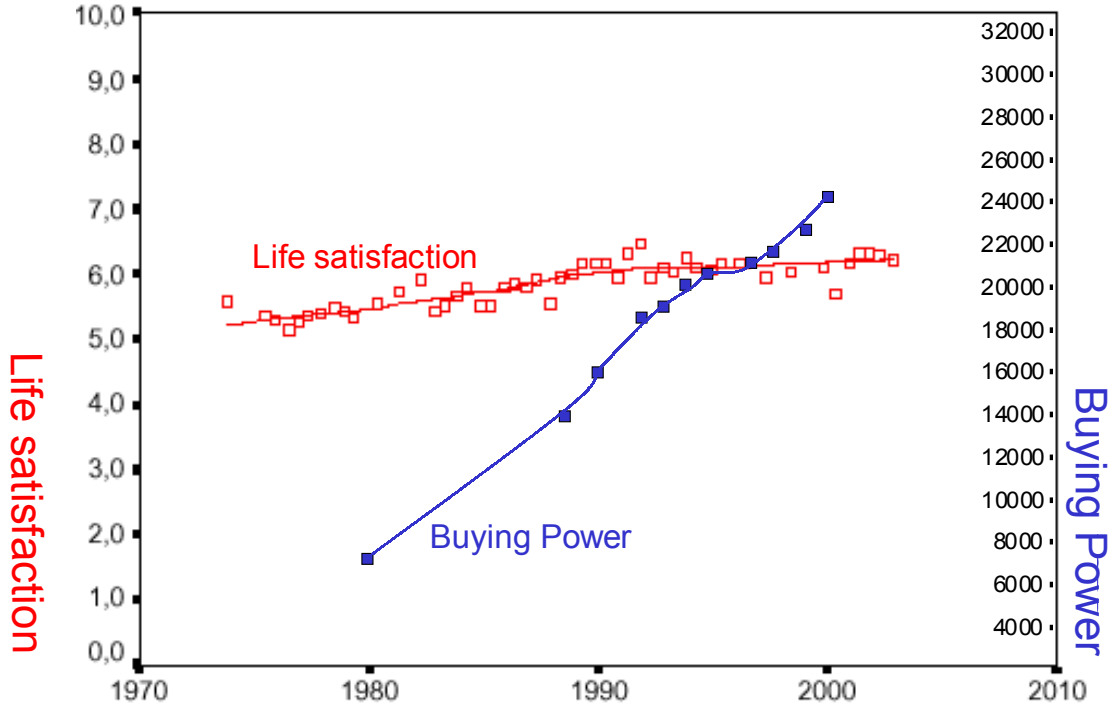
Scheme 7
Buying power and happiness in nations in the 1990s



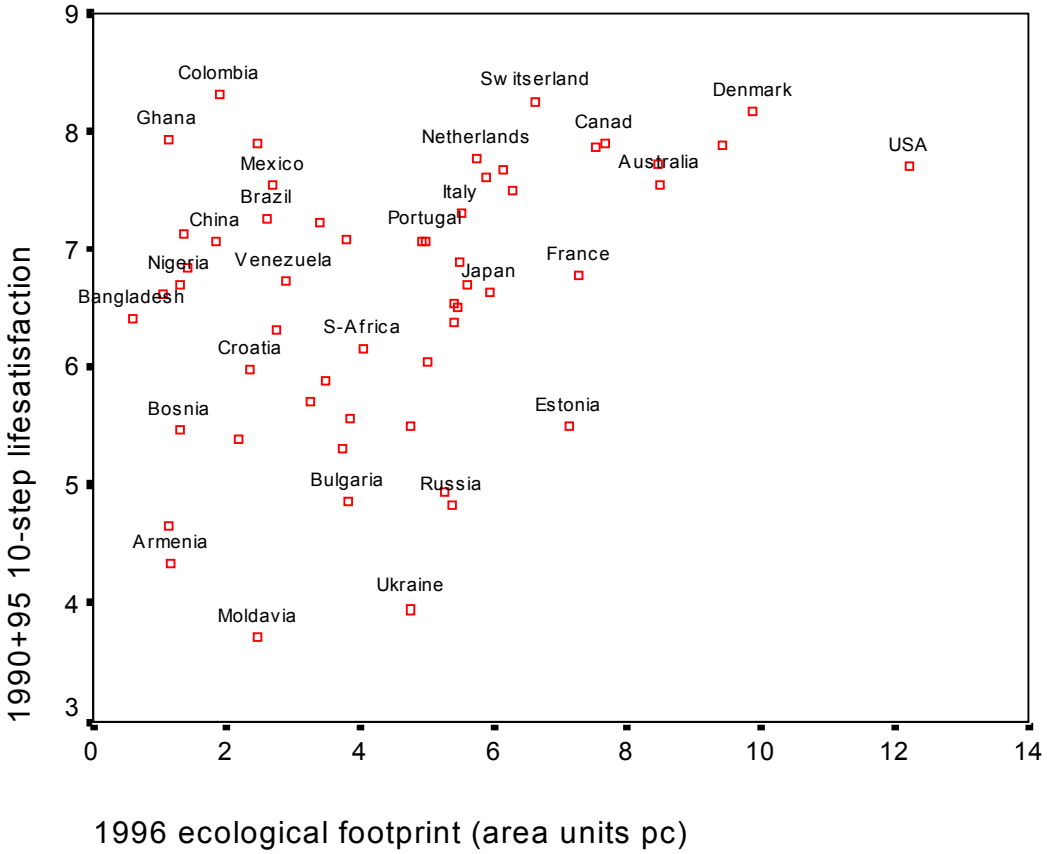
Scheme 8
Trends in happiness and buying power in the UK



