# HAPPINESS OF THE SELF-EMPLOYED A research synthesis using an on-line findings-archive<sup>1</sup>

Erasmus University Rotterdam, Erasmus Happiness Economics Research Organization EHERO Working paper 2018-7

Jiequn Liu<sup>2</sup> & Ruut Veenhoven<sup>3</sup>

## ABSTRACT

Question: Self-employment involves advantages and disadvantages and it is worth knowing what the balance of the effects is and how that balance varies across persons and situations, in particular for people who face a choice between self-employment and wage-employment. Approach: We take stock of the available research findings on the relation between self-employment and happiness. We focus on happiness in the sense of life-satisfaction. Method: We draw on the World Database of Happiness, in which we found 138 correlations, reported in 34 publications. This online 'findings archive' holds electronic 'finding pages' on which research results are described in a standard format and terminology. In this paper, we use links to these finding pages and this allows us to summarize the main trends in the data in a few tabular schemes.

**Results:** The available findings show that generally the self-employed are a bit happier than their native general public but less happy than the wage-employed. Wage-employed and unemployed become happier after change to self-employed, but the self-employed tend to get somewhat less happy over time. As opportunity entrepreneurs, the self-employed who change from wage-employed are happier than the others who change from unemployed to become necessity entrepreneurs.

**Limitations:** The available data tell us little about variation in the effect of self-employment for different kinds of people.

### Keywords: happiness, life-satisfaction, employment arrangement, review

<sup>&</sup>lt;sup>1</sup> Presented at the HEIRS conference "Happiness, Capabilities, and Opportunities" - 15th - 17th November 2018 in Naples, Italy

<sup>&</sup>lt;sup>2</sup> Master student at Faculté des Sciences Économiques et de Gestion, Université de Strasbourg. Research intern at Erasmus University Rotterdam in the Netherlands, Erasmus Happiness Economics Research Organization, Rotterdam in the summer 2018. E-mail: <u>liujiequn924@gmail.com</u>

<sup>&</sup>lt;sup>3</sup> Emeritus professor at Erasmus University Rotterdam, the Netherlands, Erasmus Happiness Economics Research Organization (EHERO) and North-West University South Africa, Optentia Research Program. E-mail: veenhoven@ese.eur.nl

# **CONTENTS**

1	INTRODUCTION	.4
1.1	Why study the happiness of the self-employed	.4
1.2	Earlier Research on job satisfaction of the self-employed	. 5
1.3	Research questions	. 6
1.4	Approach: research synthesis	. 6
1.5	Structure of this paper	. 6
2	CONCEPTS AND MEASUREMENT	. 6
2.1	Happiness	. 6
2.2	Self-employment	. 8
3	METHODS	.9
3.1	Gathering of research findings	.9
3.2	Studies found	10
3.3	Format of this research synthesis	10
4	RUSULTS	12
<b>4</b> 4.1	RUSULTS	
1		12
4.1	Overview of all findings: A mixed pattern	12 15
4.1 4.2	Overview of all findings: A mixed pattern Specifications by nation: self-employed happier in some countries	12 15 17
4.1 4.2 4.3	Overview of all findings: A mixed pattern	12 15 17 18
4.1 4.2 4.3 4.4	Overview of all findings: A mixed pattern	12 15 17 18 19
<ul> <li>4.1</li> <li>4.2</li> <li>4.3</li> <li>4.4</li> <li>4.5</li> </ul>	Overview of all findings: A mixed pattern	12 15 17 18 19 <b>20</b>
<ul> <li>4.1</li> <li>4.2</li> <li>4.3</li> <li>4.4</li> <li>4.5</li> <li>5</li> </ul>	Overview of all findings: A mixed pattern	<ol> <li>12</li> <li>15</li> <li>17</li> <li>18</li> <li>19</li> <li>20</li> <li>20</li> </ol>
4.1 4.2 4.3 4.4 4.5 <b>5</b> 5.1	Overview of all findings: A mixed pattern	<ol> <li>12</li> <li>15</li> <li>17</li> <li>18</li> <li>19</li> <li>20</li> <li>20</li> <li>20</li> </ol>
4.1 4.2 4.3 4.4 4.5 5 5.1 5.2	Overview of all findings: A mixed pattern	<ol> <li>12</li> <li>15</li> <li>17</li> <li>18</li> <li>19</li> <li>20</li> <li>20</li> <li>20</li> <li>21</li> </ol>
4.1 4.2 4.3 4.4 4.5 5 5.1 5.2 5.3	Overview of all findings: A mixed pattern	12 15 17 18 19 <b>20</b> 20 20 21 21

# Tables

1	Happiness of the self-employed (vs all other people in the general public, wage-employed,
	non-working)
	30

2a Happiness of the self-employed (vs all other people in the general publics) by nations......31

2b Happiness of the self-employed (vs different kinds of wage-employed people)......33

3a Happiness of the self-employed (vs wage-employed people) by the economic level nations.....34

3b	Happiness of different kinds of the self-employed vs (the wage-employed)	35
4	Happiness of the self-employed vs (non-working people)	.36
5	Change to / from self-employment	.37

# Figures

1	Start page of the World Database of Happiness, showing the structure of this find	ings
	archive	.38
2	Example of an online finding page	39

# Appendices

А	Terms for research techniques used in the header of the tables4	10
В	Meaning of signs used in cells of the tables	.41

# **1** INTRODUCTION

# 1.1 Why study the happiness of the self-employed?

In this paper, we review the available knowledge on the happiness of self-employed people: Who needs this information for what purpose?

### Pursuit of happiness

Most people want to be happy and look for opportunities to achieve a satisfying life. This pursuit seems to be universal (Veenhoven, 2000), but it 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 happiness is something over which we have considerable control. A related reason is that we now live in societies in which we have a lot of choice, for instance, we can choose what education we follow, whether we live together or single and have children or not. This is creating a growing demand for information about the consequences of such choices on our happiness (Veenhoven 2008).

## Relevance of work

Work is one of the most important parts of our lives, we spend about one third of our lifetime working. Consequently, the kind of work we do will have an impact on the quality of our lives. There is much choice among kinds of work: one can choose among many occupations which differ in pay and work-conditions, work full-time or part-time and work at a work-place or at home. A further option is to work for one-self or for an employer.

### Self-employment or wage-employment

Today, most of the work-force is in wage-employment, but a considerable share is self-employed (OECD, 2000). Self-employment is most common in farming, small business and the service sector (Hipple, 2010). The share of self-employed in the workforce is increasing (OECD, 2000), among other things because of flexibility demands in modern market economies (Wilczyńska, Batorski & Sellens, 2015). As a result, ever more people face a choice between wage-employment and self-employment. At the same time, policy makers face the question of encouraging self-employment or not.

# Advantages and disadvantages of self-employment

Self-employment comes with advantages and disadvantages, and it is worth knowing what the balance of the effects is. The self-employed consistently report higher satisfaction with their jobs mainly because of their greater autonomy, but also because they have more flexibility,

better skill utilization and, to some extent, higher (perceived) job security (Hundley, 2001). Being one's own boss has been shown to increase an individuals' satisfaction with their job (Hamilton, 2000), and self-determination promotes satisfaction with self-employment which is highly valued by self-employed individuals (Benz and Frey, 2008a).

Looking at the disadvantages of self-employment, the self-employed work under a lot of pressure, they can lose sleep with worry, placing more weight on work than they do on leisure (Blanchflower, 2004) and some of them have lower incomes than the employed. In addition to lower incomes, the self-employed have longer working weeks than paid employees (Hyytinen & Ruuskanen, 2007), and dealing with employees if you have them can be stressful. In a word, being self-employed is tough work, you can gain a lot and lose a lot. Self-employment is not for everyone, yet a surprisingly high proportion of wage-employees say they would prefer to be self-employed (Blanchflower, 2004).

