

Income, status, and happiness: a global study of pecking order

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Abstract

When respondents provide their own subjective evaluation of life quality, or satisfaction, on a zero-to-ten scale, the global country-weighted average is exactly 5.0. What would it have been 100 years ago? In this study I assess competing theories of cardinal and ordinal income position for explaining life satisfaction around the world, both within and across countries. Life satisfaction is now well-established as a proxy for well-being that is complementary to revealed preference methods. Much has been learned with this happiness metric, in diverse fields of economics spanning both microeconomic and macroeconomic approaches, since Easterlin brought it to economists' attention by asking whether economic growth was leading to increased well-being (1974). Nevertheless, the answer to this momentous question is still after forty years in need of further evidence. Theoretically, two formulations of utility functions incorporating others' contemporary consumption have been treated. In one, a peer group provides a reference consumption level used in evaluating one's own consumption. This structure has been estimated extensively in the empirical literature. However, in another formulation, utility is sensitive only to own rank, via the cumulative distribution function, rather than to cardinal differences. Theoretical insights into such economies are arguably more developed than those based on cardinal comparisons. However, empirical treatments, especially in multi-country studies, are absent. Using Gallup World Poll data, I show that worldwide, a pure-rank model is as successful as one based on a classical utility function, and that within countries rank is highly preferred to cardinal income in explaining life satisfaction.

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1 Introduction

What would the global distribution of subjective well-being (SWB) have looked like 100 years ago? Increasing attention is being paid by economists, national statistical agencies, and government policy makers at all levels to the merit of complementing existing, implicit welfare measures with direct, subjective assessments of life quality or experienced affective (emotional) states.¹ One unprecedented tool in this regard is the 150+–country survey, run annually by Gallup corporation since 2006, that includes questions on subjective well-being. This survey facilitates a truly global-scale assessment of the relationship between various life conditions, including material income, and the actual experienced well-being of respondents. Consider the answer to the “Cantril ladder” question², which solicits a cognitive evaluation of life on a scale from zero to ten. It turns out that the mean response is exactly the midpoint of the scale. For years 2006 to 2010, the globally-weighted Gallup World Poll response to this question ranges from $4.85 \pm .02$ to $5.18 \pm .02$ out of 10, with no significant trend ($N = 642164$). The World Poll takes nearly equally sized samples of households from each country, so the global mean re-weights each country by its population. Giving instead equal weight to each nation, the annual means range from $5.36 \pm .01$ to $5.45 \pm .01$.

Life evaluation questions are timeless, so is it a coincidence that in the early 21st Century, the average response to a life evaluation question is middling? It is not for lack of variation, since country means range from 3.0 to nearly 8. A natural hypothesis is that people’s satisfaction with their lives is influenced by an evolving standard that rises in pace with global consumption levels. This question is fundamental to one or both of (a) the ubiquitous consumption growth-oriented approach in economic development policy, and (b) the growing study of subjective well-being (SWB) in economics, which often treats SWB as a proxy measure of welfare. Economists of every generation have considered it likely or self-evident (Smith, 1759; Marx and Engels, 1848; Mill, 1907; Rae, 1834; Pigou, 1920) that both human behaviour and human welfare are deeply driven by social considerations, including status comparisons, emulation, and so on, rather than something which is most sensibly modeled as an absolute, cardinally-calibrated, and constant utility function.

A body of research has estimated the contribution of relative consumption effects at the local level; however, a fundamental problem faces any effort to measure the role of *international* standards in setting expectations. When reference levels are global, there is no source of variation by which to estimate their effect.

The aim of this paper is to explain three features of what we now know about the relationship between spending power and “happiness” around the world. First, and contrary to some reports and popular accounts, cognitive evaluations of life are higher where real incomes are higher, and this relationship continues to hold at high levels of income. Certainly people do not get less happy as their income surpasses any particular threshold. It is important that this relationship not be mischaracterized by those espousing less emphasis on consumption.

