

**Mirror, mirror on the wall, who is the
happiest of them all?**

Benno Torgler
Nemanja Antić
Uwe Dulleck

Working Paper No. 2007 - 16

Mirror, mirror on the wall, who is the happiest of them all?

Benno Torgler^{a,b,c*}, Nemanja Antić^a and Uwe Dulleck^a

^a *School of Economics and Finance, Queensland University of Technology, GPO Box
2434, Brisbane, QLD 4001, Australia*

^b *CREMA – Center for Research in Economics, Management and the Arts, Gellertstrasse
18, CH-4052 Basel, Switzerland*

^c *CESifo, Poschingerstrasse 5, D-81679 Munich, Germany*

Abstract: This paper turns *Snow-White*'s magic mirror onto recent economics Nobel Prize winners, top economists and happiness researchers, and through the eyes of the “man in the street” seeks to determine who the happiest academic is. The study not only provides a clear answer to this question but also unveils who is the ladies' man and who is the sweetheart of the aged. It also explores the extent to which information matters and whether individuals' self-reported happiness affects their perceptions about the happiness of these superstars in economics.

Keywords: happiness, subjective well-being, perceptions, superstars, economists

JEL classification: A110, D100, I310,

* Corresponding author. E-mail addresses: benno.torgler@qut.edu.au, n.antic@qut.edu.au, uwe.dulleck@qut.edu.au. We are thankful to the following people for contributing to the collection of the survey data: Michael Balladeo, Tony Beaton, Nedda Cecchinato, Christopher Coleman-Fenn, Théodora Dupont-Courtade, Pauline Lez, Redzo Mujcic, Mark Phoon, Jacky Richardson Lizzy Richardson, Rakith Senanayake, Meaghan Truscott, Rachael Truscott, Tony Zhou. For helpful suggestions in the design of the survey thanks are due to Paul Frijters. We are also very grateful to Alison Macintyre for her comments.

I. INTRODUCTION

"Mirror, mirror on the wall, who is the fairest of them all?" asked the haughty Queen in the Grimm Brothers' memorable fairy tale, *Little Snow-White*. This narrative is set in a fantasy world where people are still ruled by kings, the perceptions of a magic mirror are influential enough to warrant homicide and dwarves happily whistle as they work. In contemporary society the principle of democracy is prevalent; common people rather than monarchs are involved in the collective decision making process. So, instead of giving the mirror a monopoly on declaring the truth, why not ask the "man in the street" to evaluate who the fairest one of all is? The difficulty is that the common person does not have the omnipotent vision of a magic mirror. However, thanks to the technology of recording pictures by capturing light on film, everyday people have the chance to appraise who is the fairest in the land.

The entertainment industry has created modern-day royalty, substituting the Queen in *Little Snow-White* with movie stars and models. Gossip magazines such as *Vanity Fair*, *People* and *US Weekly* are full of celebrity photographs. The phenomenon of superstars has attracted increased attention among economists. Rosen's (1981) seminal paper has initiated a lively discussion about stardom and salary structure – stressing that in many professions a relatively small number of people boast prodigious salaries and dominate the field. Since then, the superstar effect has been investigated not only in the economics of sports, but also in the entertainment industry, such as Hollywood economics (De Vany 2004), cultural economics (Frey 2000) and in winner-take-all markets, where a small heterogeneity in performance translates into large reward differences (Frank and Cook 1995).

As researchers we have a natural interest to not only explore sports and entertainment superstars, but also analyse superstardom in academia. However, relative to the charming maidens in fairy tales and the young starlets in *Vanity Fair*, the beauty of academic economists does probably not inspire such an investigation. If beauty might not be the right topic to explore what else can be considered? On contemplating a man's mission in life, Aristotle said that "*happiness is the meaning and the purpose of life, the whole aim and end of human existence*". Although some may argue that happiness is not the ultimate goal in life, few will deny that it is a key ingredient for a good life since other factors such as wealth, status, job satisfaction and health, are reflected in the notion of happiness. Therefore, instead of focusing on top researchers' *beauty*, this paper explores their *perceived happiness* through the contemporary equivalent of the magic mirror.

II. METHODOLOGICAL APPROACH

How can something intangible, such as life satisfaction, be measured? The literature has strongly focused on self-reported measures of happiness, and employed survey data (for an overview see Frey and Stutzer 2002a, 2002b, Clark et al. 2008). The literature has attempted to fill utility with content and has assumed that utility can be cardinally measured in the form of subjective well-being (Frey and Stutzer 2002a). A multitude of studies have used surveys that measure self-reported happiness. One of the most publicised is the World Values Survey (WVS), a worldwide investigation of socio-cultural and political change. The survey assesses the basic values and beliefs of people

around the world and has been carried out in many countries¹. It is generally based on national representative samples of at least 1000 individuals asking the following four-point item question on self-reported happiness:

“Taking all things together, would you say you are:(1) very happy, (2) quite happy, (3) not very happy, (4) not at all happy?”

