

# HAPPINESS AND CONSUMPTION

## A review of research<sup>1</sup>

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### ABSTRACT

There is a lot of research on the effect of income on happiness, but little research into the effect of how income is spent on happiness. In this paper, we take stock of the scattered findings on this matter. The review covers 423 research findings observed in 108 survey studies. These findings are entered in the World Database of Happiness and this allows us to limit this review to the main tendencies, while providing the reader access to full details of the data using links to that on-line findings archive.

The first question considered in this paper is how much consumption is optimal happiness wise. The available data show positive links with saving and spending, but do not yet tell us what mix is best in what situations. The data are more informative when it comes to major consumer decisions. Homeowners tend to be happier than people who rent their house. This difference is universal and is at least partly driven by a causal effect of home-ownership on happiness. People who have a car also tend to be happier than people without, though luxury cars do not add more to happiness than an economic car.

We still have no answer to the main question: What patterns of consumption provide the most happiness for what kind of people?

*Keywords: life-satisfaction, consumption, saving, informed choice, research synthesis*

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# 1 INTRODUCTION

## *Pursuit of happiness*

Most people want to be happy and look for opportunities to achieve a more satisfying life. This pursuit seems to be universal (Veenhoven 2010), but is particularly pronounced in contemporary modern society. Our heightened interest in happiness has several reasons, one of which is our greater awareness that a satisfying life is possible today and that our happiness is not just a matter of fate, but also something we have considerable control of. A related reason is that we now live in a society in which we have much choice, for example, where we will live and whether we have children or not and prospects for our happiness figure largely in such decisions. This is creating a growing demand for information about happiness (Veenhoven 2015a and b).

## *Information demand*

One of the topics on which we need more information about happiness is 'consumption'. We spend much of our life-time earning money and since we typically earn more than required for basic necessities, we have a surplus, and consequently face the question of how to spend this money. The issue then becomes: How much saving is required for happiness in the long term? When it comes to spending, the next question is: What purchases will result in the most happiness?

Information about consequences for happiness is particularly useful in the case of large and expensive purchases, such as a house. For instance, people who take on a heavy mortgage to buy a large house might expect that life will be more satisfying in such a house than in a small one. In this context, it is worth knowing whether people living in big houses are indeed happier than those living in small, may be cramped housing. A related question would be: How does the size of your house reflect on your happiness in the different phases of your life?

For the same reason it is worth knowing whether daily spending patterns make a difference to one's happiness. Are people who spend relatively large amounts on experiences, such as holidays and the theater, typically happier than otherwise comparable people who would rather invest their money in property?

Such information about the real long-term effects of spending on happiness is particularly needed as an antidote to the many suggestions made in today's media and promoted by the advertising industry.

## *Happiness research*

The demand for information on effects of choices on happiness is increasingly met by scientific research. Empirical research on happiness took off in the 1970s and focused on 'happiness' in the sense of the 'subjective enjoyment of one's life as a whole', which is also called 'life satisfaction'.

*Concept:* Happiness in the sense of the ‘subjective enjoyment of one’s life-as-a-whole’, should not be equated with happiness in the sense of passing pleasure. Though passing pleasures typically add to life-satisfaction, there is more to satisfaction with life-as-a-whole. Consumers mostly know what brings them passing pleasure; their information demand concerns lasting life-satisfaction. Likewise, happiness in the sense of the ‘subjective enjoyment of one’s life’ should not be equated with ‘objective’ notions of what is a good life, which are sometimes denoted with the same word. We better not call a life of luxury is called a ‘happy’ life, if we want to know which way of life will make us most happy in the sense of life-satisfaction. This concept of happiness is discussed in more detail in Veenhoven (1984 chapter 2 and 2018a chapter 2).

*Measurement:* Since this kind of happiness is something people are aware of and can express, it can be measured using questioning. A common survey question on happiness reads: ‘Taking all together, how satisfied or dissatisfied are you with your life-as-a-whole these days? Please express this in a number between 1 and 10, where 1 stands for ‘dissatisfied’ and 10 for ‘satisfied’<sup>6</sup>”

Questions of this kind have figured in numerous survey studies and the yearly output of research findings on happiness is still increasing, in particular since the advent of ‘happiness economics’ and ‘positive psychology’ at the turn of the millennium. To date (January 2018), happiness has figured in some 6000 empirical studies and it is expected that this year about 700 additional research reports on happiness will be published. An overview of acceptable measures of happiness is available in Veenhoven 2018b.

### *World Database of Happiness*

This flow of research findings on happiness has grown too big to oversee, even for specialists. For this reason, a ‘findings archive’ has been established, in which the findings are presented in a uniform format and sorted by subject. This ‘World Database of Happiness’ is freely available on the internet (Veenhoven 2018)

The database consists of several *collections*. It builds on a collection of all scientific publications about happiness in the sense of ‘subjective enjoyment of one’s life as a whole, called the ‘Bibliography of Happiness’ (Veenhoven 2018a). To date this collection includes some 12,000 books and articles, which have all been inspected to see whether they concern this kind of happiness and do not deal with something else for which the same term is used. About half of these publications report an empirical investigation in which an acceptable measure of happiness has been used. Indicators that fit the concept of happiness, as defined above, are listed in the collection ‘Measures of Happiness’ (Veenhoven 2018b).

