

Indicators for Subjective Well-being: Fundamental Differences between Happiness and Life Satisfaction from a Global Perspective

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Theories & available scales to measure Subjective Well-being

Happiness (Hedonic)

- The Global Happiness Item (Bradburn, 1969)
- The recent Happiness Item (Stewart et al, 1992)
- General Happiness Scale (Lyubormirsky & Lepper, 1999)

Cognitive Evaluation

- Life Satisfaction Scale (Rose, 1955)
- Cantril Self-Anchoring Striving Scale (Cantril, 1965)
- The Satisfaction With Life Scale (Diener, et al, 1985) (complete version and short version)
- International well-being Index (Davey & Rato, 2012)

Emotional Evaluation

- The Affect Balance Scale (Bradburn, 1969)
- The Delighted-Terrible Scale (Andrews & Whitey, 1976)
- Interesting/boring and Worthwhile/useless Scale (Campbell, Converse & Rodger, 1976)
- Mood Survey (Underwood & Froming, 1980)
- Positive and Negative Affect (PANAS; Watson et al, 1988)
- Scale of Positive and Negative Experience (SPANE, Diener et al 2010)

Mixed of hedonic, cognitive, emotional Evaluation

- Depression-Happiness Scale (McGreal & Joseph, 1993)
- WHO Well-being Scale (Heun, et al 1999)
- The Oxford Happiness Questionnaire (Hills & Argyle, 2002)

Flourishing Evaluation

- Meaning in Life Questionnaire (steger et al, 2006)
- The Warwick Edinburg Mental Well-being Scale (Tennant et al, 2007)
- Flourishing Scale (Diener et al 2010)
- Comprehensive Inventory of Thriving (Hsu, Tay, Diener, 2014)

Subjective Well-being – Worldwide Population

- Larson (1978): Longitudinal study (30 years) among older Americans on **life satisfaction**: shows SWB most strongly related to health, followed by socioeconomic factors and degree of social interaction. Marital status and aspects of people's living situations are related to SWB. Age, sex, race, and employment show no consistent independent relation to SWB.
- Steptoe, Deaton, & Stone (2015): Using Gallup World Poll, 160 countries (**life evaluations, Cantril Laddler**):
 - A U-shaped relation between evaluative wellbeing and age in high-income, English speaking countries, with the lowest levels of wellbeing in ages 45–54 years.
 - The former Soviet Union, Eastern Europe and Latin America show a large progressive reduction in wellbeing with age,
 - Sub-Saharan Africa shows wellbeing little change with age.
- Jivraj et al (2014): English longitudinal study of Ageing 2002-2011:
 - Older cohorts enjoy higher levels of SWB (eudemonic, **evaluative**, **affect dimension**) than their younger counterparts when under similar circumstances, however they experience sharper declines, especially in the very oldest cohorts.

Emotions vary by time of day and week?

- Helliwell (2017): **Emotions** are found to vary considerably by time of day and time of week. At the aggregate level, the frequency of positive emotions yesterday adds significantly to structural equations explaining life evaluations, while the presence or absence of negative emotions has no such effect.
- **Positive and negative emotions** are less useful as overall measures of the QOL, they are important in several other key ways:
 1. Their short-term nature is useful as variables in experimental studies.
 2. The frequency of positive and negative emotions (especially positive emotions) can predict numerous of future health outcomes, i.e. mortality from both sickness and suicide.
 3. Positive emotions contribute directly to life evaluations
- Fredrickson (2004): **positive emotions** encourage individuals to broaden their networks and activities in ways that build their overall satisfaction with life.

What does literature say on measuring Subjective Well-being?

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- D. *Subjective well-being = Happiness = life evaluation (World Happiness Report from 2012-2018)*
- E. *Subjective well-being: include Evaluative Well-being, which are the average of *Happiness* and Life Satisfaction (European Social Survey, 2006-until present)*
- F. *Subjective well-being = global life judgement (life satisfaction) + domain satisfaction + positive affect – negative affect*

Life Satisfaction Scale

- Rose **(1955)**: One item Life Satisfaction scale, with 5 scale responses

In general, how satisfied are you with your life?

- Neugarten, Havighurst, & Tobin **(1961)**: One item Life satisfaction scale, with 7 scale responses

All things considered, how satisfied are you with your life as a whole these days?