In *Table A1* we report countries’ average values of happiness using the newest available wave (1999-2004). Higher values are in line with a lower level of happiness. It can be seen that the average levels of happiness vary between 1.422 and 2.610.

It is often claimed that well-being measures used for comparisons between countries are problematic due to, for example, various kinds of cultural bias when reporting the level self-reported happiness (see, e.g., Diener et al. 1995). Moreover, the literature in general assumes that people are able to consistently evaluate their own state of happiness (Frey and Stutzer 2002).

An alternative approach might be to ask other people how they perceive the level of happiness of a particular individual. The use of *perceptions* as an indicator for a phenomenon is widely used in economics, especially in the areas where direct ways of measuring are not available. For example, the literature on corruption strongly relies on questionnaire-based surveys that measure perceptions of corruption rather than corruption per se (see Tanzi 1998). Working with perception through the eyes of an outsider may reduce the problems of validity such as distortions in reporting one’s own happiness due to ego-defence mechanisms or the need to be seen in a socially desirable light. Such a proxy may even reduce reliability problems being less affected by volatile moods.

¹ See Appendix Table A1.

In our study we explore citizens' perceived happiness of 12 superstars in the area of economics, namely four Nobel Prize winners, four top economists and four top happiness researchers. The Nobel Prize winners investigated are Joseph Stiglitz (awarded in 2001), Daniel Kahneman (2002), Finn Kydland (2004), and Edmund Phelps (2006). The top economists are Robert Barro, Jean Tirole, Paul Krugman and Paul Romer – all top 10 economists in the popular Coupé rankings (see <http://ideas.repec.org/coupe.html>). The aim was to consider a group of micro- and macro-economists, and contrast them to researchers who are regarded as experts in the field happiness. The happiness researchers in our survey are Bruno Frey, Richard Easterlin, Ed Diener and Andrew Oswald² – two of them appear under the top 200 economists in the Coupé rankings.

Finding a suitable photograph to use in the questionnaire was an essential aspect of the survey design. We decided to take the picture each researcher chose to put on his academic homepage as the “mirror” to the outside world³. We expect that this is a good proxy for how they see themselves and we can be sure that they identify themselves with the picture on their website⁴. The survey was conducted in Brisbane, Australia's third largest city. Survey administrators were given a survey set containing typed instructions for participants which were read out during each survey. When an individual agreed to participate they were given the following instructions:

“This survey asks you to determine how happy someone is with his life by looking at a photograph.”

² It should be noted that Ed Diener is a social psychologist.

³ It is useful to mention that we considered only researchers that provided colour pictures.

⁴ We also explored whether there were other pictures these superstars commonly identified with. For Paul Krugman we substituted the website picture for one which was more frequently seen in academic websites.

Once this was established each participant was shown a photograph of such a superstar asking the following question:

“Taking all things together, would you say this person is: (1) very happy, (2) quite happy, (3) not very happy, (4) not at all happy?”

Each participant was asked the above question for 12 different photographs (see Table A2 for the chosen pictures). One half of the participants were given further information about the person in each photograph. The treated group was told that the photographed individual was a "happiness researcher", "top economic researcher" or a "Nobel Prize winner in economics". Once the participant gave a response to the happiness question for each photograph, they were asked basic demographic information⁵. At the end they were asked to report their own happiness using the WVS question. Note that four survey sets, each with a different order of photographs, were used when conducting the questionnaire to allow correction for order biases that arise from showing photographs in a particular order. A total of 554 individuals were surveyed between August 3, 2007 and August 11, 2007 (including both weekends and weekdays). They were found by canvassing different locations around the city centre (on each day two or three locations were chosen).

III. EMPIRICAL RESULTS

Table 1 presents the initial results. In the second column we report the mean perceived happiness of the 12 researchers. We observe a substantial difference between Edmund Phelps, who was perceived to be happiest (with a mean happiness of 3.744) and Andrew Oswald, who was judged least happy (2.045). Thus, we have a Nobel Prize winner on the

⁵ Marital status, age, gender and whether they have a university degree.