#### Information demand

For an informed choice, decision makers must estimate a balance of these effects. One way to estimate that balance is to consider the final effect on happiness.

In this context, *individuals* would like to know how happy self-employed people typically are compared to wage-employed people and whether people who change from wage-employment of self-employment tend to become more or less happy. Next to such a general orientation, they would like to know how self-employment tends to work out on the happiness of people like them, that is, people in a similar profession and personal situation. For example, a lawyer who is considering starting to work for his or herself, would like to know how other lawyers who have made this decision have fared, in particular lawyers of a similar age, family situation and personality.

Likewise, *policymakers* want to know how self-employment pans out for the average citizen in their countries, and in that context also want to know how self-employment tends to work out on the happiness of working people in general, and in particular segments of the work-force, such as among women or the elderly.

Opinions on the effects of self-employment on happiness differ widely and are often geared by special interest and hearsay. Hence well-informed choice requires sound scientific data.

# 1.2 Earlier Research on job-satisfaction of the self-employed

As noted above, several studies have found higher job-satisfaction among the self-employed than among the average wage employed (Benz & Frey 2008a, Paolo & Maloney 2012). The higher job satisfaction of the self-employed, however, does not necessarily imply more satisfaction with our life as a whole. Satisfaction with one's work can go at the cost of satisfaction with one's life as a whole, such as in the case of the workaholic academic who loved his work more than his wife and ended up lonely in his study.

In this paper we focus on the life satisfaction of the self-employed, since this is the best available indicator of the balance of effects of self-employment.

## **1.3 Research questions**

- 1 Are the self-employed happier in general, compared to the general public of their country, the wage-employed and non-working people?
- 2 Is the situation different in different nations?
- 3 What is the relationship between a self-employed individual's happiness compared to that of the different kinds of wage-employed and non-working people?
- 4 Which kind of self-employment, such as independent professional, or self-employed with and without employees, brings the greatest happiness when comparing with the wage-employed?
- 5 How does a person's happiness change if they change their employment status?

# **1.4** Approach: research synthesis

We sought answers to these questions by taking stock of the available research findings on the relationship between self-employment and happiness. For that purpose, we used the World Database of Happiness, an online findings-archive which allows a new review technique, to be explained in section 3.3.

## **1.5** Structure of this paper

The paper consists of six sections, after this introductory section 1, in section 2 we define the concepts of happiness and self-employment and explain how these things are measured. In section 3 we describe the 'findings archive' and its use for this research review. Next in section 4 we present the answers to our research questions based on the reviewed research findings. We discuss the results in section 5 and conclude in section 6.

# 2 CONCEPTS AND MEASUREMENT

# 2.1 Happiness

#### Definition of happiness

The word 'happiness' has been used in many ways in different scientific disciplines. In philosophy it is mostly used to denote a 'good life' in an objective sense. In the social sciences

the word happiness refers typically to subjective well-being and in that context to mental states, such as sense of identity and satisfaction with various aspects of life. In this paper we follow Veenhoven's definition of happiness as satisfaction with one's life as a whole. That is: *the degree to which an individual judges the overall quality of his/her life-as-a-whole favorably*, in other words: how much one likes the life one leads (Veenhoven 1984: 22). This definition is leading in the World Database of Happiness on which we have drawn for this research synthesis.

# Components of happiness

When assessing how satisfied we are with our life as a whole, we draw on two sources of information, regarded as 'components' of happiness: (1) how well one feels most of the time, referred to as 'hedonic level of affect' (2) to what extent one perceives one is getting from life, what one wants from it, referred to as 'contentment' (Veenhoven 1984:25-27; 2018).

## Measurement of happiness

Since happiness is defined as something that is on our mind, it can be measured by asking people to answer questions. A common survey question on happiness is "All things considered, how satisfied are you with your life as-a-whole these days?" The answer is transformed to a 10-point scale, where 1 stands for 'completely dissatisfied' and 10 for 'completely satisfied'.

Some other illustrative questions are:

- Questions on overall happiness:
  - o Taking all together, how happy would you say you are these days?
  - How satisfied are you with your life as a whole?
- Questions on hedonic level of affect:
  - Would you say that you are usually cheerful or dejected?
  - How is your mood today? (Repeated over several days)
- Questions on contentment
  - How important are each of these goals for you?
  - How successful have you been in the pursuit of these goals?

### Research on happiness

Happiness was a common topic in ancient Greek philosophy and got renewed interest in the 18<sup>th</sup> century philosophy, the Age of Enlightenment. In the middle of the 20<sup>th</sup> century, happiness became a subject of empirical research, survey research in particular. Today, there is a large number of empirical studies on happiness and this number is only set to increase. To date (August 2018), the Bibliography of Happiness of the World Database of Happiness lists 6524 reports of the empirical studies and it is expected that there will be approximately another 250 published before the end of this year.

#### World Database of Happiness

It is very difficult to keep track of all that is published on happiness, even for specialists, and for that reason a findings-archive was established in 1984, in which quantitative research outcomes are presented in a uniform format and sorted by subject. The findings archive is freely available on the internet at: <u>https://worlddatabaseofhappiness.eur.nl/index.html</u> (Veenhoven 2018). The structure of this archive is presented in Figure 1.

This *World Database of Happiness* is made up of four 'collections': 1) the Bibliography of Happiness, 2) the collection of 'Measures of Happiness', 3) the collection of 'Distributional findings' and 4) the collection of 'Correlational findings'.

The conceptual focus of the archive is happiness in the sense of life-satisfaction, as defined above. Hence all contents has been screened for fit with this concept, which involves close reading of scientific publications on happiness. After a publication has passed this selection on conceptual fit, it is entered in the 'Bibliography of Happiness'. To date (August 2018), this collection includes 12476 publications, of which 6524 report an empirical study.

The key part of the finding archive is electronic 'finding-pages' that summarize, in a standard format, a particular research finding. This part consists of two kinds of findings: 1)'Distribution findings', which describe how happy people are in a particular status and 2) 'Correlation findings', which describe the degree to which other things than happiness go together with happiness. So far (Augest 2018), there are 12533 distributional findings in the general public and 15579 correlational findings observed in 2062 studies, excerpted from 1634 publications. As it stands, the World Database of Happiness is the best available source of data on the condition of happiness, containing as it does systematic collections on happiness findings for synthesis research on happiness.

This review is based on the 138 correlational findings on 'Happiness and Self-employment' entered in the World Database of Happiness.

#### Figure 1 about here

## 2.2 Self-employment

#### Definition of self-employed

The term 'self-employed' denotes people who find their own work rather than being provided with work by an employer, people who earn an income from their own trade or business can be regarded as self-employed. They can also be a professional such as a doctor, dentist or psychotherapist.

#### Types of self-self-employed

Self-employment is classified by the type of work, working time and business characteristics.

Social scientists also have their own classification criteria. Falco (2012) divides the self-employed into two categories, those who employ others and those who do not. Hessels (2017) sorts the self-employed by skill level.

Some individuals choose to be the self-employed willingly, they typically change from wage-employment to operating an opportunity entrepreneurship. Others are forced, often by economic circumstances, into self-employment to escape unemployment and having no income or too low an income. These self-employed we call necessity 'forced' self-employed their entrepreneurship puts them under severe pressure, but not working would be worst.

#### Measurement of self-employment

Like happiness, self-employment can be measured using self-reports. Typical questions are:

- *Questions on work category:* 
  - What kind of work do you (did you normally) do? That is, what (is/was) your job called?
  - o (Are/Were) you self-employed or (do/did) you work for someone else?
- Questions on main duties:
  - What (do/did) you actually do in that job? Tell me, what (are/were) some of your main duties?
- Questions on salary:
  - Who pay your salary?

