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RESEARCH ARTICLE

Happiness at the Macro Level: A Critical Discussion on the Compatibility of Different Indicators

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Abstract

This paper presents a critical discussion mainly based on the macro-level (societal) determinants of happiness by focusing on gender equality, gross domestic product (GDP) per capita, and countries' commitment to reducing inequality. The aim is to critically evaluate the compatibility of these components through the examples of happiest and unhappiest countries to arrive at conclusions regarding the importance of these means as a whole. Rankings based on these determinants reveal an apparent compatibility to exist for both ends of happiness with countries' gender equality, GDP per capita, and commitment to reducing inequality as well as gross national income (GNI) per capita (based on purchasing power parity [PPP]) and Gini coefficient. Exceptional cases are discussed based on their sociological and socioeconomic contexts. Further research has been determined to be needed that will examine happiness at the macro level using an inclusive multidimensional approach rather than only focusing on a single indicator, in particular by taking into account various means of inequality, primarily regarding gender, income, living standards/conditions as well as issues such as access to health, education, employment opportunities, and information, as parts of the broader concept.

Keywords: Happiness • Gender inequality • Income inequality • Economy • Subjective well-being

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The mechanisms through which individuals' and nations' happiness levels are determined are quite complex and at times controversial. While happiness clearly depends on individual circumstances and traits, studies on subjective well-being have shifted from adopting a micro-level to a macro-level approach over time since the 1990s (Li & Shi, 2019). Nikolova (2016) underlined human well-being to be a multi-dimensional issue and no single extensive indicator to be able predict the complicated consequences of different events in life or developmental processes. Underlining life satisfaction and happiness as separate concepts, Haller and Hadler (2006) found that micro-level components such as individuals' sociocultural integration are highly relevant for happiness, while macro-level determinants, which they specified as macrosocial, such as a nation's wealth, political freedom, welfare state regulations, and income distribution are also pertinent, especially for life satisfaction. Upon examining societal happiness, we could see that gender (in)equality (Audette et al., 2019; Organisation for Economic Co-operation & Development [OECD], 2012), GDP per capita (Abounoori & Asgarizadeh, 2013; Li & Shi, 2019), and inequality, especially in terms of income (Schneider, 2019) and mostly for those who are economically disadvantaged (Sommet et al., 2018), have all largely been found to be associated with well-being at the macro level. Hence, this paper provides a critical discussion and groundwork for further investigation into the relationship happiness has with gender equality, GDP per capita, and level of governments' commitment to reducing inequality and also briefly discusses PPP-based GNI per capita as well as countries' Gini coefficients in association with their happiness rankings.

Based on the rankings of the happiest and unhappiest countries using the World Happiness Report 2020 (Helliwell et al., 2020), the following section will critically evaluate the compatibility of the above-mentioned determinants and whether parallels exist among these indicators of happiness. The section will additionally discuss exceptions. Concepts such as happiness, quality of life, life satisfaction, and (subjective) well-being should be noted to not be synonymous and to have determinants that vary to different extents. Arguments are also found in the literature that underline happiness and well-being to be related but have different meanings (Raibley, 2012; Ruggeri et al., 2020). However, while happiness is the focus of this discussion, some of these concepts will also be presented throughout the paper in accordance with how they have been used in the examined literature.

Happiness' Compatibility with the Related Indicators at the Macro Level
Schimmel (2009) indicated happiness to be definable based on how individuals evaluate the overall quality of their life regarding the events and experiences they encounter and their living conditions, bodies, and brains. To be able to evaluate happiness at the country level for creating a global ranking, certain relevant criteria

need to exist. The World Happiness Report (Helliwell et al., 2020) focuses on the life evaluations of respondents (i.e., subjective assessments of their own well-being) in relation to the key components of GDP per capita, social support, healthy life expectancy, freedom to make life choices, generosity, and absence of corruption to explore the underlying explanations for differentiations in happiness patterns among countries over time. Table 1 demonstrates the 10 highest and lowest ranked countries (top and bottom 6.5% of the full list) presented in the World Happiness Report in comparison with their rankings in the Global Gender Gap Report (World Economic Forum, 2020), GDP per capita (World Bank, 2019a), and the Commitment to Reducing Inequality Index (Lawson & Martin, 2018).

Regarding the criteria for ranking gender equality, the Global Gender Gap Report (World Economic Forum, 2020) lists the following as the framework: economic participation and opportunity, educational attainment, political empowerment, health, and survival. GDP per capita is defined as "the sum of marketed goods and services produced within the national boundary, averaged across everyone who lives within this territory" (OECD, 2014, p.72). The Commitment to Reducing Inequality Index (Lawson & Martin, 2018) ranks governments in a global context concerning their efforts to deal with the gap between the rich and poor.

