International Review of Business and Economics

Volume 9 | Issue 1 Article 2

2-13-2024

Misgivings in Measuring Happiness

Sudhanva Char Life University, Marietta, GA 30060, drsvchar@gmail.com

Follow this and additional works at: https://digitalcommons.du.edu/irbe

Part of the Cognitive Psychology Commons, Health Psychology Commons, International Business Commons, International Economics Commons, and the Other Social and Behavioral Sciences Commons

Recommended Citation

Char, Sudhanva (2024) "Misgivings in Measuring Happiness," *International Review of Business and Economics*: Vol. 9: Iss. 1, Article 2.

Available at: https://digitalcommons.du.edu/irbe/vol9/iss1/2

This Article is brought to you for free and open access by Digital Commons @ DU. It has been accepted for inclusion in International Review of Business and Economics by an authorized editor of Digital Commons @ DU. For more information, please contact jennifer.cox@du.edu,dig-commons@du.edu.

Misgivings in Measuring Happiness

Abstract

According to a resolution of the UN General Assembly (Resolution 66/281). March 20th is observed annually as International Day of Happiness. A nation's overall success is measured by people's happiness. the litmus test. The World Happiness Report (WHR) states there is consensus about measuring happiness, whereas, happiness is idiosyncratic and its connotation differs from culture to culture, language to language, and even person to person. Personal 'space' in all spheres matters, and so do democracy or dictatorship, all factors leading to mismeasures of happiness scores. And so, there are paradoxes in happiness rankings in WHR. Economists have yet to take cognizance of 'happiness': there is as yet no word like 'happiness' in JEL Classification. The WHR algorithm for computing country-wise happiness scores is passable, but the results are credulous. This is on account of inherent drawbacks of opinion polling about 'happiness in life so far', cognitive dissonance about civilizational ethos, bias in information regarding eudemonia, generosity, freedoms, human rights, corruption, and government effectiveness. Let us set up Bharat's own Happiness Commission to estimate an operational Happiness score analogous with that of the WHR. There is a rationale for happiness scores: they help discard 'growth for growth's sake' constructs especially after life's basics, including health and education, are reached to people. Lesson: Maximize Gross National Happiness (GNH) rather than press on with increasingly unsustainable levels of GDP.

Keywords

GDP, GNH, Happiness, Wellbeing

Misgivings in Measuring Happiness Sudhanva Char Adjunct Professor, Biostatistics Life University

Abstract

According to a resolution of the UN General Assembly (Resolution 66/281), March 20th is observed annually as International Day of Happiness. A nation's overall success is measured by people's happiness, the litmus test. The World Happiness Report (WHR) states there is consensus about measuring happiness, whereas, happiness is idiosyncratic and its connotation differs from culture to culture, language to language, and even person to person. Personal 'space' in all spheres matters, and so do democracy or dictatorship, all factors leading to mismeasures of happiness scores. And so, there are paradoxes in happiness rankings in WHR. Economists have yet to take cognizance of 'happiness': there is as yet no word like 'happiness' in JEL Classification. The WHR algorithm for computing country-wise happiness scores is passable, but the results are credulous. This is on account of inherent drawbacks of opinion polling about 'happiness in life so far', cognitive dissonance about civilizational ethos, bias in information regarding eudemonia, generosity, freedoms, human rights, corruption, and government effectiveness. Let us set up Bharat's own Happiness Commission to estimate an operational Happiness score analogous with that of the WHR. There is a rationale for happiness scores: they help discard 'growth for growth's sake' constructs especially after life's basics, including health and education, are reached to people. Lesson: Maximize Gross National Happiness (GNH) rather than press on with increasingly unsustainable levels of GDP.