top and a happiness researcher at the bottom. However, this picture changes when we take a look at the rest of the researchers on our list. Bruno Frey, a happiness researcher, follows Edmund Phelps in second place, while Daniel Kahneman, a Nobel Prize winner, is in the third-last position. Column 3 provides the results of the treatment group, where survey participants were informed that the person is a Nobel Prize winner, top economic researcher or happiness researcher. Interestingly, in the information treatment we observe a tendency for perceived happiness levels to converge – researchers at either extreme of the happiness scale are perceived to have more moderate happiness levels. We examine whether the additional information matters using the Wilcoxon rank-sum test, with the null hypothesis that the two treatments have the same distribution. The z-values reported in column 4 indicate that information affects the perceived happiness level of Bruno Frey, Robert Barro, Finn Kydland, Jean Tirole, Andrew Oswald and Daniel Kahneman; the first two researchers are affected negatively, while the others are positively affected. We also test for a gender effect; this is particularly interesting as only male superstars are on our list. In all cases, we find that, relative to males, female respondents perceive these researchers to be happier. This is particularly the case for Edmund Phelps, Bruno Frey, Richard Easterlin and Paul Krugman where the impact is statistically significant. In columns 7 and 8 we explore whether respondents marital status affects their perceptions of researchers' happiness. We observe a statistically significant, positive effect for Richard Easterlin. Finally, the last two columns explore whether people with a university degree have different perceptions. A clear trend is not observable and only for Bruno Frey and Finn Kydland we observe a positive education effect (statistically significant at the 10 % level).

The descriptive analysis in *Table 1* has provided us with information about the raw effects but not the partial effects. Thus, in *Tables 2* and *3*, we conduct a multiple regression analysis to disentangle these effects. In *Table 2* we use a pooled data set that explores the determinants of happiness using dummy variables for the researchers. Ordered probit is a common model used in the literature to explore the determinants of happiness (Frey and Stutzer 2002). The ordered probit model is relevant in such an analysis insofar as it helps analyze the ranking information of the scaled dependent variable. However, because the ordered probit equation has a nonlinear form, only the sign of the coefficient can be directly interpreted and not its size. Calculating the marginal effects is therefore a method to find the quantitative effect a variable has on individuals' perceived happiness. In all survey evaluations the marginal effects are presented for the highest happiness value. The original scale has been recoded to measure the level of happiness rather the level of unhappiness (4= very happy, 1=not at all happy). In the regressions we will also take into account unobservable individual specific characteristics with standard error adjusted for the clustering on individuals. In addition we will also use set fixed effects to take into account that we changed the order of the photographs in each set.

Table 2 presents the first 4 regressions. The first regression uses dummy variables for all the researchers (Edmund Phelps as a reference group) to check whether the results obtained in *Table 1* remain robust in a multivariate context. As we can see, all the coefficients are statistically significant with a negative sign⁶ and the marginal effects increases from researcher to researcher. Thus, the results in *Table 1* are supported. The happiness ranking remains stable. In *Table A3* in the Appendix we also give all the

⁶ For Bruno Frey only at the 10% level.

researchers the chance to be in the reference group to better explore researchers' happiness differences. Only Eq. 7/8 and 9/10 indicate that the differences between Finn Kydland and Ed Diener, and Paul Krugman and Daniel Kahneman are not statistically significant.

The second regression explores the differences between the three main groups, namely Nobel Prize winners, top economists and happiness researchers, using happiness researchers as the reference group (see first result column). In general, we can see that happiness researchers are perceived to be the most happy. Relative to top economists and Nobel Prize winners, happiness researchers have a higher probability of being perceived to be very happy (by 11.1 and 1.8 percentage points, respectively). In the next specification we separate the top economists and Nobel Prize winners into micro- and macro-economists. The tables indicate that macro-economists record a higher while micro-economists record a lower level of perceived happiness than the reference group. Being a top macro-researcher rather than a happiness researcher increases the probability of getting the highest happiness level by 10.1 percentage points. On the other hand, being a top micro-economist rather than a happiness researcher reduces the probability of reaching the top happiness scale by 24.8 percentage points. In the last regression we divide all the researchers into two groups (superstars with a stronger micro focus or superstars with a stronger macro approach (reference group)). Consistent with the second regression we find that being a researcher with a stronger microeconomic focus reduces the probability of being rated with the highest happiness level by 32.0 percentage points. However, without a broader investigation, covering a larger number of researchers, we cannot ascertain why this difference is observed. It could arise from a selection effect,

topic specific factors or characteristics specific to the researchers in our sample. From past studies which explore differences between micro- and macro-economists we know that American economists have a significantly higher degree of consensus on microeconomic rather than macroeconomic issues (Kearl et al. 1979), while studies which also involve European economists indicate that these findings are not robust (Frey et al. 1984). Academic disagreement may mean that a hierarchy in that field is harder to establish, therefore researchers feel more influential and happier as a result.

Table 2 also provides interesting results regarding the control variables. We find that gender differences matter. Female participants perceive these researchers to be happier; asking a woman to assess researchers' satisfaction increases the probability of observing the highest happiness level by 2.5 to 3 percentage points. Moreover, individuals' self-reported happiness affects their perception of researchers' happiness level in a positive manner. On the other hand, our treatment group is not statistically different from the control group. Thus, providing more information to participants does not lead to a significant change in the perceived happiness level. Similarly, factors such as age, marital or education status are not affecting individuals' happiness judgments.