# **3 METHODS**

For this research synthesis, we first gathered all the available quantitative research findings on the relationship between happiness and self-employment having clearly defined in our minds what we mean by the terms happiness, self-employed, wage-employed and unemployed. We then organized the findings and added links to the online details of the actual papers. Finally, we presented these findings in the uncomplicated form of findings tables.

# 3.1 Gathering of research findings

In order to gather the relevant studies, we used the Bibliography of World Database of Happiness to search for research reports on the subject of <u>'Happiness and Self-employment'</u>. Then to complete that collection, we searched other databases<sup>4</sup> using terms such as 'happiness',

<sup>&</sup>lt;sup>4</sup> Google Scholar, ScienceDirect, OECDilibrary

'life satisfaction', 'subjective well-being', 'self-employment', 'employment status', 'wage-employment', 'non-working people'. All the reviewed studies had to meet the following criteria:

- 1. A report had to be in English or Chinese
- 2. The study should deal with happiness in the sense of life satisfaction as defined in Veenhoven (1984) (cf. 2.1)
- 3. The study had to use a valid measure of happiness (cf. 2.1)
- 4. The study results should have been obtained using some type of quantitative analysis.

### 3.2 Studies found

We collected 34 scientific publications on happiness and self-employment, listed in the subject sections Happiness and self employment, Happiness and kind of occupation, and Happiness and possession of a business of the Bibliography of Happiness July 2018. All these papers had been published between 1997 and 2014. Together, the studies covered 1,537,559 respondents and 34 different countries. A review of these publications, gave us a set of 138 "findings", most of the them were cross-sectional, 88.4 %, the rest longitudinal 11.6%. We present an overview of all findings in table 1.

#### Table 1 about here

#### **3.3** Format of this research synthesis

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 (bias) 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 will find full details of the finding obtained in a particular study, including sampling, measurement and statistical analysis. This allows us to make controllable statements about main trends in the data without burdening the reader with detail, yet the 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 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 (cf. section 2.1). As such this source is more informative than a literature searches on the keyword 'happiness', in which this word is used without considering the meaning denoted.

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 relationship between happiness and private wealth (Jantsch & Veenhoven 2018), happiness and consumption (Veenhoven et al. 2018), happiness and healthy eating (Veenhoven 2018f) and on freedom and happiness in nations (Abdur Rahman & Veenhoven 2017).

#### Presentation of the findings

We present the findings in tables, starting with a table of all findings on happiness and self-employment and then tables specifying findings by places and publics. In these tables, observed statistical relationships are indicated using plus (+) or minus (-) singes, 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.

#### Organization in tables

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 wage-employment and happiness, while having a steady job 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.

#### Organization of tables

Since we wanted to know what kinds of people profit most or least from self-employment, we specified the findings by populations as far as possible. These specifications are presented in separate tables.

## 4 RUSULTS

#### 4.1 Overview of all findings: A mixed pattern

All the findings are presented in table 1. Signs are used to indicate the observed differences in happiness of the self-employed with three comparison groups: 1) the general public in an individual's country, 2) wage-employed people and 3) non-working compatriots. Two kinds of studies are distinguished, cross-sectional and longitudinal, the results of each split into zero-order correlations and partial correlations (cf. section <u>3.3</u>). The results are mixed, with + and – almost equally represented. The observed differences tend to be small, only 17.5% of the

observed differences were statistically significant, these signs are prints in bold +and –. No clear pattern emerges at first sight, but we see more structure in the data if we consider the rows in table 1 individually and look at the +/- ratios.

# The self-employed <u>are a bit happier</u> than their native *general public*, and people <u>become</u> <u>happier</u> than the general public after a change to self-employment

Among the cross-sectional findings, the one bivariate correlation is positive, which indicates that the self-employed tend to be happier than the general public. The many partial correlations show a more mixed pattern, there are 24 positive correlations, of which 10 are statistically significant, and there are 21 negative correlations, of which 10 are significant.

One source of these differences might be found in the variables that have been partialled out. In this context, income may distort the picture. If the self-employed earn more than their compatriots, and are happier for that reason, any control for income will wipe the advantage away and leave us seeing only the negative effects of self-employment on happiness. We checked this explanation by looking at the control variables used (control+click) in each study to see that income was controlled in almost all the partial correlations. We therefore concluded that the self-employed tend to be a bit happier than general public.

Three findings are positive in the longitudinal cohort studies, two of which are significant. One negative outcome concerns the changes in happiness among people who remain self-employed, this approximates to zero. Together these findings suggest that a change to self-employment tends to go with greater happiness, but we do not know what comes first; the change to self-employment which may have bolstered happiness, or a rise in happiness which may have facilitated a change to self-employment.

# 4.1.2 The self-employed <u>are less happy</u> than the *wage-employed*, but working people <u>become</u> <u>happier</u> than the wage-employed after they change to self-employment.

There is considerable research on the differences in happiness between the self-employed and the wage-employed. Among the cross-sectional findings summarized in table 1, the negative zero-order correlations largely outnumber positive correlations, by a ratio of 1 to 2.6. The few significant correlations balance, two positives against two negatives. Most of the correlations have been found in the repeated cross-section surveys in EU member states and Norway using the Eurobarometer. So far the findings suggest that the self-employed tend to be less happy than wage-employed in these European nations.

The pattern reverses in the partial correlations, here the positive relations slightly outnumber the negative relations, and again the statistically significant positive and negative partial correlations balance. Once more, the difference seems to be in the control for income. Net of earnings, the self-employed may be less happy than the wage-employed, but this does not mean that self-employment has made them less happy, rather that their happiness advantage rests, at least partly, in their higher earnings.

Eight follow-up studies have found that self-employed people became happier than the wage-employed after a change to self-employed, though none of these studies found any statistically significant effects. The one positive partial correlation was also controlled for income, but this did not change the direction of the correlation. This suggests that the advantages of self-employment outbalance its evident disadvantages, such as future uncertainty, long working hours and entrepreneurial risk. The control for income suggests that the advantages of self-employment are not only financial.

# 4.1.3 The self-employed <u>are about equally happy</u> as *non-working people* and non-working people do not <u>become happier</u> after a change to self-employment.

The findings presented in the bottom row of table 1 show considerable variation. At first sight, there is no difference between the happiness of the self-employed and non-working compatriots, like housewives, students and the retired. We see about equally as many + and - signs, which suggests that there is not a significant difference between the happiness of those who are self-employed and the non-working.

However, 4 of the 6 partial correlations suggest that the self-employed tend to be *less* happy than non-working people; three significant correlations against one positive partial correlation. Control for income is not appropriate in this case, since non-working people typically have less income than working people. Likewise, control for health and age will play us false, since bad health and youth or old age are often reasons for not working. Control for unemployment rate can not be ignored, an individual going into self-employment to escape unemployment becomes a "forced" entrepreneur and typically has lower life satisfaction (Binder, 2012). Other non-working compatriots are rarely affected by lack of work it is the unemployed who want work that are affected, thus there is a direct relationship of unemployment state on the happiness of unemployed non-workers.

The problems of heterogeneity are largely bypassed in follow-up studies. The four findings we found of this kind were not conclusive. Two studies find that people became happier than non-working people after a change to self-employment and two observed a relative decline in happiness, none of the above findings are significant. This can either mean that little happiness is gained by a change to self-employment or that non-working people became happier relative to wage working and self-employed people.