SATISFACTION WITH LIFE SCALE (Diener, 1984)

Instructions: Below are five statements that you may agree or disagree with. Using the 1 -7 scale (1 = strongly disagree; 7 = strongly agree) below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

Scoring: Though scoring should be kept continuous (sum up scores on each item), here are some cut-offs to be used as benchmarks.

- 31 - 35 Extremely satisfied
- 26 - 30 Satisfied
- 21 - 25 Slightly satisfied
- 20 Neutral
- 15 - 19 Slightly dissatisfied
- 10 - 14 Dissatisfied
- 5 - 9 Extremely dissatisfied

1. In most ways my life is close to my ideal.
2. The conditions of my life are excellent.
3. I am satisfied with my life.
4. So far, I have gotten the important things I want in life.
5. If I could live my life over, I would change almost nothing.

Short version:

“Taking all this together, how satisfied are you with your life as a whole these days?”

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Positive Negative Affect Scale

- Bradburn (1969): **The Affect Balance Scale** -measures the level of balance between positive affect and negative affect, response: “Yes” or “No”

Positive affect

During the past few weeks (did you feel)...

1. Did you feel particularly excited or interested in something?
2. Proud because someone complimented you on something you had done?
3. Pleased about having accomplished something?
4. On top of the world?
5. That things were going your way?

Negative affect

During the past few weeks (did you feel)...

1. Did you feel so restless that you couldn't sit long in a chair
2. Very lonely or remote from other people?
3. Bored?
4. Depressed or very unhappy?
5. Upset because someone criticized you?

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Happiness Scale

- Bradburn (1969): **Global Happiness Item**, which was designed to rate happiness using responses of “not too happy,” “pretty happy,” and “very happy” to the question of

“Taken all together, how would you say things are these days?”

Abstruse meaning of Happiness in other languages

Luck or Good fortune	Intimate satisfaction of one desire or wish
Glück (German); Geluk (Africaan/ Dutch); Glik (Yiddish) Bonheur (French); Kushi (Hindi); Lykke (Danish)	Felicitate (Spanish); Felicidade (Portuguese); Felicità (Italian); 和蔼 Hé'ǎi (Chinese); 仕合わせ Shiawase (Japanese); Bahagia (Indonesia); Albahja (Arabic); Kapwa (Tagalog)

“Happiness is a life lived according to virtue,” Aristotle

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The Cantril Self-anchoring Scale (Cantril, 1965)

Life Evaluation

The Life Evaluation Index includes a self-evaluation of two items (present life situation and anticipated life situation five years from now) using the Cantril Self-Anchoring Striving Scale with steps from 0 to 10, where "0" represents the worst possible life and "10" represents the best possible life. Taken together, respondents are then classified as "thriving," "struggling," or "suffering," with "thriving" respondents evaluating their current state as a "7" or higher and their future state as a "8" or higher, while "suffering" respondents provide a "4" or lower to both evaluations.

Based on The Cantril Ladder Scale

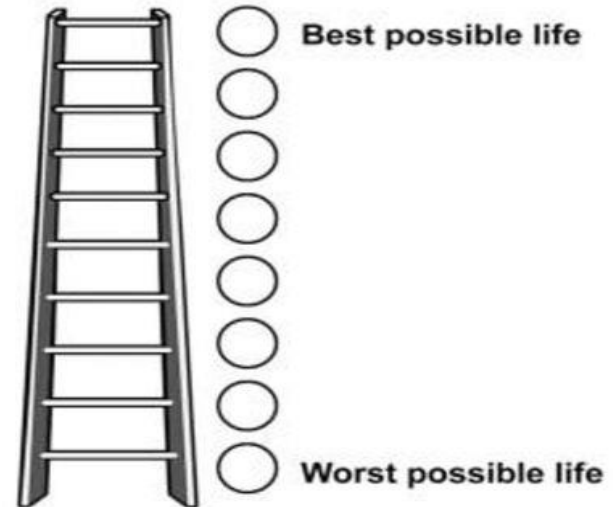


The Life Evaluation Scale - recent

The Cantril Self-Anchoring Scale

Assume that this ladder is a way of picturing your life. The top of the ladder represents the best possible life for you. The bottom rung of the ladder represents the worst possible life for you.

Indicate where on the ladder you feel you personally stand right now by marking the circle.



