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Happiness around the World: The Paradox of Happy Peasants and Miserable Millionaires

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Happiness around the World:
Happy Peasants, Miserable Millionaires, and Questions for Policy

UNLV Lecture
November 15, 2011

Carol Graham

The Brookings Institution

Happiness around the world:
A story of adaptation to prosperity and adversity

- Have been studying happiness around the world for about 10 years (*Happiness around the World: The Paradox of Happy Peasants and Miserable Millionaires (OUP, 2010*) ; and *The Pursuit of Happiness: An Economy of Well-being* (Brookings, 2011)
- Focus on question of how some individuals who are destitute report to be happy, while others who are very wealthy are miserable, and on the role of norms and adaptation in explaining the conundrum
- Adaptation is the subject of much economics work, but definition is psychological: adaptations are defense mechanisms; there are bad ones like paranoia; healthy ones like humor, anticipation, and sublimation
- Set point theory: people can adapt to anything - bad health, divorce, poverty, crime and corruption
- My studies suggest people are remarkably adaptable; people in Afghanistan are as happy as Latin Americans and 20% more likely to smile in a day than are Cubans; Kenyans are as satisfied with their health care as Americans are
- How can this not be a good thing? May be from an individual perspective, but may also allow for collective tolerance for bad equilibrium
- Implications for the ongoing debate about well-being metrics and benchmarks, from remote Bhutan to far less remote UK, China, Brazil, and OECD; even a nascent debate in USA

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Why Happiness Economics?

- New method combining tools and methods of economists with those typically used by psychologists

- Method captures broader elements of welfare than do income data alone

- Method is uniquely well-suited for analyzing questions where revealed preferences do not provide answers, for example the welfare effects of institutional arrangements individuals are powerless to change (like inequality or macroeconomic volatility) and/or behaviors that are driven by norms or by addiction and self control problems (alcohol and drug abuse, smoking, obesity)

- While economists traditionally have shied away from reliance on surveys (e.g. what people say rather than what they do), there is increasing use of data on reported well-being (happiness):

  a) Consistent patterns in the determinants of well being across large N samples across countries and across time

  b) Econometric innovations help account for error and bias in survey data (AND with the error that exists in all kinds of data!!)

Why NOT Use Happiness Surveys

- Biases in the way people answer surveys (question ordering/random events)
- Adaptation – at individual and country levels
  - » **Individual level:** If a poor peasant, who has adapted to his/her condition and/or has low aspirations reports he/she is happy, how is this information relevant to policy? (happy peasant versus frustrated achiever problem)
  - » **Country level:** Easterlin paradox - average happiness levels have not increased over time as rich countries get richer and make improvements in other areas such as health, education;
- New findings based on Gallup Poll – challenge paradox and find clear happiness/GDP per capita link – ONGOING debate, already covered by now
- My contribution to the debate is a focus on the question/definition of happiness that is used; makes a big difference to income-happiness relationship; that also matters a great deal to relevance of the metrics to policy

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Figure 1-1:

Life Satisfaction and GDP per capita
Select countries, 1998-2008

Percent above neutral on life satisfaction (WVS)

OECD countries in red;
Non-OECD countries in blue.