Secondly, much of the global variation in subjective well-being occurs amongst coun-

¹For example, see U.K. O.N.S. (UK Office of National Statistics, 2011) and Cameron (2010) for Prime Minister Cameron’s initiative in the U.K; Stiglitz, Sen, and Fitoussi (2009) for the report commissioned by President Sarkozy of France; OECD (2011) and <http://www.oecd.org/progress> for the O.E.C.D.’s “Better Life” initiative; Jeffrey Sachs’ (Sachs, 2011) recent editorial; and Bernanke (2010) for a speech on well-being by the U.S. Federal Reserve chair.

²See Section 3 on page 5 for detailed wording.

tries. That is, knowing which country someone lives in is enough information to make a good prediction of their self-reported well-being. This implies two things, at least. One is that SWB responses — and the salient factors, expectations, and aspirations that underlie them — do not simply and fully adjust to whatever are the local conditions. The other is that “public goods,” including ones funded by federal-level taxes as well as other kinds of more abstract or social public goods that are correlated with national incomes, may form a large part of the benefit (or apparent benefit, through correlation) of economic growth.

Thirdly, the empirical evidence from over 140 countries provides no reason to embrace an individual consumption benefit model for explaining welfare, over a purely ordinal one. Many researchers have emphasized the importance of using a logarithmic transformation of income before relating it to life evaluations; for instance, Kahneman and Deaton (2010) write, “In accordance with Weber’s Law, average national life evaluation is linear when appropriately plotted against log GDP.” However, while a logarithm of income is used ubiquitously in econometric models explaining subjective well-being, I show that in any of a range of multi-level specifications, a rank-oriented description matches or outperforms one based on absolute levels of consumption.

In the context of the world’s overconsumption problems, the implications of the picture emerging from these three observations is profound. While the global *production externality* of greenhouse gas emissions is often portrayed as the largest economic externality, or social cost, that civilization has brought on itself, it seems possible that another may be equally global and equally profound. This *consumption externality* is the changing consumption standard imposed on other countries and people that occurs when one group or country pursues and achieves consumption growth.

2 Consumption externalities

Consumption externalities exist when people care intrinsically, or are affected directly by, knowledge about others’ consumption (Barrington-Leigh, 2013). This is a natural expectation if our behaviour has a status-seeking component or if our expectations, aspirations, or standards are set in part by what we see as normal or achievable. Nevertheless, such social interdependence is often assumed away in economic models of behaviour and welfare, so the treatment of it arises as a special subject.

Theoretical studies of relative consumption effects typically must, in order to make analytic progress, make assumptions about the functional form in which others’ consumption appears in the individual’s utility, whether that describes a well-being function or a decision making objective.

Some natural cases are those in which (1) the consumption reference level matters explicitly, for instance as a mean or median consumption level appearing in a difference or ratio with own consumption; and those in which (2) only pure status or rank position are of concern, without any further relationship to the cardinal difference between own and reference consumption.

In the latter case, several theoretical implications for the relationship between distributions of income, wealth, and well-being have been characterised, in particular by Ed Hopkins and Tatiana Kornienko (e.g., Hopkins and Kornienko, 2010, and references therein). For example, in the presence of negative consumption externalities society is generally made better off by larger disparities in endowments and by smaller disparities in rewards to effort. Theoretical models of economies populated by individuals concerned instead with

the absolute difference or ratio of their consumption as compared with a mean consumption level have produced some similar, but generally less sophisticated, findings.

Both literatures emphasize the overall decline in well-being that can accompany increases in wealth or technological productivity, as everyone allocates more time to production and less to leisure (e.g., Eaton and Eswaran, 2009).

Clark, Frijters, and Shields (2008) review the large and rapidly growing body of studies using longitudinal and cross-sectional subjective well-being data which assess, primarily within individual countries, the strength of relative income effects. Typically, findings are consistent with the hypothesis that negative consumption externalities (where consumption is usually proxied by income) at the local or regional level within a country, possibly combined with adaptation effects over time, are sufficient to fully negate the individual benefits of income increases.

