

HAPPINESS AND CONSUMPTION

A review of research

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ABSTRACT

There is a lot of research on the effect of income on happiness, but as yet 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 150 findings observed in 67 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 both saving and spending, but do not yet tell what mix is best in what situations. The data are more informative when it comes to major consumer decisions. Home-owners tend to be happier than people who rent their house. This difference is fairly 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 a thrifty 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 particular pronounced in contemporary modern society. Our heightened interest in happiness has several reasons, one of which is the greater awareness that a satisfying life is possible today and that we are smith of our own happiness to a considerable extent. A related reason is that we now live in a multiple-choice society, in which we are faced with major decisions, such as where to live and to have children or not. Prospects for happiness figure in such decisions and this creates a growing demand for information about happiness (Veenhoven 2015a and b).

Information demand

One of the topics on which we need 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. One issue is then how much to saving is required for happiness in the long run. 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 big purchases, such as a house. For instance, people who take on a heavy mortgage to buy a large house, mostly 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 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 and savings?

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

Happiness research

This 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', and is also called 'life satisfaction'. This concept is discussed in more detail in Veenhoven (1984 chapter 2). 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 in a number between 1 and 10, where 1 stands for 'dissatisfied' and 10 for 'satisfied'²”

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' around the year 2000. To date (2015) happiness has figured in some 5000 empirical studies and this year about 700 additional research reports on happiness will be published.

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 free available on the internet (Veenhoven 2014)

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 2014a). To date this collection includes some 10,000 books and articles, which have all been inspected to see whether they concern this kind of happiness and not deal with something else for which the same name 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 2014b).

The findings yielded by studies that past this test for adequate measurement of happiness are described on separate 'finding pages', using a standard format and 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 9000 distributional findings, 6000 of which deal with happiness in the general population of nations (Veenhoven 2014c) and 3000 with happiness in sub-populations, such as students or psychiatric patients (Veenhoven 2014d).

The collection of 'Correlational Findings' (Veenhoven 2014e) contains some 15.000 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' entered in the World Database of Happiness by May 2015.

Aim of this review

Using this collection of research findings on Consumption and Happiness we will

² This question is in the core questionnaire of the World Values Surveys

inspect what patterns of consumption produce the most happiness for what kind of people.

2 METHOD

To date (May 2015) the Bibliography of Happiness lists 152 scientific publications in which the subject 'Consumption' is addressed (subject code Lf). About half of these publications report an empirical study in which an acceptable measure of happiness was used. Together these studies yielded 150 '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 the reviewer's interpretation cannot easily be controlled.

In this 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 academic review papers, but the electronic version contains a lot of links to sections in this on-line findings archive. This allows us to make controllable statements about main trends in the data without burdening the reader with detail.

This way of summarizing research findings has several advantages over traditional reviews that are limited to the possibilities of printed paper. Checking with the available data is easier as the links provided in this text lead the reader directly to standardized descriptions of the research findings, all of which still 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. This method allows all research reports to be taken into account and thus avoids the danger of 'cherry picking'. This new method also allows a more complete description of the findings. While traditional reviews typically condense the information into a few columns of a summary table, our new method allows easy access to much more detail 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 restricts to research findings obtained using measures of happiness that fit the concept of happiness as life-satisfaction. As such this source is more informative than literature databases in which the word 'happiness' denotes different meanings.

This technique has been applied in an overview of all findings on happiness by Veenhoven (2015a). In this text we apply it to research findings on happiness and

consumption in particular. We used the collection of ‘Findings on Happiness and consumption’ (Veenhoven 2014f), which we updated up to May 2015. An overview of these findings is presented on Appendix A.

2.2 Presentation of findings

We present these findings by subject in tables, first a table with all findings and next in tables specifying findings by places and publics. In these tables observed statistical relationships are indicated by – or + 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 –. Where a significance test is reported we use a bold sign: **+** or **–**. Where there 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/-** where 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 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 consumption and happiness is assessed, 2) longitudinal studies, which assess the relation between changes in consumption and happiness and 3) experimental studies which assess the effect of induced change in consumption on happiness. 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 such false relationships out, most studies computed 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: since most studies report findings using more than one method, the same finding pages will appear in different columns of the tables of this review.

Publics

Since we want to know what patterns of consumption are optimal for what kinds of people, we specify 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, as some critics of 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 found a negative relation refers to net financial assets instead of real money savings. So we may ignore this result and conclude that saving tends to go with happiness.

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 the right bottom of 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 saving account in the bank, buy stocks/bonds or buy insurances. One can also invest ones money in a business, i.e. operating assets. Which is the best for happiness?