Table 1

Comparison of Happiness Ranking to Index Rankings for Gender Equality, GDP per Capita, and Commitment to Reducing Inequality

World Happiness Report (2017-2019) (153 countries in total)	The Global Gender Gap Index (2020) (153 countries in total)	GDP per capita (2019) (186 countries in total)	The commitment to reducing inequality index (2018) (157 countries in total)
Top 10	**Rankings**	**Rankings**	**Rankings**
Finland (happiest)	3	16	3
Denmark	14	11	1
Switzerland	18	4	33
Iceland	1	7	9
Norway	2	6	5
Netherlands	38	13	17
Sweden	4	14	7
New Zealand	6	24	27
Austria	34	15	4
Luxembourg	51	2	10
Bottom 10			
India	112	141	147
Malawi	116	185	87

Yemen	153	172	93
Botswana	73	82	83
Tanzania	63	161	107
Central African Republic	N/A	183	97
Rwanda	9	168	133
Zimbabwe	47	152	92
South Sudan	N/A	N/A	N/A
Afghanistan (the least happy)	N/A	181	127

Note: N/A means not available on the corresponding list for this table (Helliwell et al., 2020; World Economic Forum, 2020; World Bank, 2019a; Lawson & Martin, 2018).

Overall, Table 1 shows a high level of compatibility to exist between happiness rankings and the other indicators presented, both for the happiest and unhappiest countries. However, Rwanda stands out with a successful gender equality ranking despite being one of the unhappiest countries. Although there are paradoxes surrounding efforts toward women's empowerment (Berry, 2015), Rwanda is the world leader for the share of women in Parliament at 62% with its strong political commitment and has one of the highest female labor force participation rates in the world at 86% (Albert, 2018), and is regarded as a role model country in the former aspect (UN News, 2021). Rwanda's happiness ranking becomes plausible when considering that one of the determinants of happiness in the World Happiness Report is freedom, and this poses a challenge in Rwanda. Matfess (2015) stressed that the modern Rwanda government provides important levels of public services but exercises control over almost every aspect of society and referred to this as developmental authoritarianism. Ngamaba (2016) stated that freedom of choice and values alike predict happiness and life satisfaction in Rwanda, yet the former is still a problematic issue with the control the country has over life, and its repressive policies on restricting freedom have had a negative influence on many, especially the poorest (Dawson, 2018). Selin and Davey (2012) highlighted the issue of poverty and indicated that, despite progress, Rwanda remains one of the poorest countries in the world and heavily dependent on aid. Hence, despite women's involvement and leadership in Rwanda's post-genocide period, which largely contributed to gender equality and national reconciliation (Izabiliza, 2003), with the other social problems present there, Rwanda had fallen among the least happy countries by 2020.

The Global Gender Gap Index (World Economic Forum, 2020) demonstrates that half of the 10 happiest countries are also among the top 10 in terms of gender egalitarianism. This is an expected compatibility when considering that women and men become more satisfied with their lives when societies become more gender

egalitarian (Bjørnskov et al., 2007). Using four measures of gender equality (the Gender Empowerment Measure [GEM], the Gender Development Index [GDI], the Gender Inequality Index [GII], and the Gender Gap Index [GGI]), Audette et al. (2019) found that, as the level of gender equality increases, citizens' life satisfaction levels rise as well. Ferrant et al. (2017) stated that existing discrimination based on gender in social institutions causes a 4.4% decline in the average life satisfaction in the world and that diminishing this could help reduce the percentage of the global population that is unhappy from 14% to 5%. On a similar note, Kabene et al. (2017) pointed out that happiness appears to coexist alongside gender equality at the macro level. Therefore, this compatibility between nations' happiness levels and their level of gender equality at the macro level could be considered an anticipated outcome, as studies have widely demonstrated the influence gender equality has on happiness.

Table 1 reveals that four of the Northern European countries listed among the top 10 happiest nations are also among the most gender egalitarian. Scandinavian welfare states have been characterized by their focus on generous social benefits, especially those that support families. Esping-Andersen (1996) presented most of the Scandinavian countries to have adopted the social democratic welfare regime, in which family-related benefits endorse gender equality mainly in the job market, despite the arguments stating that the system creates gender segregation based on sector/position (Sanandaji, 2016). Family provisions can be indicated to have helped support women's work along the way in terms of providing equality, turning dual income into the norm, diminishing the differences between women's and men's life cycle employment behaviors, and decreasing the gender pay gap as well as female-headed household poverty, which has become relatively insignificant compared to other contexts (Esping-Andersen, 1996). Gornick (1999, pp. 228–229) indicated that, except for Norway, social democratic countries have the most equal rates for women's employment. Recent data has also demonstrated these countries' success with gender equality: OECD (2018) considers Nordic countries to be leaders in gender equality by referring to these countries having the smallest employment gap between women in the OECD context.