#### Table 1 about here

#### 4.2 Specifications by nation: self-employed happier in some countries

The effects of self-employment on happiness will be contingent on external conditions, economic conditions in particular, such as the economic tide and social security in the country.

#### 4.2.1 Mixed findings on difference in happiness between self-employed and the general public

The available findings on the relation between the happiness of the self-employed and the happiness of the general public are sorted by nation in table 2a. As can be seen, the cross-sectional data are mixed showing positive and negatives signs. None of the correlation have been controlled for GDP or other national characteristics, so it is not possible to determine the effect of a nation's economic prosperity on the happiness of that nation's self-employed.

There were four positive findings for the self-employed being happier in China and Russia with two negative ones in Japan, which indicates the self-employed are not happier than the general public in these upper economic level nations. Conversely in the Netherlands and Germany, there were 4 negative outcomes though these countries have booming economies. Again, an opposite result was found for Sweden, the 5 positive signs suggest that the self-employed are happier than the general public in Sweden. The outcomes in Australia and USA strongly contrast although the moderators are the same. Chile and Peru each have one positive finding.

In South America, self-employment relates negatively to an individual's happiness, probably because as the economies in these countries have plummeted. The resulting rising unemployment rate has forced many workers into self-employment. This 'necessity' entrepreneurship is positively associated with the national unemployment rate (Fairlie 2017), and we estimate that most of these self-employed workers have become so to escape unemployment in a depressed market environment. Such workers are under heavy pressure, they work long hours for low incomes which is likely to make them less satisfied with their lives.

In the United Kingdom, 1 of the 2 multivariate correlations indicate that the self-employed are happier than the general public, which difference remains significant after control for income and health, thus suggesting a positive effect of being one's own boss as such.

In the longitudinal studies, there are 3 positive signs for Sweden, one of which is significant. Control for income is also appropriate in this case as the rapid economic development of Sweden in the research years (1991-2000) may have provided more business opportunities for the self-employed.

Table 2a about here

#### 4.2.2 The self-employed tend to be happier than wage-employed in upper and middle level

#### economies, but less happy in the lower level economies

The findings on differences in happiness between the self-employed and the wage-employed, sorted by economic level of nations are summarized in table 2b. The findings in the first three rows are excerpted from one study<sup>5</sup>, resulting in 10 positive and 2 negative signs. The four outcomes in each economy level are controlled by different variables. The World Values Survey the authors used, does not include data about an individual or household incomes, instead they use self-reported income as a substitution variable for the valuation procedure. All of the first signs, were first controlled for age, self-reported income, and employment status, which gave three positive outcomes in each level, and suggests that the self-employed are happier than the wage-employed. The regression analysis was additionally controlled for GDP per capital and female labor participation rate, which belong to the social context. There was no significant change in self-employed happiness after additionally controlling for these macro-level mediating factors. When financial satisfaction, the first micro-level mediating factor, is controlled, an opposite effect is seen for the lower level economies The self-employed in lower level economies are happier than wage-employed in the higher and middle level economies, but they are less happy than wage-employed in the lower level economies due to financial stress. In upper and middle level economies better functioning domestic institutions, higher provision of social protection and public services contribute to sustain a higher level of quality of life and this is associate with life satisfaction (Beja, 2013). This does not work in lower level economies. Adding together all the mediators used in previous studies, there is no significant change in outcomes, we still get positive signs in the high and middle level economies and negative signs in the low level economies, see table 2b. This shows us that financial satisfaction has a strong effect on the happiness of the self-employed, especially in the lower level economies despite the stresses of being self-employed.

We see a mixed pattern when we look at the relationship between happiness and the self-employed split-up by nation and comparing it with the happiness of the wage-employed in those nations. The 7 positive bivariate correlations found for in the United Kingdom indicate that the self-employed are less happy than the general public but happier than the wage-employed. While the 5 positive correlations in the partial part prevail, suggesting that the wage-employed tend to be happier if they change to being self-employed. The same result has been for found in the Netherlands, Sweden, Germany and Australia, see table 2a, even though the reference has changed, the self-employed are happier than the wage-employed in Sweden and Germany and less happy in the Netherlands and Australia. Happiness does not increase much with per capita income, at least not in developed countries (Easterlin, 1995; Blanchflower and Oswald, 2004). Control for personal income does not have a strong effect on happiness of the self-employed in these countries.

Table 2b about here

<sup>&</sup>lt;sup>5</sup> Beja,2013

# 4.3 Comparison by different kinds of working people

#### 4.3.1 The self-employed are less happy than most kinds of wage-employed people

We categorized the findings in the second row of table 1 into nine types of wage-employment. Most of our outcomes were extracted from the Eurobarometer reports, the 21 negative signs found in table 1 row 2 largely outnumber the 8 positive signs, of which 2 are significant. This supports the idea that a wage-earner is happier than a self-employed person. In addition, in table 3a there are the four negative correlations due in part to comparison with the upper economic level workers. A major part of the difference between the classes is mediated by the monetary effects of the different types of occupations common to the different classes (Böhnke, 2008). Yet after controlling for income the self-employed do not differ significantly from upper economic level workers. The non-monetary aspects of the self-employed and higher economic level classes are extremely similar. One possible explanation is that upper higher economy level workers are happier because of their higher working class position.

Being self-employed instead of being a regular employed person seems to increase life satisfaction. In table 3a of the 12 positive partial correlations, 2 were significant, and only 6 negative, one at a significant level. The self-employed are more likely to experience mixed positive and negative feelings, such as freedom, more choice and flexibility, against stress, risk, and heavier responsibilities to provided, for example, for a family than the regular wage-employed. Income may mitigate the negative feelings associated with entrepreneurship and enhance the positive ones. Control for income suggests the self-employed have superior earning powers and have higher earnings than the wage-employed, and that the autonomy enjoyed by "being one's own boss" and higher job satisfaction makes the self-employed happier and compensates these entrepreneurs for the hardships they have to endure (Binder, 2012). The self-employed may concentrate more on work and take other activities lightly, which can contribute to their high life satisfaction, yet giving less time to such things as fitness and social relationships, may cause them to be less happy.

#### Table 3a about here

#### 4.3.2 Self-employed with employees are happier than the wage-employed

The correlation between happiness and different kinds of self-employed are summarized in table 3b. There are only two results on the happiness of independent professionals, one positive and one negative, neither of which is significant. The slightly negative difference between the mean values closes to -0.05. In the study reported here the positive partial correlation was controlled for financial situation and income, which changed the direction of the correlation. Independent professionals generally have a good, high income and good life quality, which

causes them to be more satisfied with their lives. Control for income widens the happiness gap between the self-employed with employees and those without. The 2 negatives of the 3 partial correlations suggests that the self-employed without employees tend to be less happy than the wage-employed. In contrast the 3 positive signs, of which one is significant, suggest that financially successful entrepreneurs are much happier than the wage-employed. Thus effectively, financial success minimizes the negative impacts of self-employment.

Table 3b about here

## 4.4 Comparison with non-working people

# 4.4.1 The self-employed tend to be <u>happier</u> than the *unemployed*, but <u>less happy</u> than *housewives, students and the retired*.