World Happiness Report 2018

Table 2.1: Regressions to Explain Average Happiness Across Countries (Pooled OLS)

Independent Variable	Dependent Variable			
	Cantril Ladder	Positive Affect	Negative Affect	Cantril Ladder
Log GDP per capita	0.311 (0.064)***	-.003 (0.009)	0.011 (0.009)	0.316 (0.063)***
Social support	2.447 (0.39)***	0.26 (0.049)***	-.289 (0.051)***	1.933 (0.395)***
Healthy life expectancy at birth	0.032 (0.009)***	0.0002 (0.001)	0.001 (0.001)	0.031 (0.009)***
Freedom to make life choices	1.189 (0.302)***	0.343 (0.038)***	-.071 (0.042)*	0.451 (0.29)
Generosity	0.644 (0.274)**	0.145 (0.03)***	0.001 (0.028)	0.323 (0.272)
Perceptions of corruption	-.542 (0.284)*	0.03 (0.027)	0.098 (0.025)***	-.626 (0.271)**
Positive affect				2.211 (0.396)***
Negative affect				0.204 (0.442)
Year fixed effects	Included	Included	Included	Included
Number of countries	157	157	157	157
Number of obs.	1394	1391	1393	1390
Adjusted R-squared	0.742	0.48	0.251	0.764

Notes: This is a pooled OLS regression for a tapered panel explaining annual national average Cantril ladder responses from all available surveys from 2005 to 2017. See Technical Box 1 for detailed information about each of the predictors. Coefficients are reported with robust standard errors clustered by country in parentheses. ***, **, and * indicate significance at the 1, 5 and 10 percent levels respectively.

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European Social Survey: Personal and Social Well-being

Happy

Satisfied

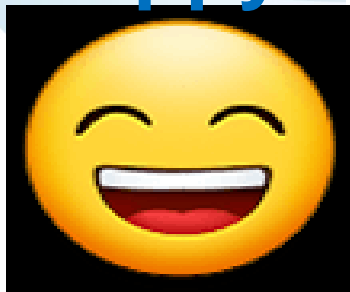


Table 1: Items from the wellbeing module grouped by the dimension of wellbeing they relate to

WELLBEING DIMENSION	ESS SURVEY ITEM
Evaluative wellbeing	How satisfied with life as a whole
	How happy are you
Emotional wellbeing	Felt sad, how often past week
	Felt depressed, how often past week
	Enjoyed life, how often past week
	Were happy, how often past week
	You felt anxious, how often past week
	You felt calm and peaceful, how often past week
Functioning	Free to decide how to live my life
	Little chance to show how capable I am
	Feel accomplishment from what I do
	Interested in what you are doing
	Absorbed in what you are doing
	Enthusiastic about what you are doing
	Feel what I do in life is valuable and worthwhile
	Have a sense of direction
	Always optimistic about my future
	There are lots of things I feel I am good at
Functioning	In general feel very positive about myself
	At times feel as if I am a failure
	When things go wrong in my life it takes a long time to get back to normal
Vitality	Deal with important problems
	Felt everything did an effort, how often past week
	Sleep was restless, how often past week
	Could not get going, how often past week
Community wellbeing	Had lot of energy, how often past week
	Most people can be trusted / can't be too careful
	People try to take advantage
	Most of the time people are helpful
	Feel people in local area help one another
Supportive relationships	Feel close to the people in local area
	How many with whom you can discuss intimate matters
	Feel appreciated by those you are close to
	Receive help and support
	Felt lonely, how often past week