As can also be seen from Table 1, the most evident parallel with countries' happiness rankings is observable in their Commitment to Reducing Inequality Index, with seven out of the 10 happiest countries being among the 10 highest ranked on this list. Regarding the relationship between happiness and inequality, contradictory arguments are found in the literature from the perspective of income inequality in particular. Zagórski et al. (2010) referred to a negative outcome of equality by suggesting that the diffusion of resources such as education and income in society diminish their power to improve individuals' subjective well-being. Berg and Veenhoven (2010) found a small relationship between the happiness level of an average citizen and income inequality at the macro level: Only when they controlled for national wealth, they

detected a small positive correlation, with no correlation found between income inequality and inequality in happiness. Findings also tend to vary based on context and individual circumstances. Graham and Felton (2009) suggested that, in Europe and the United States, inequality seems to trigger mobility as well as opportunities as much as it corresponds to injustice, and while the wealthy persistently make the most of inequality in Latin America, the poor there have only disadvantages but no future opportunities unlike the other two contexts. Alesina et al.'s research (2004) demonstrated that the poor and the leftists in Europe are unhappy about inequality but found no association between happiness and inequality for these groups in the United States. García-Muñoz et al. (2019) stated that individuals' well-being decreases for countries with low opportunities, but not in countries with high opportunities such as inclusiveness and access to high quality education. At an individual level, Oishi et al. (2011) indicated that the negative association between income inequality and happiness was not found for higher-income respondents in their research but was observed for those with lower incomes. This was not due to lower household income but perceived unfairness and lack of trust. In terms of the presence of other variables that affect the relationship between income inequality and happiness, this finding somewhat parallels the argument from the World Happiness Report (Helliwell et al., 2020) on income inequality, which considers it to be an indicator too limited for determining the overall quality of life, as well as too limited for measuring overall inequality. However, although measuring both quality of life and inequality itself based on solely income discrepancies would be unrealistic, we need to consider the fact that income inequality is largely connected as a cause and result as well as a vicious cycle to other forms of inequalities such as access to education, healthcare, and even basic needs among others. In many cases, income inequality has negative consequences on individuals' well-being, as it also exacerbates most types of associated inequalities. Helliwell et al. (2020) also underlined that inequality of well-being is more effective at explaining average happiness levels compared to income inequality, although one could argue that these are somewhat related. They also stated that living in a society with less gaps in quality of life makes individuals happier, which again rather comprises the gaps in financial status.

To continue elaborating on the outcomes of inequality in relation to subjective well-being, Schneider (2019) observed income inequality to decrease self-perceived social status and, consequently, overall individual well-being in Europe. Sommet et al. (2018) similarly underlined that income inequality is found to affect the psychological well-being of those in scarcity. From a different perspective, Coccia (2018), after controlling for climate, stated socio-economic inequality in a country to have a negative effect on human behavior, leading to high levels of aggressive actions and violent crimes as a result of the unpleasant conditions and unhappiness derived from inequality. As is seen, the literature has differing arguments concerning the relationship between inequality, particularly for income, and subjective well-being. However, the rankings

clearly demonstrate quite a high level of compatibility between these two components in terms of inequalities both between and within countries, as will be seen further with the additional evaluation of Gini coefficients and the PPP-based GNI per capita ranking in the following sections. Still, when evaluating these different approaches toward the relationship between income inequality and happiness, we need to consider the latent determinants that might affect the dynamic between them, such as those presented in the World Happiness Report (Helliwell et al., 2020), one example being the absence of corruption. For example, countries with higher income inequalities are also found to have higher corruption levels (Brempong & Camacho, 2006; Mehen, 2013); this might decrease trust in government and be directly correlated with happiness levels, whereas income inequality may have an indirect association related to the levels of trust in government concerning the existence/absence of corruption.

As per countries' Gini coefficients, Yu and Wang (2017) highlighted the Gini coefficient and its quadratic term as significant determinants of personal happiness both in the United States and Europe. In the European dataset, they found that, when income equality is relatively low, individuals are happy as they perceive it as a sign of social mobility and expect upward mobility. Yet, they found in both data sets, when income equality exceeds a critical point, individuals are unhappy due to disappointment and jealousy toward wealthier peers. The Gini coefficients provided by the World Bank somewhat support the argument regarding the negative relationship between income inequality and happiness. While these values are not included in Table 1 due to no world-level data being available for the same years, World Bank data for Gini coefficient rankings from different years for most countries demonstrate a significant compatibility with their happiness ranking: seven out of 10 happiest countries, including all the Nordic countries on the list, have a Gini coefficient under 30%, and all the happiest 10 countries have a lower Gini coefficient (i.e., a more equal context) compared to any of the 10 least happy countries (World Bank, 2008-2017).[1] The unhappiest countries should also be noted to have Gini coefficients ranging from 36.7% to 56.2%, and considering that this measure indicates inequality, countries where the majority lives in poverty might exhibit lower levels of disparities.