Keywords: GDP, GNH, Happiness, Wellbeing **JEL Classification:** D 6

Misgivings in Measuring Happiness Sudhanva Char Adjunct Professor, Biostatistics Life University

Dharmic Happiness

Per capita Gross National Happiness (GNH) or micro-level 'subjective wellbeing' is the theme of this paper. From the ancient times in Bharat (India) there is the civilizational ethos propagating people's happiness as reflected in the daily prayer "Sarveh Janah Sukhino Bhavantu": Let all people be happy. The Sanskrit word Sukha is a composite term: the suffix 'Su' denotes good and the 'kha' means space. Likewise, in the term 'Duhkha' or unhappiness, suffix 'duh' denotes bad and 'kha' again means space. All pray: May all folks have good physical, mental and spiritual elbow room, leg room and other space to lead a good life as per their own standard, which is locality, culture or even person specific. It need not be based on the typical Western paradigm of H = MC/D, where H = Happiness, MC = Material Consumption and <math>D = Desire. A person is as happy as his MC as a percentage of his D. Simplistically, if D, the denominator, is a Tesla SUV costing \$50,000 and the person ends up with MC of a of used ramshackle Ford costing \$5000, the numerator, such a person is just ten percent happy! Here, happiness depends to a sizeable degree on Income, not so much on consumer preferences or other factors mentioned in the Abstract above. But what if the person finds much consumer surplus even in the ramshackle vehicle and is much more than ten percent happy? This may pass for western perspectives about happiness but will not pass for native wisdom in Bharat or even elsewhere. To no one's surprise, the WHR on its own calls happiness 'subjective well-being' or SWB.

(https://happiness-report.s3.amazonaws.com/2021/Appendix1WHR2021C2.pdf)

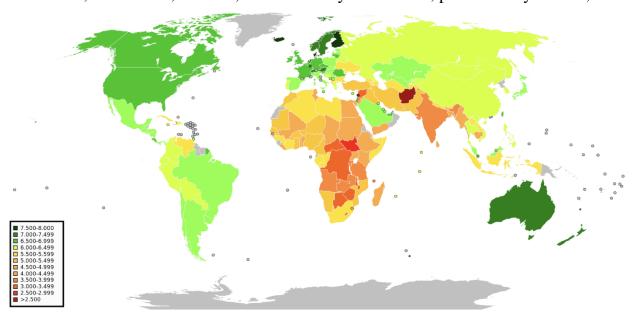
Conflating Happiness with Luck

More interestingly, the etymology of happiness makes us believe that the West has conflated happiness with chance or luck. The German word for happiness is Gluck or chance. According to psychology, happiness is the sense of fulfilment and satisfaction about one's life so far. There is pleasure too in happiness. Some are pleased easily, and others are hard to please. Due to the law of large numbers, does the overall pleasure of a country's people get averaged out and converge to an accurate level of Happiness which gets reflected in the Happiness Score (HS hereafter)? How can the average person in China, a communist authoritarian state, have the social, political, or cultural 'space' as someone in say India or USA, the largest and the oldest democracies even if we assume, the per capita incomes are the same at least in of purchasing power values of the currencies? And what do we make of such a Chinese person when says he is happy in response to a Gallup poll interview? Or when an affluent American says he is unhappy for want of a Tesla or a home, or a Bharatiya says he is unhappy for

want of a purpose in life? Economists have to think through this. It is not above their paygrade. If they say so, they may lose their *raison d'etre*.

Bias in Information Sources

One of the puzzling criteria for computing happiness is freedom. The shades of freedom are varied, with most freedoms in democracies like USA, the 'oldest' and India, the Mother of Democracy. The latter has a vibrant, no holds barred democratic set up, but the media and also departments in western governments, like echo chambers, give a staggering low rating to Bharat for human freedoms, and in the final analysis to India's Happiness Score. Belittling of Bharat culture and democracy is premeditated leftist woke mischief. Such condescendence is undeserved given the air and ambience of complete freedom like in any democracy despite the largest population in the world with what is perhaps the most diverse, or plurality of races, faiths and sub-faiths, languages, dialects, cuisines, food habits, cultures, social folkways and mores, personal ways of life,



WHR's World Happiness Map - The rest of the world, other than Africa, is happier than Bharat!

and a plethora of political parties. And yet the sample size for gathering opinions about Bharat, perhaps, could be the same as for an island like Figi, a country with just a fraction of India's population and its diversity. And so, the sample size will not be emblematic of Bharat's population, greater than 1400 million, nor are the Gallup opinion polls.