As is shown in table 1b, saving in an accounts or life insurances tends to go with greater happiness, while mixed effects are observed for the riskier kinds of saving 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 slight 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 the happiness among males than among females, more among poor than among rich people and more among young adults than the middle aged and elderly.

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 2 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 among the general population in Germany, in which a positive correlation appeared between the amount of consumptive spending and happiness. The correlation survived several controls, among which a control for household income. This result fits the findings on specific expenditures to be 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 chronic mental patients. Since income was not controlled in this study it may simply mean that poor patients are less happy than rich patients.

This relation between spending and happiness has not yet been assessed in follow-up studies, so we do not know whether the greater happiness of big spenders lasts.

Spending on others goes with greater happiness

Not all spending is consumptive 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 2 about here

3.2 Consume what?

This brings us to the next 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 luxury. The distinction reveals a more consistent pattern of correlations in the latter category than in the former.

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, expenses on clothing go 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.

Higher 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 spent 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 more 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 can 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 expenditures 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 makes 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 on medical expenses due to income decline are also more frequent among the unhappy, even when current income is controlled (table 3c). Since health is not controlled in that 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 the percentage of one's income spent on housing and happiness. 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

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 and below, in section 3.2.3, we will discuss the relation between car-ownership and happiness.

Mixed relations of happiness with expenditures on utilities. The correlation of happiness with relative expenditure on utilities tends to the negative in high developed nations, but is positive in medium developed nations. No further differences appear across income and gender categories

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 we focus is on *expenditure* and findings on this matter are scarce as 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. The same study found no relation between cuts expenditure on luxury and happiness in most nations. A small negative correlation appear 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 one of which is whether or not to buy a house. To date the relation between happiness and home ownership has been addressed in 42 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 imply for our research questions?

Home owners happier

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

Next to full house ownership here 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 home-owners are more often married and their greater happiness is 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 also 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 controlled³, 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 in the USA, one among the general public, which controlled for age and socio-economic status⁴ and one among women⁵, which additionally controlled for family situation and average income in the neighborhood. Yet these controls could be too severe and wash out true effects of home ownership on happiness, in particular the control for income. Part of the effect of income on happiness is in what one buys

³ Shu & Zhu (2009) in China, Mollenkopf et al (2004) in 6 nations,

⁴ Rossi & Weber (1996)

⁵ Bucchianari (2011)

with it and among these expenses is obviously also 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 also 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 also 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 loans⁶. 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 Brazil⁷ an experimental group who came to own their home became happier than a control group, in spite of the fact that they 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

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 first of all a positive correlation between the happiness of adolescent students and the house-ownership of their parents⁸.

At first sight a different pattern exists among elderly people. Yet all the non-positive findings reported for this age category come from the 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 variables⁹ found a positive relationship.

⁶ Rohe & Stegman (1994)

⁷ Serpa Barrow (2013)

⁸ Bechetti & Pinasi (2014)

⁹ Gaimu & Springer (2010)

A split-up between Brittons 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 suggest 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 once more 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.

Again longitudinal data can tell us more about causality. The only finding of that 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..

More cars, more happy

Bi-variate correlations between the number of cars owned and happiness are also 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, but no more than that, and 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; 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 Kibbutz in Israel in 1979. 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 was 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 now know

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.

Several 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.

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 are we really sure.

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 also show many blank spaces. Why is this?

One of the reasons seems to be in the theoretical short-sightedness. Many economists still equate consumption with happiness automatically, assuming that homo-economicus is fully informed about his preferences and that meeting these preferences makes him happy. They are unaware of the above noted difference between *expected* and *experienced* utility. They 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 to 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 quite some research on consumer's satisfaction with products, there is little research on the effect of using products on satisfaction with life, not even in the 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 do the available data show a positive causal effect on happiness.

So we are still far from answering the question of what patterns of

consumption produces the most happiness for what kind of people. However, this review demonstrates that this question can be answered, we just need and better research.