Finally in *Table 3* we explore the determinants of each researcher's happiness separately. Edmund Phelps, Bruno Frey and Richard Easterlin are the ladies' men and Joseph Stiglitz and Jean Tirole the sweethearts of the aged. On the other hand, we were not able to observe a highbrow darling or a favourite superstar among the married people. Interestingly, only Richard Easterlin, Paul Romer, Joseph Stiglitz and Daniel Kahneman are affected in a statistically significant manner (at the 10% level) by individuals' self-reported happiness. This indicates that our results are not too biased, as an individual's

own happiness does not to a great extent affect how they perceive others. Finally, divergent results can be observed for our information treatment dummy variable; this may explain the statistical insignificance of the coefficient in *Table 2*. Bruno Frey's and Robert Barro's results are negatively affected by information while Finn Kydland's, Daniel Kahneman's, Jean Tirole's and Andrew Oswald's happiness level is significantly positively impacted.

IV. CONCLUSIONS

We started with the Grimm Brothers' famous fairy tale, *Little Snow-White*, and morphed it into a modern academic context. Thus, we dispensed with the nasty and wicked Queen, the mirror and its monopolistic position, the monarchy and the beauty contest and replaced it with gentle researchers that reached stardom in economics as Nobel Prize winners, top economists or top happiness researchers. Using their preferred photographs from their academic environment we questioned in a democratic manner how individuals over the ocean, far away in the land Down Under perceive these researchers' levels of happiness. This transformation has lead to interesting results. We observe strong differences between the researchers. At the top of the happiness ranking we find a Nobel Prize winner and at the bottom, a happiness researcher. However, this is not the end of story; in the multivariate analysis happiness researchers record the highest level of perceived life satisfaction. Moreover, we find that macro-economists are perceived to be happier than the micro-economists. Thus, the advice for young academics is: if you seek happiness, become a macro-economist and research happiness; a Nobel Prize does not make you happier; if you want to be popular with the ladies, take lessons from Edmund

Phelps, Bruno Frey and Richard Easterlin; if you are looking for the ability to age like a red wine, Joseph Stiglitz and Jean Tirole have the trick, but not Richard Easterlin; surround yourself with happy people, as they will think you are happier on average, and with women as they will judge you to be happier; and be careful how much information you reveal about yourself, as this may affect you in a positive or negative manner.

The happiness literature has strongly focused on self-reported happiness. In this paper we provide an alternative proxy, namely the perceived happiness of an individual judged by someone else. This may be an interesting approach to explore in a broader manner. The use of *perceptions* is common in economics, especially in areas where direct measurements are limited (e.g. corruption, tax evasion). Moreover, such an approach may help to deal with the problems of validity and reliability, both key evaluation criteria when using indicators of happiness.

Finally, keep in mind that this study was only carried out by three young dwarfs of the economic profession and their happiness has not been studied at all. We therefore deeply hope that this study does not induce envy and pride like rank weeds in the heart of the investigated superstars nor other researchers but rather encourage all of them to live happily ever after.

REFERENCES

- Clark, A., P. Frijters, and M. A. Schields (2008). Income and Happiness: Evidence, Explanations and Economic Implications, forthcoming in: *Journal of Economic Literature*.
- De Vany, A. (2004). *Hollywood Economics*. How Extreme Uncertainty Shapes the Film Industry. London: Routledge.

- Diener, Ed., M. Diener, and C. Diener (1995). Factors Predicting the Subjective Well-Being of Nations, *Journal of Personality and Social Psychology*. 69: 851-864.
- Frank, R. H. and P. J. Cook (1995). *The Winner-Take-All Society*. New York: The Free Press.
- Frey, B. S. (2000). *Arts and Economics: Analysis and Cultural Policy*. Heidelberg: Springer.
- Frey, B. S. and A. Stutzer (2002a). *Happiness and Economics*. Princeton: Princeton University Press.
- Frey, B. S. and A. Stutzer (2002b). What Can Economists Learn from Happiness Research?, *Journal of Economic Literature*. 40: 402-435.
- Frey, B. S., W. W. Pommerehne, F. Schneider and G. Gilbert (1984). Consensus and Dissension among Economists: An Empirical Inquiry, *American Economic Review*. 74: 986-994.
- Kearl, J. R., C. L. Pope, G. C. Whiting, and L. T. Wimmer (1979). What Economists Think. A Confusion of Economists?, *American Economic Review*. 69: 28-37.
- Rosen, S. (1981). The Economics of Superstars, *American Economic Review*. 71: 845-858.
- Tanzi, V. (1998). Corruption Around the World. Causes, Consequences, Scope, and Cures. *IMF Staff Papers*. 45: 559-594.