Too Small a Sample Size for Bharat

Even within that small unreliable sample, suppose a person has a colonial mindset like with an admiration for British rule of India or belongs to one of the myriad nation-wide and/or regional opposition political parties, there would be a travesty of facts about happiness in India. A fractional minority opinion would be displayed as the majority or typical opinion of Bharat. Gallop poll would be

unconcerned about this downside.

SV Char

JEL Item D6, listing Welfare Economics, comes closest to happiness, and even here 'wellbeing' is not cited. That is indeed **the** lacuna, or the elephant in the room, muddling up computation of the HS and country rankings. Complexities in compiling the HS can be brought out by referring to the matrix of factors in Table 1.

Table 1. Components of GDH matrix¹

Summary statistics for country-year observations with happiness scores - 2018 to 2020

	Mean	Std. Dev.	Min.	Max.	N
Life Ladder	5.61	1.08	2.38	7.89	381
Positive affect	0.71	0.10	0.32	0.89	377
Negative affect	0.29	0.09	0.08	0.54	377
Log GDP per capita	9.52	1.11	6.64	11.65	362
Social support	0.82	0.11	0.42	0.98	381
Healthy life expectancy at birth	65.36	6.56	48.20	77.10	369
Freedom to make life choices	0.80	0.11	0.37	0.97	378
Generosity	-0.02	0.15	-0.34	0.56	361
Perceptions of corruption	0.72	0.19	0.07	0.96	359

Source: https://happiness-report.s3.amazonaws.com/2021/Appendix1WHR2021C2.pdf

Persons within the same society may not agree on what is happiness, leave alone how to measure it. Definition and measurement both pose challenges, more so when mind-boggling world-wide diversity in personal way of life and thinking, viewpoints about goals in life, civilizational ethos in a country like Bharat, and the related optimizations of four kinds of 'Purushartha's of Dharma, Artha, Kama and Moksha, are taken into account. Free wheeling, happy-go-lucky persons at one end and mental and physical hypochondriacs at the end would respond very differently . what George Akerlof² calls sins of omission in the practice of economics. There could also be Herbert Simon's bounded rationality,³ with a tendency to settle for what is good, instead of settling for what is optimum, commonly due to time constraints to mobilize all the 360° rounded information needed to make the optimum decision regarding the constituents of happiness scores. And so, opinion polls, with all their inadequacy to handle mind-boggling diversity in India, are the main source of 'evidence' that helps build happiness scores.

On the basis of these criteria, country rankings as per HS as listed in the WHR are given in Table 2 below. The 25 countries in Table 2 were chosen randomly to represent a variety of countries at different levels of economic growth. Before commenting further on the matrix criteria for happiness scores, let us take a look at WHR's own rationale for them.

The WHR states: Income, health, having someone to count on, having a sense of freedom to make key life decisions, generosity, and the absence of corruption - all play strong roles in supporting life evaluations. Briefly, the first component life ladder refers to people's response to the Gallop Poll question 'How is life?' The best possible quality of life rates at 10 (tenth rung in the Cantrill ladder) and the worst rates a zero. Of course, this is possibly the most subjective, personal, and one-sided response going into the GDH Matrix. The second term, positive affect, refers to the

biologically correlated factors that prevent ill-health and risk of disease. This neurobiology data relates mainly to people in middle-age who are repeatedly asked to rate their happiness over a working day. Analysis of this data shows that happiness is increased by lower salivary cortisol, reduced fibrinogen stress, and lower ambulatory heart rate in men. The effects are said to be independent of age, socioeconomic status, smoking, body mass, and psychological distress.⁴

The third factor of negative affect with a value of between zero and 1, is associated with the frequency of negative emotions of worry, sadness, and anger on the previous day. The fourth item, 'Log GDP per-capita', uses the natural log of GDP data in the happiness model instead of the raw GDP data. The 25 countries in Table 1 were picked by me randomly to represent countries at all levels of the Happiness score ranging from 3 to 8. The most significant fact to note here, is that the Report unequivocally states that as regards GDP per capita, social support, healthy life expectancy, freedom, generosity, and corruption, happiness ranking are not based on any index of