Table 1a
RESEARCH FINDINGS ON HAPPINESS AND SAVINGS
All findings

	Research methods						
	Cross-sectional			Longitudinal		Experimental	
	Zero-order	partial		Zero-order	Partial	Zero-order	Partial
AMOUNT IN SAVINGS	+	+	+	-	+/+	+	
KIND OF ASSETS							
Has saving accounts (vs not)				+			
Has stocks/bonds (vs not)				+/-			
Has operating assets (vs not)				+/-			
Has insurances							
Life insurance				+	+		
Medical insurance	+	-/-	-/+	+	+	+/-	+

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

Table 1b
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
GENERAL POPULATION IN NATIONS						
Highly developed	+	+	+			
Medium developed		+	+	+		
SPECIAL POPULATIONS						
Gender						
Females		+				
Males		+				
Income						
Low income		+				
High income		+				
Work						
Working		+				
Not working		-				

Age	A	B	C	D	E
Young	0	0	1	0	0
Old	1	0	2	1	1

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

Table 2
RESEARCH FINDINGS ON HAPPINESS AND SPENDING: How much

All findings

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

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

Table 3a
RESEARCH FINDINGS ON HAPPINESS AND SPENDINGS: On various categories of outgoings

All findings

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

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

Table 3b

RESEARCH FINDINGS ON HAPPINESS AND SPENDING: On various categories of outgoings
Split by populations

	Population							
	Nation development		Personal income				Gender	
	High	Medium	Low	Medium	High	Females	Males	
Necessities								
Clothing	+	+	<div>+/-</div> <div>+</div> <div>-</div>	<div>+/-</div> <div>+</div> <div>+</div>	<div>+/-</div> <div>+</div> <div>-</div>	-	+	
Durables	+	+	<div>+/-</div> <div>+</div> <div>+</div>	<div>+/-</div> <div>+</div> <div>+</div>	<div>+/-</div> <div>+</div> <div>+</div>	+	+	
Education	+	+	<div>+/-</div> <div>-</div> <div>+</div>	<div>-/+</div> <div>-</div> <div>-</div>	<div>-/+</div> <div>+</div> <div>+</div>	+	-	
Food	+	-	<div>+/-</div> <div>-</div> <div>-</div>	<div>+/-</div> <div>+</div> <div>+</div>	<div>-/+</div> <div>+</div> <div>+</div>	-	-	
Health	-	-	<div>+/-</div> <div>+</div> <div>-</div>	<div>+/-</div> <div>-</div> <div>-</div>	<div>-/-</div> <div>-</div> <div>-</div>			
Transportation	+	- +	<div>-/-</div> <div>+</div> <div>+</div>	<div>+/-</div> <div>+</div> <div>+</div>	<div>-/-</div> <div>+</div> <div>-</div>	+	-	
Utilities	-	+	<div>-/+</div> <div>+</div> <div>+</div>	<div>-/+</div> <div>+</div> <div>+</div>	<div>+/-</div> <div>+</div> <div>+</div>	+	+	
Experiences								
Leisure			+	+	+			

Signs explained on appendix B. 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
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
Necessities						
Food		-/-				
Medication		+/-				
Utilities		-/-				
Experiences						
Luxury		+/-/-				
Alcohol		-/-/+				

Signs explained on appendix A. 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 4a
RESEARCH FINDINGS ON HAPPINESS AND HOMEOWNERSHIP
All findings

	Research methods									
	Cross-sectional					Longitudinal		Experimental		
	Zero-order			partial		Zero-orde	Partial	Zero-order	Partial	
Owned (vs Not)	+	+	+	+	+	+/+	+	+	+	+
				+	+	+/+	+/+	-		
				+/+	+	+	0	+		
				0	0	0	0/-	-		
Owned (vs Rent)	+	+	+	+						
	+	+/+	+/+	+/+	+	+	+	+		
	+/+	+/+	+/+	+/+	+	+	0	+/+	+	
	+/+	+/+	+/+	+/+	+/0	+			+/+	+
	+/+	+	+/+	+						
Owned partially (vs not)						-/-	+			
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 A. Signs link to finding page in [World Database of Happiness](#). Use control+click to view the page.

Table 4b
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	
GENERAL POPULATION												
In all countries						+						
Developed countries	+	+	+	+	+	+	+	+	-	+		
	+	+/+	+	+	+	+	+	0	+	+	+/+	+
						+	+	+	+	+		
Developing countries	+										+	
SPECIAL POPULATIONS												
Age groups												
Students						+						
Elderly						+	-/0	0	0			
						0		0	-			
Health status												
Mental health						+	0					
Region												
Rural areas						-	-	0	0	0		
						0						

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

Table 5a
RESEARH FINDINGS ON HAPPINESS AND CAR OWNERSHIP
All findings

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

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

Table 5b
RESEARH FINDINGS ON HAPPINESS AND CAR OWNERSHIP
Split by population

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

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

Appendix A

FINDINGS ON HAPPINESS AND CONSUMPTION

in World Database of Happiness, collection Correlational Findings, Subject category C9,
May 2015