The findings yielded by studies that past the test for adequate measurement of happiness, are described on separate ‘finding pages’, using a standard format and

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<sup>6</sup> This question is in the core questionnaire of the World Values Surveys

terminology. Two kinds of findings are discerned: *distributional findings* on how happy people are at a particular time and place and *correlational findings* about the things that go together with more or less happiness in these populations. To date, the database contains about 12000 distributional findings, 9000 of which deal with happiness in the general population of nations (Veenhoven 2018c) and 3000 with happiness in sub-populations, such as students or psychiatric patients (Veenhoven 2018d).

The collection of 'Correlational Findings' (Veenhoven 2018e) contains some 16.000 research results. These findings are sorted on subject and the collection can also be searched on characteristics of the population investigated, i.e. public, place, time, and on methodological features such as sampling and measurement. Though far from complete, this collection of correlational findings is the best available source on conditions for happiness at present. This review is based on the correlational findings on 'Consumption and Happiness' and related topics entered in the World Database of Happiness before January 2018.

#### *Aim of this review*

Using this collection of research findings on Consumption and Happiness we will inspect what patterns of consumption produce the most happiness for what kind of people.

## **2 METHODS**

To date (January 2018), the Bibliography of Happiness lists 161 scientific publications in which the subject '[Consumption](#)' is a main topic. About half of these publications report an empirical study in which an acceptable measure of happiness was used. The research findings reported in these publications are entered in the Collection of Correlational Findings, in the subject categories, [Happiness & Consumption](#), [Happiness & Possessions](#) and [Happiness & Home owner](#). These subject categories also contain results obtained in studies in which these matters were a side issue. Together this yields 421 'findings', which are summarized in this paper.

### **2.1 Format of this review**

Reviews of research typically summarize the main trends in research findings in verbal statements, followed by references to publications in which such findings have been reported. Though the source publications are listed at the end of the paper, they are not easily assessable for the reader and therefore a reviewer's interpretation cannot easily be controlled.

In this review paper, we use a new format that takes advantage of the on-line availability of detailed information in the above-mentioned World Database of Happiness. In this text, the reader will see fewer references than usual in an academic review paper. However, the electronic version contains many links to finding pages in the World Database of Happiness, on which the reader finds full detail. This allows us to make controllable statements about main trends in the data without burdening the reader with detail, yet reader can check the data if they should so wish.

This way of summarizing research findings has several advantages over traditional reviews that are limited to the possibilities of the printed page. Checking with the available data is easier as the links provided in this text lead the reader directly to standardized descriptions of research findings, all of which contain a traditional reference to the original research report. Referencing is also more complete; traditional reviews must often cite selectively, since they cannot mention all the available data in the limited space available in a printed journal article. Our new method allows all research reports to be taken into account and thus avoids the danger of 'cherry picking'; it also allows a more complete description of pertinent findings. While traditional reviews typically condense the available information into a few columns, contained in a summary table, our new method provides easy access to much more detailed information in on-line 'finding pages'.

An additional advantage of using the World Database of Happiness as the source for this review is that it is conceptually specific. As noted above, this archive is strictly restricted restricts to research findings obtained using measures of happiness that fit the definition of happiness as the subjective enjoyment of one's life-as-a-whole. As such this source is more informative than a literature database in which the word 'happiness' is used to denote different meanings.

This technique has been applied in an overview of all findings on happiness by Veenhoven (2015a) and in reviews of the research literature on the effects of economic growth on average happiness in nations (Slag & Veenhoven 2018) and on freedom and happiness in nations (Abdur Rahman & Veenhoven 2017). In this text, we use the methodology to look at research findings on happiness and consumption in particular, using the collection of 'Findings on Happiness and consumption' (Veenhoven 2018f) and related subject categories as extant January 2018.

## **2.2 Presentation of findings**

We present the findings by subject in tables, starting with a table with all findings and then in tables specifying findings by places and publics. In these tables, observed statistical relationships are indicated using plus (+) or minus (-) signs, which link to 'finding pages' in the World Database of Happiness that provide full detail.

### *Notation of statistical relationships*

We report all statistical relations observed, irrespective of the size. Positive relations

are indicated with a +, negative correlations with a –. A significance test is reported using a bold sign: + or –. When the correlation is insignificant and the direction of correlation is not reported, we use a 0. When different results are reported across sub-populations or in different specifications, we use a string of symbols, e.g. +/-/0/-. Here the subsequent controls have reduced an initial positive correlation to a negative correlation.

As noted above, the signs, single or in string, link to finding pages in the World Database of Happiness. Using control+click the reader will get to the page containing the full detail about a particular research finding.

### *Methods*

Findings are sorted by the research method used; we discern three methods: 1) cross-sectional studies in which the same-time correlation between *levels* of consumption and happiness is assessed, 2) longitudinal studies, in which the relation between *change* in consumption and change in happiness is assessed and 3) experimental studies, in which effects of *induced change* in consumption on change in happiness is assessed. Longitudinal and experimental studies provide more information about causality, while experimental studies provide most information about the direction of causality. The latter studies are the most informative, yet the least numerous.