Table 2 Comparisons of Per-capita GDP and GNH Scores

Table 2 Comparisons of Per-capita GDP and GNH Scores							
	Per Capita GDP in \$	Gross National	GNH Rank in 2020				
	2020	1.1					
Bangladesh	1969	5.025	101 – 118				
Bhutan	3122	5.088	95 - ?				
Brazil	6797	6.330	35 – 49				
China	10500	5.339	84 – 64				
Cambodia	1513	4.830	114 - 115				
Costa Rica	12077	7.069	16 - 23				
Finland	49041	7.842	1 - 1				
Hong Kong	46324	5.477	87 -82				
India	1901	3.819	139 - 126				
Liberia	583	4.625	120 - 125				
Libya	3699	5.410	80 - ?				
Mexico	8347	6.317	36 - 36				
Mongolia	4007	5.677	70 - 61				
Myanmar	1400	4.426	126 - 117				
Nepal	1155	5.269	87 – 78				
Nicaragua	1905	5.972	55 – 40				
Pakistan	1194	4.934	105 - 108				
Philippines	3299	5.880	61 – 76				
Russia	10127	5.147	76 – 70				
Switzerland	86601	7.571	3 - 8				
Taiwan	33402	6.584	24 - ?				
UK	40285	7.064	17 - 19				
USA	63544	6.951	19 -15				
Singapore	59798	6.377	32 – 25				
Israel	43611	7.157	12 - 4				
	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·				

Source: Compiled by the author from https://data.worldbank.org/indicator/NY.GDP.PCAP.CD for Per Capita GDP and https://happiness-report.s3.amazonaws.com/2021/Appendix1WHR2021C2.pdf for Happiness and Rank data.

the six factors but based on respondents' own assessments of their lives. Further elucidation is available in the World Happiness Report (2021) accessible at https://happiness-report.s3.amazonaws.com/2021/Appendix1WHR2021C2.pdf. The more updated Happiness Scores are at: https://happiness-report.s3.amazonaws.com/2023/WHR+23.pdf

Table 3: Paradoxes of Happiness Scores

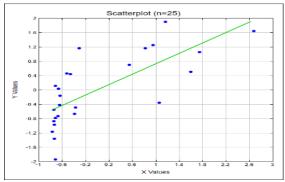
Country	GDP per Capita	Happiness Score	Ranking	Remarks
Liberia	583	4.625	120	D, C, P,V, W
Nepal	1155	5.269	87	A, C, P
Pakistan	1194	4.913	105	A, C, P, L, R
Myanmar	1400	4.426	126	A, P, F, R
Cambodia	1513	4.831	114	R, V, F, R
India	1901	3.819	139	С
Nicaragua	1905	5.972	55	Hr, R,
Bangladesh	1969	5.025	101	V, F, C

Compiled by author mainly from Table 1. Widely alleged human rights situations in the different countries listed in the last column: A = Authoritarian, C = Corruption, D = Drug, F = Freedoms or lack of, L = Law and Order issues, Hr = Human Rights violations, P = Poverty and inequality (high Gini ratio), R = Repression, V = Violence and W = Wearisome. It is as per Human Rights groups, and such other official sources with biases. One such is that occidental lifestyles are exceptional and desirable, but traditional oriental lifestyles, or paradigms are not.

The WHR Map shown above clearly color codes India with some of the lowest ranked countries of Asia or Africa. In Table 3 you see the contradiction of a state like Liberia with per capita income of just \$583 enjoying a relatively high HS of 4.625, with a global happiness ranking of 120 whereas India with per capita income of \$1901 suffers a much lower ranking of 139 thanks to WHR's Happiness score for India of 3.819. Several nations in Table 3, have almost the same per capita GDP as India. Unlike the thriving democracy in Bharat, they are more or less despotic with varying levels of regimentation, but have higher Happiness scores than India, a robust vibrant democracy. In addition, the countries in Table 3 have A, C, F, Hr, L, P. R, V and W issues (see notes for Table 3), people in those nations apparently are happier, with higher Happiness scores. These are conspicuous paradoxes. There are less conspicuous ones too.