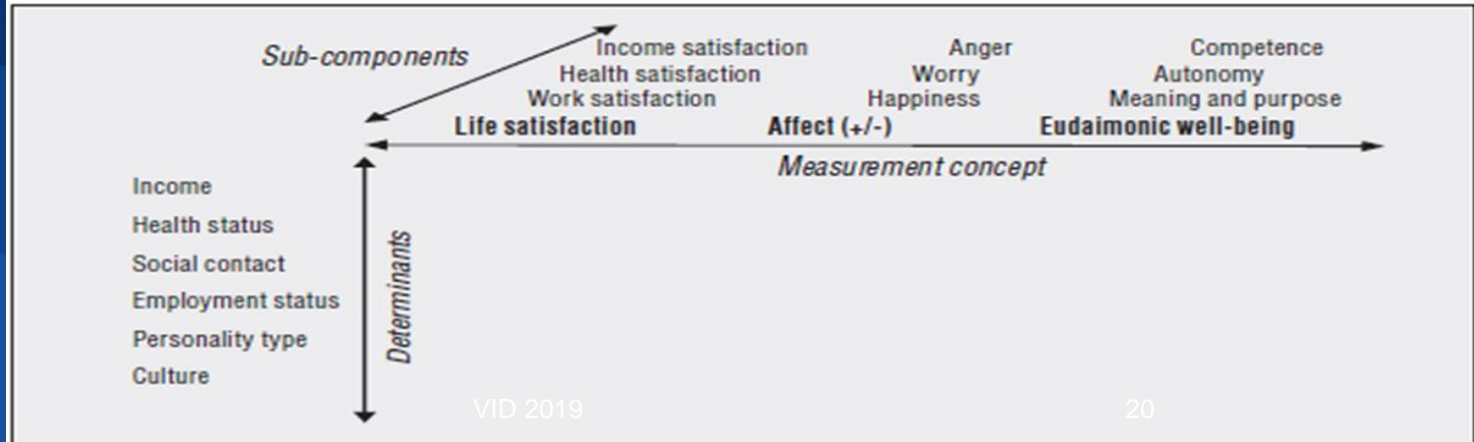
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OECD guideline for measuring Subjective Well-being

In compliance to Report by the Commission on the Measurement of Economic Performance and Social Progress (Stiglitz, Sen, Fitoussi et al 2009), Subjective well being is defined as: *“Good mental states, including all the various evaluations, positive and negative, that people make of their lives and the affective reactions of people to their experiences”*

Figure 1.1. A simple model of subjective well-being



Conclusion of Literature review

Happiness

- The term is used interchangeably with SWB (i.e. World Happiness Report, which is measuring Life Evaluation, Easterlin Happiness –Income paradox is measuring life satisfaction)
- Fulfillment of basic needs, pleasure oriented, avoidance of negative feeling, and is largely time oriented (Baumeister et al 2013)

Life Satisfaction

- The scale is used in almost all studies of Subjective well-being
- Good correlation with “experienced utility”, such as employment, health, housing condition and social relations (Diener, Oishi, & Tay, 2018; J. Helliwell, Layard, & Sachs, 2017).
- Seeks for meaning in life, thus it is culturally influenced, involves integrating past, present, and future (Baumeister, 2013)

Research Question

Are you happy? Are you satisfied?