In all these approaches, there is the possibility of spurious relationships, such as that a positive correlation between consumption and happiness is driven by a third factor, e.g. marriage, where marriage affects both consumption and happiness, while consumption and happiness are otherwise unrelated. This problem is most pressing in cross-sectional studies, but can also exist in longitudinal and experimental studies. To weed out such false relationships, most studies compute partial correlations, using different methods of multi-variate analysis. This approach involves the danger of over-control, in which true variance is removed, for example when control for marital status wipes out the correlation between house-ownership and happiness, while having a house actually adds to happiness through better marriage chances.

Note: most studies report findings using more than one method, thus the same finding pages will appear in different columns of the tables of this review.

### *Populations*

Since we wanted to know what patterns of consumption are optimal for what kinds of people; we specified the findings by populations as far as possible. These specifications are presented in separate tables.

## **3 RESULTS**

In search of answers to our question of what patterns of consumption produce the

most happiness for what kind of people; we first considered how much consumption is optimal (section 3.1). Next, we inspected what kind of consumption works out best on happiness (section 3.2).

### 3.1 Consume how much?

Are frugal people happier than big spenders are, as some critics of our consumer society suggest? Let us look at the research findings on saving, spending and giving.

#### 3.1.1 Saving

Findings on the relation between saving and happiness are presented in [tables 1a and 1b](#). What do these data tell us?

##### *Happier with savings*

Among the cross-sectional findings, the two bi-variate correlations are both positive, which suggests that the more money you save, the happier you are. Yet intervening variables can play us false, such as 'age' fostering both savings and happiness. Still most of the multi-variate analyses show positive partial correlations between the amount of money saved and happiness level. The one study that finds a negative relation refers to net financial assets instead of real money savings. Therefore, we may conclude that saving tends to go with happiness.

The reverse of saving is being in debt. Findings on indebtedness and happiness are more mixed, but tend to the negative. This is not to say that saving will make you happier, since the correlation can also be due to an effect of happiness on saving behaviour. Yet the only experimental study, see right bottom [table 1a](#), found that the introduction of an obligatory saving scheme for health expenditures, in the form of health insurance, resulted in a rise in happiness. This suggests that at least part of the observed correlation reflects a positive causal effect of saving on happiness.

##### *Happier with safe savings*

One can save in different ways, open a savings account at a bank, buy stocks/bonds or buy insurances. One can also invest one's money in a business, i.e. operating assets. Which is the best for happiness?

As is shown in [table 1b](#), having a savings account or life insurance tends to go with greater happiness, while mixed effects are observed for the riskier kinds of savings, placing in stocks or operating assets.

When it comes to causality, we are again faced with the possibility of reversed causation, happiness fostering safe saving behaviour. The one study using instrumental variable analysis suggests a negative effect on happiness of saving in

bonds and operating assets. The only (natural) experimental finding shows a positive effect of mandatory health insurance.

[Table 1a](#) about here.

#### *Similar across populations*

The effect of savings on happiness may be different for different kinds of people. Therefore, we present the same findings in [table 1b](#), now split up by population. We distinguish between studies in the general population and among subgroups in the population and in the case of general population studies between findings obtained in highly developed nations and medium developed nations. Note that the same study may pop up in different cells of this table.

The available findings do not reveal much difference. All signs are positive except one slightly negative correlation between life insurance and happiness among non-working people. The positive correlations differ in size, which reflects in statistical significance. Savings relate more to happiness among males than females and more among the poor than the rich.

[Table 1b](#) about here

### **3.1.2 Spending**

Since saving tends to go with greater happiness, one would expect spending to go with less. Yet the findings in [table 2a](#) show otherwise.

#### *Spenders happier*

As yet only two studies have been done to assess the relation between spending and happiness. The most informative of these is a study done among the general population in Germany, in which a positive correlation was found between the amount of consumer spending and happiness. The correlation survived several controls, among which a control for household income. This result fits the findings on specific expenditures presented section 3.2.1, which also show that more consumption tends to go with greater happiness. The only bi-variate study found a negative relation between spending and happiness among psychiatric patients. Since income was not controlled in this study, it may simply mean that poor patients are less happy than rich patients are.

This relation between spending and happiness has not yet been assessed in follow-up studies, still a comparison between 'down-shifters' and non-downshifters does not show greater happiness among people who say they have voluntarily reduced their consumption in the last 10 years.

#### *Relative spending*

Spending more than comparison groups goes with greater happiness. The four studies on this matter controlled many income related variables, such as education and employment, but none controlled income as such.



*Spending on others goes with greater happiness*

Not all spending is consumer spending, in particular not spending on other people. One study on the spending of a bonus suggests that spending on others yields more happiness than spending on one-self.

[Table 2a](#) about here

## 3.2 Consume what?

This brings us to the question of what kind of consumption brings the greatest happiness for what kind of people. One of the questions in this context is whether the buying of experiences adds more to happiness than gathering things. Below we will first consider daily expenses (section 3.2.1) and delve into two major consumer decisions, the buying of a house (section 3.2.2) and a car (section 3.2.3).

### 3.2.1 Daily expenses and happiness

The available findings on the relation between daily spending and happiness are presented in the tables [3a](#), [3b](#) and [3c](#). The picture is mixed, but positive signs prevail, suggesting that more consumption is better for happiness.

We sorted expenditures into 'necessities' and 'experiences' admitting that the distinction is not always clear; for instance, expenditures on 'food' can be driven by necessity and by an urge for luxury. The distinction reveals a more consistent pattern of correlations in the latter category than in the former.