Among the cross-sectional findings shown in table 4, there are 8 positive correlations one of which one is statistically significant for the unemployed, not surprisingly, unemployment has strong negative effects on life satisfaction. The unemployed have a high probability having a threatened livelihood due to illness, social pressure or injury to themselves or a household member. Unemployment also makes individuals unhappier than can be explained by the effect of loss of income (Binder, 2013). Control for various intervening variables, like household income, personal age, marital status, education, etc. tends go with high levels of unhappiness for the unemployed. The positive and negative zero-order correlations with respect to happiness of housewives balance. Housewives are happier than the self-employed, despite the expected positive effects of self-employment, like higher salary, fulfillment, pleasure of owning a successful business. Without the pressures of work and life, students also tend to be happier. The differences in happiness mean values between the retied and the self-employed are extremely slight, two signs are zero, which suggests the retired are a bit happier than the self-employed. Control for the variables measured any effect of pension characteristics, income sources and net household wealth, contributed one negative outcome in the partial analysis. This result dose not imply that a retired person has more income than someone who is self-employed, rather that the stability and higher satisfaction is due to having a regular income in the form of a pension after retirement, and it is this that increases the life satisfaction, happiness of a retire. Being in receipt of a social state pension may contribute to the life satisfaction of people who, once passed retirement age, no longer have to search for jobs. There is no clear definition of what is meant by inactive in the research report, so we cannot make any comparison between the happiness of self-employed individuals and those individuals who are stated to be inactive.

# 4.4.2 People become <u>happier</u> than the *unemployed* when they change to self-employment from unemployment

A few bivariate correlations balance in the longitudinal studies of the happiness of self-employed and the unemployed, of which there are two positive and two negative findings. Self-employment has an absolute advantage for the people moving from unemployed to self-employment. Generally, people who switch from being unemployment to self-employment show no significant differences in life satisfaction from those who move from unemployment to wage-employment. The two negative signs for this case suggest that for those escaping unemployment, self-employment has no advantage over a regular job in terms of an individual's life satisfaction (Binder, 2013).

Table 4 about here

# 4.5 Change from/to self-employment

The few available findings on change to and from self-employment are presented in table 5.

**4.5.1 Mixed findings on change in the happiness of self-employed who** *remain self-employed.* One study finds a positive change in the happiness of self-employed over time, another finds a negative effect. Both changes are small and statistically not significant.

# 4.5.2 The self-employed <u>become a bit happier</u> if they *change to wage-employment* and wage-employed <u>become much happier</u> if they *change to self-employment*.

The findings are balanced for the transition from self-employment to wage-employment, one positive and one negative. There is a larger decreased share of happy people who switch from self-employment to wage-employment and an extremely small increase, not significant, in happiness for this transition.

Individuals who go into self-employment voluntarily to pursue entrepreneurial opportunities can be identified as opportunity entrepreneurs (cf. section 2.2). Here five positive correlations prevail, see table 5, this suggests that individuals leaving wage-employment for self-employment experience an increase in life satisfaction.

# 4.5.3 The self-employed <u>become less happy</u> if they become unemployed but unemployed <u>become</u> <u>happier</u> after change to self-employment

The findings for the transition between self-employment and unemployment are predictable. People bogged down the problems of being unemployed and moving to self-employment are less happy, but are typically happier for escaping from unemployment. Certainly, becoming employed after being unemployed goes with an increase in life satisfaction. The two negative outcomes in the final row of table 5 indicate that comparing those escaping unemployment to self-employment, as necessity 'forced' entrepreneurship had no advantages over a normal wage-employment worker terms of individual life satisfaction, happiness in the sense of their satisfaction with their lives as whole.

# 5 DISCUSSION

#### 5.1 What do we know now?

We aimed at answering 5 questions about the happiness of self-employed people (cf. section 1.3). What did we learn?

#### Happiness of the self-employed compared with to people

The available findings show that the self-employed are generally a bit happier than their native general public, but less happy than the wage-employed.

#### Difference across nations

The self-employed tend to be happier than the wage-employed in the upper and middle level economies, and less happy in the lower level economies. There is no information about the comparison on happiness between the self-employed and non-working people by nations.

#### Differences with kinds of wage-employed and non-working people

Self-employed people working in the free professions and as entrepreneurs tend to be happier than the wage-employed in these occupations. When compared with non-working people, the self-employed are happier than the unemployed, but less happy than housewives, students and the retired.

### Different kinds of self-employment compared with the wage-employed

Although many findings show most kinds of wage-employed people are happier than the self-employed, the self-employed with employees are happier than the wage-employed.

#### Change from/to self-employed

The wage-employed and the unemployed become happier after a change to self-employed, but self-employed people become a bit less happy if they remain self-employed. Wage employed who changed to self-employment are happier than the unemployed who changed to self-employment, which denotes a difference between opportunity entrepreneurship and necessity entrepreneurship.

### 5.2 What we do not know yet?

What kinds of people are more or less happy when self-employment

The aim of this review of research was to inform people who face a choice between self-employment and wage-employment about probably consequences for their happiness. For that purpose one would like to know how self-employment has worked out on the happiness of people like oneself, that is, people of a similar sex, age, education, occupation and personality. Such information is hardly available as yet. If considered at all, these characteristics are used as control variables, not as specification variables. So, we are still far from answering the question of what type of employment is best for what kind of person.

#### Size of the effect

When making a choice, it is worth knowing whether the effect of self-employment is big or trivial. Unfortunately, the available studies do not tell us much about the effect size, the focus of the analyses is typically on whether there is a statistically significant difference and not on the size of the difference.

#### Causality

The observed differences in happiness between self-employed and wage-employed working people can be due to effects of self-employment on happiness and of happiness on the choice for self-employment. In both cases different causal paths can be involved. The few follow-up studies suggest an effect of self-employment on happiness, but cannot rule out reverse causality. With respect to causal mechanisms, we are largely in the dark, though better incomes for the self-employed seem to play a role, for opportunity entrepreneurs in particular.

### 5.3 Topics for further research

The above-mentioned deficiencies provide an agenda for future research: to get a perspective on contingencies in the relationship between self-employment and happiness, we need studies sufficiently big to allow detailed splitting, to see what the effect is in particular categories such as middle aged, high educated and healthy males who have their house paid off. Such studies should not only provide detailed information about income and work-tasks, but also about personal characteristics such as personality. To get a perspective on the causal factors that affect the happiness of self-employed people, we need follow-up studies or better, (natural) experiments. All this does not necessarily require brand new studies, since we can learn a lot by adding more such variables into ongoing panel studies, such as the German Socio Economic Panel.

#### 5.4 This new review technique: strengths and weaknesses

Finally, some words about the new review technique applied in this paper, which involved the use of an on-line findings-archive, to which links are made in tabular overviews of the available research findings on the relation between self-employment and happiness. We see the following strengths and weaknesses of this technique.

### Strength

Traditional reviewing methods are limited to the possibilities of printed paper. The use of an online findings archive strengthens a review in the following ways.

*Conceptual focus:* Review studies are often loose in conceptual scope and in particular when the term 'happiness' is used to denote various kinds of subjective well-being. Although this allows a broad scope on the literature, it goes at the cost of precision. In this review we draw on the World Database of Happiness, which specifically focusses on a sharp definition of happiness as life-satisfaction. This helps us know more about less.

*Complete coverage:* The selection on concept and absence of page restrictions allow us to cover all the available qualifying research literature. We thereby avoided the problem of selective 'cherry picking' to which traditional review are vulnerable.

*Detailed description:* Linking to on-line finding-pages in the World Database of Happiness we can provide the electronically enabled reader with easy access to full detail about each of the research findings reviewed. Traditional review papers must make do with references to the literature, which the reader can consult in theory, but seldom does in practice. As such our 'electronic' readers are in a better position to check on our conclusions.

*Comparability*: If readers of traditional reviews want to check a reviewer's conclusions by reading the referred literature, they are likely to get lost in the babel of the different words used for variables and techniques. The finding-archive on which we draw facilitates comparison of research findings by presenting these in a standard format and language.

#### Weakness

These above advantages go at the cost of the following limitations.

*Conceptual confinement:* The shadow side of our conceptual specificity is that we did not cover the research literature about effects of self-employment on wider aspects of well-being, such as job satisfaction, sense of meaning and health. Our conceptual focus allows us know more about less, but in greater depth.