R-squared = 0.498

GDP per capita, PPP constant 2005 international $ (WDI)
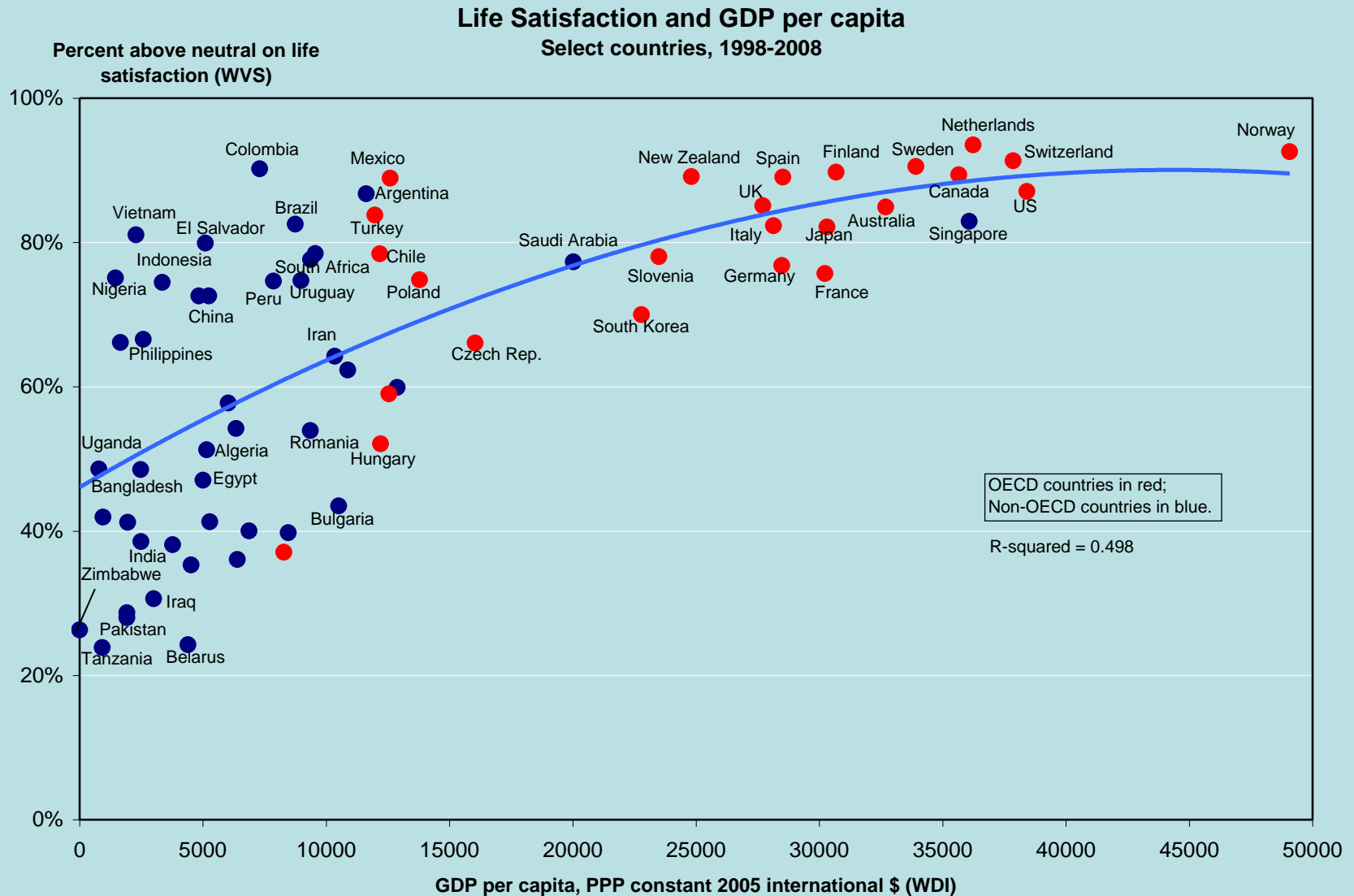
Source: Chattopadhyay and Graham (2011) calculations using *World Values Survey* (for Life Satisfaction) and *World Development Indicators, The World Bank* (for GDP per capita).

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Happiness by Age Level
Latin America, 2000

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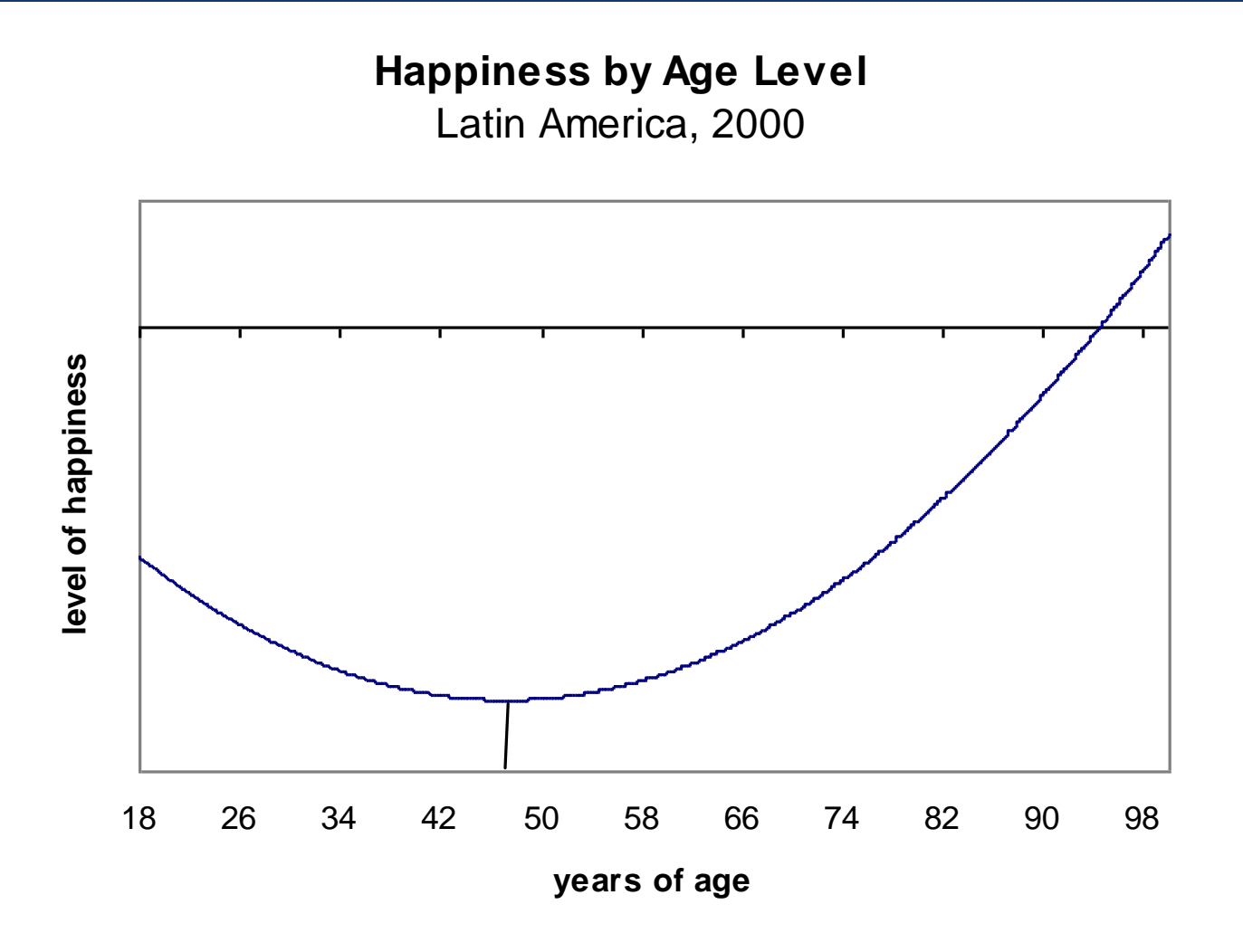
Happiness determinants, across regions