#### 3.2.1a Expenditure on necessities

There is considerable research on the relation between *having* necessities, such as food and housing, and happiness. In this section, we focus on the scarcer findings on *expenditures* on necessities and happiness.

- *Mixed relation between happiness and expenditures on clothing*

The presentation of all findings in the upper row of [table 3a](#) shows considerable variation. Part this variation is explained by the split-ups in [table 3b](#). Spending on clothing relates differently to happiness across the income ladder. Negative signs appear in the low-income brackets of not too rich nations, even when income is controlled. One possible explanation is that the clothing these people buy is of lower quality.

Surprisingly, spending on clothing goes with greater happiness among males, but with less happiness among females. Reversed causality may be involved here, unhappy women being more likely to invest in nice cloth than unhappy men

are.

- *High expenditures on communication goes with less happiness.*  
The only study in which this issue was addressed found less happiness among Germans who spend a relatively large amount on communication. This cross-sectional finding does not mean that spending on communication will make you unhappy. It seems more plausible that isolated-unhappy people spend more on communication and would even be less happy if they had spent less.
- *More expenditures on durables goes with more happiness.*  
People who spend relatively large amounts on durables, such as furniture and tools, tend to be happier than people who expend more on disposables. This pattern appears in different countries and populations and suggests that investment in things will bring the most happiness. Yet again reversed causation may be involved, happy people being more inclined to prefer safety, while unhappy people buy experiences to keep up morale.
- *More expenditure on education goes with greater happiness.*  
A similar pattern appears in the case of education expenditure; the higher the relative spending on this purpose, the happier people tend to be. This relation is most pronounced in the lower income brackets in transition nations. Surprisingly, the (small) correlation is positive among females, but negative among males.  
A causal effect of education on happiness must be in the educational process, since the long-term benefits of education have not yet materialized. Again, reversed causality may be involved with happy people being more inclined to invest in education.
- *Expenditure on food goes with greater happiness.*  
Correlations with relative expense on food tend to be small, but positive. The relation is most pronounced in the lower income brackets in medium developed nations. This may mean that enjoyment of meals is more important in these conditions, possibly because of their social functions. Household size was controlled in this study, but this may not have captured all social functions of expenditure on food.  
Cuts in expenditure on food due to economic decline, relate negatively to happiness in medium developed nations, but not in high developed nations ([table 3c](#)), which suggests that food is more a necessity in the former than in the latter conditions.
- *Expenditure on health care goes with lower happiness.*  
It will be no surprise that unhappy people spend more on health care, since bad health tends to make you unhappy and involves costs for doctors and medicines. What does surprise is that this negative correlation persists when self-rated

health is controlled. This may mean that unhappiness gives rise to more health care consumption.

Cuts to medical expenses due to income decline are also more frequent among the unhappy, even when current income is controlled ([table 3c](#)). Since health was not controlled in this study, this may mean that damaged health has lowered happiness. Additionally, it is possible that unhappy people are more prone to income loss.

- *Less happy with higher expenditure for housing?*  
One study in Canada observed a negative correlation between happiness and the percentage of one's income spent on housing. Income was not controlled in this study, so the correlation may merely reflect an effect of poverty. Another intervening variable may be house-ownership, which tends to go with greater happiness as we will see in section 3.2.2. If so, this may mean that renters pay more than owners do.
- *Mixed minor relations between happiness and expenditure on transport.*  
The correlations between expenditure on transport and happiness are small and variable. Positive correlations appear in medium developed nations in all income brackets. Much will depend on the kind of transportation used; below in section 3.2.3, we will discuss the relation between car-ownership and happiness.
- *Mixed relations of happiness with expenditure on utilities.*  
The correlation of happiness with relative expenditure on utilities tends to be negative in highly developed nations, but is positive in medium developed nations. No further differences appear across income and gender categories

### **3.2.1b Expenditure on experience**

There is a lot of research on the relation between happiness and hedonic *experiences*, such as listening to music, eating out and holiday travel. In this review, our focus is on *expenditure* and findings on this matter are scarce yet.

- *Art buyers are happier*  
The only study on this subject observed higher happiness among buyers of art; at least on one of three happiness indicators. Since income was not controlled this could be a mere reflection of buying power.
- *Expenditure on leisure goes with greater happiness.*  
The few observed correlations between leisure expenditure and happiness are positive and similar across income categories. This may mean that leisure expenditure buys happiness, but again this correlation can be due to reversed causality. If so, this would not fit the earlier suggestion that happiness fosters

saving and investment in durables.

- *Less expenditure on alcohol goes with less happiness.*  
Cuts in expenditure on alcohol due to income loss correlates with lower happiness, even when current income is controlled. This correlation is most pronounced in developed nations. If not due to a greater tendency of the unhappy to economize on alcohol, this finding suggests that drinking adds to happiness. From this perspective, the difference with medium developed countries may be found in the lower incidence of problem drinking.
- *Less luxury hardly hurts.*  
Cuts in expenditure on luxury and happiness do not reduce happiness in most nations. A small negative correlation was found only in Mongolia.