*Not for printing on paper:* Links work only in electronic texts and not in texts on paper. Readers who see this text in a traditional journal must go to an electronic version, to get full value from our technique.

Findings-archive required : This technique requires a considerable infrastructure, a

finding-archive, the establishment of which will only be worthwhile when a lot of research has been done and a long-term perspective can be taken on the type of research. Hence this technique will not work for one-time shots in another field.

# 6 CONCLUSIONS

The self-employed are happier than their native general public, but less happy than the wage-employed and different results have been found when comparing different kinds of non-working people. In addition, employment status transition affects individual happiness. The available data do not yet inform us about what kind of work is the best for what kind of person and what causal factors drive the observed small differences in the happiness of people who are self-employed or not.

#### REFERENCES

Publications to which an internet address is added report one or more studies, findings of which were included in this research synthesis. Use control+click to see a standardized description of the study in the World Database of Happiness

- Abdur Rahman, A., Veenhoven, R. (2017) Freedom and happiness in nations: A research synthesis Applied Research on Quality of Life, Online since June 14, 2017, 22p, Doi: 10.1007/s11482-017-9543-6
- Ambrey, C. L., C. M. Fleming, A. Y. C. Chan. (2014): Estimating the Cost of Air Pollution in South East Queensland: An Application of the Life Satisfaction Non-Market Valuation Approach. Ecological Economics, vol. 97:172-181. https://worlddatabaseofhappiness.eur.nl/hap\_cor/desc\_cor.php?sssid=24645
- Andersson, Pernilla. (2008): *Happiness and Health: Well-Being among the Self-Employed*. The Journal of Socio- Economics 37:213–236. https://worlddatabaseofhappiness.eur.nl/hap\_cor/desc\_cor.php?sssid=26383
- BCS. (2010): *The Information Dividend: : Can IT Make You "Happier?* https://worlddatabaseofhappiness.eur.nl/hap\_cor/desc\_cor.php?sssid=26462
- Beja, Edsel L. (2014): Who Is Happier: Housewife or Working Wife? Applied Research in Quality of Life 9 (2):157–177. <u>https://worlddatabaseofhappiness.eur.nl/hap\_cor/desc\_cor.php?sssid=27736</u>
- Benz, Matthias, Frey, Bruno S.(2008a): *Being Independent is a Great Thing: Subjective Evaluations of Self-Employment and Hierarchy.* Economica, 75(298):362-383.
- Berger, Eva M. (2009): Maternal Employment and Happiness: The Effect of Non-Participation and Part-Time Employment on Mothers' Life Satisfaction. DIW Belin Discussion papers. https://worlddatabaseofhappiness.eur.nl/hap\_cor/desc\_cor.php?sssid=27736
- Bericat, Eduardo. (2016): *The Subjective Well-Being of Working Women in Europe*. Handbook on Well-Being of Working Women 2016, 633–651p, Doi:10.1007/978-94-017-9897-6\_35

Borjas, G. (1979): Job satisfaction, wages and unions. Journal of Human Resources 14:21-40.

Binder, M., Coad, A. (2010): An examination of the dynamics of well-being and life

*events using vector autoregressions*. Journal of Economic Behaviour and Organization 76(2): 352–371.

- Binder, M., Coad, A. (2013): Life Satisfaction and Self-Employment: A Matching Approach. Small Business Economics 40(4):1009–1033. https://worlddatabaseofhappiness.eur.nl/hap\_cor/desc\_cor.php?sssid=26291
- Blanchflower, D. and Oswald, A. (2003): *Well-being over time in Britain and the USA*. Journal of Public Economics 88: 1359-1386
- Blanchflower, D. (2004): *Self-Employment: More May Not Be Better*. Swedish Economic Policy Review 11(2):15–74. https://worlddatabaseofhappiness.eur.nl/hap\_cor/desc\_cor.php?sssid=26383
- Block, J., and P. Koellinger (2009): I Can't Get No Satisfaction—Necessity Entrepreneurship and Procedural Utility. Kyklos 62(2):191-209.
- Böhnke, Petra and Ulrich Kohler. (2008): *Well-Being and Inequality*. Handbook of European Societies:5–41. http://worlddatabaseofhappiness.eur.nl/hap\_cor/desc\_cor.php?sssid=13610
- Clark, A.E., Oswald, A.J. (1996): *Satisfaction and comparison income*. Journal of Public Economics 61: 359–381.
- Clark, A.E., Oswald, A.J., Warr, P.B. (1996): Is job satisfaction U-shaped in age? Journal of Occupational and Organizational Psychology 69:57–81.
- Diener, E. (1984): Subjective well-being. Psychological Bulletin 95: 542-575.
- Diener, E., Emmons, R. A. (1984): *The independence of positive and negative affect*. Journal of Personality and Social Psychology 47: 1105–1117.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985): *The satisfaction with life scale*. Journal of Personality Assessment, 49: 71–75.
- Erlinghagen, Marcel. (2011): Nowhere Better than Here? The Subjective Well-Being of German Emigrants and Remigrants. Comparative Population Studies – Zeitschrift für Bevölkerungswissenschaft 36(4):899–926. http://worlddatabaseofhappiness.eur.nl/hap cor/desc cor.php?sssid=20718

- Freeman, R.B. (1978): *Job satisfaction as an economic variable*. American Economic Review. Papers and Proceedings 68: 135–141.
- Frey, Bruno S., Stutzer, A. (2000): Maximizing Happiness? German Economic Review 1(2):145–167. <u>http://worlddatabaseofhappiness.eur.nl/hap\_cor/desc\_cor.php?sssid=14285</u>
- Frey B.S., Stutzer A. (2002): Happiness and economics. Princeton University Press: Princeton.
- Fritsch, Michael, Alina Sorgner, and Micheal Wyrwich. (2018): *Self-Employment and Well-Being Across Institutional Contexts*. Jena Economic Research Rapers (5):1–43.
- Guillen-Royo, Monica. (2008): Consumption and Subjective Wellbeing: Exploring Basic Needs, Social Comparison, Social Integration and Hedonism in Peru. Social Indicators Research 89(3):535–55 <u>http://worlddatabaseofhappiness.eur.nl/hap\_cor/desc\_cor.php?sssid=22914</u>
- Graham, Carol, Andrew Eggers, and Sandip Sukhtankar. (2004): *Does Happiness Pay? An Exploration Based on Panel Data from Russia*. Journal of Economic Behavior and Organization 55(3):319–342.
  http://worlddatabaseofhappiness.eur.nl/hap\_cor/desc\_cor.php?sssid=12955
- Hartog, Joop and Hessel Oosterbeek. (1998): *Health, Wealth and Happiness: Why Pursue a Higher Education?* Economics ofEducation Review 17(3):245–256. http://worlddatabaseofhappiness.eur.nl/hap\_cor/desc\_cor.php?sssid=15749
- Hamermesh, D.S. (1977): *Economic aspects of job satisfaction*. In: Ashenfelter, O.C., Oates, W.E. (Eds.), Essays in Labor Market Analysis. Wiley, New York, pp. 53–72.
- Hamilton, B. H. (2000). *Does entrepreneurship pay? An empirical analysis of the returns to self-employment*. Journal of Political Economy, 108(3): 604–631.
- Hearan Koo, Jaeyeol Yee, Eun YoungNamt, and Ee Sun Kim. (2016): Dimensions of Social Well-Being and Determinants in I(Orea: Personal, Relational, and Societal Aspects The Senshu Social Well-being Review (3):37–58. https://worlddatabaseofhappiness.eur.nl/hap\_cor/desc\_cor.php?sssid=26462

Hessels, J., Rietveld, C. A., and van der Zwan, P. (2017). Self-employment and work-related

stress: The mediating role of job control and job demand. Journal of Business Venturing, 32(2):178–196.