Apple



Google



Microsoft



Samsung



WhatsUp



Twitter



Facebook



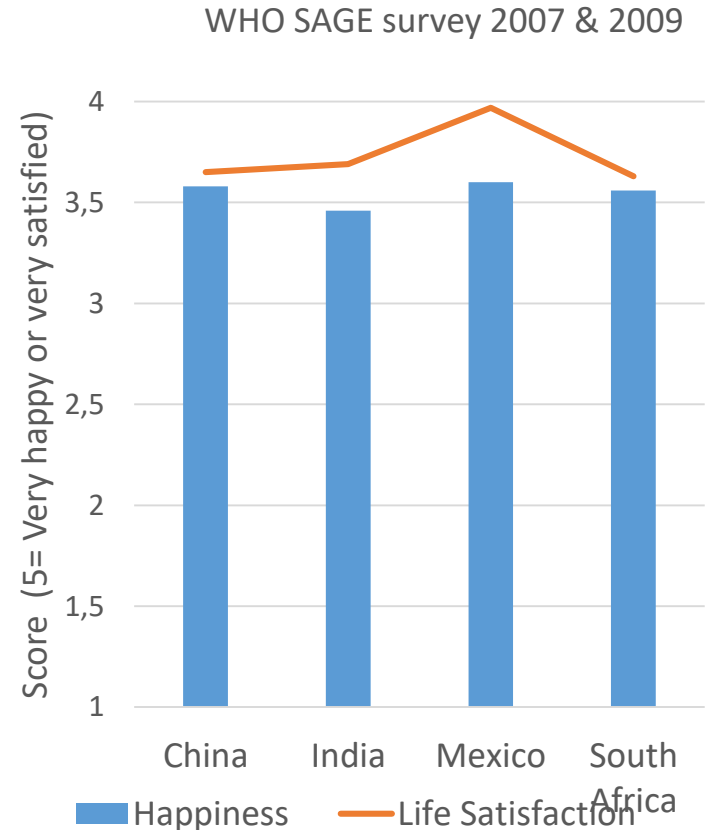
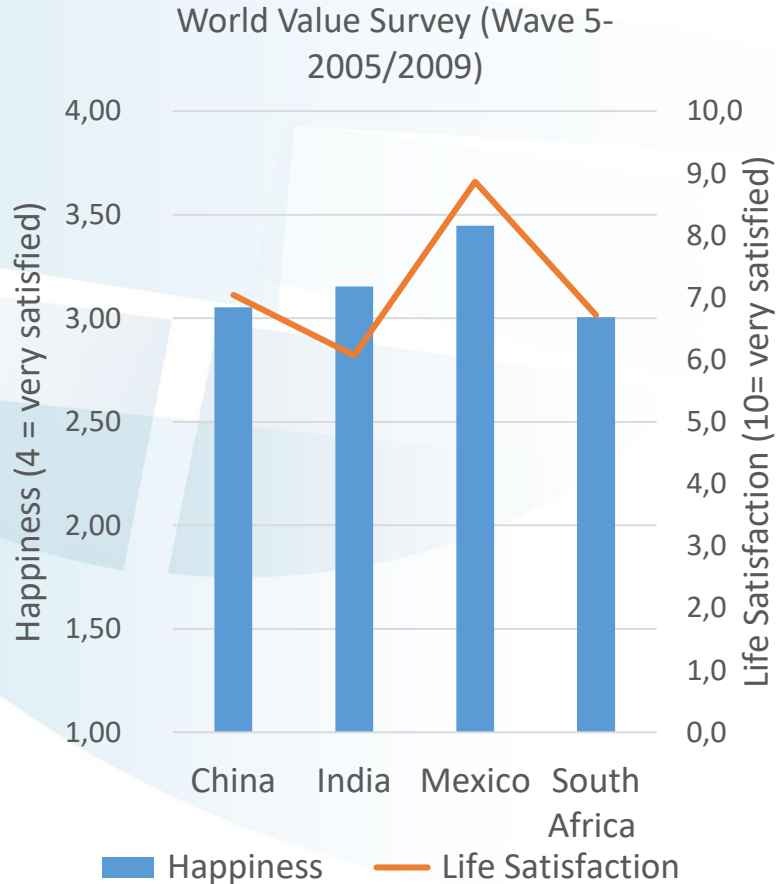
Model Testing

- Model testing to age/gender/country
- Data:
 - WHO Survey of Ageing AGE – The core SAGE collects data on adults aged 18+ years, with an emphasis on populations aged 50+ years, from nationally representative samples in 4 countries: China, India, Mexico, and South Africa.
 - Education attainment
 - Income (quintile)
 - Health (Activity Daily Living 1-12)
 - World Value Survey Wave 1-6: Wave 1 (9 countries), Wave 2 (21 countries) , Wave 3 (32 countries), Wave 4 (36 countries), Wave 5 (42 countries) and Wave 6 (59 countries).