[Table 3a](#) about here

[Table 3b](#) about here

[Table 3c](#) about here

### 3.2.2 House ownership and happiness

Let us now turn to major consumer decisions, the most important for most people being, whether or not to buy a house. To date, the relation between happiness and home ownership has been addressed in 55 empirical studies, the results of which are summarized in [Table 4a](#). Split-ups of the same findings are presented in [table 4b](#). What answer do these findings suggest for our research questions?

#### 3.2.2a Homeowners happier

Among the cross-sectional findings summarized in [table 4a](#) all the bi-variate associations are positive. This pattern appears in comparisons of owners versus non-owners and of owners and renters. These findings suggest that home-ownership adds to happiness.

Next to full house ownership, there are several kinds of partial ownership, such as time-limited ownership (redemption), joint ownership with others, usufruct and the right to use a house free of charge. The correlation with happiness of these ownership modalities has been addressed in two cross-sectional studies, the results of which are summarized in the lower part of table 4a. These findings suggest again that home-ownership of what-ever type tends to go with greater happiness.

#### *Checks for spurious correlation*

Yet positive correlations can be misleading, for instance if homeowners are more often married and their greater happiness can be driven by marital status. Such spurious effects can be neutralized in multi-variate analysis and the column 'partial' in table 4a shows the partial correlations that remain after control for such variables.

Most of these partial correlations are positive and suggest that home ownership fosters happiness.

In 6 cases the correlation between home-ownership and happiness disappears and in 4 cases the partial correlation is negative. A closer look at these divergent findings reveals that in 6 of the cases satisfaction with life domains has been controlled<sup>7</sup>, which is likely to have wiped out the correlation with satisfaction with life as a whole (happiness). In 2 cases did control really change the picture. Both studies were done in the USA, one among the general public, which controlled for age and socio-economic status<sup>8</sup> and one among women<sup>9</sup>, which additionally controlled for family situation and average income in the neighborhood. Yet these controls could be too severe and wash out the true effects of home ownership on happiness, in particular the control for income. Part of the effect of income on happiness is in what income allows one to buy with it and among these expenses is a house. So, these few divergent findings do not convince.

### *Follow-up studies*

Longitudinal research designs are more suited to rule out spurious correlations and can help us to identify reverse causation. Three longitudinal findings are available on this topic and all three show that a change to home-ownership is typically accompanied by a rise in happiness. Yet these studies do not show what came first; the buying of a house or the rise in happiness.

### *Experiments*

Experimental studies provide the best evidence for causality, and two such studies show a positive effect of home-ownership on happiness. One was done among low income Americans who participated in a home-ownership program involving soft loans<sup>10</sup>. One and a half year after purchase of their home, these people had become happier than a matched control group who still rented their house. Likewise, in a legalization program among illegal land occupants in Brazil<sup>11</sup> an experimental group who came to own their home became happier than a control group, in spite of the fact that they now had to pay tax on their property.

Taken all together there is little doubt that home-ownership tends to work out positively on happiness, which is not to say that it always does.

[Table 4a about here](#)

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<sup>7</sup> Shu & Zhu (2009) in China, Mollenkopf et al (2004) in 6 nations,

<sup>8</sup> Rossi & Weber (1996)

<sup>9</sup> Bucchianari (2011)

<sup>10</sup> Rohe & Stegman (1994)

<sup>11</sup> Serpa Barrow (2013)

### 3.2.2b *Positive effect of home ownership similar across populations*

The effects of home-ownership on happiness may not be the same for everybody and for that reason we checked for differences in the populations studied. The split-ups performed are summarized in [table 4b](#).

The first thing that strikes the eye is that the pattern of positive associations is similar across highly developed and medium developed nations. Apparently, the positive effect of home-ownership is universal. Specification by populations within nations shows a positive correlation between the happiness of adolescent students and the house-ownership of their parents<sup>12</sup>.

At first sight, a different pattern exists among elderly people. Yet all the non-positive findings reported for this age category come from a 5-country study by Mollenkopf et al (2004), which involved too heavy controls as reported above. Hence, these findings can be ignored. The only study among aged people that used acceptable control variables<sup>13</sup> found a positive relationship.

A split-up between Britons in bad and good mental health reveals a positive correlation among the former, but not among the latter. This may mean that home-ownership matters more for the happiness of vulnerable people.

Lastly, the findings among people living in rural areas suggest at first sight that home-ownership does not matter in these conditions, but again we are dealing with a side issue in the 5-country Mollenkopf study, which can be ignored.

[Table 4b](#) about here

### 3.2.3 **Car ownership and happiness**

Another major consumer decision is the buying of a car. The findings on the relationship between car ownership and happiness are summarized in [table 5a](#) and [5b](#).

#### *Car owners happier*

Nearly all the bi-variate coefficients in [table 5a](#) are positive and this suggests that owning a car adds to happiness.

Again, these bi-variate findings may be misleading. People who own a car are usually better off financially than people who do not, and may be happier for that reason. Therefore, the partial correlations reported in the next column are more informative. The findings in this column are more mixed. A closer look at the finding pages reveals that much depends on the control variables used, control for income wipes much of the correlation away and additional control for gender and marital status sometimes changes the sign to negative. This may mean that the correlation is spurious, but again, over-control may have wiped away true effects. For instance, if car-ownership adds to your chances on the marriage market, control for marital status disguises a positive effect on happiness.