	Russia, 2000		Latin America, 2001		US, 1972 - 1998	
Age	-0.067	***	-0.025	***	-0.025	***
Age squared	0.001	***	0.000	***	0.038	***
Male	0.152	***	-0.002		-0.199	***
Married	0.088		0.056		0.775	***
Log equivalent income (a)	0.389	***	0.395	***	0.163	***
Education Level	0.015		-0.003		0.007	
Minority	0.172	**	-0.083	**	-0.400	***
Other race (d)					0.049	
Student	0.199		0.066		0.291	***
Retired	-0.378	***	-0.005		0.219	***
Housewife	0.049		-0.053		0.065	*
Unemployed	-0.657	***	-0.485	***	-0.684	***
Self employed	0.537	**	-0.098	**	0.098	**
Health index	0.446	***	0.468	***	0.623	***
Pseudo R2	0.033		0.062		0.075	
Number of obs.	5134		15209		24128	
***, **, *	Statistically significant at 1%, 5%, and 10%.					
(a)	Log wealth index used for Latin America, 2001 and Log Income used for US, 1972-1998					
(b) Sources	Russia, 2000. Graham, Eggers, Sukhtankar					
	Latin America, 2001. Latinobarometro, 2001. Author's calculations					
	US, 1972-1998. GSS data, Author's calculations					
(c)	Year dummy variables included in US, 1972-1998 but not shown in results					
	Ordered logistic regressions					
(d)	In US 1972-1998, Minority replaced by two variables: Black and Other race					

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The effects of happiness on income in Russia

Dependent Variable: Log equivalence income, 2000 (OLS)						
Independent variables	coef	t	coef	t	coef	t
Age	-0.0133	-3.00	-0.0132	-2.97	-0.0146	-3.25
Age^2	0.0001	3.18	0.0001	3.15	0.0002	3.52
Male	0.0102	0.42	0.0102	0.42	-0.0004	-0.02
Married	0.2053	7.84	0.2054	7.84	0.2050	7.84
Education level	0.0301	4.51	0.0301	4.51	0.0296	4.44
Minority	0.1213	3.98	0.1227	4.03	0.1216	4.00
Student	-0.0336	-0.34	-0.0301	-0.31	-0.0367	-0.38
Retired	-0.1906	-4.85	-0.1899	-4.83	-0.1659	-4.18
Housewife	-0.2488	-3.90	-0.2492	-3.90	-0.2388	-3.73
Unemployed	-0.3450	-8.16	-0.3435	-8.12	-0.3426	-8.07
Self-employed	0.1415	1.46	0.1411	1.46	0.1284	1.33
Health index	0.0601	1.11	0.0588	1.09	0.0559	1.04
Log-equiv income 1995	0.2420	18.11	0.2429	18.12	0.2244	15.69
Log-equiv income 1995, poor					0.0094	2.60
Log-equiv income 1995, rich					0.0180	4.36
Unexplained happiness, 1995	**0.0298**	**2.64**	**0.0634**	**2.32**	**0.0269**	**2.38**
Unexp. happiness, 1995, 2nd quintile			**-0.0436**	**-1.14**		
Unexp. happiness, 1995, 3nd quintile			**-0.0361**	**-0.95**		
Unexp. happiness, 1995, 4th quintile			**-0.0626**	**-1.71**		
Unexp. happiness, 1995, 5th quintile			**-0.0229**	**-0.65**		
Constant	5.8325	36.35	5.8234	36.19	5.9365	34.62
number of observations	4457		4457		4457	
adjusted R-squared	0.1335		0.1333		0.1518	

"Poor" is defined as bottom 40% of the income distribution in 1995; "Rich" is the top 20%. "Unexplained happiness" is the residual of basic happiness regression using only 1995 data. Independent variables are from 2000 unless otherwise noted.

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Happiness, Economic Growth, Crisis, and Adaptation

- The paradox of unhappy growth

- Happy Peasants and Frustrated Achievers – aspirations, adaptation to gains and aversion to losses; role of inequality?