3 Data

I use data from the first five waves of Gallup’s World Poll, an annual survey sampling ~ 1000 respondents aged 15 and over in each of more than 140 countries, every year since 2006.³ In all countries and waves, the World Poll has asked respondents to evaluate their life in all-encompassing terms, using a measure known as the Cantril self-anchoring striving scale, or “Cantril’s ladder.” In English, this question is:

“Please imagine a ladder with steps numbered zero at the bottom to ten at the top. Suppose we say that the top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible. If the top step is 10 and the bottom step is 0, on which step of the ladder do you feel you personally stand at the present time?”

In addition, for a smaller set of countries and waves, the survey has included a second life evaluation question referred to as *satisfaction with life*, posed to the same respondents:

All things considered, how satisfied are you with your life as a whole these days?
Use a 0 to 10 scale, where 0 is dissatisfied and 10 is satisfied.

While the distributions of responses to these two questions exhibit some qualitative differences, earlier work by Helliwell et al. (2010) found that in reduced form estimates they quite similarly capture various observable aspects of life, and that averaging them together tends to decrease noise but not change coefficients.

A second class of SWB measures focuses more on the incidence of affective (emotional) states during the day prior to the interview. I classify these into positive and negative affect and define an index giving the balance (difference) between mean positive and negative affect responses. These questions include dichotomous reports of smiling/laughing, enjoyment, worry, sadness, depression, and anger.

The World Poll asks respondents about their income, using a continuous response in local currency. In order to calculate comparable incomes across many countries, I scale each country’s survey responses by a constant factor in order that their mean matches the purchasing power parity GDP/capita calculated as part of version 6.2 of the Penn World Table (Heston, Summers, and Aten, 2006).

For descriptive statistics of these variables, see Barrington-Leigh (2010).

³Details of the methodology are available from Gallup Organization (2010).

4 Empirical approach and findings

The objective in this section is to select empirically between two models of the relationship between SWB and a measure of material consumption. Conceptually, well-being U of individuals may be thought to depend on their private consumption c , use of public goods g , their other social circumstances x , and intrinsic age-related effects a that vary over one's life cycle:

$$U = f(c, g, x, a), \quad (1)$$

In many theoretical and empirical accounts, the dependence on private consumption is captured by a $\log(c)$ term. I compare such a model with one in which the dependence comes only through the local (national) cumulative distribution function $Q(c)$, i.e. individuals' ranks. To do this, I consider a separable specification for (1), in which SWB is used to measure well-being, and adjusted household income is used as a proxy for consumption.

Practically, this test could be carried out in several related ways using the Gallup World Poll data. First, one may pool all respondents from around the world to estimate each of two equations predicting individual SWB and taking into account national income per capita as an explicit proxy for g :

$$U_{ni} = a + \beta_1 \log(c_i) + \beta_N \log(g_n) + \gamma D_i + \eta_n + \varepsilon_i \quad (2)$$

$$U_{ni} = a + \beta_2 Q_n(c_i) + \beta_N \log(g_n) + \gamma D_i + \eta_n + \varepsilon_i \quad (3)$$

Here individual i lives in country n , and the vector D captures demographic variables such as age and gender. A comprehensive set of controls for other individual circumstances x is explored in other studies. For the present purposes I assume such circumstances have similar effects across countries (Helliwell et al., 2010) and I allow for correlated (clustered) errors η at the country level.

A particularly strong test for the preferred functional form is to allow for both consumption terms at once in the model, and test for the effect of either the cardinal effect β_1 or ordinal effect β_2 to be zero:

$$U_{ni} = a + \beta_1 \log(c_i) + \beta_2 Q_n(c_i) + \beta_N \log(g_n) + \gamma D_i + \eta_n + \varepsilon_i \quad (4)$$

Rather than control explicitly for national-level income, one might use a set of dummies δ_n to capture all country-level variation. In this case, (4) becomes

$$U_{ni} = a + \beta_1 \log(c_i) + \beta_2 Q_n(c_i) + \delta_n + \gamma D_i + \eta_n + \varepsilon_i \quad (5)$$