- Hetschko, Clemens. (2014): On the Misery of Losing Self-Employment. Small Business Economics 47(2):461–478. https://worlddatabaseofhappiness.eur.nl/hap\_cor/desc\_cor.php?sssid=26455
- Hinks, Tim and Simon Davies. (2008): Life Satisfication in Malawi and the Importance of Relative Consumption, Polygamy and Religion. Journal of International Development 20(7):888–904.
  https://worlddatabaseofhappiness.eur.nl/hap\_cor/desc\_cor.php?sssid=22751
- Hundley, G. (2001). Why and when are the self-employed more satisfied with their work? Industrial Relations, 40(2):293–316.
- Hipple, S. F. (2010). *Self-employment in the United States*. Monthly Labor Review, September :17–32.
- Hyytinen, A. & O. Ruuskanen (2007). Time use of the self-employed. Kyklos. 60(1):105-122.
- Jantsch, A. & Veenhoven, R. (2018) Privare weakth and happiness: A research synthesis using an on-line findings archive. Erasmus happiness Economics Research Organization, EHERO working paper 2018-3. https://www.eur.nl/sites/corporate/files/2018-09/HappinessWealth\_Workingpaper%2020 18-03.pdf
- Jick, T.D. & L.F. Mitz (1985). Sex differences in work stress. Academy of Management Review, 10(3): 408-420.
- Luechinger, Simon. (2010): *Life Satisfaction and Transboundary Air Pollution*. Economics Letters 107(1):4–6. <u>http://worlddatabaseofhappiness.eur.nl/hap\_cor/desc\_cor.php?sssid=24495</u>
- Guven.C (2009): Weather and Financial Risk-Taking: Is Happiness the Channel? SOEPpaper 218:1–261. http://worlddatabaseofhappiness.eur.nl/hap\_cor/desc\_cor.php?sssid=23040
- OECD. (2000): The Partial Renaissance of Self-Employment. https://www.oecd.org/employment/emp/2079593.pdf

- Odermatt, Reto, Nattavudh Powdthavee, and Alois Stutzer. (2017): Overoptimistic Entrepreneurs : Predicting Wellbeing Consequences of Overoptimistic Entrepreneurs : Predicting Wellbeing Consequences of Self-Employment. IZA Discussion Paper Series (11098).
- Paolo, Falcot, William F. Maloney, Bob Rijkers, and Mauricio Sarrias. (2012): *Heterogeneity in* Subjective Wellbeing: An Application to Occupational Allocation in Africa. Journal of Economic Behavior & Organization 111:137–153. http://worlddatabaseofhappiness.eur.nl/hap\_cor/desc\_cor.php?sssid=26424
- Peiro, Amado. (2006): *Happiness, Satisfaction and Socio-Economic Conditions: Some International Evidence*. The Journal of Socio- Economics 35:348–365. https://worlddatabaseofhappiness.eur.nl/hap\_cor/desc\_cor.php?sssid=15880
- Rodríguez-Pose, Andrés and Kristina Maslauskaite. (2012): *Can Policy Make Us Happier? Individual Characteristics, Socio-Economic Factors and Life Satisfaction in Central and Eastern Europe*. Cambridge Journal of Regions, Economy and Society 5(1):77–96. <u>https://worlddatabaseofhappiness.eur.nl/hap\_cor/desc\_cor.php?sssid=27010</u>
- Ruprah, Inder J. (2010): *Does Owning Your Home Make You Happier? Impact Evidence from Latin America*. Inter-American Devvelopment Bank Office of Evaluation and Oversight Working Paper: OVE/WP-02/10, May 2010 http://worlddatabaseofhappiness.eur.nl/hap\_cor/desc\_cor.php?sssid=13610
- Shields, Michael A., Stephen Wheatley Price, and Mark Wooden. (2009): Life Satisfaction and the Economic and Social Characteristics of Neighbourhoods. Journal of Population Economics 22(2):421–443.
   <a href="https://worlddatabaseofhappiness.eur.nl/hap\_cor/desc\_cor.php?sssid=21095">https://worlddatabaseofhappiness.eur.nl/hap\_cor/desc\_cor.php?sssid=21095</a>
- Stutzer, Alois, Bruno S. Frey. (2006): Does Marriage Make People Happy, or Do Happy People Get Married? Journal of Socio-Economics 35(2):326–347. http://worlddatabaseofhappiness.eur.nl/hap\_cor/desc\_cor.php?sssid=21914
- Di Telia, R., MacCulloch, R. (2008): *Gross National Happiness as an Answer to the Easterlin Paradox?* Journal of Development Economics 86(1):22–42. http://worlddatabaseofhappiness.eur.nl/hap\_cor/desc\_cor.php?sssid=21914

VanBeuningen, J. (2011): Subjectief Welzijn: Welke Factoren Spelen Een Rol?

Bevolkingstrends:85–92.

http://worlddatabaseofhappiness.eur.nl/hap\_cor/desc\_cor.php?sssid=22429

Veenhoven, R. (1984): Conditions of happiness, Springer, Dordrecht.

- Veenhoven, R. (2000): *The four qualities of life. Ordering concepts and measures of the good life.* Journal of Happiness Studies 1: 1-39.
- Veenhoven, R. (2018): World Database of Happiness. Archive of research findings on subjective enjoyment of life, Erasmus University Rotterdam, Netherlands, Available at <u>https://worlddatabaseofhappiness.eur.nl</u>
- Veenhoven, R. (2018a): Bibliography of Happiness. World Database of Happiness, Erasmus University Rotterdam. <u>http://worlddatabaseofhappiness.eur.nl/hap\_bib/bib\_fp.php</u> Accessed 2018/05/01.
- Veenhoven, R. (2018e): *Measures of happiness*. World Database of Happiness, Erasmus University Rotterdam. <u>http://worlddatabaseofhappiness.eur.nl/hap\_quer/hqi\_fp.htm</u> Accessed 2018/05/01.
- Veenhoven, R. (2018f): World Database of Happiness: Archive of research findings on subjective enjoyment of life, In: Welsch, Heinz, Maddison, David and Rehdanz Katrin (eds.) Handbook of Wellbeing, Happiness and the Environment. Edward Elgar Publishing. In press.
- Veenhoven, R. (2018g) Will healthy eating make you happier? A research synthesis using an on-line findings-archive. Erasmus Happiness Economics Research Organization, EHERO working paper 2018-5.

https://www.eur.nl/sites/corporate/files/2018-09/HappinessHealtyEating\_EHEROworkingpaper2018-5.pdf

- Veenhoven, R., Chiperi, F., Kang, X. & Burger, M. (2018) Consumption and happiness, A research synthesis using an on-line findings-archive, EHERO working paper 2018-<u>https://www.eur.nl/sites/corporate/files/201804/ResearchSynthesis\_HappinessConsumption1h.pdf</u>
- Wilczyńska, A., Batorski, D., Sellens, J. (2015): Employment Flexibility and Job Security as Determinants of Job Satisfaction: The Case of Polish Knowledge Workers. Social Indicators Research 126(2):633–656.