- Migrants – adapt rapidly to new reference norms and compare themselves to others in the new city, not from home towns; part may be adaptation, part may be selection bias – e.g. migrants more likely to seek a better life elsewhere

- US: well being falls with crisis, but then not only adapts back up with signs of recovery but well being levels rise higher than pre-crisis levels – lower expectations?

- Objective assessments of living standards and country economic situation DO NOT behave the same way, do not trend back up

The paradox of unhappy growth

The relationship between income per capita, economic growth, and satisfaction	122 countries	
	GDP per capita	**Economic Growth**
Life Satisfaction	0.788 ***	-0.082 ***
Standard of living	0.108 ***	-0.018 ***
Health satisfaction	0.017 *	-0.017*
Job satisfaction	0.077 ***	-0.006
Housing satisfaction	0.084 ***	-0.006

– *Source: IADB-RES using Gallup World Poll, 2007*

- OLS regression; dependent variable is average life satisfaction per country, growth rates are averaged over the past five years. N=122
- GDP per capita: The coefficients are the marginal effects: how much does the satisfaction of 2 countries differ if one has 2X the income of the other.
- Economic Growth: How much does an additional % point of growth affect satisfaction
- The life satisfaction variable is on a 0 to 10 scale; all others are the percentage of respondents that are satisfied.
- Graham and Chattopadhyay find similar effects for Latin America, based on individual data rather than country averages

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Best Possible Life and the Dow Jones Industrial Average

Dow and Happiness (2008-2009)

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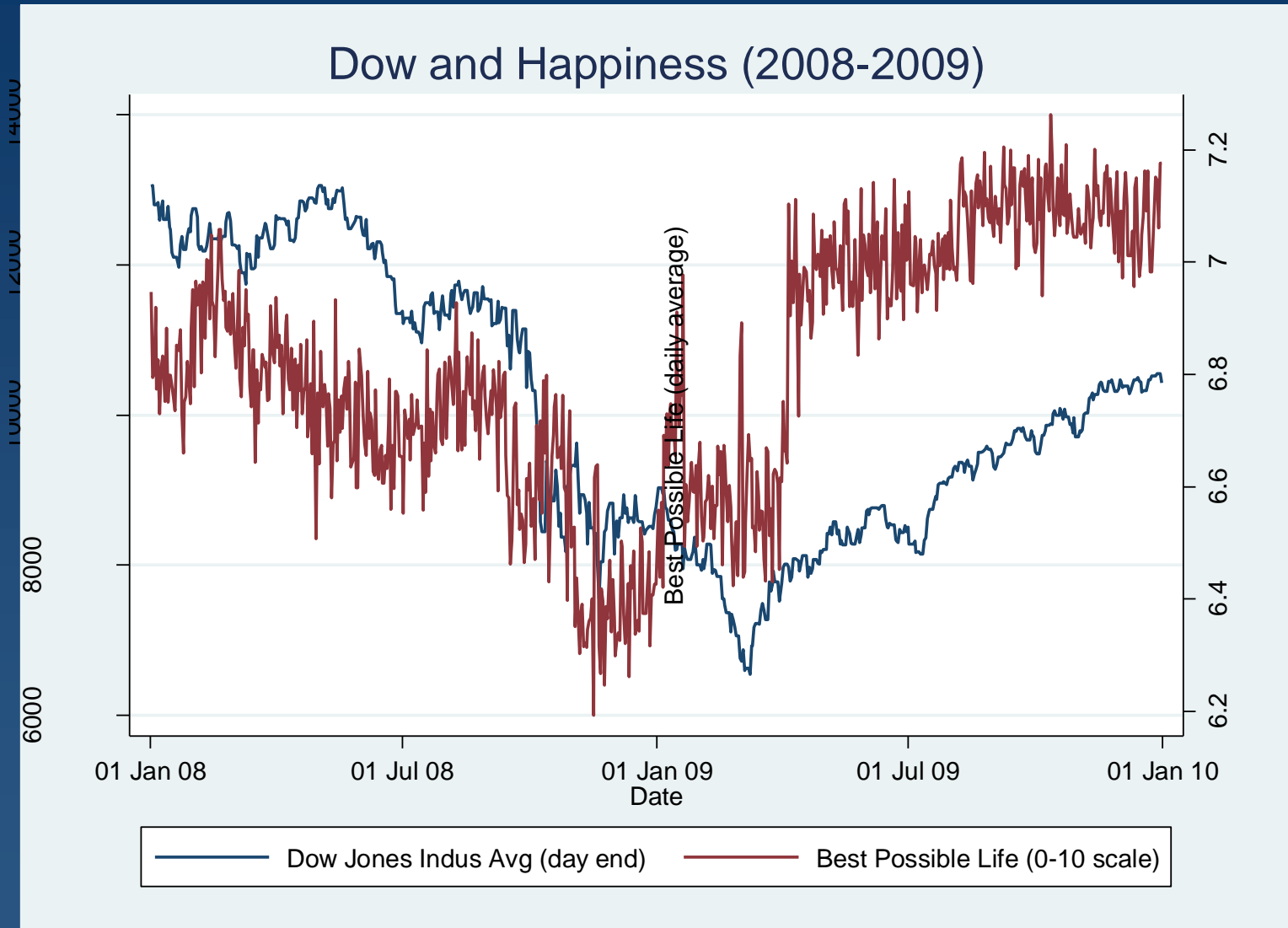
Adapting to good and bad times

- An anecdote: my tires were stolen in Washington, not in Lima…..