4.1 Within-country income and rank

Columns (2) through (5) of Table 1 show the results of estimating the correspondingly numbered equations, using gender and a quadratic in age as demographic controls. The evidence strongly supports my main finding that a positional income variable dominates cardinal income as a predictor of individual SWB. Adding the household-size-adjusted⁴ income (column 2) into an equation already accounting for mean national incomes (column

⁴In order to account for economies of scale in household consumption, single-parameter income equivalence scales are typically of the form I/n^ϵ , where I is household income and n is the number of household members. I use the common convention of $\epsilon = \frac{1}{2}$ (Buhmann et al., 1988). None of the claims in this paper change qualitatively if unadjusted household incomes are used in place of household equivalent incomes.

	$\frac{1}{2}(\text{ladder}+\text{SWL})$							
	world					USA		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
log(GDP/capita)	.75[†]	.19[†]	.74[†]	.60[†]				
	(.045)	(.055)	(.046)	(.090)				
ln(HH inc _{adj})		.49[†]		.12[†]	.030	.54[†]		-.18
		(.024)		(.069)	(.026)	(.060)		(.23)
income quantile			1.62[†]	1.28[†]	1.54[†]		1.82[†]	2.4[†]
			(.058)	(.19)	(.079)		(.17)	(.66)
age/100	-2.9[†]	-3.6[†]	-3.8[†]	-3.8[†]	-3.5[†]	-9.6[†]	-9.8[†]	-9.8[†]
	(.53)	(.51)	(.51)	(.50)	(.34)	(1.26)	(1.25)	(1.24)
(age/100) ²	1.84[*]	2.8[†]	3.2[†]	3.2[†]	3.0[†]	10.8[†]	11.1[†]	11.1[†]
	(.61)	(.60)	(.59)	(.59)	(.39)	(1.27)	(1.26)	(1.26)
male	-.013	-.043[*]	-.055[†]	-.053[†]	-.073[†]	-.17	-.18	-.17
	(.016)	(.016)	(.016)	(.016)	(.014)	(.086)	(.085)	(.085)
constant	7.8[†]	8.2[†]	7.1[†]	7.3[†]	4.4[†]	9.8[†]	8.5[†]	8.1[†]
	(.15)	(.16)	(.16)	(.22)	(.17)	(.31)	(.29)	(.57)
Ladder only (SWL n/a)	-.34[†]	-.33[†]	-.34[†]	-.33[†]	-.27[†]	-.36[†]	-.35[†]	-.35[†]
	(.061)	(.060)	(.060)	(.060)	(.041)	(.099)	(.098)	(.098)
country f.e.					✓			
obs.	325776	325776	325776	325776	325776	3525	3525	3525
R ² (adj)	.159	.203	.208	.208	.299	.094	.105	.105
N _{clusters}	136	136	136	136	136			

Significance: **0.1%[†]** **1%^{*}** **5%** **10%⁺**

Table 1: SWB and cardinal versus ordinal income. For explaining differences in life evaluations, income position dominates cardinal income within 136 countries from the Gallup World Poll. The log(income) variable is adjusted for household size, and the income quantile variable is based on adjusted household incomes.

1) adds significantly to the explained variance of individual SWB across 136 countries. However, adding the respondent’s income quantile instead (column 3) explains even more. When both measures of household income are included at once (columns 4 and 5), the cardinal one drops out.

Yet another approach is warranted to test further the two functional forms for the dependence of SWB on income. This is to estimate a version of (5) separately for each country. Columns 6–8 show the result for one country, the USA, and present a similar pattern. In this case when both income quantile and cardinal income are included, the latter attracts a negative coefficient, again indicating that, in mediating income effects on well-being, material deprivation may be a weaker channel than status-related interactions.