# Table 1

# Happiness of the self-employed (vs all other people in the general public, wage-employed, non-working)

	Cross-sectional				Longitudinal			
	Zero-order	Ratio	Partial	Ratio	Zero-order	Ratio	Partial	Ratio
		+/-		+/-		+/-		+/-
vs all other people in	+	1/0	- + + + + - + +/+/		+ -	1/1	+ +	2/0
the general public			+ + + - + - + + +	1/0.88				
			_ + - +					
			+ + + +					
			-+++-					
vs wage-employed	+ +	1/2.6	+/+/+/ + +/+/+/+	1/0.76	+ + + + +	7/0	+	1/0
people			+/+/-//-/ +		+ +			
	++		- + + + + + + +					
	<b>-</b> + + 0 - +		+ + + +					
	+ + +							
vs non-working people	+++++-	1/0.75	+ 0	1/4	+ +	1/1		0
	-+0+-0-0							

Methods mentioned in the header of this table are explained in Appendix A.

**Signs** used in the cells are explained in Appendix B.

Use **control+click** to jump from signs to an online findings page in the World Database of Happiness

# Table 2aHappiness of the self-employed (vs all other people in the general publics) by nations

	Cross-sectional		Longit	udinal
-	Zero-order	Partial	Zero-order	Partial
Africa				
Nigeria		+ +		
Asia				
China		+ +		
Japan				
Europe				
Russia		_ + + +		
Finland		_ +		
The Netherlands				
Germany		- +		
the United Kingdom		- +	_	
Spain		_ +		
Sweden		+ + +	+	+ +
Australia				

Australia		
North America		
USA	+ +	
South America		
Argentina		
Chile	— +	
Dominican Republic		
Peru	+/+/+	
Venezuela		

# Table 2bHappiness of the self-employed (vs different kinds of wage-employed people)

	Cross	s-sectional	Long	gitudinal
	Zero-order	Partial	Zero-order	Partial
vs managers - wage-employed				
vs upper white-collar wage-employed	<b>_</b>	_/_/_		
vs manual work wage-employed	+			
vs non-regular wage-employed	+ + -			
vs regular wage-employed	- 0 + + + + +	+ + + + + + + - + + + + + + +		
vs wage-employed, civil service	_			
vs wage-employed, private sector				

# Table 3aHappiness of the self-employed (vs wage-employed people) by the economic level nations

	<b>Cross-sectional</b>		Longitud	inal
	Zero-order	Partial	Zero-order	Partial
By economic level of nation				
• Upper level economics		+/+/+/+		
Meddle level economics		+/+/+/+		
• Lower level economics		+/+/-/-		
By nation				
Netherlands				
Sweden	+ + +		+ +	
Switzerland		+		
the United Kingdom	+ +		+ + + + +	
Germany		+ + + + + +		
Australia		_		
South Korea	+ -			
Ghana	+ + 0	- +		
Malawi		+		

in Appendix A. Signs used in the cells are explained in Appendix B.

Use **control+click** to jump from signs to an online findings page in the World Database of Happiness

# Table 3b

Happiness of different kinds of the self-employed vs (the wage-employed)

	Cross-sectional		Longitudinal	
_	Zero-order	Partial	Zero-order	Partial
Free profession	_	+		
Employer/ Own business				
• No employees		+		
• With employees		+ + +		

# Table 4Happiness of the self-employed vs (non-working people)

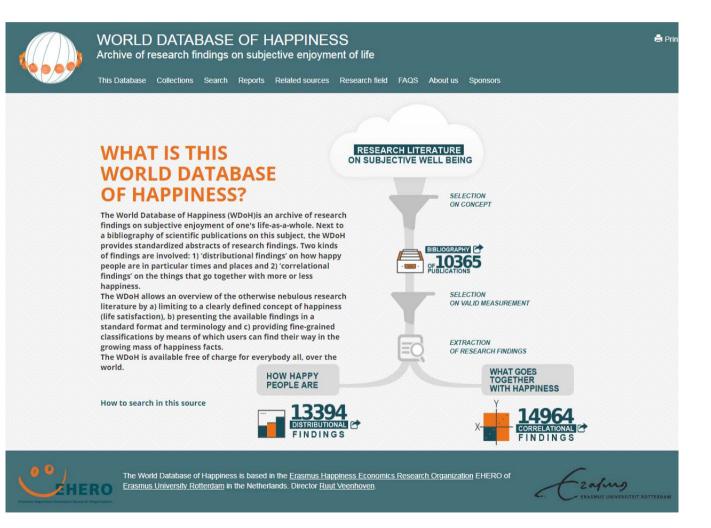
	Cross-sectional		Longitudinal	
	Zero-order	Partial	Zero-order	Partial
vs the Unemployed	+ + + + + +	+	+ +	
vs Housewives	+ 0 +	-		
vs Students		-		
vs the Retired	-0 - 0	-		
vs Not searching for jobs	-			
Vs Inactive		- 0		

# Table 5Change to / from self-employment

	Cross-sectional		Longitudinal	
	Zero-order	Partial	Zero-order	Partial
Self-employed				
Still being self-employed during			+ -	
followed years			Τ -	
Self-employed (vs Wage-employed)				
Self-employed $\rightarrow$ wage-employed			- +	
Self-employed			+ + + +	+
Self-employed (vs Unemployed)				
Self-employed $\rightarrow$ Unemployed			_	
Self-employed			+	

# Figure 1

Start page of the World Database of Happiness, showing the structure of this findings archive



# Figure 2

# Example of an on-line finding-page in the World Database of Happiness

Correlational finding on Happiness and Current employment arrangement Subject code: E02ae

Study		Hetschko (2014	<u>4): study DE 1991</u>		
	Title	On the Misery of losing Self-employment.			
	Source	ECONSTOR Working Paper, 2014, No. 2014/26, 1 - 37, Berlin, Germany http://hdl.handle.net/10419/102732			
		18-65 aged, general public, Germany, followed yearly, 1991-2012			
		Probability area	a sample		
	Non-Response	10.000			
	Respondents N =	19436			
Correlate					
Correlate	Author's labol	Employment or	randoment		
	Page in Source	Employment arrangement			
	-	Current employment arrangement, code E02ae			
	Operationalization				
		A. self-employed B. wage-employed: standard (reference)			
		a. C. wage-employed: non-standard			
	Observed distribution	N observations = a: 4739, b: 47613, c: 4015			
Observed Relation with	th Happiness				
Happiness Measure		Statistics	Elaboration/Remarks		
O-SLW-c-sq-n-11-d		DM=+/-			
			self-employed wage-employed: stan	M = 7,09	
			wage-employed: scan wage-employed: non-		
O-SLW-c-sq-n-11-d	<u>b=-</u>	+.18 p < .01			
			Wage-employed:standard(res self-employed)	erence) (vs	
			a: employer	b-fix = +.17 (10)	
			b: no employees	b-fix = +.34 (01)	
			<pre>c: freelancer d: owner of a business</pre>	b-fix = +.27 (05) b-fix = +.19 (01)	
			e: service sector	b-fix = +,21 (05)	
			f: non-service	b-fix = +.18 (05)	
O-SLW-c-sq-n-11-d	Bet	ta-f=15 p < .01	Non-standard wage-employed	1 (vs standard)	
			b-fix controled for:		
			- personal characteristics	3	
			– age		
			- marital status - health, disability		
		- children in household			
			<ul> <li>financial situation</li> <li>income</li> </ul>		
			- income - house owned		
			- work characteristics		
			<ul> <li>years unemployment exp</li> <li>new job</li> </ul>	perience	
			- tenure		
			- working hours		

# Appendix A

# Terms for research techniques used in the header of the tables

## Research design

- Cross-sectional: same time correlation
- Longitudinal; over-time correlation

## Statistical analysis

- Bi-variate: correlation between two variables; wealth and happiness
- Partial: result of a multi-variate analysis in which the effect of possible spurious variables is filtered away

# Appendix B

# Meaning of signs used in cells of the 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

Al these signs involve a link to a finding page with full detail in the <u>World Database of Happiness</u> Use control+click to view the page.