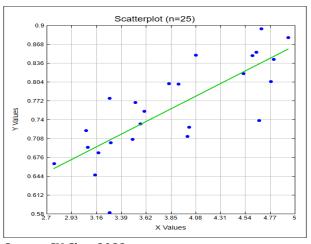
The significant correlation between per capita incomes of the 25 countries in Table 2 and their respective per capita GNH cannot be overlooked: it is a high 0.73, with r^2 of 0.53 (P-Value: 0.00004), explaining 53 per cent of the variations. The results are the same whether the raw data are used or their Z values for deriving the correlation. However, on account of global high diversity in the data as well as on account of a relatively small sample size of 25 countries, the standard deviation is also large. The plots for a) Z values and b) log values of 25 per capita incomes and their respective per capita GNH are shown below:

Fig. 1.a Correlation of Z values of Per cap Incomes (X-axis) and 25 Per Capita GNH (Y axis)



Source: SV Char 2023

Fig 1.b. Correlation of log values of Per Cap Income (X-axis) and Per Cap GNH (y-axis)



Source: SV Char 2023

There is a more significant correlation (r value) when log values are used: 0.79 (P-value: 0.000) than when Z values of the two variables are used: 0.73 (P-value: 0.0004). The r² in the first case is 0.625 and in the second case 0.53. The transformation of per capita GDP and GNH data into their log values, to some extent, masks the non-normality of data, in particular, per capita GDP as showed up by the Ryan-Joiner test even at 0.05 significance level. Per capita GNH data appears normal and does not aggravate the ironies and contradictions in the final happiness scores.

This data underscores the heavy dependence of per capita GNH on per capita GDP. This is the inclination in the WHR towards occidental life value system undergirding the HS computations. However, it may be argued that when an economic system has yet to reach the basics of life (including health and education) to all its people, there cannot be much of an opposition to such an inclination towards per capita GDP.

Some of the ironies and contradictions being mentioned earlier are possibly further aggravated by the non-normality of per capita GDP data as shown in Figure 1. Both the per capita variables are non-normally distributed, such non-normality leaking into the correlation between them. Nevertheless, the surprises in the correlation between the two variables are given here. Discussion about them has therefore to be tempered by the non-normality of one of the variables

Confounding GDH Facts

For anyone with a 360-degree view of current world affairs, including socio-economic and political facts, the happiness rankings derived with the help of nine factors listed in Table 2 seem weird, but in the case of some other countries, rather instructive. India, Bangladesh, and Nicaragua have almost the same per-capita GDP, but Nicaragua has a happiness score of 5.97, Bangladesh 5.025, and Bharat 3.819. This is the weird part, considering the repression and violence in those countries. The instructive aspect of the Happiness scores are the data for China, Hong Kong, and Taiwan below. At times one feels, biased information about India in foreign institutions has been used to evaluate the Happiness Scores for India. Nor, conceivably, do the civilizational values of the people, *vairagya*, for instance find a place in the analysis.

Table 4. Freedom Affects Scores

Table 4.11 ceuom mices scores				
	Per capita GDP	GNH	Rank	
China	10500	5.339	84	
Hong Kong	46324	5.477	87	
Taiwan	33402	6.584	24	

Source: SV Char 2023

Both per-capita GDP and freedoms seem to explain the vastly varied data in each column, particularly the conspicuous difference in the ranking for Taiwan. With its \$22 trillion GDP, and a per capita income of \$63,544, America ranks at the very top in the world. But, in terms of Gross National Happiness, it ranks 18th, with a GDH score of 6.951, much below Finland with a GNH score of 7.842. Nordic countries enjoy a GNH of 7 or more. China, with its second largest GDP of \$13.4 T (per capita \$10,500), has a GNH score of 5.399 and ranks 87th. This country's regimented socio-economic life is too well-known to require elaboration. So, should one assume that people who were polled in China value material prosperity much above the negative factor of their unfree restrained life? Or were there surveillance cameras monitoring the responses? Are those polled in India unconcerned about the freedoms they have in abundance and more affected by relatively lower material wellness? Or is the corruption in public life at the state and local governments in India so disgusting that those polled chose the lowest rung in the Cantrill ladder? It is also possible that the sample was not truly randomized and representative of the very diverse population, and/or the sample was too small in relation to population size and diversity, and so unrepresentative, thereby lessening the power of the statistical test. More to the point, what if the randomly (?) picked representative identifies oneself with India's political opposition?