- Trust matters to well being, but it matters much less if there is less of it, as in Afghanistan. Afghans are relatively happy but have unusually low levels of trust

- Democracy matters to well being; but democracy and freedom where these things are more common

- Crime and corruption matter to well being (negatively) but they matter less when they are more common; findings from Latin America, Africa, Afghanistan (tables)

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Effects of Crime on Happiness in Latin America

Explanatory variables	Dependent Variable: happy			
age	-0.0230	-0.0200	-0.0210	-0.0180
	(0.000)**	(0.000)**	(0.000)**	(0.005)**
age2	0.0000	0.0000	0.0000	0.0000
	(0.000)**	(0.000)**	(0.000)**	-0.051
gender	0.0070	0.0210	0.0400	0.0240
	-0.614	-0.201	(0.050)*	-0.199
married	0.0850	0.0600	0.0630	0.0620
	(0.000)**	(0.001)**	(0.004)**	-0.104
edu	-0.0220	-0.0260	-0.0280	-0.0240
	(0.000)**	(0.000)**	(0.000)**	-0.385
edu2	0.0010	0.0010	0.0010	0.0010
	-0.077	(0.038)*	(0.024)*	-0.451
socecon	0.2110	0.2140	0.2280	0.2280
	(0.000)**	(0.000)**	(0.000)**	(0.000)**
subinc	0.2870	0.3030	0.3060	0.3140
	(0.000)**	(0.000)**	(0.000)**	(0.000)**
ceconcur	0.2190	0.1970	0.2350	0.2180
	(0.000)**	(0.000)**	(0.000)**	(0.000)**
unemp	-0.1770	-0.2170	-0.1990	-0.2300
	(0.000)**	(0.000)**	(0.000)**	(0.002)**
poum	0.1750	0.1410	0.1470	0.1530
	(0.000)**	(0.000)**	(0.000)**	(0.000)**
domlang	0.5950	0.6520	0.6360	0.5490
	(0.000)**	(0.000)**	(0.000)**	(0.006)**
vcrime	-0.0960	-0.5360	-1.0770	-0.8930
	(0.000)**	(0.000)**	(0.000)**	-0.239
crresid		0.4460	1.0170	0.8020
		(0.000)**	(0.000)**	-0.286
els			0.1000	
			(0.000)**	
vcrimel1 (1 year lag)			-1.4710	-1.8190
			(10.77)**	-1.67
vcrimel2 (2 year lag)			1.8550	1.6760
			(15.52)**	-1.47
Control for gini	No	No	No	Yes
Control for GDP growth rate	No	No	No	Yes
Control for lagged GDP growth rates	No	No	No	Yes
Absolute value of z statistics in parentheses				
* significant at 5%; ** significant at 1%				

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Effects of Corruption on Happiness in Latin America

Explanatory variables	Dependent Variable: happy			
age	-0.0230	-0.0210	-0.0230	-0.0190
	(0.000)**	(0.000)**	(0.000)**	(0.003)**
age2	0.0000	0.0000	0.0000	0.0000
	(0.000)**	(0.000)**	(0.000)**	(0.035)*
gender	0.0100	0.0410	0.0500	0.0470
	-0.473	(0.014)*	(0.014)*	-0.075
married	0.0840	0.0620	0.0710	0.0690
	(0.000)**	(0.001)**	(0.001)**	(0.030)*
edu	-0.0240	-0.0350	-0.0400	-0.0380
	(0.000)**	(0.000)**	(0.000)**	-0.129
edu2	0.0010	0.0010	0.0010	0.0020
	-0.053	(0.002)**	(0.006)**	-0.263
socecon	0.2120	0.2270	0.2360	0.2400
	(0.000)**	(0.000)**	(0.000)**	(0.000)**
subinc	0.2910	0.3150	0.3120	0.3280
	(0.000)**	(0.000)**	(0.000)**	(0.000)**
ceconcur	0.2170	0.1840	0.2310	0.2120
	(0.000)**	(0.000)**	(0.000)**	(0.000)**
unemp	-0.1680	-0.2000	-0.1890	-0.2190
	(0.000)**	(0.000)**	(0.000)**	(0.001)**
poum	0.1760	0.1580	0.1690	0.1730
	(0.000)**	(0.000)**	(0.000)**	(0.000)**
domlang	0.5970	0.6680	0.6450	0.5880
	(0.000)**	(0.000)**	(0.000)**	(0.001)**
vcorr	-0.1570	-0.9160	-0.9070	-1.1420
	(0.000)**	(0.000)**	(0.000)**	(0.017)*
corrresid		0.8090	0.8330	1.0340
		(0.000)**	(0.000)**	(0.027)*
els			0.0970	
			(0.000)**	
Control for gini	No	No	No	Yes
Control for GDP growth rate	No	No	No	Yes
Control for lagged GDP growth rates	No	No	No	Yes