Well-being is expected to be related to how individuals perceive as well as experience (in)equalities, as observed particularly in the compatibility between happiness and Gini coefficients of countries as well as the Commitment to Reducing Inequality Index, by taking the relative nature of happiness into account in the context of comparison

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1   Gini index (World Bank estimates): Finland (2017) = 27.4%; Denmark (2017) = 28.7%; Switzerland (2017) = 32.7%; Iceland (2015) = 26.8%; Norway (2017) = 27%; Netherlands (2017) = 28.5%; Sweden (2017) = 28.8%; New Zealand = N/A; Austria (2017) = 29.7%; Luxembourg (2017) = 34.9%; India (2011) = 37.8%; Malawi (2016) = 44.7%; Yemen (2014) = 36.75; Botswana (2015) = 53.3%; Tanzania (2017) = 40.5%; Central African Republic (2008) = 56.2%; Rwanda (2016) = 43.7%; Zimbabwe (2017) = 44.3%; South Sudan (2009) = 46.3%; Afghanistan = N/A. Please see https://data.worldbank.org/indicator/SI.POV.GINI (World Bank, 2008-2017).

theory (Veenhoven & Ehrhardt, 1995). In contrast with these components, GDP[2] reflects the wealth of a country but does not consider any kind of inequality within a nation (Chancel et al., 2014; Lashmar, 2018), and is considered merely as a means of economic activity rather than a standard of living (Lashmar, 2018), as higher levels also do not guarantee equality in a society. We also need to bear in mind that GDP as a whole does not always remain within a country when considering different processes, such as foreign-owned firms claiming their profit (OECD, 2016). In addition, an economically developed country could be left behind in GDP rankings compared to a less developed but densely populated country due to its low population. A good example of the large incompatibility between GDP and happiness ranking is India. As can be seen in Table 1, India also has the lowest Commitment to Reducing Inequality Index ranking among the unhappiest countries, despite being placed 5th out of 203 countries for GDP (World Bank, 2019b). Oxfam (2017) highlighted the inequality patterns in India by underlining that while inequality was rising, 73% of the wealth generated in 2017 had been acquired by the richest 1%, with the richest 10% having 77% of the national wealth (United Nations Development Programme [UNDP], 2013, p. 68). Also, intergenerational mobility is limited, which appears to lead to a prevalence of unequal opportunity (Dang & Lanjouw, 2018). Research has also shown that aggregate happiness levels in India would be expected to benefit from policies supporting the improvement of material standards and living conditions (Biswas-Diener et al., 2012). When considering the close relevance of happiness and equality, the case of India demonstrates that macro-level economic growth does not correspond to national level happiness in the presence of existing and growing inequalities. Sen (2020, p. xi) indicated, "That the Gross Domestic Product, or GDP, is a very crude indicator of the economic achievements of a nation is not a secret", and also underlined the Human Development Index (HDI) (Conceição, 2020) to provide a more robust set of criteria for understanding nations' development levels. The indicators for HDI are life expectancy at birth (Life Expectancy Index), educational components (Education Index: expected years of schooling and mean years of schooling), and GNI per capita (Income Index) (Conceição, 2020). The compatibility between happiness (for both happiest and unhappiest countries) and HDI rankings is indeed highly evident (see Appendix 1). Similarly, the 10 happiest countries are among the first thirty in terms of the PPP-based GNI per capita ranking (World Bank, 2019c), which refers to per capita values for GNI in international dollars that are converted using PPP[3] and corresponds to the comparative quality of living conditions for different countries.[4]

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2   GDP is the monetary value of final goods and services produced and bought by the final customer corresponding to all the outputs generated in a country over a given period of time (Callen, 2020).