Globally, Bharat's GDP ranks 5th largest (per capita \$ 1901), and more significantly, in terms of PPP, it is the third-largest economy. And yet, as stated above, in terms of GNH Bharat ranks with a score of 3.819 and a rank of 139 out of a total of 149 countries, way below other developing countries. (See WHR Map above.) Ironically, Bhutan (per capita \$ 3122), the country that started the world on Gross National Happiness in 1998, had a somewhat miserable ranking of 97. This is strange considering that Bhutan is "obsessed with happiness" with the Bhutan Happiness Commission forbidding anything that would

decrease happiness!⁵ Also, it is a majority Buddhist country, habituated to keep the 'Desire' denominator, at the lowest level, in the MC/D equation. But then, there is much critiquing of Bhutan's 1990s summary eviction from Bhutan of about one-sixth of its population who were not Buddhist but were ethnic Nepali Hindus who lived in Bhutan even as early as 1620s. The expulsion rendered about 100,000 persons refugees who had to be settled the world over. Upheavals such as this do not boost happiness. Even now missionary activity of Hindus constituting about a quarter of the population is not permitted.⁶

This paper urges exploration of some interesting correlations between material growth and happiness, and the composites of the GNH. What needs further discussion is whether the criteria, such as not being materialistic in a philosophical sense, can be tweaked. More critically, it raises the question of whether it is time that India paid attention to a construct like the HS, at least after ensuring the basics including education and health care to all its citizens. HS explores if high standards of living are possible at modest income levels, as becomes evident in Table 1. As noted earlier, in the case of countries like Bangladesh and Nicaragua, which have almost the same per capita income as Bharat, but have Happiness scores of 5.025 and 5.972 respectively, compared to 3.819 for Bharat. Similar examples are Brazil and the Philippines, both scoring much higher than India, but with per capita incomes not very much more than Bharat's. The world average Happiness score is 5.51.

Nicaragua has chronic poverty; there is a virtual absence of democratic freedoms; it has ceaseless conflicts; there is much inequality; it has more than its share of natural disasters and much corruption (Corruption Perception Index 17, and ranked 172) and drug trafficking. Some of these negatives are not common to Bharat, at least on such a scale. But if that is happiness in Nicaragua, what is misery? Even a high (Arthur) Okun Misery Index (Unemployment rate + Inflation rate), which is not relevant here, could then be really snug and cozy. This is a classic example of subjectivity bias, that WHR needs to avoid to the extent possible. The information that WHR uses perhaps, needs much winnowing to separate the grain from the chaff in information. An information colander with a fine mesh is the real need, rather than reconcile with a widely prevalent view. Either social scientists like us or a Government-appointed committee can come up with our own studies to measure Happiness Score for Bharat. This score can then be compared with WHR's.

As Fig. 3 shows, GDP correlates significantly with Happiness scores, with a correlation coefficient of 0.73 (P-value: 0.00004). When log values of GDP are used in the model, the GDP influence on GNH seems to come down. It is a moot point if for figuring the happiness score, assigning such a critical weight to GDP beyond creature comforts together with universal health care and education, is defensible. For two reasons this is the crux of the matter. First, with incomes of about \$2000, which is much more in terms of purchasing power parity (PPP) in countries like Bharat, almost all the population would not only be above poverty levels, but also be able to obtain education and health care. This is at a sustainable level of growth. Second, what is arguable is, whether from the perspective of sustainable growth, 'growth for growth's sake' can ever be rationalized. A

disproportionate focus on GDP, derived from herd instinct both at the micro and macroeconomic level, has resulted in a global GDP competitive struggle for power and influence. This is vitiating ecological and sociological factors with global warming, inhuman living conditions, and resort to unethical means to improve material wellbeing. Suggestions have been made by the UN and other institutions on how to deal with GNH, and over time, how to pitch more emphasis on GNH, instead of a complete focus on GDP.⁷ Such a shift of emphasis would require more exploration of factors that could create a healthy ambiance for happiness. These include the 8 items other than GDP shown in Table 2. A correlation matrix of the interaction between the different variables also needs to computed as shown below (Table 5) to get an accurate picture of the level of happiness. Here is an example from psychology.