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Costs of Crime Victimization in Africa

Regressions of Living Conditions on Crime in Africa

	Only includes observations where personal security < 3			Only includes observations where personal security >= 3		
Observations	11675			3954		
LRChi2(30)	1880.57			605.18		
Prob > Chi2	0.00			0.00		
Psuedo R2	0.05			0.05		
Dependent Variable: Living Conditions	Coefficient	Stat Sig	T-Score	Coefficient	Stat Sig	T-Score
Age	-0.0442	***	-7.32	-0.0370	***	-3.71
Age^2	0.0003	***	5.75	0.0003	***	3.08
Years of education	0.0822	***	8.06	0.0854	***	4.79
Male	-0.0833	**	-2.46	-0.1164	**	-2.00
Income	0.0794	***	11.24	0.0787	***	6.41
Urban	-0.0098		-0.25	0.2278	***	3.20
Unemployed	-0.0300		-0.75	-0.0363		-0.53
Freq of crime victimization	-0.0794	***	-4.08	-0.0459	**	-2.43
Cape Verde	0.3267	***	4.58	0.0999		0.64
Lesotho	-0.8754	***	-10.77	-1.2125	***	-9.92
Mali	-0.1684	**	-2.16	-0.2251		-1.21
Mozambique	0.8037	***	10.22	0.3064	**	2.39
S Africa	-0.0534		-0.76	-0.2786	**	-2.45
Kenya	0.3875	***	5.61	0.5895	***	5.46
Malawi	-1.1061	***	-13.71	-0.3532		-1.43
Namibia	0.8630	***	11.02	0.8255	***	5.89
Nigeria	1.0310	***	15.86	0.7854	***	5.82
Tanzania	-0.1136		-1.36	0.2647	**	2.14

Notes:
Uganda is the control country: the corresponding dummy variable was dropped
* Significant at 10% level
** Significant at 5% level
*** Significant at 1% level
Source: *Afrobarometer*

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Costs of Crime Victimization in Afghanistan

	Reg #1	Reg #2	Reg #3	Reg #4	Reg #5	Reg #6
Dependent variable: happy			tlbn=1	tlbn=0	tlbn=1	tlbn=0
age	-0.0640	-0.0580	-0.0360	-0.0560	-0.0490	-0.0560
	(0.004)**	(0.016)*	-0.538	(0.040)*	-0.398	(0.040)*
age2	0.0010	0.0010	0.0000	0.0010	0.0000	0.0010
	(0.015)*	(0.021)*	-0.690	(0.042)*	-0.574	(0.048)*
gender	0.0420	0.0690	0.2720	0.0400	0.1850	0.0450
	-0.771	-0.657	-0.844	-0.801	-0.892	-0.778
married	0.0020	0.0280	-0.2900	0.0900	-0.2160	0.1020
	-0.989	-0.839	-0.404	-0.546	-0.532	-0.492
hlthstat	0.4440	0.2280	0.0380	0.2500	0.0280	0.2670
	(0.000)**	(0.000)**	-0.791	(0.000)**	-0.846	(0.000)**
hhinc1	0.9300	-0.1020	-0.3270	0.0160	-0.3830	0.0190
	(0.000)**	-0.696	-0.609	-0.956	-0.548	-0.947
unemp	-0.2040	-0.2060	-0.0930	-0.1720	-0.1130	-0.2060
	-0.173	-0.195	-0.825	-0.321	-0.789	-0.231
tlbn	0.5020	0.4100				
	(0.000)**	(0.000)**				
els			0.0840	-0.0460	0.1100	-0.0520	0.0900
			(0.009)**	-0.571	(0.002)**	-0.519	(0.013)*
lls			0.1100	0.2290	0.0760	0.2420	0.0910
			(0.000)**	(0.001)**	(0.007)**	(0.000)**	(0.001)**
satdemo			0.2390	0.3140	0.2180	0.3380	0.2180
			(0.000)**	(0.030)*	(0.001)**	(0.019)*	(0.001)**
outlook			1.0380	1.0340	1.0350	1.0280	1.0390
			(0.000)**	(0.000)**	(0.000)**	(0.000)**	(0.000)**
frexpr			0.0780	0.0100	0.0780	0.0390	0.0780
			-0.053	-0.915	-0.086	-0.687	-0.085
frchoice			0.0490	0.0780	0.0550	0.0720	0.0550
			(0.007)**	-0.080	(0.007)**	-0.108	(0.007)**
vcrime						-0.2700	0.1310
						-0.442	-0.431
vcorr			-0.6140	-0.0820		
			(0.031)*	-0.477		
Observations	1924	1746	335	1393	338	1400
p values in parentheses						
* significant at 5%; ** significant at 1%						

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# Variance in Health Norms: Evidence from Health Satisfaction Across and Within Countries

- Preston curve: diminishing marginal health returns as country level incomes go beyond a certain point; curve mirrors that of Easterlin paradox; does health satisfaction mirror that curve, as health norms and expectations adapt upward with better health care?