Cardinal and ordinal measures of income tend to be closely correlated within each country. Therefore, using both at once in a model of SWB introduces some multicollinearity. In estimates of the competing power of cardinal and ordinal income to explain SWB, carried out separately for each of 145 countries, the income rank proves overwhelmingly to be the preferred measure. Figure 1 shows standardized β coefficients for these two measures of income, estimated for 145 countries from an equation like that shown for the USA in column (8) of Table 1. Although the inverse relationship between β_C (the coefficient on ln(HH inc_{adj})) and β_O (the coefficient on income quantile) across countries

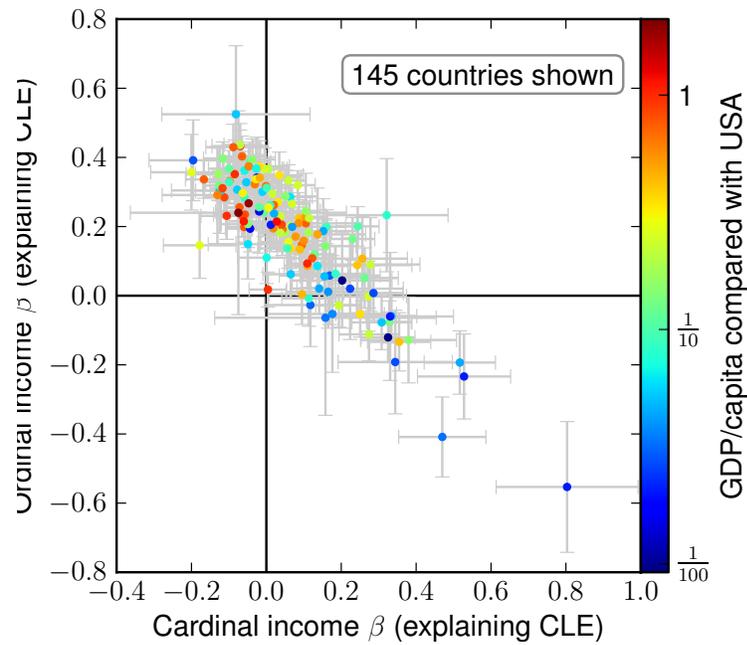


Figure 1: Standardized regression coefficients of ordinal *vs* cardinal income measures explaining within-country variation in cognitive life evaluations. Each point represents an estimate for one country, controlling for age and gender. Colours show the mean income levels of countries. The overall pattern is that for all national income levels, socioeconomic rank accounts for variation in life evaluations, while purchasing power (cardinal income) tends to drop out.

	$\frac{1}{2}(\text{ladder}+\text{SWL})$		
	(1)	(2)	(3)
ln(HH inc _{adj})	.59[†] (.026)		.085 (.061)
global income quantile		3.3[†] (.14)	2.8[†] (.38)
age/100	-3.4[†] (.49)	-3.4[†] (.47)	-3.4[†] (.47)
(age/100) ²	2.8[†] (.59)	2.8[†] (.57)	2.8[†] (.57)
male	-.059[†] (.017)	-.054[*] (.017)	-.055[*] (.017)
Ladder only (SWL n/a)	-.33[†] (.062)	-.32[†] (.061)	-.32[†] (.061)
constant	8.1[†] (.15)	4.9[†] (.12)	5.3[†] (.37)
obs.	340936	340936	340936
R ² (adj)	.198	.204	.204
N _{clusters}	140	140	140
Significance:	0.1%[†]	1%[*]	5% 10%⁺

Table 2: Global income rank explains SWB. Remarkably, a single global ordering of all respondent incomes explains more of the variance of individual SWB, holding some demographic variables constant, than cardinal income. When both are included, the cardinal income drops out. In light of the difficulties of generating meaningful combined public and private good consumption measures that are comparable across nations, it is surprising that global ordinal income is a particularly strong predictor of well-being. Table 1 on page 7 shows a similar test using within-country ranking of income.

is evidence of some multicollinearity, for the bulk of countries, the ordinal coefficient has more explanatory power than the cardinal one, and indeed, the cardinal one often drops out, i.e., is insignificant. For only twelve countries, the point estimate of the income rank coefficient is negative while the cardinal coefficient is relatively large.