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<sup>12</sup> Bechetti & Pinasi (2014)

<sup>13</sup> Gaimu & Springer (2010)

Longitudinal data can tell us more about causality. The only finding of this kind shows that a change in car-ownership goes with a change in happiness, which suggests that getting a car adds to happiness, but this is not really proven. Proof must come from more sophisticated follow-up studies or from experimental studies in which the effect of induced car-ownership on happiness is followed. For the time being, we can at best say that car-ownership *seems* to boost happiness.

#### *Happier with more cars*

Bi-variate correlations between the number of cars owned and happiness are positive. The more cars a family has, the happier family members are. When controlling for income, the happiest people are those with 2 or 3 cars in their household, but no more than that. When controlling for more variables, the positive relationship between number of cars and happiness disappears and even turns to negative.

#### *Equally happy with an economy car?*

Bi-variate correlation suggests that expensive cars add more to happiness than cheap ones, while owners of a junk car are no happier than people who do not possess a car, however, these correlations may reflect an effect of income rather than that of car-ownership. Control for household income suggests that owning an economic car brings the most happiness.

[\*Table 5a about there\*](#)

#### *Not always equally much*

The influence of cars on happiness may vary across persons and situations and such differences appear in specifications. The scarce findings on this topic are presented in [table 5b](#).

As yet, all the findings come from developed nations. The only negative finding come from a study in a Kibutz in Israel in 1979, where private car-ownership may have met with social rejection in this social context.

One study split-up by gender and found a small positive correlation among males and a slight negative link among females. Not surprisingly, car-ownership matters less for the happiness of people living in urban areas, than in rural areas. This difference has been found in Eastern Germany, Hungary and Italy.

[\*Table 5b about there\*](#)

## **4 DISCUSSION**

The aim of this review was to see what patterns of consumption produce the most happiness for what kind of people. Are we any wiser now?

### **4.1 What we know now**

Consumption does matter for happiness, at least some kinds of consumption. Though most of the correlations are small and insignificant, we did see several substantive links.

Some findings suggest that a 'Calvinist' consumption style tends to foster happiness. This appears in the findings on saving, charity and spending on durables and education. The observed effect of house-ownership on happiness can also be seen as a fruit of solid spending. Still, we have also found links between experience consumption and happiness.

Contrary to claims by critics of consumerism, we did not find much evidence of consumption reducing happiness. Owning a car and TV does not seem to lower happiness. This is not to say that the *use* of these commodities cannot reduce happiness, e.g. heavy television watching lowering life-satisfaction (Benesh et al 2007).

## 4.2 What we do not know yet

The available data on consumption and happiness do not give information about the optimal mix between saving and consuming and, in the latter case, about the best mixtures of expenditure on durables and experiences. Optimal configurations will vary across persons and situations and assessment of these variations will therefore require large-scale studies.

Another thing we do not know yet is to what extent the correlations between consumption and happiness stem from a causal effect of the former on the latter, only in the case of house-ownership there is some evidence.

We are also still largely in the dark about the effects on happiness of the *use* of goods and services purchased, such as in the above-mentioned cases of having a car and television. This aspect of consumption is intertwined with wider life-style and time-use. We can learn much about its effects on happiness using the new methods of multiple moment assessments, such as the Experience Sampling Method.

## 4.3 Why so many blank spaces?

The number of research findings on consumption and happiness is small; given the relevance of the topic and the size of the market, one would have expected much more research on the consequences of consumer choice on happiness. Another thing that strikes the eye is that the few available studies are not very sophisticated, most of the findings are cross-sectional, the columns for longitudinal and experimental studies in the tables are largely empty and the tables with specifications show many blank spaces. Why is this the case?

One of the reasons seems theoretical shortsightedness. Many economists still equate consumption with happiness automatically, assuming that homo-Economicus is fully informed about his/her preferences and that meeting these preferences



makes him/her happy. They are unaware of the above noted difference between *expected* and *experienced* utility. These economists do not see the difference between *needs* and *wants* either and do not know that happiness depends more on meeting the former than the latter (Veenhoven 2009).

Another reason is in commercial self-interest. Producers are interested in selling their products in the first place. They spend lots of money on marketing research to get a better picture of what consumers *expect* will make them happy and on advertisements to influence these expectations and link to their products. Whether these products actually *do add* to a consumer's happiness is not the producer's prime concern. Though there is a considerable body of research on consumer's satisfaction with products, there is little research on the effect of using products on satisfaction with life, not even in sectors where wider life-satisfaction is evidently at stake, such as in the case of life-insurances or residential care.

This lack of research is part of a wider market failure. Since there is no dependable information on the long-term consequences of big consumer purchases on happiness, there is no market-competition on happiness effects and hence no product development in this direction. The market itself is unlikely to solve this problem, governments and consumer unions are in the better position to press for more research on the effects of consumption on happiness.

## **5 CONCLUSIONS**

The available research suggests that saving and investing in durables will foster happiness, but it also shows a positive effect of experience consumption. The available findings do not inform us about what consumption mixes are optimal in what situations. Causality is mostly unclear; only in the case of house-ownership does the available data show a positive causal effect on happiness.

Therefore, we are still far from answering the question of what pattern of consumption produces the most happiness for what kind of person. This review demonstrates that this question is answerable; we just need more and better research before we can give a well-supported answer.