- Tolerance varies across countries, cohorts, and cultures. Health satisfaction is as high in Kenya as it is in the U.S., and higher in Guatemala than it is in Chile.

- National average health satisfaction is only weakly correlated with GDP per capita, and is negatively correlated with the economic growth rate; it is weakly and positively correlated with life expectancy at birth BUT ALSO with the IMR rate!! Variables that capture cultural differences matter more to health satisfaction than the expected indicators do

- Within countries, the rich are clearly more satisfied with their health than are the poor, but the gaps between their attitudes are much smaller than the gaps between their outcomes; optimism bias among the poor (happy peasants versus frustrated achievers, again….)

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Happiness and Health: Adaptation & Easterlin Paradox?
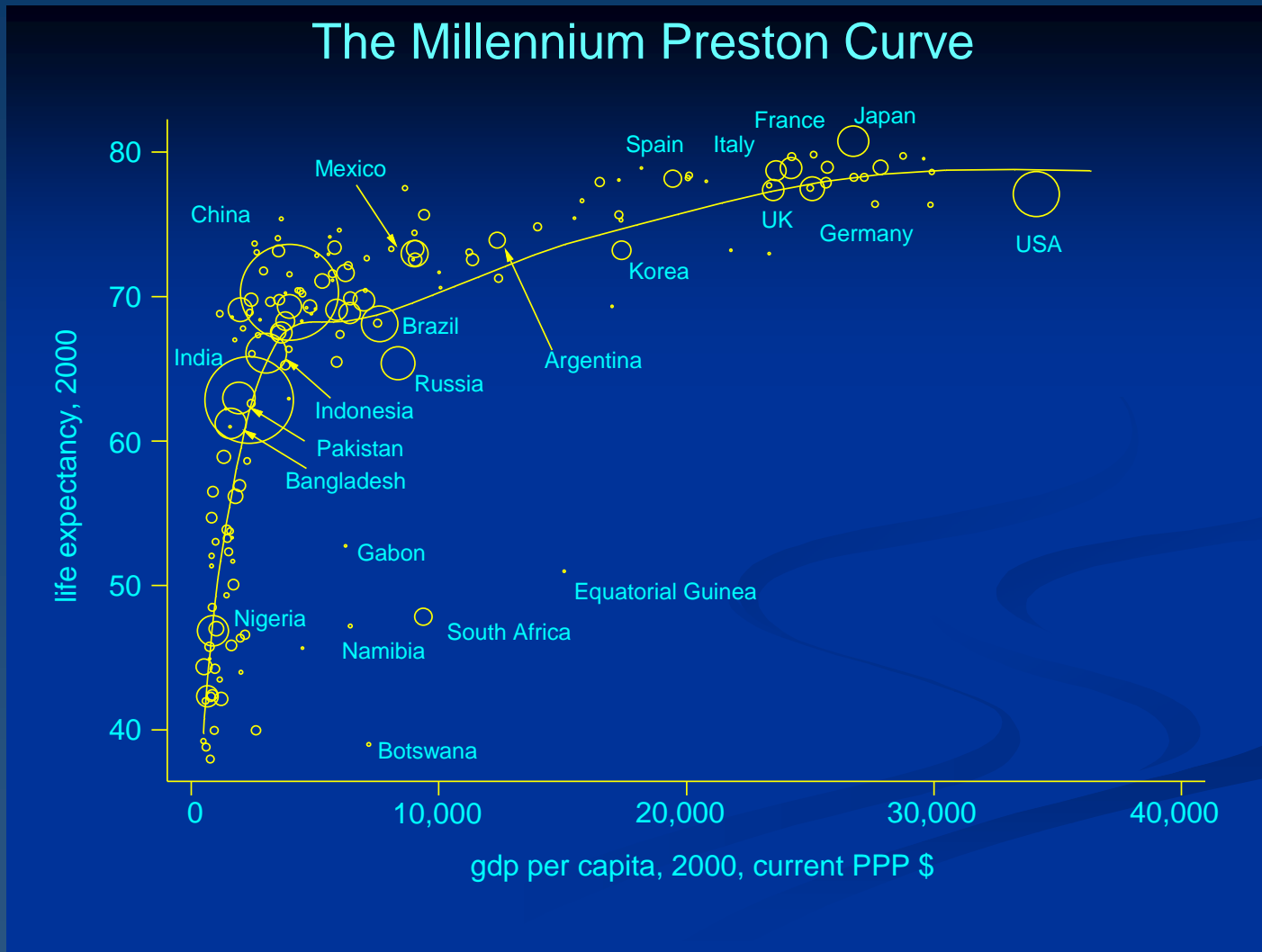
Note: Circles represent relative population sizes of respective countries.