<i>Main subjects</i>			<i>Related topics</i>		
<i>Subject code</i>	<i>Subject name</i>	<i>number findings</i>	<i>Subject code</i>	<i>Subject name</i>	<i>number findings</i>
C9	CONSUMPTION	0	I1 P10	INCOME POSSESSIONS	
C9.1	Consumption career	0			
C9.1.1	Earlier consumption	0			
C9.1.2	Change in consumption	5	L9.1.2	Change in life-style	0
C9.1.2.1	Consuming less	0	L9.2.2.1	Alternative life style	15
C9.1.2.1.1	Spend less on food	1	C9.2.2.9	Food	3
			N10.2.4	How much one spends on eating	2
C9.1.2.1.2	Spend less on luxury	1	C9.2.2.8	Luxury	
C9.1.2.1.3	Spend less on medication	1			
C9.1.2.1.4	Spend less on stimulants	1	C9.2.2.4	Experiences	1
C9.1.2.1.5	Spend less on utilities	1	C9.2.2.12	Stimulants	3
			C9.2.2.14	Utilities	4
C9.1.2.2	Consuming more	0			
C9.1.2.3	Consuming different	0			
C9.1.3	Later consumption level	0			
C9.2	Current consumption	0	P10.2.5	Savings	7
C9.2.1	Consumption level	2	L9.2	Current life-style	3
			L10.3.2	Local consumption level	3
C9.2.1.1	Absolute level	5			
C9.2.1.2	Relative level	3	I1.6	Relative income	20
			C9.2.4.4	Positional goods	1
C9.2.2	Expenditures on..	2			
C9.2.2.1	Education	4	E1	EDUCATION	
			S1	SCHOOL	
C9.2.2.2	Clothing	4			
C9.2.2.3	Durables	4			
C9.2.2.4	Experiences	1			
C9.2.2.5	Health	0	C9.1.2.1.3	Spend less on medication	1
			C9.2.2.11	Personal care	3
C9.2.2.6	Housing	2	H14	HOUSING	
G9.2.2.7	Leisure	2	L3	LEISURE	
C9.2.2.7.1	Holiday travel	1	L3.3.2.10	Traveling	16
C9.2.2.2a	Leisure	1			
C9.2.2.8	Luxury	1	P10.2.2	Specific possessions	28
C9.2.2.9	Food	3	N10	NUTRITION	

C9.2.2.9.1	Groceries	0			
C9.2.2.10	Other people	0			
C9.2.2.11	Personal care	3	L3.3.2.1	Personal care	2
			C9.2.2.5	See also C9.2.2.5 Health	0
C9.2.2.12	Stimulants	3	C9.1.2.1.4	Spend less on stimulants	1
			S13	STIMULANTS	
C9.2.2.13	Transport	4	P10.2.2.2	Car	16
C9.2.2.13a	Car	4			
C9.2.2.14	Utilities	4	C9.1.2.1.5	Spend less on utilities	1
			H14.3	Cost of housing	5
C9.2.4	Kinds of consumption	4			
C9.2.4.1	Communication	2			
C9.2.4.1.1	Telephone	2	P10.2.2.6	Telephone	2
C9.2.4.1.2	E-mail	0			
C9.2.4.1.3	Social Media	0			
C9.2.4.2	Green products	1	C9.4.4	Preference for 'green' consumption	2
			V2.2.4	Ecological values	28
C9.2.4.3	Positional goods	1	S9	SOCIO-ECONOMIC STATUS	
C9.3	Purchase behavior	0	L3.3.2.8	Shopping	2
C9.3.1	Buy where	0			
C9.3.1.1	on internet	1	L3.3.2.6	Internet	5
C9.3.2	Pay how	0			
C9.3.2.1	Type of payment	0			
C9.3.2.1.1	Preferred way of payment	1			
C9.3.2.1.1	Preferred way of payment	1			
C9.3.3	Frequency of payment	0			
C9.4	Attitudes to consumption	0			
C9.4.1	Satisfaction with consumption level	0			
C9.4.2	Satisfaction with consumption pattern	0			
C9.4.3	Consumption aspirations/motives	3			
C9.4.4	Preference for 'green' consumption	2	C9.2.4.2	Green products	1
			V2.2.4	Ecological values	28
Total		75			121

Links in this table connect to finding pages. Use ctrl+click

Appendix B

Meaning of signs used in tables

- + = 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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¹⁰ Investigations involved in this research are indicated with a link to the study report in the World Database of Happiness (e.g. [study US 2009](#) for a study done in the United States in the year 2009). Use Control+Click to assess details about this investigation.

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