4.2 Global income and rank

Still more remarkably, and as shown in Table 2 on page 9, the same pattern holds using a *global* ranking of all (adjusted) household incomes reported in the World Poll. That is, a formal test between models in which life evaluations are explained by either (a) global PPP adjusted household income or (b) a global ranking amongst all respondents to the World Poll, selects the latter. When individual global income rank and individual cardinal income are included, the latter drops out of estimates for SWB; that is, the cardinal income effect is indistinguishable from zero, while the rank effect is strong and significant.

Next, I show some non-parametric estimates of the global cross-sectional relationship between income and the Cantril Ladder (“life today”) response. In Figure 2, the relationship between national income per capita across countries and their mean life evaluations is shown in two forms. There is no reason, given this relationship to conclude either that (a) higher incomes do not relate to higher life evaluation after any given point, nor that

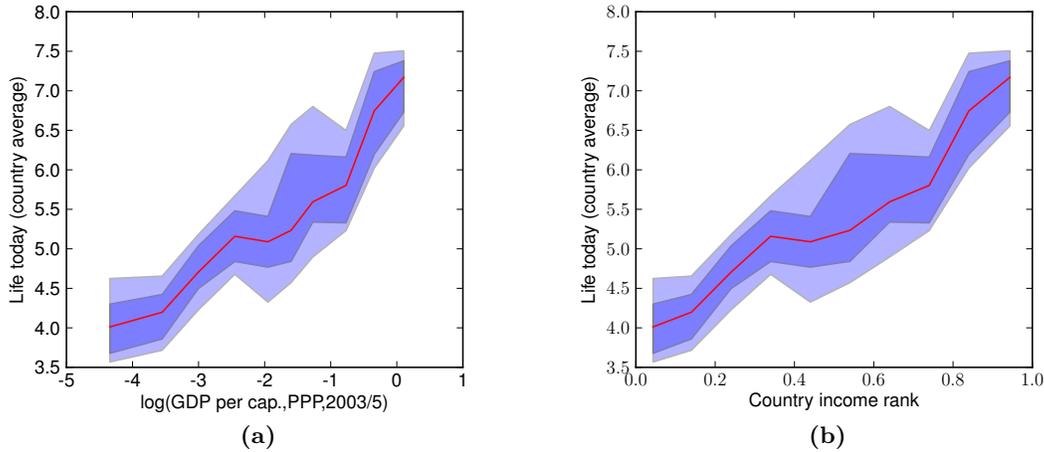


Figure 2: Country-level relationship between income and life evaluation. Country income is shown on the abscissas in cardinal form (left, scaled to USA’s value) and in country-rank form (right). The vertical axis shows country-averaged responses to the Cantril ladder question. The central line shows the local median value, while the shaded envelopes show a range representative of the interquartile and 10th–90th %ile ranges.

(b) a cardinal model is preferred to an ordinal model. That is, according to these data, respondents could just as well be evaluating their position based on some sense of how their country ranks in a global sense.

Figure 3 shows a similar fact using individual-level measures of income and SWB. Again, the relationship is at least as well, or better described, in terms of a global ranking rather than a material purchasing power, in accordance with the finding shown in Table 2 on page 9.

Lastly, Figure 4 shows this relationship for an affective measure of SWB. Kahneman and Deaton (2010) claim that, unlike the cognitive evaluation of life, this affect measure saturates at a level of \sim \$75k in the USA. By showing more distributional information than a conditional mean, Figure 4 is evidence that the saturation claim is a result of the poor resolution of the affective measure. While the median response is nearly as high as it can be for the affect balance index, it is clear that the bottom of the distribution continues to climb with higher income, or income rank. Once again, a linear model for this relationship is best attained using the rank of income rather than its absolute size.

4.3 National-level income and rank

Ranking individual incomes amongst all Gallup World Poll respondents strongly reflects the positions of countries, since they are nearly equally represented in the Poll. It therefore makes sense to investigate the income – well-being relationship at the national level. This has the additional advantage of removing sensitivity to the high and low tails of the individual income distribution.