**Table 1a**  
**29 RESEARCH FINDINGS ON HAPPINESS AND SAVINGS**  
**All findings**

	Research methods							
	Cross-sectional				Longitudinal		Experimental	
	Zero-order		partial		Zero-order	Partial	Zero-order	Partial
<b>AMOUNT IN SAVINGS</b>	+	+	+	+	-	+/+	+	+
					+	+		
<b>KIND OF SAVINGS</b>								
<b>Has saving accounts</b> (vs not)					+			
<b>Has stocks/bonds</b> (vs not)					+/-			
<b>Has operating assets</b> (vs not)					+/-			
<b>Has insurances</b>								
Life insurance					+	+		
Medical insurance	+		-/-	-/+	+	+	+/-	+
<b>DEBTS</b>	+/-	-	-/-		0/-	-	0	
Has debts		-						
Size of debts		+						

Signs explained on [appendix](#). Signs link to finding page in [World Database of Happiness](#). Use control+click to view the page.

**Table 1b**  
**15 RESEARCH FINDINGS ON HAPPINESS AND SAVINGS IN INSURENCES**  
**Split-up by populations**

	RESEARCH METHODS					
	Cross-sectional		Longitudinal		Experimental	
	Zero-order	Partial	Zero-order	Partial	Zero-order	Partial
<b>GENERAL POPULATION IN NATIONS</b>						
Highly developed	+	+ +				
Medium developed		+ + +				
<b>SPECIAL POPULATIONS</b>						
<b>Gender</b>						
Females		+				
Males		+				
<b>Income</b>						
Low income		+				
High income		+				

<b>Work</b>				
Working			+	
Not working			-	
<b>Age</b>				
Young			+	
Old	+		+ +	+

Signs explained on [appendix](#). Signs link to finding page in [World Database of Happiness](#). Use control+click to view the page.

**Table 2a**  
**16 RESEARCH FINDINGS ON HAPPINESS AND SPENDING: How much**

**All findings**

	Research methods							
	Cross-sectional			Longitudinal		Experimental		
	Zero-order	partial			Zero-order	Partial	Zero-order	Partial
Total spending	-	+ + + + + + +/-				-		
Relative spending		+ + + +						
Spend on others (vs on self)	+/+	-/+ +			-/-/+	0/+		

Signs explained on [appendix](#). Signs link to finding page in [World Database of Happiness](#). Use control+click to view the page.

**Table 2b**  
**8 RESEARCH FINDINGS ON HAPPINESS AND SPENDING: How much**

**Subgroups**

	Research methods					
	Cross-sectional		Longitudinal		Experimental	
	Zero-order	partial	Zero-order	Partial	Zero	Partial
Males		+				
Females		+				
Urban		+ +				
Rural		+ +				
Urban migrants		+				
Urban locals		+				

Signs explained on [appendix](#). Signs link to finding page in [World Database of Happiness](#). Use control+click to view the page.

**Table 3a**  
**42 RESEARCH FINDINGS ON HAPPINESS AND SPENDING: On various categories of outgoings**

**All findings**

	Research methods						
	Cross-sectional			Longitudinal		Experimental	
	Zero-order	partial		Zero-order	Partial	Zero	Partial
<b>Necessities</b>			+				
Clothing		+/+/-	-/-/+	+/+ +			
Communication			-				
Durables		+/+	+ +	+ +			
Education		+/+/-	+/+/-	+ -	-/-/+ +		
Food	+ +	+/-	-/+	+/-	+/+	+/+	+
Health			-/-/+	-/-	-/-		
Housing			- +	+ -			
Transportation	+	+/-/-	+/-/-	-	+/+	+	
Utilities	+ +		+	-	+/+		
<b>Experiences</b>							
Art	+/0						
Leisure		+	+/+	+			

Signs explained on [appendix](#). Signs link to finding page in [World Database of Happiness](#). Use control+click to view the page.



**Table 3b**  
**100 RESEARCH FINDINGS ON HAPPINESS AND SPENDING: On various categories of outgoings**  
**Split by populations**

	Nation development		Population					Environment			
	High	Medium	Personal income			Gender		Rural	Urban		
			Low	Medium	High	Females	Males				
<b>Necessities</b>							+	+	+	+	
Clothing	+	+	+/+ +	-	+/+ +	+/- +	-	- +	+ +	+	+
Durables	+	+	+/+ +	+	+/+ +	+/+ +	+	+	+		
Education	+	+	+/+ -	+	-/+ -	-/+ +	+	+	-		
Food	+	-	+/-/-	+	+/- +	-/+ +	+	-	-		
Health	-	-	+/+	-	+/- -	-/-	-	+	+	+	+
Housing										+	+
Transportation	+	- +	-/- +	+	+/+ +	-/- +	-	+ +	- +	+	+
Utilities	-	+	-/+ +	+	-/+ +	+/+ +	+	+	+		
<b>Experiences</b>											

Leisure		+	+	+			
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Signs explained on [appendix](#). Signs link to finding page in [World Database of Happiness](#). Use control+click to view the page.

+ = grey background means correlation in developed countries

**Table 3c**  
**6 RESEARCH FINDINGS ON HAPPINESS AND CONSUMER EXPENSES**  
 Retrospective reduction of expenses on...

	RESEARCH		METHODS			
	Cross-sectional		Longitudinal		Experimental	
	Zero-order	Partial	Zero-order	Partial	Zero-order	Partial
<b>All expenditures</b>		-				
<b>Necessities</b>						
Food		-/-				
Medication		+/-				
Utilities		-/-				
<b>Experiences</b>						
Luxury	+/0	+/-/-				
Alcohol		-/-/+				

Signs explained on [appendix](#). Signs link to finding page in [World Database of Happiness](#). Use control+click to view the page.

