



LUDWIG-
MAXIMILIANS-
UNIVERSITÄT
MÜNCHEN

Marc Keuschnigg
Eva Negele
Tobias Wolbring

Can Money Buy Happiness?

VIU November 29th 2010





1. Income and Happiness
2. Biological Needs
3. Social Comparisons
4. Adaptation
5. Summary



Income and Life-Satisfaction

- Nonlinear effect of income on individual life-satisfaction
- *Easterlin-Paradox*: more income does not necessarily lead to higher happiness-levels (Easterlin 1974, 1995, 2001)
Empirical evidence (e.g. Diener and Biswas-Diener 2002):
 - *Weak* correlation *within* (developed) countries
 - *Stronger* correlation *between* countries
 - *No (long-term) effect of changes* in income *within* a country
- Three possible explanations: basic human needs, social comparisons, and adaptation (Clark et al. 2008)



Basic Human Needs

- Assumption: humans as biological organisms with certain needs
- Income is essential for satisfying (some of) those basic needs (e.g. dwelling ,food)
- If these needs are satisfied, income plays no or only a subordinated role for subjective well-being

Hypotheses

- Below a certain income-level:
strong positive association between income and well-being
- Above that income-level:
no or only a *weak* association between income and well-being

GSOEP

- 17 waves (from 1992 to 2008), unbalanced panel
- Life satisfaction: “How satisfied are you with your life, all things considered?”; answers from “completely dissatisfied” [0] to “completely satisfied” [10]
- Income: Average household income per capita

Munich Data:

- Two stage random sampling (households, within households)
- 3,000 households in Munich, sample size 662 (return rate 22%)
- Data collection in spring 2010, cross-section data
- Same life satisfaction question as in the GSOEP

Country Data:

- Income: Penn World Tables (Heston et al. 2009);
- Life satisfaction: for 144 countries (Veenhoven 2010)



Social Comparisons

- Assumptions: social embeddedness and status-orientation
- Income affects well-being through social comparisons
- But comparisons with whom? → Specification of reference groups
- Abstract: average income in country, city district or occupation
- More specific: direct interaction with family, friends or colleagues
→ the more competitive a relationship is, the higher the impact of those persons' income

Hypotheses

- Individual life satisfaction declines with rising neighborhood wealth
- Effects of social comparisons are stronger for colleagues or average citizens than for friends or family members



Operationalization of Social Comparisons

- Spatial relative income:
log-transferred difference between individual income and an average regional income
SOEP: 96 large spatial units
MUC: 23 smaller city districts
- Social relative income:
self assessed *comparisons* with income of average citizens, colleagues, friends and relatives (“much lower” [-2]; “much higher” [2])
self assessed *relevance* of these reference groups (“unimportant [1]; “important [4])



Life-Satisfaction	Germany		Munich			
	1	2	3	4	5	6
In Income	0.535***		0.517***		0.554**	0.540***
In Spatial Relative Income		0.467***		0.645***		
Relative Income: Colleagues					-0.329	
Relevance: Colleagues					0.110	
Rel. Income * Relevance Coll.					0.230*	
Relative Income: Friends						0.217
Relevance: Friends						-0.039
Rel. Income * Relevance Friends						-0.084
In Number of Friends	0.249***	0.259***	0.306*	0.306*	0.325	0.369*
Single	-0.520***	-0.517***	-0.709**	-0.717**	-0.715*	-0.715**
Social Trust: Overall	0.169***	0.180***				
Family & Neighbors			0.923***	0.936***	0.786***	0.947***
Church Attendance	0.155***	0.166***	0.173*	0.165*	0.133	0.154*
n	17,633	17,538	560	543	409	515
R ²	0.214	0.205	0.205	0.213	0.192	0.219

*p<0.05, **p<0.01, ***p<0.001; OLS-Regression. Controlled for: age, age2, health, children in household, unemployment.



Adaptation

- Assumption 1: temporal embeddedness in life-course
- Well-being depends especially on negative, but also on positive life-cycle events (e.g. marriage, accidents)
- Assumption 2: adaption processes take place in the medium run
- Psychological set-point theory: It exists a person-specific happiness-level, to which individual well-being floats back after life-cycle events

Hypotheses

- Past income changes have less effect on current value of life satisfaction than recent ones
- Losses affect life satisfaction more than gains



	Germany		3 ($Y_{it} < 800$)	4 ($Y_{it} \geq 800$)
Life-Satisfaction	1	2		
$\ln Y_{it-1}^-$	-0.015***	-0.010***	-0.003	-0.005*
$\ln Y_{it-1}^+$	0.009***	0.009***	0.010***	0.002
$\ln Y_{it-2}^-$	-0.011***	-0.008***		
$\ln Y_{it-2}^+$	0.009***	0.008***		
$\ln Y_{it-3}^-$	-0.006**	0.005*		
$\ln Y_{it-3}^+$	0.006**	0.005*		
Entry Unemployment		-0.558***	-0.540***	-0.503***
Reentry Laborforce		0.066***	0.073***	0.052***
Separation		-0.313***	-0.258**	-0.349**
Marriage		0.110***	0.130***	0.062**
Constant	6.713***	7.564***	7.466***	7.845***
n * T	182,496	179,083	104,271	126,470
n	27,673	27,538	21,963	24,758
R ² within	0.016	0.074	0.077	0.072
rho	0.593	0.566	0.566	0.598

Losses

Gains

*p<0.05, **p<0.01, ***p<0.001

Fixed effects model. Controlled for Health, Age, Retirement.



Summary

- Threshold for the fulfillment of basic human needs about 800 Euros in Germany (slightly higher in Munich)
- Evidence for social comparisons with respondents' city district, colleagues and average citizens, but not with relatives and friends
- Adaptation to income changes over time resulting in only very small effects of income changes three years ago
- Losses outweigh gains– especially for separation vs. marriage and unemployment vs. reentry laborforce (but also for income)
- Differential effect of income changes before and after satisfaction of basic human needs: stronger effect of income gains for poor people and of income losses for richer people



Variables	Definition	GSOEP	Munich
Age	in years	50.124 (18.265)	48.797 (17.436)
Health	Dummy variable = 1 if health is good	0.488 (0.499)	0.437 (0.496)
ln Friends	log number of "close friends"	1.459 (0.635)	
	log number of "persons that can be called after 11 pm in case of personal problems"		1.810 (0.692)
Single	Dummy variable = 1 if single	0.219 (0.414)	0.186 (0.389)
Children	Dummy variable = 1 if at least one child lives in household	0.466 (0.499)	0.221 (0.415)
Unemployment	Dummy variable = 1 if unemployed	0.050 (0.218)	0.029 (0.167)
Church Attendance	5 levels, from "never" [1] to "every day" [5]	1.732 (0.945)	
	7 levels, from "never" [1] to "every day" [7]		1.464 (1.322)
Social Trust	Overall trust, 4 levels from "totally agree" [1] to "totally disagree" [4]	2.449 (0.677)	
	Trust in family and neighborhood, 5 levels from "no trust" [1] to "complete trust" [5]		3.937 (0.220)

Variable	Region	<i>min</i>	<i>mean</i>	<i>median</i>	<i>max</i>	<i>sd</i>	<i>n</i>
Life Satisfaction ()	Germany	0	6.98	7	10	1.75	19,568
	Munich	0	6.83	7	10	2.27	654
Income ()	Germany	0	1,188	1,000	50,000	981	18,930
	Munich	33	1,883	1,600	25,000	1,674	584