Table 5 Correlation Matrix

	1	2	3	4	5
1. Acceptance, Reframing and Striving					
2. Family Support	.33	<u> </u>			
3. Religious/Spirituality	.13	.37	<u> </u>		
4. Avoidance and Detachment	.15	.02	.05	<u> </u>	
5. Private Emotional Outlets	.28	.34	.34	.29	

Source: Heppner et al., Journal of Counseling Psychology (2006)8

(Relationships can be bivariate (between two variables) or multivariate (among many variables). The number of such relationships can be quantified by the simple formula: Number of bivariate relationships = k(k-1)/2, where k is the number of variables. Thus, if there are 10 variables, the number of bivariate relationships = 10(10-1)/2 = 45. There can be 45 'r' data to contend with. If there are five variables, we would deal with 10 'r' data as shown above with five variables.)

The Parvenu Mind

With an increase in affluence, there is a larger likelihood of indulgences among the parvenus, which is about everyone. Prosperity makes it possible to buy antidotes to the weaknesses and morbidities that normally visit the prosperous, such as a craving for alcoholic beverages and addiction to drugs. This is a broad-brush picture. There is evidence to validate the hypothesis. Let's assume that increased screen time either with one's laptop or with one's smartphone is a direct consequence of prosperity. Studies show that elevated screen time is an addictive behavior that comes with steady (white-collar) jobs. Protracted screen time is no less an addiction than alcohol, sugar, or smoking. With increased screen time comes a preference for social isolation and even insensitive behavior for interruptions in screen time. Some of these conclusions are based on a study of a sample of 1897 adults (58 percent of whom were women) from whom information was collected about screen time such as television, cell phone, and computers during the COVID pandemic. They were also asked about consumption of alcohol, smoking, and sweetened foods. Some of the covariates were educational level, age, sex, a feeling of stress, anxiety, depression, and use of a screen device for physical activity. To adjust for covariates, binary logistic regression was used.9,10 The results of this study were as follows:

- a) Increased TV time was associated with increased desire to drink (OR = 1.46, 95% CI: 1.12; 1.89) and increased sweetened food consumption (OR = 1.53, 95% CI: 1.18; 1.99)
- b) Increase in computer use was negatively associated with consumption of alcohol (OR = 0.68, 95% CI: 0.53; 0.86) and sweetened foods (OR = 0.78, 95% CI: 0.62; 0.98).

- c) Increased cell phone time was associated with increased sweetened food consumption during the pandemic (OR = 1.78, 95% CI: 1.18; 2.67).
- d) Participants with increased time in the three devices were less likely to consume sweetened foods for ≥ 5 days per week (OR = 0.63, 95% CI: 0.39; 0.99) but were twice as likely to have sweetened food consumption increased during pandemic (OR = 2.04, 95% CI: 1.07; 3.88).

The HS algorithm has to address serious questions about lifestyles too to be more relevant.

Skid-row lifestyles are prevalent not only in Los Angeles, but in places like Kensington Avenue, Philadelphia, and in many streets of Mumbai and worldwide in mainly urban areas. This weakness for soft options in life shows the frustration of some sections of people with a lack of a driving purpose in life, besides the rat race in most walks of life. This could pressure them to choose a lower rung on the Cantrill ladder.

GDP - GNH Tradeoff

This paper is not espousing the toning down of the significance of GDP as a measure of the value of goods and services produced in a given geographical area during a point in time such as a year, month, or quarter. GDP and per capita income are key parameters. They are ballpark markers of standards of living. The profession needs to continue to employ GDP data, and its expenditure or income break up for economic data analysis. Concurrently refined happiness scores also need to emerge. Also, Ezra J. Mishan's (1967) "Costs of Economic Growth" challenging the 'religion of growth' calling for a holistic evaluation of collateral costs such as environmental damage deserves being factored into future GDP growth. The UN's 17 Goals for sustainable development by 2030 profile future economic growth.