Are Happiness and Life Satisfaction the same concept? 1/3

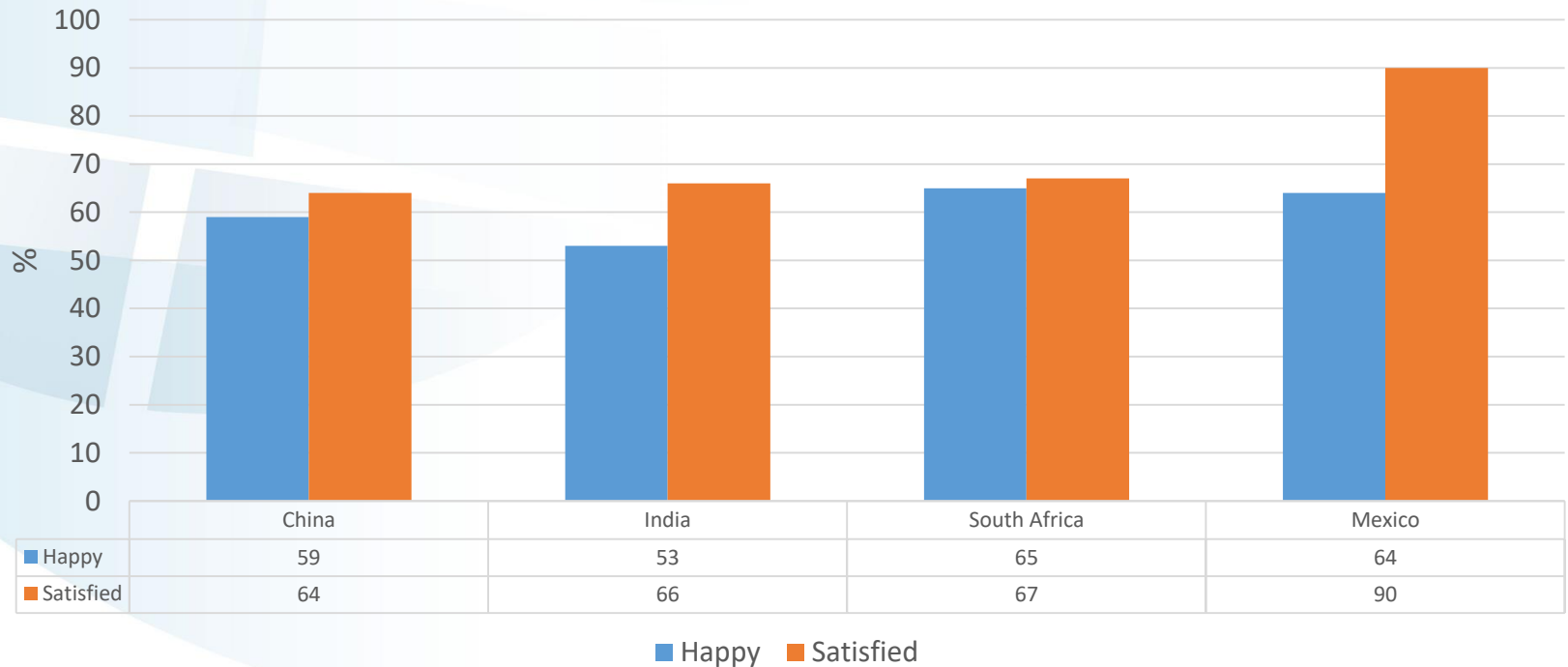
Country	China	India	Mexico	South Africa
Male	6,274	3,554	1,548	1,637
Female	7,093	3,459	2,204	2,201
Total participants	13,367	7,013	3,752	3,838
Life Satisfaction	3.65 $\sigma = .006$	3.69 $\sigma = .008$	3.97 $\sigma = .009$	3.63 $\sigma = .014$
Happiness	3.58 $\sigma = .006$	3.46 $\sigma = .009$	3.6 $\sigma = .012$	3.56 $\sigma = .015$
Positive Affect				
• Variance	0.54	0.56	0.55	0.56
• Factor Loading	0.33-0.68	0.50-0.64	0.38-0.66	0.30-0.67
• α	0.54	0.61	0.58	0.57
Negative Affect				
• Variance	0.69	0.75	0.59	0.70
• Factor Loading	0.57-0.58	0.57-0.58	0.53-0.60	0.57-0.59
• α	0.78	0.835	0.65	0.78

Are you happy? Satisfied? Comparison between World Value Survey and WHO SAGE of aged 50+ years



