Factors That Affect the Feeling of Happiness in Israel

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ABSTRACT

In this paper, we analyzed the answers to questionnaires distributed among 140 people in Israel and identified the main factors that have an affect over feeling of happiness'. We estimated an econometric equation with happiness as the dependent variable. Our findings show that feeling of happiness' among women is mainly affected by satisfaction from marital status; a variable that also has a large effect on males' sense of happiness. Among men, the most important factor is satisfaction during time leisure, a factor which also has a positive effect on female happiness. Other factors which have a negative affect only on males are higher age, higher education and higher income, while more hours sleeping increases happiness among males.

Keywords: Feeling of happiness; Affecting factors, Israel

INTRODUCTION

The search for happiness has become one of the main focuses of positive psychology as well as other social sciences. What is most important, above all, is that this subject interests both researchers and society as a whole. As a consequence of the evolution of a society of well-being (increased vacation time, decreased time dedicated to work, increased life expectancy, etc.).

The concept of happiness has been associated with well-being, jubilation, pleasure and satisfaction. More specifically, Lyubomirsky *et al.*, (2005) referred to it as a feeling of subjective well-being characterized by a great number of positive feelings, a low number of negative feelings and elevated satisfaction with life.

Peterson *et al.* (2005) developed a scale to measure three orientations to happiness, or in other words, three behavioral styles that could lead a subject to achieve a certain level of happiness. The three orientations are: pleasure, meaning and engagement.

They tried to determine the extent to which the three orientations to happiness predict a subject's level of life satisfaction. They found that, considered individually, orientations to happiness predict life satisfaction, but the influence of the pleasure orientation was small while the influence of other two was moderate. Furthermore, subjects with high scores on the three scales obtained a greater level of life satisfaction, while the opposite occurred for subjects who scored low on the three subscales.

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Feeling happiness can be effected by a number of socioeconomic factors such as health, wealth, and marital status, as well as by several subjective phenomena specific to a particular economic system (consumerism, democracy, and the like) — see, for example, Wilson (1994), Lane (1994), Phelps (2001), and Graham and Pettinato (2001, 2002).

Lower socioeconomic status have been related to lower life satisfaction (Bradley and Corwyn, 2004; Dew and Huebner, 1994; Douthitt *et al*., 1992; Grob *et al*.,1996; Louis and Zhao, 2002) and divorce (Diener *et al.,* 1999; Lucas *et al*.,2003), and poor health, has been correlated with lower life satisfaction among both adolescents and adults (Flouri, 2004; Zullig *et al*., 2005a; Zullig *et al*., 2005b)

Gerdtham and Johannesson (2001) investigate the determinants of happiness using Swedish micro-data. According to their results, health, education, and income directly and significantly determine happiness, while the effect of age appears to be U-shaped, implying the least happiness for the middle age (45–64) group.

Borooah (2006) using data with respondents from eighty countries, finds that health, job, income, and other factors contribute to individual happiness.

Di Telia *et al.*, (2003) find that happiness is influenced by fluctuations in the macro economy. In addition to the obvious direct economic costs of unemployment and reduced output due to recession, they also see substantial indirect psychic anxiety costs in terms of fear of unemployment by the employed.

Katz (2009) examined the links between personal wellbeing of Israeli elders +65, family solidarity and family and personal resources. Her main conclusions are that personal resources had the strongest effect on life satisfaction while family solidarity plays a less dominant role.

Since peoples' goals are likely to differ substantially across cultures, what is considered the 'good life' in one culture may be less important in another? In this paper, we intend to investigate the relation between various demographic, economic and social characteristics and people's level of happiness in Israel.

In part II, we will analyze simple relations between various characteristics and happiness, in part III we will estimate a regression equation connecting peoples' various attributes and happiness, and the last part summarizes the results.

DATA ANALYSIS

We sampled 140 people of various ages, most of whom live in northern Israel. Each person was asked to fill out a questionnaire and answer various questions regarding his or her demographic, social and economic status, as well as score his or her level of happiness on a scale of 1 to 7, where 7 is highest level of happiness.

In table 1, we present the average level of happiness according to gender, age, marital status, number of siblings and number of children.