3   Please see https://databank.worldbank.org/metadataglossary/africa-development-indicators/series/NY.GNP.PCAP.PP.CD

4   Please see http://hdr.undp.org/en/content/why-it-important-express-gni-capita-purchasing-power-parity-ppp-international-dollars

Finally, elaborating on the relationship between happiness and GDP per capita, Abounoori and Asgarizadeh (2013) referred to growth of GDP per capita and government expenditures as significant influencers of happiness. Mahadea and Kaseeram (2015) also indicated increasing happiness levels to be linked to economic growth at the macro level. On the other hand, Schimmel (2009) underlined wealth at the personal and/or national level to not necessarily correspond to greater well-being and happiness, with very complex correlations occurring once basics needs are satisfied. Easterlin et al. (2010) found higher levels of economic growth in GDP per capita to not lead to a higher increase in happiness levels in the long run, as found in his earlier work on developed (Easterlin, 1974) and developing countries (Easterlin et al., 2010); in the short term, however, happiness and income are closely related, which corresponds to the Easterlin Paradox. Studies contradicting the Easterlin Paradox are also found in terms of their arguments regarding the long-term nil relationship between economic growth and happiness (Li & Shi, 2019; Veenhoven & Vergunst, 2014). Easterlin et al. (2010) stated that critiques toward the Easterlin Paradox that refer to an existing long-term relationship between happiness and income derive from statistical issues or from confusing a short-term relationship with the long-term relationship. Easterlin (2017) added that using shorter time series or working with fewer observations might be among the reasons different findings are reached concerning the Paradox, as these decrease the chances to determine the long-term trends in happiness and GDP per capita. Li and Shi (2019) pointed out that, in line with the Easterlin Paradox, improved material conditions at the individual level can increase subjective well-being; however, contrary to the macro-level proposition of the Paradox, they found that regional economic development can also result in a remarkable enhancement of subjective well-being. Oishi and Kesebir (2015) argued that the Easterlin Paradox can be explained through the coexistence of economic growth and increased income inequality in general, and they referred to the redistribution of growth in national wealth as a determinant for increased happiness at the macro level. Regarding their former argument, Stewart and Moslares (2012) found an inverse relationship between inequality and growth in India, and argued that poor countries tend to display this inverse relationship unlike wealthy countries where a positive association exists between inequality and growth. For OECD countries, Causa et al. (2014) stated that higher inequality levels can additionally have a decreasing impact on GDP per capita. By all means, increasing levels of GDP per capita should be noted to not always correspond to an indicator of material well-being at the individual level, as governments to a certain extent obtain it for purposes such as starting sovereign wealth funds or paying debts, along with other uses governments and companies have, while households are also able to obtain income from other countries as in the case of interest from investments made abroad (OECD, 2016).

Conclusions

This paper has presented a critical discussion on happiness at the macro level from a sociological point of view and discussed the compatibility between countries' happiness and related components, namely their gender equality, GDP per capita, and Commitment to Reducing Inequality Index, as well as PPP-based GNI per capita and Gini coefficients. Happiness has an obvious compatibility with these components, apart from the few country examples as in Rwanda being listed among the unhappiest countries with one of the highest gender equality rankings. The high level of parallelism being apparent on both ends of the happiness ranking for all these indicators means that happiness is a holistic and multidimensional notion. A note on the incompatibility between happiness and GDP was presented through the example of India, which stood out as a highly ranked country in terms of GDP yet listed lower on the other rankings discussed in this paper.

When considering the limitations of this study, a further need exists for extended research on the relationship between happiness and associated macro-level components by means of comparative quantitative analyses using a multivariate approach. Other studies may also make use of the main sociological theories on happiness as a guide for the inclusive investigation of the issue at the societal level. The inclusivity of relevant determinants could be achieved by examining relativity corresponding to perceived inequalities, cultural differences, and living conditions/standards at an absolute level. Theories that could reinforce this investigation include those discussed in Veenhoven and Ehrhardt's work (1995) namely comparison theory, folklore theory, and livability theory. Comparison theory, an approach widely highlighted by Easterlin (1974) as well, states that evaluations of existing standards of life are perceived in comparison to the expectations of how it should or could possibly be relative to other people's circumstances, or own best and worst experiences. Folklore theory considers happiness as the sum of the broadly held notions of life as a part of a national character rather than the individual evaluation of life. Livability theory is based on the absolute quality of life and suggests better living conditions to create happier individuals without any point of reference.

The majority of indicators discussed in this paper can be concluded to not be competing but complementary concepts for understanding happiness at the macro level, and a more extensive evaluation of different means may assist in continuing to explore what makes nations happier by considering all of these concurrently. Further research examining happiness at the macro level would be expected to involve indicators of inequality such as gender, income, health, education, labor force participation, access to information, and living standards/conditions, as well as governments' efforts to reduce inequality and the impact of cultural determinants. In summary, based on the discussed indicators, this paper argues happiness to be a multidimensional notion in harmony with the factors that are able to affect it at the country-level based on citizens' subjective evaluations.

References

Abounoori, E., & Asgarizadeh, D. (2013). Macroeconomic factors affecting happiness. *International Journal of Business and Development Studies*, *5*(1), 5–22.