To implement this, I consider each wave (calendar year) of the Gallup World Poll separately, using the Penn World Table 7.0 to assign comparable national incomes to each country for each year. These price parity data come with an important warning for time series analysis: the yearly changes in GDP/capita are unreliable for developing countries,

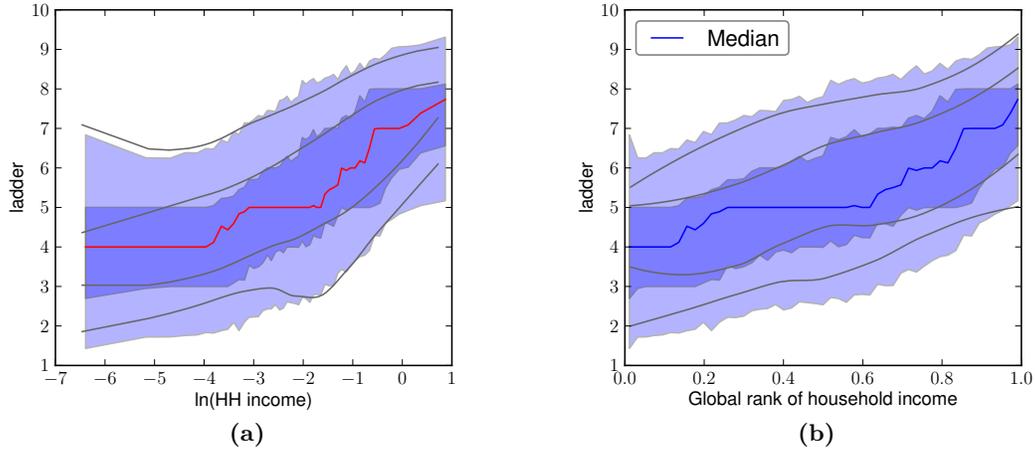


Figure 3: Individual-level, global relationship between income and life evaluation. Respondents' household income is shown on the abscissas in cardinal form (left, scaled to USA's mean value) and in global-rank form (right). The vertical axis shows responses to the Cantril ladder question. The central line shows the local median value, while the shaded envelopes show a range representative of the interquartile and 10th–90th %ile ranges. The gray lines show LOESS quantile fits.

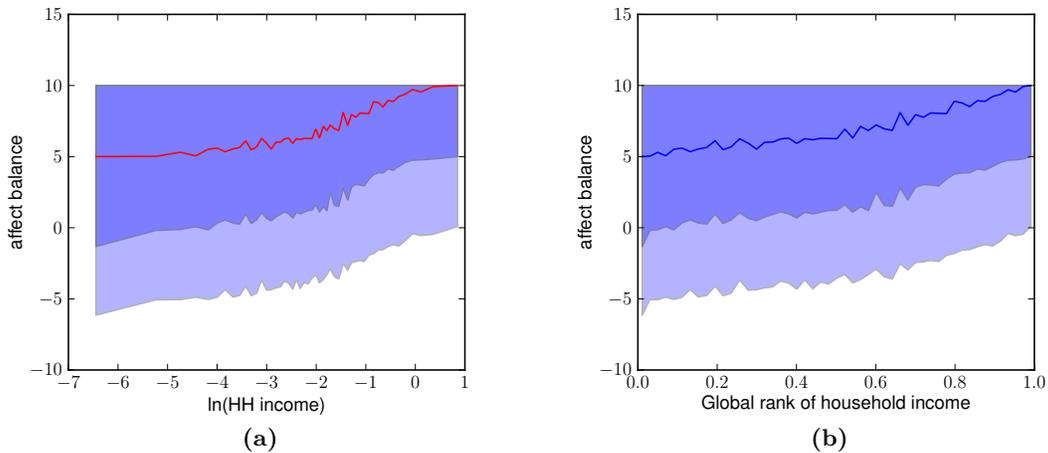


Figure 4: Individual-level, global relationship between income and affect. Respondents' household income is shown on the abscissas in cardinal form (left, scaled to USA's mean value) and in global-rank form (right). The vertical axis shows the affect balance measure. The central line shows the local median value, while the shaded envelopes show a range representative of the interquartile and 10th–90th %ile ranges. The gray lines show LOESS quantile fits.