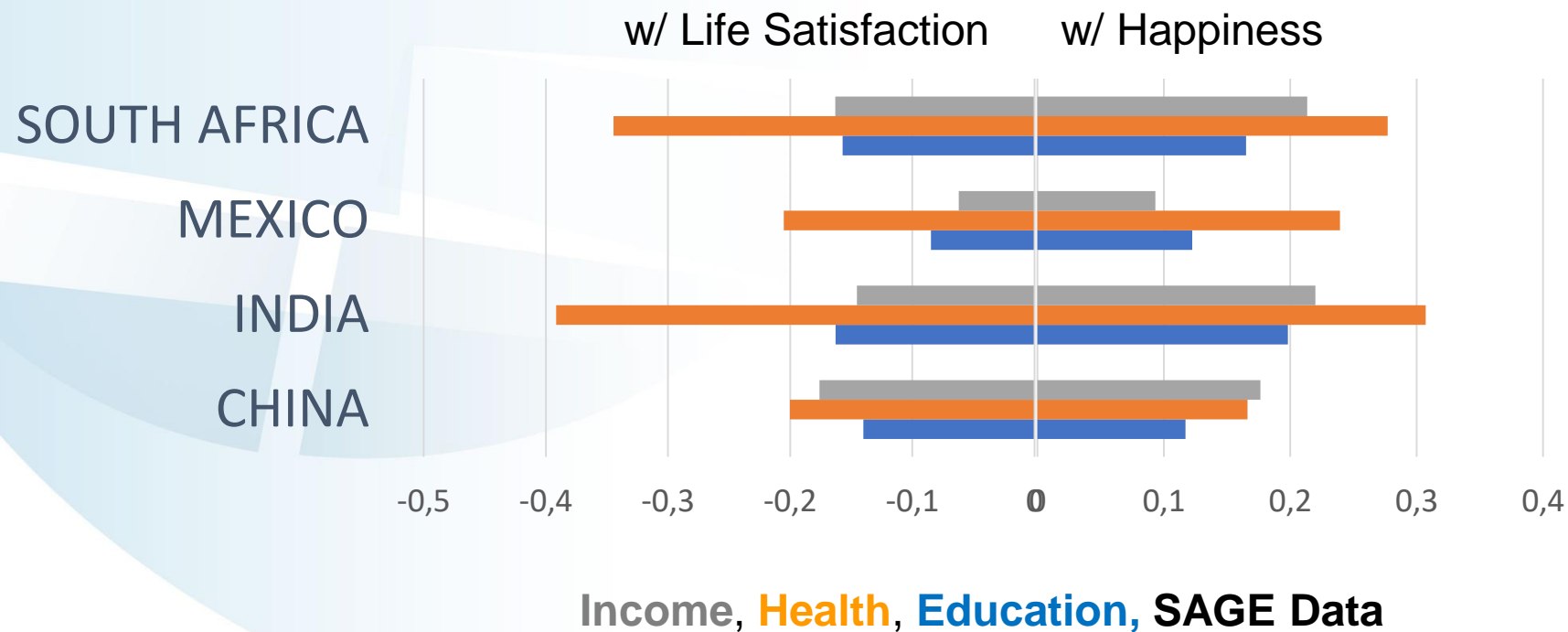
Are Happiness and Life Satisfaction the same concept? 2/3

Are you happy? Satisfied? SAGE for adults aged 50+ years



Are Happiness and Life Satisfaction the same concept? 3/3

Parallel analysis with other variables: **correlation are varied!**



Regression analysis: Data source WHO-SAGE

	CHINA		INDIA		SOUTH AFRICA		MEXICO	
Independent Variable	Happiness	Life Satisfaction	Happiness	Life Satisfaction	Happiness	Life Satisfaction	Happiness	Life Satisfaction
Expenditure	.073*	0.066*	0.096*	0.061*	0.107***	0.072***	0.045*	0.014*
Education attainment	0.025*	0.032*	0.037*	0.018*	0.047***	0.463***	0.051*	0.017*
Health	0.094*	0.107*	0.089*	0.120*	0.132***	0.158**	0.133*	0.061*
Age	0.022**	0.007#	0.003#	0.003#	0.071#	0.048**	0.033*	0.021#
Number of Obs.	12,562	12,598	6,359	6,369	1,888	1,983	3,051	3,153
Adjusted R-squared	0.057	0.068	0.137	0.164	0.1369	0.1535	0.0746	0.1170

Note: # Not significant ; * significant at $p < 0.001$; ** significant at $p < 0.05$; *** significant at $p < 0.01$

Conclusion 1/2

- In evaluating the quality of life in 4 countries:
 - Health variable ranks 1st **life satisfaction** model in all four countries.
 - Health ranks 1st in **happiness** model; except for China, where income variable ranks 1st in **happiness** model.
 - Income variable is more prominent affecting **happiness** in India.
 - Education variable is very much dominated the **life satisfaction** model in South Africa almost 46%; but ranks the lowest in **happiness** model
 - Education variable ranks 2nd in Mexico, and ranks the lowest in China and India in both **life satisfaction** and **happiness** model

Conclusion 2/2

- People everywhere prefer pleasure over misery, yet what constitutes happiness, what people try to do to be happy or to be satisfied and what factors predict happiness and life satisfaction varies substantially across countries.
- Among population aged >50+ years: People who are satisfied > People who are happy
 - Mexico: 90% of people satisfied and very satisfied with their life; compared to 64% of people happy and very happy with their life

Acknowledgement

- The research leading to these results has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (grant agreement No 741105).
- Special acknowledgement for the assistant of Ms. Melissa Caldeira on the SAGE data analysis
- Questions/Inputs/comments: email to lijadi@iiasa.ac.at

THANK YOU FOR YOUR ATTENTION