Albert, Z. R. (2018). *Gender equality strategy: UNDP Rwanda (2019-2022)*. United Nations Development Programme.

Alesina, A., Di Tella, R., & MacCulloch, R. (2004). Inequality and happiness: Are Europeans and Americans different? *Journal of Public Economics*, *88*(9-10), 2009–2042. https://doi.org/10.1016/j.jpubeco.2003.07.006

Audette, A. P., Lam, S., O'Connor, H., & Radcliff, B. (2019). (E)Quality of life: A cross-national analysis of the effect of gender equality on life satisfaction. *Journal of Happiness Studies*, *20*(7), 2173–2188. https://doi.org/10.1007/s10902-018-0042-8

Berg, M. C., & Veenhoven, R. (2010). Income inequality and happiness in 119 nations: In search for an optimum that does not appear to exist. In B. Greve (Ed.), *Happiness and social policy in Europe* (pp. 174–194). Edward Elgar Publishing.

Berry, M. (2015). When "bright futures" fade: Paradoxes of women's empowerment in Rwanda. *Signs*, *41*(1), 1–27. https://doi:10.1086/681899

Biswas-Diener, R., Tay, L., & Diener, E. (2012). Happiness in India. In H. Selin & G. Davey (Eds.), *Happiness across cultures: Views of happiness and quality of life in non-Western cultures* (pp.125–140). Springer.

Bjørnskov, C., Dreher, A., & Fischer, J. A. V. (2007). *On gender inequality and life satisfaction: Does discrimination matter?* (SSE/EFI Working Paper Series in Economics and Finance, No. 657). Stockholm School of Economics, The Economic Research Institute, Stockholm.

Brempong, K., & Camacho, S. (2006). Corruption, growth, and income distribution: Are there regional differences? *Economics of Governance*, *7*, 245–269. https://doi.org/10.1007/s10101-005-0008-2

Callen, T. (2020, February 24). *Gross domestic product: An economy's all*. Finance & Development. International Monetary Fund. https://www.imf.org/external/pubs/ft/fandd/basics/gdp.htm

Causa, O., de Serres, A., & Ruiz, N. (2014). Can growth-enhancing policies lift all boats? An analysis based on household disposable incomes. *OECD Journal: Economic Studies*, *2015*(1), 227–268.

Chancel, L., Thiry, G., & Demailly, D. (2014). Beyond-GDP indicators: To what end? *Iddri Study*, *4*(14), 1.

Coccia, M. (2018). Economic inequality can generate unhappiness that leads to violent crime in society. *International Journal of Happiness and Development*, *4*(1), 1–24.

Conceição, P. (2020). *Human development report 2020: The next frontier: Human development and the anthropocene*. UNDP. New York. https://www.undp.org/sites/g/files/zskgke326/files/migration/eg/hdr_2020_overview_english.pdf

Dang, H., & Lanjouw, P. (2018). *Inequality in India on the rise* (Policy Brief 6/18). UNU-WIDER. https://www.wider.unu.edu/sites/default/files/Publications/Policy-brief/PDF/PB-2018-6-Inequality-in-India-on-the-rise.pdf

Dawson, N. M. (2018). Leaving no-one behind? Social inequalities and contrasting development impacts in rural Rwanda. *Development Studies Research*, *5*(1), 1–14.

Easterlin, R. A. (1974). Does economic growth improve the human lot? Some empirical evidence. In P. A. David & M. W. Reder (Eds.), *Nations and households in economic growth (Essays in Honor of Moses Abramovitz*; pp. 89–125). Academic Press.

Easterlin, R. A., McVey, L. A., Switek, M., Sawangfa, O., & Zweig, J. S. (2010). The happiness–income paradox revisited. *Proceedings of the National Academy of Sciences*, *107*(52), 22463–22468. https://doi.org/10.1073/pnas.1015962107

Easterlin, R. A. (2017). Paradox lost? *Review of Behavioral Economics, 4*(4), 311–339.

Esping-Andersen, G. (Ed.). (1996). *Welfare states in transition: National adaptations in global economies*. Sage. https://dx.doi.org/10.4135/9781446216941

Ferrant, G., A. Kolev, & Tassot, C. (2017). *The pursuit of happiness: Does gender parity in social institutions matter? OECD Development Centre Working Papers, No. 337*. OECD Publishing. https://doi.org/10.1787/f7e0c69c-en

García-Muñoz, T. M., Milgram-Baleix, J., & Odeh-Odeh, O. (2019). Inequality and life satisfaction in low-and middle-income countries: The role of opportunity. *Societies*, *9*(2), 37. https://doi.org/10.3390/soc9020037

Graham, C., & Felton, A. (2009). Does inequality matter to individual welfare? An initial exploration based on happiness surveys from Latin America. In A. K. Dutt & B. Radcliff (Eds.), *Happiness, economics and politics: Towards a multi-disciplinary approach* (pp. 158–201). Edward Elgar Publishing.