	pooled						fixed effects		
	ladder			affect			affect	ladder	st'd of living
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
ln(GDP/cap)	.67[†]		.15	.033[†]		−.017	.18	.56	−.041
	(.036)		(.15)	(.007)		(.037)	(.12)	(.64)	(.098)
int'l rank		3.1[†]	2.4[*]		.15[†]	.23	−.14	1.99	1.09
GDP/cap		(.15)	(.77)		(.030)	(.18)	(.51)	(3.0)	(.44)
obs.	451	451	451	444	444	444	225	228	231
R^2 (adj)	.648	.657	.657	.093	.098	.097	.026	.023	.049
N_{clusters}	149	149	149	148	148	148	76	77	76

Significance: **0.1%[†]** **1%^{*}** **5%** **10%⁺**

Table 3: Country incomes and ranks. Pooled and fixed-effect models of life evaluation (ladder) and satisfaction with standard of living

whose incomes must be averaged over several years (Heston, Summers, and Aten, 2011). With this caution, I conduct pooled estimates for all countries, but restrict the sample to the wealthiest half for analysing changes in national incomes and SWB.

Table 3 shows the estimates. The first three columns show a pooled estimate for the Cantril ladder question in 149 countries between 2006 and 2010. In column (3), the international income ranking proves to be a better linear predictor of mean life evaluation than the logarithm of income. While the fraction of cross-country variance in “affect balance” that is explained by income is, as expected, much smaller than that of the Cantril ladder, the R^2 is higher for a model (column 5) based on international rank than for one based on cardinal income (column 4). However, when both are introduced at once (column 6), neither effect is significant.

Similarly, in fixed effects models (columns 7–8) in which national-level yearly changes in SWB are explained in terms of corresponding changes in both measures of mean income, neither form of income has a significant effect. The Gallup World Poll has, however, one more specific satisfaction measure related to income. In most countries, respondents were asked a translation of “Are you satisfied or dissatisfied with your standard of living, all the things you can buy and do?” with a binary “Satisfied”, “Dissatisfied” choice of responses. This “st'd of living” variable does significantly and positively respond to the international rank of mean income when both income measures are introduced as predictors. Any effect from cardinal changes in GDP per capita in this case is rejected.

5 Discussion and conclusions

According to the simple demonstrations in this paper, our “new” measures of well-being give us a picture that is consistent with the strongest possible interpretation of a materialist “rat-race,” in which gains to well-being by one person or group always come at the cost of others if they are made through conspicuous material gain. One cannot properly pose questions about consumption level reference dependence without specifying spatial and temporal scales over which the adaptation or reframing occurs. If, in an age of truly global information flows, people worldwide are generally aware of and influenced by consumption levels of others around the world, then on some timescale, the informational externalities of consumption levels also act on an international scale.

If SWB is on average properly reflecting respondents' experiences, then not only can one not reject the possibility that the majority of the welfare gains from higher incomes arise due to public goods, rather than private or individual consumptive power, but it appears that to some degree even those public goods could bestow benefits in accordance with their global rank. Interpreted liberally, this suggests the possibility of a global consumption race in which nations are not just seeking material gain, not just competing in terms of trade, but are competing for a pecking-order status.

The findings here support this hypothesis and suggest a continued reexamination of the strong consumption-oriented view of welfare, which is prevalent in our discipline and in policy, is needed in order to treat properly the global collective action problems faced in a finite world.

At the same time, especially for the international comparisons, the findings here cannot reject a relatively classical account of the benefits to economic growth, even if they put them in doubt. Rejecting the importance of material benefits, or declaring that such benefits completely dissipate at a given consumption level, should be done with care and careful empirical work. Evidence from affective states, as complementary SWB measures to the more cognitive life assessments, provide remarkable evidence that the systematic variation of SWB around the world is not just due to asking the wrong question.

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