Table 1: Researchers' Perceived Happiness

	Perceived Happiness	With Information	Impact of Information	Female	Gender Differences	Married	Marital Status Diff.	University Education	Educ. Differ.
Researchers	Total N=554	N=277	Prob > z	N=253	Prob > z	N=201	Prob > z	N=228	Prob > z
Edmund Phelps	3.744	3.726	0.395	3.806	0.007	3.776	0.271	3.719	0.358
Bruno Frey	3.691	3.635	0.022	3.747	0.023	3.731	0.371	3.732	0.095
Richard Easterlin	3.417	3.390	0.220	3.514	0.002	3.343	0.021	3.404	0.603
Robert Barro	3.319	3.264	0.033	3.336	0.621	3.393	0.128	3.311	0.649
Paul Romer	3.231	3.191	0.188	3.277	0.138	3.219	0.543	3.237	0.830
Finn Kydland	3.078	3.148	0.043	3.095	0.677	3.109	0.382	3.018	0.089
Ed Diener	3.069	3.043	0.399	3.087	0.541	3.075	0.942	3.048	0.467
Joseph Stiglitz	2.800	2.823	0.452	2.810	0.773	2.821	0.471	2.807	0.679
Paul Krugman	2.531	2.542	0.726	2.577	0.077	2.478	0.216	2.570	0.299
Daniel Kahneman	2.475	2.606	0.000	2.494	0.574	2.433	0.323	2.531	0.228
Jean Tirole	2.132	2.181	0.060	2.174	0.128	2.174	0.357	2.127	0.824
Andrew Oswald	2.045	2.112	0.056	1.996	0.148	2.040	0.928	2.066	0.374

Table 2: Determinants of Happiness

ordered probit	Coeff.	z-stat	Marg.	Coeff.	z-stat	Marg.	Coeff.	z-stat	Marg.	Coeff.	z-stat	Marg.
Information	0.038	0.88	0.011	0.030	0.95	0.010	0.031	0.93	0.011	0.032	0.92	0.011
Age	0.001	0.42	0.0002	0.000	0.42	0.0002	0.001	0.44	0.0002	0.001	0.44	0.0002
Female	0.100**	2.32	0.030	0.071**	2.24	0.025	0.075**	2.22	0.025	0.079**	2.25	0.027
Married	0.011	0.26	0.003	0.007	0.21	0.002	0.007	0.22	0.002	0.006	0.18	0.002
University Degree	-0.003	-0.06	-0.001	-0.005	-0.11	-0.002	-0.005	-0.12	-0.002	-0.005	-0.12	-0.002
Individual Happiness	0.094***	2.65	0.028	0.070***	2.65	0.024	0.074***	2.65	0.025	0.077***	2.65	0.026
Nobel Prize Winner				-0.051**	-2.06	-0.018	-0.052**	-2.00	-0.017			
Top Economist				-0.332***	-15.17	-0.111						
Micro							-0.933***	-28.98	-0.248			
Macro							0.285***	9.42	0.101			
Happiness Researcher				reference	group		reference	group				
Micro Oriented										-0.940***	-36.74	-0.320
Macro Oriented										reference	group	
Edmund Phelps	reference	group										
Bruno Frey	-0.142*	-1.92	-0.041									
Richard Easterlin	-0.738***	-9.57	-0.169									
Robert Barro	-0.917***	-12.60	-0.195									
Paul Romer	-1.076***	-16.00	-0.214									
Finn Kydland	-1.320***	-17.46	-0.237									
Ed Diener	-1.343***	-19.56	-0.239									
Joseph Stiglitz	-1.771***	-23.49	-0.266									
Paul Krugman	-2.178***	-26.72	-0.283									
Daniel Kahneman	-2.257***	-25.56	-0.286									
Jean Tirole	-2.764***	-32.50	-0.302									
Andrew Oswald	-2.891***	-31.63	-0.306									
Clustering on Individ.	YES			YES			YES			YES		
Set Fixed Effects	YES			YES			YES			YES		
N	6648			6648			6648			6648		
Prob > chi2	0.000			0.000			0.000			0.000		
Pseudo R2	0.208			0.009			0.050			0.069		

Notes: *, ** and *** denote significance at the 10%, 5% and 1% level, respectively. Marg. = Marginal effects (highest perceived happiness score (4)).