It is inevitable that for times to come there will be dependence on GDP as a measure of the current level of economic activity. However, of late there are several reasons for coming up with a measure that captures some of the non-economic factors that talk about the well-being of nationals. It is well established that well-being or happiness is not a derivative of GDP or material progress though GDP undeniably contributes to it sizably. This fact adds weight to the argument that soon after a government has ensured the basics of life, it should withdraw active involvement in the economy and focus on just the macro variables like economic stability, inflation, fiscal and monetary policy, social justice, law and order, national defense and security, collective well-being and the like. There could be differences in the degree of involvement between those believing in limited government and those in socialist welfare.

Summary and Conclusions

The pursuit of happiness is adumbrated in the American constitution. In India, it is more than that: a daily collective prayer for everyone's happiness. When we say it is a pursuit, it is not a destination, but just that, a quest. It is also a state of mind that carefully looks at one's potentials, possibilities of attaining the potentials given one's physical, mental and emotional capabilities, and settling for a level of fulfilment and realization. But a majority of countrymen do not have the wherewithal to sit and meditate on these mundane issues either at a personal or collective national level. Many of us do not realize when to settle for contentment, or the

pleasure of happiness. Our Dharma extolls *Viragya* or detachment, not obsessing about any mundane matters. With these thoughts it is time to take a good critical look at GDP, which has been serving as a somewhat coarse indicator of economic progress. It ignores market failures and institutional failures. There is a real need to usher in a more holistic yardstick of societal progress that considers contentment, happiness, physical and mental health, and such related factors, despite inherent subjectivity and bias in measures such as GNH. The profession needs to bestow more attention to the components of GNH and reconcile. This would support a better understanding of where a nation stands in the march for civilizational progress, and not just in material attainment.

Footnotes

¹ Helliwell, J. F., Layard, R., & Sachs, J. D. (2023). The Happiness Agenda: The Next 10 Years. In World Happiness Report 2023 (11th ed., Chapter 1). Sustainable Development Solutions Network.

² Akerlof, George 2020 "Sins of Omission and the Practice of Economics." *Journal of Economic Literature* 2020, 58(2), https://doi.org/101257/jel.20191573

³ For related comments see *Stanford Encyclopedia of Philosophy at:* https://plato.stanford.edu/entries/bounded-rationality/#:~:text=Herbert%20Simon%20introduced%20the%20term,tailored%20to%20cognitively%20limited%20agents.

⁴ Steptoe A. et al (2005) Positive affect and biological function in everyday life, Neurobiology of Aging, Volume 26, Issue 1, Supplement, December 2005, Pages 108-112, accessed from https://www.sciencedirect.com/science/article/abs/pii/S0197458005002769

⁵ Oxford Poverty and Human Development Index (2021) Bhutan's Gross National Happiness Index accessed on August 21, 2021 from https://ophi.org.uk/policy/gross-national-happiness-index/

⁶ Wikipedia, Ethnic Cleansing in Bhutan, https://en.wikipedia.org/wiki/Ethnic_cleansing_in_Bhutan accessed Sept.10, 2021

⁷ Biermann, Frank (2017) Global governance by goal-setting: the novel approach of the UN Sustainable development Goals, www.sciencedirect.com. Accessed on Sept.10, 2021 from http://www.fsp.usp.br/pos/wp-content/uploads/2013/07/bierman-et-al_global-governance-by-goal-setting.pdf.

⁸ Heppner, P. P., Heppner, M. J., Lee, D.-g., Wang, Y.-W., Park, H.-j., & Wang, L.-f. (2006). Development and validation of a collectivist coping styles inventory. *Journal of Counseling Psychology*, *53*(1), 107–125. https://doi.org/10.1037/0022-0167.53.1.107

⁹ Nakshine VS, Thute P, Khatib MN, Sarkar B. Increased Screen Time as a Cause of Declining Physical, Psychological Health, and Sleep Patterns: A Literary Review. Cureus. 2022 Oct 8;14(10):e30051. doi: 10.7759/cureus.30051. PMID: 36381869; PMCID: PMC9638701

William RT et al Increased Screen Time Is Associated With Alcohol Desire and Sweetened Foods Consumption During the COVID-19 Pandemic, Frontiers in Nutrition 24 March 2021, https://www.frontiersin.org/articles/10.3389/fnut.2021.630586/full?utm_source=S-TWT&utm_medium=SNET&utm_campaign=ECO_FNUT_XXXXXXXX_auto-dlvrit