Happiness and Health: The role of norms
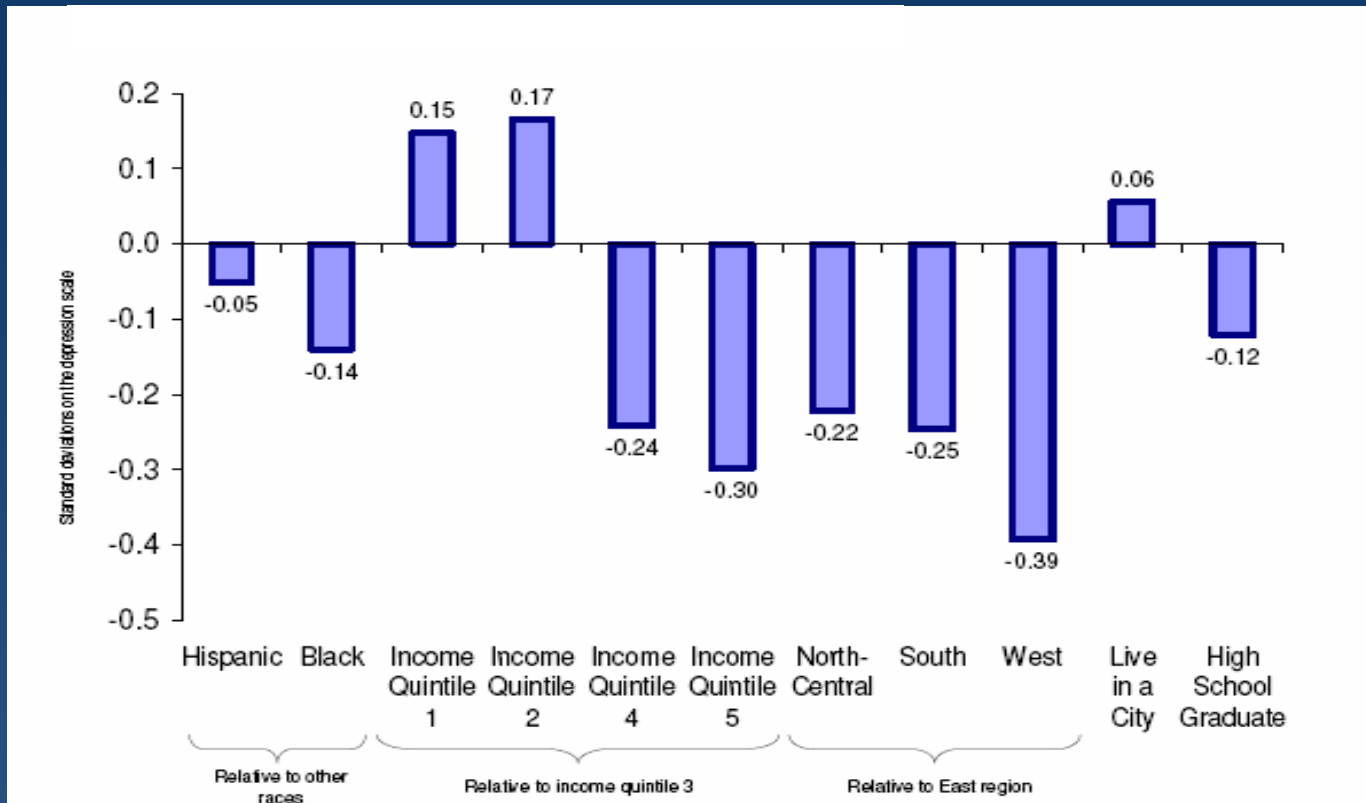
- The base impact of obesity on happiness is 0.57 – e.g. white obese people with income in the middle income quintile living in a non-urban area in the East who have not graduated high school are 0.57 standard deviations higher on the depression scale than their non-obese counterparts.

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Conclusions, Take One: On Adaptation

- Happiness surveys allow us to explore a host of questions that defy traditional revealed preferences based approaches, such as the welfare effects of different environments, institutional arrangements, norms, health conditions, financial insecurity – exciting new tool with implications for all sorts of policy questions

- BUT the evidence of individuals' ability to adapt to both prosperity and adversity throws a monkey wrench into the equation

- At the individual level the capacity to adapt to adversity is likely a positive trait, at least from the psychological welfare perspective

- At the collective level, though, this may result in societies getting stuck in bad equilibrium, such as bad health or high levels of crime and corruption

- People are better able to adapt to unpleasant certainty than to uncertainty, even that which is associated with positive progress

- Raises a note of caution about applying happiness surveys to policy, as this difference in norms results in the happy peasant versus miserable millionaire problem

- Definition of happiness may play an important mediating role in all of this

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Conclusions, Take Two: On Policy

- Happiness surveys as a research tool work because they do not define happiness for the respondent; but happiness as a policy objective requires a definition; happiness as contentment (Bentham/happy peasants) versus happiness as leading a fulfilling life (Aristotle/frustrated achievers)?

- New research: experienced or hedonic utility correlates much less closely with income than does evaluative or eudaimonic utility, both in US and around the world (friends and religion evidence)

- I posit that agency may play a critical mediating role: people may select into definitions of happiness because of what they are *capable of/the opportunities they have*; driven scientist trying to cure cancer may be less content in day to day experience, but more positive on life evaluation, for example

- Worst kind of society may be that which *promises* opportunity and the pursuit of happiness, but does not give its citizens the *agency* to do so; worse than traditional structured societies? (happy peasants and frustrated achievers, again….)

- Like anything new, we are working to get the science right, hopefully before the increased publicity gets the better of us!

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