Table 3: The Determinants of Researchers' Perceived Happiness

Ordered Probit	Edmund Phelps	Bruno Frey	Richard Easterlin	Robert Barro	Paul Romer	Finn Kydland	Ed Diener	Joseph Stiglitz	Paul Krugman	Daniel Kahneman	Jean Tirole	Andrew Oswald
Information	-0.094 (-0.82) <i>-0.029</i>	-0.264** (-2.40) <i>-0.087</i>	-0.119 (-1.19) <i>-0.047</i>	-0.186* (-1.90) <i>-0.073</i>	-0.141 (-1.46) <i>-0.051</i>	0.202** (2.14) <i>0.073</i>	-0.092 (-0.97) <i>-0.030</i>	0.118 (1.23) <i>0.020</i>	0.044 (0.47) <i>0.003</i>	0.385*** (4.03) <i>0.045</i>	0.197** (2.03) <i>0.004</i>	0.225* (2.44) <i>0.009</i>
Age	-0.001 (-0.28) <i>-0.0004</i>	-0.003 (-0.73) <i>-0.001</i>	-0.010*** (-2.81) <i>-0.004</i>	0.004 (1.13) <i>0.002</i>	-0.001 (-0.22) <i>-0.0003</i>	0.004 (1.01) <i>0.001</i>	-0.005 (-1.44) <i>-0.002</i>	0.010*** (2.75) <i>0.002</i>	-0.004 (-1.10) <i>-0.0003</i>	-0.002 (-0.48) <i>-0.0002</i>	0.010*** (2.83) <i>0.000</i>	0.007* (1.93) <i>0.0003</i>
Female	0.300** (2.56) <i>0.090</i>	0.234** (2.07) <i>0.077</i>	0.283*** (2.80) <i>0.113</i>	0.037 (0.37) <i>0.014</i>	0.116 (1.19) <i>0.042</i>	0.060 (0.64) <i>0.022</i>	0.032 (0.33) <i>0.010</i>	0.044 (0.46) <i>0.008</i>	0.133 (1.37) <i>0.010</i>	0.060 (0.64) <i>0.007</i>	0.161* (1.68) <i>0.004</i>	-0.119 (-1.24) <i>-0.005</i>
Married	0.151 (1.02) <i>0.045</i>	0.197 (1.42) <i>0.064</i>	-0.046 (-0.39) <i>-0.018</i>	0.101 (0.87) <i>0.040</i>	-0.042 (-0.35) <i>-0.015</i>	0.004 (0.03) <i>0.001</i>	0.109 (0.92) <i>0.036</i>	-0.156 (-1.30) <i>-0.026</i>	-0.061 (-0.47) <i>-0.005</i>	-0.073 (-0.62) <i>-0.008</i>	-0.069 (-0.57) <i>-0.002</i>	-0.145 (-1.32) <i>-0.006</i>
University Degree	-0.107 (-0.92) <i>-0.033</i>	0.162 (1.41) <i>0.053</i>	-0.051 (-0.51) <i>-0.020</i>	-0.053 (-0.54) <i>-0.021</i>	-0.5E-04 0.00 <i>-0.2E-04</i>	-0.130 (-1.38) <i>-0.047</i>	-0.076 (-0.79) <i>-0.025</i>	0.050 (0.50) <i>0.009</i>	0.117 (1.20) <i>0.009</i>	0.152 (1.63) <i>0.018</i>	0.019 (0.19) <i>0.0004</i>	0.086 (0.93) <i>0.004</i>
Individual Happiness	0.123 (1.26) <i>0.038</i>	0.129 (1.33) <i>0.043</i>	0.150* (1.78) <i>0.060</i>	0.121 (1.43) <i>0.047</i>	0.200* (2.16) <i>0.072</i>	0.036 (0.49) <i>0.013</i>	0.009 (0.11) <i>0.003</i>	0.143* (1.76) <i>0.025</i>	0.060 (0.73) <i>0.005</i>	0.130* (1.67) <i>0.015</i>	0.044 (0.50) <i>0.001</i>	0.020 (0.26) <i>0.001</i>
Set Fixed Effects	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
N	554	554	554	554	554	554	554	554	554	554	554	554
Prob > chi2	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Pseudo R2	0.019	0.026	0.029	0.011	0.023	0.011	0.007	0.019	0.009	0.019	0.015	0.013

Notes: z-statistics in parentheses and marginal effects in italics (highest perceived happiness score (4)). *, ** and *** denote significance at the 10%, 5% and 1% level, respectively.