Table 1: Level of happiness according to gender and family status (*)

	Average level Of happiness	Number of persons
Women total	4.54	70
Below 27 years old	4.3	35
Above 27 years old	4.8	35
Men total	4.57	70
Below 27 years old	4.5	35
Above 27 years old	4.6	35
Not married	4.5	84
Married	4.7	56
0 siblings	4.4	11
1 brothers and sisters	4.5	35
2 brothers and sisters	4.6	47
3 brothers and sisters	4.6	31
4 brothers and sisters	4.4	5
5 brothers and sisters	4.6	5
6 brothers and sisters	4.3	3
7 brothers and sisters	5.0	1
8 brothers and sisters	4.0	1
9 brothers and sisters	5.0	1
0 children	4.5	88
1 children	4.8	9
2 children	4.5	13
3 children	4.7	25
4 children	4.6	5

(*) the highest happiness score is 7.

According to the results presented in table 1, the average level of happiness for both genders is pretty close, however it seems that people older than 27 are slightly happier.
Not married seem to be slightly less happy than married and the number of siblings or children doesn't seem to have a consistent effect on happiness.

We also asked people to score their satisfaction from their marital status, where 1 is the lowest and 7 is the highest satisfaction. Table 2 presents the relation between satisfaction from marital status and happiness.

Table 2: The connection between satisfaction from marital status and happiness

Satisfaction from Marital status (*)	Average level of happiness	Number of persons
1	2.5	2
3	4.4	5
4	4.0	18
5	4.4	23
6	4.7	42
	4.8	50

(*)1. not satisfied at all. 2. satisfied in a very little measure.
3. satisfied in a little measure. 4. satisfied in an acceptable measure.
5. quite satisfied. 6. much satisfied. 7. Very much satisfied.

We are not surprised to see a strong positive relation between satisfaction from marital status and happiness.

In table 3, we present education level and its relation to happiness:

Table 3: Education level and happiness

Education level (*)	Average level of happiness	Number of persons
1	5	2
2	4.7	3
3	4.5	25
4	4.8	4
5	4.5	13
6	4.6	56
7	4.5	11
8	4.5	8
9	4.9	10
10	4.3	3
11	4	5

(*)1.with no high school matriculation certificate 2.partial matriculation certificate. 3.complete matriculation certificate. 4. studying in non-degree granting tertiary education. 5.Certificate of tertiary education. 6.studing for bachelor's degree/ engineering. 7. having bachelor's degree/engineering. 8. Studying for master's degree. 9. having master's degree. 10. Doctoral Student. 11. Having doctorate.

It seems that there is no consistent relation between education and the sense of happiness.

According to the table in appendix 1, increased satisfaction from educational level is accompanied by a reduction in the sensing of happiness.

In table 4, we present the relation of income level and the frequency of changing jobs to happiness.

Table 4: Income level, the frequency of changing jobs and happiness

Income level (*)	Average level of happiness	Number of persons	changing Jobs (**)	Average level of happiness	Number of persons
0	4.3	25	1	4.7	56
1	4.2	12	2	4.4	33
2	4.6	24	3	4.5	26
3	4.5	24	4	4.5	15
4	4.8	15	5	4.3	9
5	4.8	16	6	4	1
6	5	8	7	-	-
7	4.5	16			

 (*) income level increases from 0 to 7, where 0 is no income,1 represents an income of 0-2000 shekels per month. Level 2 represents 2000-4000 shekels per month, and each additional level represents an increase of 2,000. Level 7 represents income above 12,000 shekels per month.
(**) change within 5 years: 1. represents no change, 2. very low frequency. 3. low frequency, 4. moderate frequency, 5. quite high frequency, 6. high frequency, 7 a very high   frequency.

It seems that generally happiness has a positive connection to income level, as well as having a positive relation with satisfaction from income level (see appendix 2), while it is reduced as people tend to increase job changes.

We also examined the effect of unemployment and found that the happiness level among the employed is 4.6 while among the unemployed is 4.1.