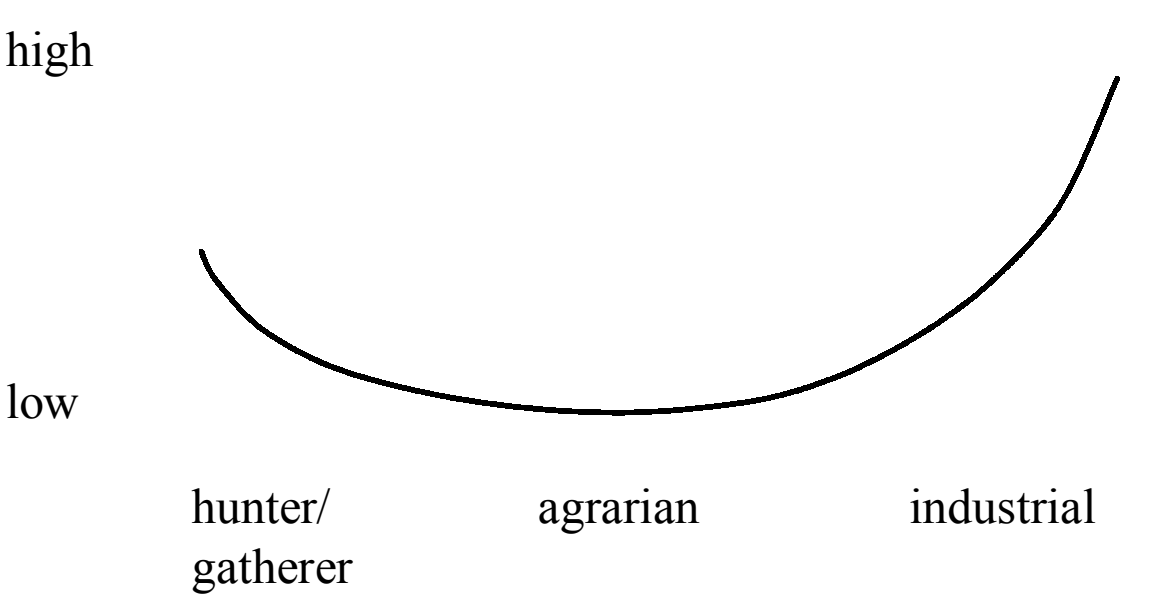
Scheme 9
Trends in buying power and happiness in Italy



Scheme 10
Ecological footprint and happiness in nations in the 1990s



Scheme 11
Quality-of-life across societal evolution



Sources : Sanderson 1995: 336-357 Bernheim & Heylighen 2000

NOTES

1 This paper was first presented at the international workshop 'Driving forces and barriers to sustainable consumption' University of Leeds, UK, March 5-6, 2004

2 There are three main meanings of health: The maxi variant is all the good (WHO definition), the medium variant is life-ability, and the mini-variant is absence of physical defect

3 A problem with this name is that the utilitarians used the word utility for subjective appreciation of life, the sum of pleasures and pains.

4 αταραχια means literal: "without disturbance". It is also translated as: equanimity, calmness or: peace of mind.

5 Rural areas were under-sampled in these nations and the samples have not been weighted accordingly. Moreover the Chinese may have overstated their satisfaction because they were not convinced of the anonymity of their responses. The high score in Columbia was not reproduced in another cross-national survey, the 1999 Latinobarometro.