+ = grey background means correlation in developed countries

**Table 3d**  
**38 RESEARCH FINDINGS ON HAPPINESS AND KIND of CONSUMPTION**

	RESEARCH		METHODS			
	Cross-sectional		Longitudinal		Experimental	
	Zero-order	Partial	Zero-order	Partial	Zero-order	Partial
<b>Green consumption</b>		+				
<b>New goods</b>			+		0	
<b>Pleasure goods</b>	+ + +/0 +	+ 0				
<b>Status goods</b>		-				
<b>Particular possessions</b>	+ +	+ +				
Communication devices	+ + + + +	0 + + + + +				
Household equipment	+ + + + +	+ + + + + +				
Garden	+					
Value of home		+				
Car	----- See table 4a and 4b -----					
Own home	----- See table 5a and 5b -----					

Signs explained on [appendix](#). Signs link to finding page in [World Database of Happiness](#). Use control+click to view the page.

**Table 4a**  
**75 RESEARCH FINDINGS ON HAPPINESS AND HOMEOWNERSHIP**  
**All findings**

	Research methods					
	Cross-sectional		Longitudinal		Experimental	
	Zero-order	partial	Zero-orde	Partial	Zero-order	Partial
<b>Owned (vs Not)</b>		+ + +/+ + + + + + +/+ + + + +/+ + +/- - +/+ + + 0 + 0 0 0 0/- - + +				
<b>Owned (vs Rent)</b>	+ + + + + +/+ +/+ +/+ +/+ +/+ +/+ +/+ + + +/+ +/+ +/+ + + +/+ + +	+/+ + + + + + + 0 +/+ + +0 + +		+ + +	+ +	
<b>Owned partially (vs not)</b>				-/- +		
Owned (vs used free of charge)				+		
Rented (vs used free of charge)				+		
Redemption (vs used free of charge)				-		
Usufruct (vs used free of charge)				+		
Used free of charge (vs not)				+		

Signs explained on [appendix](#). Signs link to finding page in [World Database of Happiness](#). Use control+click to view the page.

**Table 4b**  
**46 RESEARCH FINDINGS ON HAPPINESS AND HOME OWNERSHIP**  
**Split by populations**

	RESEARCH METHODS									
	Cross-sectional					Longitudinal			Experimental	
	Zero-order		partial			Zero-order	Partial		Zero-order	Partial
<b>GENERAL POPULATION</b>										
In all countries			+							
Developed countries	+	+	+	+	+	+	-	+		
	+	+/+	+	+	+	+	0	+	+	+
							+/+			
Developing countries			+	+	+	+	+			+
							-			
<b>SPECIAL POPULATIONS</b>										
<b>Age groups</b>										
Students			+							
Elderly			+	-/0	0	0				
			0		0	-				
<b>Health status</b>										
Mental health				+	0					
<b>Region</b>										
Rural areas			-	-	0	0	0			
					0					

Signs explained on [appendix](#). Signs link to finding page in [World Database of Happiness](#). Use control+click to view the page.



**Table 5a**  
**24 RESEARCH FINDINGS ON HAPPINESS AND CAR OWNERSHIP**  
**All findings**

	RESEARCH METHODS																						
	Cross-sectional						Longitudinal			Experimental													
	Zero-order			partial			Zero-order	Partial	Zero-order	Partial													
<b>Own a car (vs not)</b>	+	+	-/+	+	+	+	-	-/-	0/+	0													
			+	+			0/+	0/+	0	+/-/-	+												
									+														
<b>Price of cars</b>			-/+						-/-/+/+														
<b>Number of cars</b>			+						+/-	+/-/-													
<b>Change of cars</b>									-														

Signs explained on [appendix](#). Signs link to finding page in [World Database of Happiness](#). Use control+click to view the page.

**Table 5b**  
**24 RESEARCH FINDINGS ON HAPPINESS AND CAR OWNERSHIP**  
**Split by population**

	RESEARCH METHODS														
	Cross-sectional			Longitudinal		Experimental									
	Zero-order		partial	Zero-ord	Partial	Zero-order	Partial								
<b>GENERAL POPULATION</b>															
Developed countries	+	+	+	-	0/+ 0	0/+ +/-/-	0/+ -/-	0			+				
Developing countries															
<b>SPECIAL POPULATIONS</b>															
<b>Gender</b>															
Females											-				
Males											+				
<b>Region</b>															
Urban areas											0	0	0	0	0
Rural areas											0/+	+	+	0	0

Signs explained on [appendix](#). Signs link to finding page in [World Database of Happiness](#). Use control+click to view the page.

## Appendix

### Meaning of signs used in tables

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- + = positive correlation, significant
  - + = positive correlation, not significant
  - 0 = direction of correlation not reported and not significant
  - = negative correlation, significant
  - = negative correlation, not significant
  - /+ = positive and negative correlations obtained with different sets of control variables
- 

All signs involve a link to a finding page with full detail in the [World Database of Happiness](#). Use control+click to view the page.

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