Another important factor is number of hours slept. We find that happiness is highest for people that sleep 8-10 hours a night and is lower for those sleep 10-12 hours a night (see table 5)

Table 5: Income level, the frequency of replacement jobs and happiness

Number of hours slept(*)	Average level of happiness	Number of persons	Level of satisfaction from leisure (**)	Average level of happiness	Number of persons
1	-	0	1	4.1	10
2	4.5	35	2	4.8	6
3	4.6	78	3	4.4	28
4	4.7	23	4	4.7	32
5	4	4	5	4.5	42
6	-	0	6	4.9	18
7	-	0	7	5	4

(*)1. Less than 4 hours 2. 4-6 hours, 3. 6-8 hours, 4. 8-10 hours, 5. 10-12 hours 6. 12-14 hours 7. above 14 hours.
(**) 1. Not satisfied at all. 2. Satisfied in a very little measure. 3. Satisfied in a little measure. 4. satisfied in a moderate measure. 5. Quite satisfied. 6. Much satisfied. 7. Very much satisfied.
We see a pretty consistent relation between the level of satisfaction from leisure and the level of happiness (see table 6).

Table 6: Satisfaction from time spent in leisure and happiness

Level of satisfaction from leisure time (**)	Average level of happiness	Number of persons
1	3.9	10
2	3.9	10
3	4.1	12
4	4.7	47
5	4.6	41
6	5	14
7	5.3	6

(**) 1. Not satisfied at all. 2. Satisfied in a very little measure. 3. Satisfied in a little measure. 4 satisfied in a moderate measure. 5. Quite satisfied. 6. Much Satisfied. 7. Very much satisfied.

The data for comparing alcohol consumption, fulfilling parental expectations and the number of leisure hours to the level of happiness are presented in appendix 3.

Regression Estimation
In order to examine the marginal effect of each factor on fulfilling happiness we estimated a regression equation with the level of happiness as the dependent variable and the various personal,

social and economic characteristics as explanatory variables. In trying to improve the model, we added several interaction variables
.
After correcting heteroskedasticity and removing non-significant variables, we arrived at the output presented in Table 7.

Variable	Prob.	t-Statistic	Std. Error	Coefficient
G*A	0.0112	-2.573887	0.009660	-0.024864
S	0.0000	6.764491	0.037842	0.255981
G*E	0.0187	-2.380948	0.035471	-0.084455
G*I	0.0003	3.672214	0.043683	0.160415
U*I	0.0245	-2.275183	0.018685	-0.042511
satLeis	0.0000	5.308876	0.037174	0.197351
G*SL	0.0454	2.019900	0.122670	0.247782
C	0.0000	9.041990	0.250833	2.268025
				R-squared=0.393433

G = Gender with male getting a value of 1 and female a value of 0.
A = Age
S = Level of satisfaction from marital status (increases with satisfaction).
E = education level, with 1 representing did not graduate high school and 11 is having adoctorate.
I = Income level (increases with income).
U = Unemployment status with 1 representing unemployed and 0 represents employed.
SatLeis = the level of satisfaction from leisure (increases with satisfaction).
SL = Number of hoursslept.

Elasticity
In order to score the significant explanatory variables according to their effect on a sense of happiness, we calculated the elasticity of happiness in regard to each variable.
The estimated equation is:

$$(1) \quad Happiness_i = 2.268025 - 0.024864 * G_i * A_i + 0.255981 * S_i - 0.084455 * G_i * E_i + 0.160415 * G_i * I_i - 0.042511 * U_i * I_i + 0.197351 SatLeis_i + 0.247782 * G_i * SL_i + e_i$$

Elasticity measures the percentage change in the dependent variable, given a 1 percent change in the explanatory variable.

Or more formally as: $(2) \quad E = \dfrac{\dfrac{\Delta Y}{Y}}{\dfrac{\Delta X}{X}} = \dfrac{\Delta Y}{\Delta X_j} \dfrac{X_j}{Y}$

Given equation (1) we can measure $\dfrac{\Delta Y}{\Delta X}$ as the estimated coefficient multiplying explanatory

variable $X_{ij,}$ (for example $\dfrac{\Delta Y}{\Delta S} = 0.255981$).