APPENDIX

Table A1: Level of Happiness at the international level

COUNTRIES	MEAN	COUNTRIES	MEAN
ROMANIA	2.610	ISRAEL	1.982
RUSSIA	2.569	BOSNIA AND HERZEGOVINA	1.98
UKRAINE	2.569	MOROCCO	1.962
BULGARIA	2.559	KYRGYZSTAN	1.96
MOLDOVA	2.473	SPAIN	1.939
ALBANIA	2.41	EGYPT	1.939
LATVIA	2.395	ARGENTINA	1.88
IRAQ	2.343	FINLAND	1.861
ZIMBABWE	2.329	MALTA	1.848
BELARUS	2.311	INDONESIA	1.847
ESTONIA	2.287	CHILE	1.841
SLOVAKIA	2.26	JAPAN	1.828
LITHUANIA	2.205	SOUTH AFRICA	1.782
SERBIA AND MONTENEGRO	2.201	FRANCE	1.762
IRAN	2.187	AUSTRIA	1.743
HUNGARY	2.156	PHILIPPINES	1.733
POLAND	2.15	LUXEMBOURG	1.718
CHINA	2.132	SWEDEN	1.713
MACEDONIA	2.106	SINGAPORE	1.697
BANGLADESH	2.097	BELGIUM	1.69
TURKEY	2.091	UNITED STATES	1.669
SLOVENIA	2.088	SAUDI ARABIA	1.648
GREECE	2.086	IRELAND	1.619
JORDAN	2.085	DENMARK	1.606
PAKISTAN	2.062	NETHERLANDS	1.597
CROATIA	2.057	CANADA	1.593
CZECH REPUBLIC	2.054	VIETNAM	1.591
ITALY	2.048	VENEZUELA	1.576
INDIA	2.047	ICELAND	1.564
PERU	2.045	EL SALVADOR	1.533
KOREA REPUBLIC	2.044	PUERTO RICO	1.528
ALGERIA	2.036	MEXICO	1.51
GERMANY	2.03	TANZANIA	1.496
PORTUGAL	2.003	NIGERIA	1.422
UGANDA	1.994		

Source: Own calculations based on *World Values Survey* data (wave 4 (1999 and 2003)). Higher values = lower level of happiness.

Table A2: Researchers' Photography

			
Edmund Phelps	Daniel Kahneman	Finn Kydland	Joseph Stiglitz
			
Paul Krugman	Jean Tirole	Robert Barro	Paul Romer
			
Bruno Frey	Ed Diener	Andrew Oswald	Richard Easterlin

Notes: First row: Nobel Prize winners, second row: top economists, third row: top happiness researchers.