Gornick, J. C. (1999). Gender equality in the labour market. In D. Sainsbury (Ed.), *Gender and welfare state regimes* (pp. 210–242). Oxford University Press.

Haller, M., & Hadler, M. (2006). How social relations and structures can produce happiness and unhappiness: An international comparative analysis. *Social Indicators Research*, *75*(2), 169–216. https://doi.org/10.1007/s11205-004-6297-y

Helliwell, J., Layard, R., Sachs, J., & De Neve, J. E. (2020). *World happiness report 2020*. Sustainable Development Solutions Network.

Izabiliza, J. (2003). The role of women in reconstruction: Experience of Rwanda. United Nations Educational, Scientific and Cultural Organization. http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/SHS/pdf/Role-Women-Rwanda.pdf

Kabene, S., Baadel, S., Jiwani, Z., & Lobo, V. (2017). Women in political positions and countries' level of happiness. *Journal of International Women's Studies*, *18*(4), 209–217.

Lashmar, H. (2018, 19 March). *The human development index – A better indicator for success?* United Nations Association. https://www.sustainablegoals.org.uk/human-development-index-better-indicator-success/

Lawson, M., & Martin, M. (2018). *The commitment to Reducing Inequality Index 2018: A global ranking of governments based on what they are doing to tackle the gap between rich and poor*. Development Finance International and Oxfam. https://oxfamilibrary.openrepository.com/bitstream/handle/10546/620553/rr-commitment-reducing-inequality-index-2018-091018-en.pdf

Li, L., & Shi, L. (2019). Economic growth and subjective well-being: analyzing the formative mechanism of Easterlin Paradox. *Journal of Chinese Sociology*, *6*(1), 1.

Mahadea, D., & Kaseeram, I. (2015). Micro and macro aspects of happiness and subjective well-being. In V. Adkins (Ed.), *Subjective well-being: Psychological predictors, social influences and economical aspects* (pp. 39–56). Nova Science Publishers.

Matfess, H. (2015). Rwanda and Ethiopia: Developmental authoritarianism and the new politics of African strong men. *African Studies Review*, *58*, 181–204. https://doi.org/10.1017/asr.2015.43

Mehen, M. A. (2013). *The relationship between corruption and income inequality: A cross-national study* (Master's thesis, Georgetown University).

Nikolova, M. (2016). *Happiness and development* (IZA Discussion Papers No. 10088). Institute of Labor Economics.

Ngamaba, K. (2016). Happiness and life satisfaction in Rwanda. *Journal of Psychology in Africa*, *26*(5), 407–414. https://doi.org/10.1080/14330237.2016.1208930

Oishi, S., Kesebir, S., & Diener, E. (2011). Income inequality and happiness. *Psychological Science*, *22*(9), 1095–1100.

Oishi, S., & Kesebir, S. (2015). Income inequality explains why economic growth does not always translate to an increase in happiness. *Psychological Science*, *26*(10), 1630–1638.

Organisation for Economic Co-operation and Development. (2012). *Closing the gender gap: Act now*. Author.

Organisation for Economic Co-operation and Development. (2014). *GDP per capita. Society at a glance: Asia/Pacific 2014*. Author. https://doi.org/10.1787/soc_aag-2014-7-en

Organisation for Economic Co-operation and Development. (2016, October 6). Statistical insights: What does GDP per capita tell us about households' material well-being? In *OECD Insights*. OECD Statistics Directorate.

Organisation for Economic Co-operation and Development. (2018, May). *Summary brief of "Is the last mile the longest? Economic gains from gender equality in Nordic countries*. https://www.oecd.org/els/emp/last-mile-longest-gender-nordic-countries-brief.pdf

Oxfam. (2017). *India: Extreme inequality in numbers*. https://www.oxfam.org/en/india-extreme-inequality-numbers

Raibley, J. R. (2012). Happiness is not well-being. *Journal of Happiness Studies*, *13*(6), 1105–1129.

Ruggeri, K., Garcia-Garzon, E., Maguire, Á., Matz, S., & Huppert, F. A. (2020). Well-being is more than happiness and life satisfaction: A multidimensional analysis of 21 countries. *Health and Quality of Life Outcomes*, *18*(1), 1–16.

Sanandaji, N. (2016). *The Nordic gender equality paradox: How Nordic welfare states are not only empowering women, but also (un)intentionally holding them back*. Timbro.