X_j and Y in equation (2) are measured as the average of series X_j and Y^3.
Table 8 presents the elasticity of happiness in regard to the explanatory variable:

Table 8: Elasticity of happiness in regard to the explanatory variable

	G*A	**S**	**G*E**	**G*I**	**U*I**	**SatLeis**	**G*SL**
Regression Coefficient	-0.02486	0.25598	-0.084455	0.16041	-0.04251	0.1973	0.2477
Elasticity	-0.18	0.32	-0.11	0.11	-0.03	0.18	0.16

As we can see, satisfaction from marital status is the most important factor for females' sense of happiness and also has a positive effect on males' happiness. Satisfaction from leisure is the most important factor for males' sense of happiness and also has a positive effect on females' happiness. For males, higher education higher age and higher income are accompanied by a reduction in happiness.

SUMMARY

We collected data by doing a random sample among 140 people in northern Israel. The distributed questionnaires included a scoring of feeling happiness in an ascending order scale. Each participant was asked questions in regard to his or her demographic, economic and social characteristics. As a first step, we analyzed the connection between various characteristics and the sense of happiness. We noticed that satisfaction from marital status has a positive effect on feeling happy. Higher education and frequent job changes seem to be negatively connected with happiness.

In order to identify the marginal effect of the various factors, we estimated a regression equation that connects the various characteristics to happiness. After removing non-significant variables, we calculated the elasticity of happiness in regard to various explanatory variables. According to our findings, happiness among women is largely affected by satisfaction from marital status, a factor which also has a strong positive affect over males' happiness. The most important factor affecting happiness among men is satisfaction from leisure time, a factor which has a positive effect on female satisfaction as well. Males are less happy when more educated, older and having higher income.

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[3] For example, the elasticity of happiness in regard to S, the satisfaction of marital status is calculated as

$$\frac{\Delta \text{Happinness}}{\Delta S} * \frac{\bar{S}}{\overline{\text{Happinness}}} = 0.255981, \quad \overline{\text{Happinness}} \text{ - is the average of happiness series and}$$

$\bar{S}$ the average of satisfaction of marital status series.

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Appendix 1

Satisfaction from Education level and happiness

Satisfaction from Education level (*)	Average level of happiness	Number of persons
1	4	2
2	3.5	2
3	4.4	5
4	4.5	41
5	4.3	29
6	4.8	31
7	4.7	30

(*) 1. Not satisfied at all. 2. Satisfied in a very little measure. 3. Satisfied in a little measure. 4. satisfied in a moderate measure. 5. Quite satisfied. 6. Much satisfied. 7. Very much satisfied.
2 is lower and 6 is higher satisfaction.

Appendix 2

Satisfaction from income level and happiness

Satisfaction from income level (****)	Average level of happiness	Number of persons
0	4.3	25
1	4	2
2	3.3	3
3	4.75	4
4	4.4	25
5	4.5	25
6	4.8	38
7	4.77	18

(****)1. Not satisfied at all. 2. Satisfied in a very little measure. 3. Satisfied in a little measure. 4. satisfied in a moderate measure. 5. Quite satisfied. 6. Much satisfied. 7. Very much satisfied.

Appendix 3

Alcohol consumption, filling of parent's expectations and happiness

alcohol consumption (*)	Average level of happiness	Number of persons	Filling of parent's expectations (**)	Average level of happiness	Number of persons
1	4.7	38	1	-	
2	4.7	12	2	5	1
3	4.6	31	3	4	8
4	4.4	56	4	4.3	15
5	4	3	5	4.4	38
			6	4.6	56
			7	5	22

(*) increasing with alcohol consumption, 1 represent non consumption. 2. One time in a year, 3. One

time in a month, 4. One time in a week. while 5 represents daily consumption.
(**) 1. Not at all. 2. Fill in a very little measure. 3. Fill in a little measure. 4. Fill with fine measure. 5. fill the expectations. 6. Fill the expectations in a large measure. 7 Fill the expectations in a very large measure.

Number of leisure hours and happiness

Number of leisure hours (***)	Average level of happiness	Number of persons
1	4.6	18
2	4.6	29
3	4.5	34
4	4.5	31
5	4.5	20
6	5	6
7	5	1
8	-	0
9	4	1

(***) 1 represent 6-8 hours, 2 represent 8-10 hours, 3 represent 10-12 hours, 4. Represent 14-16 hours, 5 represent 16-18 hours, 6 represent 18-20 hours, 7. represent 20-22 hours, 8 represent 22-24 hours, 9 represent 24 hours of Leisure a day.