Table A3: Happiness Differences between the Researchers

O. probit	Eq. 1	Eq. 2	Eq. 3	Eq. 4	Eq. 5	Eq. 6	Eq. 7	Eq. 8	Eq. 9	Eq. 10	Eq. 11	Eq. 12
Edmund Phelps	reference group	0.142* (1.92) <i>0.045</i>	0.738*** (9.57) <i>0.263</i>	0.917*** (12.60) <i>0.332</i>	1.076*** (16.00) <i>0.393</i>	1.320*** (17.46) <i>0.483</i>	1.343*** (19.56) <i>0.491</i>	1.771*** (23.49) <i>0.624</i>	2.178*** (26.72) <i>0.718</i>	2.257*** (25.56) <i>0.732</i>	2.764*** (32.50) <i>0.799</i>	2.891*** (31.63) <i>0.810</i>
Bruno Frey	-0.142* (-1.92) <i>-0.041</i>	reference group	0.596*** (8.54) <i>0.208</i>	0.775*** (11.85) <i>0.277</i>	0.933*** (14.32) <i>0.338</i>	1.178*** (15.43) <i>0.431</i>	1.200*** (17.52) <i>0.440</i>	1.629*** (21.38) <i>0.583</i>	2.035*** (24.82) <i>0.689</i>	2.115*** (23.93) <i>0.705</i>	2.621*** (29.96) <i>0.784</i>	2.749*** (30.09) <i>0.797</i>
Richard Easterlin	-0.738*** (-9.57) <i>-0.169</i>	-0.596*** (-8.54) <i>-0.145</i>	reference group	0.179*** (2.61) <i>0.057</i>	0.337*** (5.26) <i>0.112</i>	0.582*** (8.48) <i>0.202</i>	0.604*** (9.33) <i>0.211</i>	1.033*** (15.33) <i>0.377</i>	1.439*** (20.60) <i>0.523</i>	1.519*** (19.46) <i>0.549</i>	2.025*** (26.29) <i>0.686</i>	2.153*** (26.52) <i>0.713</i>
Robert Barro	-0.917*** (-12.6) <i>-0.195</i>	-0.775*** (-11.85) <i>-0.175</i>	-0.179*** (-2.61) <i>-0.051</i>	reference group	0.158*** (2.61) <i>0.050</i>	0.403*** (5.95) <i>0.135</i>	0.425*** (7.32) <i>0.144</i>	0.854*** (13.58) <i>0.308</i>	1.260*** (17.72) <i>0.461</i>	1.340*** (18.44) <i>0.489</i>	1.846*** (25.27) <i>0.644</i>	1.974*** (25.75) <i>0.675</i>
Paul Romer	-1.076*** (-16.00) <i>-0.214</i>	-0.933*** (-14.32) <i>-0.197</i>	-0.337*** (-5.26) <i>-0.091</i>	-0.158*** (-2.61) <i>-0.045</i>	reference group	0.245*** (3.94) <i>0.079</i>	0.267*** (4.77) <i>0.087</i>	0.695*** (11.68) <i>0.246</i>	1.102*** (17.01) <i>0.403</i>	1.181*** (16.59) <i>0.433</i>	1.688*** (24.70) <i>0.601</i>	1.815*** (24.46) <i>0.636</i>
Finn Kydland	-1.320*** (-17.46) <i>-0.237</i>	-1.178*** (-15.43) <i>-0.224</i>	-0.582*** (-8.48) <i>-0.142</i>	-0.403*** (-5.95) <i>-0.106</i>	-0.245*** (-3.94) <i>-0.068</i>	reference group	0.022 0.36 <i>0.007</i>	0.451*** (7.13) <i>0.153</i>	0.857*** (12.28) <i>0.309</i>	0.937*** (12.76) <i>0.340</i>	1.443*** (20.81) <i>0.525</i>	1.571*** (20.72) <i>0.566</i>
Ed Diener	-1.343*** (-19.56) <i>-0.239</i>	-1.200*** (-17.52) <i>-0.226</i>	-0.604*** (-9.33) <i>-0.146</i>	-0.425*** (-7.32) <i>-0.111</i>	-0.267*** (-4.77) <i>-0.074</i>	-0.022 (-0.36) <i>-0.007</i>	reference group	0.428*** (7.05) <i>0.145</i>	0.835*** (12.60) <i>0.300</i>	0.914*** (12.71) <i>0.331</i>	1.421*** (20.72) <i>0.517</i>	1.548*** (20.98) <i>0.559</i>
Joseph Stiglitz	-1.771*** (-23.49) <i>-0.266</i>	-1.629*** (-21.38) <i>-0.258</i>	-1.033*** (-15.33) <i>-0.209</i>	-0.854*** (-13.58) <i>-0.186</i>	-0.695*** (-11.68) <i>-0.162</i>	-0.451*** (-7.13) <i>-0.116</i>	-0.428*** (-7.05) <i>-0.111</i>	reference group	0.406*** (7.33) <i>0.137</i>	0.486*** (8.32) <i>0.166</i>	0.993*** (17.59) <i>0.361</i>	1.120*** (18.03) <i>0.410</i>
Paul Krugman	-2.178*** (-26.72) <i>-0.283</i>	-2.035*** (-24.82) <i>-0.277</i>	-1.439*** (-20.60) <i>-0.246</i>	-1.260*** (-17.72) <i>-0.232</i>	-1.102*** (-17.01) <i>-0.217</i>	-0.857*** (-12.28) <i>-0.187</i>	-0.835*** (-12.60) <i>-0.184</i>	-0.406*** (-7.33) <i>-0.106</i>	reference group	0.079 (1.41) <i>0.025</i>	0.586*** (11.36) <i>0.204</i>	0.714*** (12.27) <i>0.253</i>
Daniel Kahneman	-2.257*** (-25.56) <i>-0.286</i>	-2.115*** (-23.93) <i>-0.280</i>	-1.519*** (-19.46) <i>-0.251</i>	-1.340*** (-18.44) <i>-0.238</i>	-1.181*** (-16.59) <i>-0.225</i>	-0.937*** (-12.76) <i>-0.198</i>	-0.914*** (-12.71) <i>-0.195</i>	-0.486*** (-8.32) <i>-0.123</i>	-0.079 (-1.41) <i>-0.023</i>	reference group	0.507*** (8.49) <i>0.174</i>	0.634*** (10.32) <i>0.222</i>
Jean Tirole	-2.764*** (-32.50) <i>-0.302</i>	-2.621*** (-29.96) <i>-0.298</i>	-2.025*** (-26.29) <i>-0.277</i>	-1.846*** (-25.27) <i>-0.269</i>	-1.688*** (-24.70) <i>-0.261</i>	-1.443*** (-20.81) <i>-0.246</i>	-1.421*** (-20.72) <i>-0.245</i>	-0.993*** (-17.59) <i>-0.204</i>	-0.586*** (-11.36) <i>-0.143</i>	-0.507*** (-8.49) <i>-0.128</i>	reference group	0.128** (2.54) <i>0.040</i>
Andrew Oswald	-2.891*** (-31.63) <i>-0.306</i>	-2.749*** (-30.09) <i>-0.302</i>	-2.153*** (-26.52) <i>-0.282</i>	-1.974*** (-25.75) <i>-0.275</i>	-1.815*** (-24.46) <i>-0.268</i>	-1.571*** (-20.72) <i>-0.254</i>	-1.548*** (-20.98) <i>-0.253</i>	-1.120*** (-18.03) <i>-0.219</i>	-0.714*** (-12.27) <i>-0.165</i>	-0.634*** (-10.32) <i>-0.152</i>	-0.128** (-2.54) <i>-0.037</i>	reference group

Notes: All other independent variables controlled for. Standard error adjusted errors adjusted for clustering on individuals. N= 6648. Dependent variable: individuals' perceived happiness of these researchers. The z-statistics are in parentheses and marginal effects in italics (highest perceived happiness score (4)).