Schimmel, J. (2009). Development as happiness: The subjective perception of happiness and UNDP's analysis of poverty, wealth and development. *Journal of Happiness Studies*, *10*(1), 93–111.

Schneider, S. M. (2019). Why income inequality is dissatisfying—Perceptions of social status and the inequality-satisfaction link in Europe. *European Sociological Review*, *35*(3), 409–430.

Selin, H., & Davey, G. (Eds.). (2012). *Happiness across cultures: Views of happiness and quality of life in non-Western cultures*. Springer Science & Business Media.

Sen, A. (2020). Special contribution: Human development and Mahbub ul Haq. In P. Conceição (Ed.)*, Human development report 2020: The next frontier: Human development and the anthropocene*. UNDP. New York. https://www.undp.org/sites/g/files/zskgke326/files/migration/eg/hdr_2020_overview_english.pdf

Sommet, N., Morselli, D., & Spini, D. (2018). Income inequality affects the psychological health of only the people facing scarcity. *Psychological Science*, *29*(12), 1911–1921.

Stewart, R., & Moslares, C. (2012). Income inequality and economic growth: The case of Indian states 1980-2009-10. *Cuadernos de Economía*, *31*(SPE57), 41–64.

United Nations Development Programme. (n.d.). *Why is it important to express GNI per capita in purchasing power parity (PPP) international dollars?* http://hdr.undp.org/en/content/why-it-important-express-gni-capita-purchasing-power-parity-ppp-international-dollars

United Nations Development Programme. (2013, November). Income inequality. In *Humanity divided: Confronting inequality in developing countries* (pp. 63-113). Poverty Practice in the Bureau for Development Policy, UNDP. https://www.undp.org/content/undp/en/home/librarypage/poverty-reduction/humanity-divided--confronting-inequality-in-developing-countries.html

UN News. (2021). *Proportion of women parliamentarians worldwide reaches 'all-time high'*. https://news.un.org/en/story/2021/03/1086582

Veenhoven, R., & Ehrhardt, J. (1995). The cross-national pattern of happiness: Test of predictions implied in three theories of happiness. *Social Indicators Research*, *34*(1), 33–68.

Veenhoven, R., & Vergunst, F. (2014). The Easterlin illusion: Economic growth does go with greater happiness. *International Journal of Happiness and Development*, *1*(4), 311–343.

World Bank. (n.d.). Metadata Glossary: *GNI per capita, PPP (current international dollars)*. https://databank.worldbank.org/metadataglossary/africa-development-indicators/series/NY.GNP.PCAP.PP.CD

World Bank. (2008-2017). *GINI index (World Bank estimate)*. World Bank Development Research Group. https://data.worldbank.org/indicator/SI.POV.GINI

World Bank. (2019a). *World Development Indicators (GDP per capita (Current US Dollars))*. https://databank.worldbank.org/reports.aspx?source=2&series=NY.GDP.PCAP.CD&country=#

World Bank. (2019b). *Gross domestic product*. https://databank.worldbank.org/data/download/GDP.pdf

World Bank. (2019c). *Gross national income per capita 2019, Atlas method and PPP*. https://databank.worldbank.org/data/download/GNIPC.pdf

World Economic Forum. (2020). *Global gender gap report 2020*. http://www3.weforum.org/docs/WEF_GGGR_2020.pdf

Yu, Z., & Wang, F. (2017). Income inequality and happiness: An inverted U-shaped curve. *Frontiers in Psychology*, *8*, 2052.

Zagórski, K., Kelley, J., & Evans, M. D. (2010). Economic development and happiness: Evidence from 32 Nations. *Polish Sociological Review*, *169*(1), 3–19.

Appendix I
Comparing Happiness Ranking to PPP-Based GNI per Capita and the Human Development Index

World Happiness Report (2017-2019) (153 countries in total)	GNI per Capita Based on Purchasing Power Parity (2019) (192 countries in total)	Human Development Index (HDI) (2019) (192 countries in total)
Top 10	**Rankings**	**Rankings**
Finland (happiest)	21	11
Denmark	12	10
Switzerland	5	2
Iceland	13	4
Norway	7	1
Netherlands	14	8
Sweden	18	7
New Zealand	30	14
Austria	16	18
Luxembourg	4	23
Bottom 10		
India	131	131
Malawi	189	174
Yemen	N/A	179
Botswana	79	100
Tanzania	169	163
Central African Republic	190	188
Rwanda	176	160
Zimbabwe	168	150
South Sudan	N/A	185
Afghanistan (least happy)	173	169

Note: N/A means not available; namely, this table found no information on the corresponding list.
Sources: Helliwell et al., 2020; World Bank, 2019c; Conceição, 2020.