

Happiness as Life Satisfaction and Human Flourishing: An Economic Perspective

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幸福とは何か？ 収入、仕事、自己発現、達成感、平等感、健康など、心理学や経済学のデータを駆使しながら、この大きな問題に迫る。

Abstract

Happiness is achieved when the human person achieves his/her human flourishing (Sen, 2000), described as self-determination, self-realization, a life of virtue, the pursuit and lived experience of values, a fullness of life, also called the good life, a certain development as a person and a meaningful existence (Finnis, 1980). Basic human goods and values can be achieved and cultivated only through interaction with other people, through the mutual exchange of benefits, an engagement in society. This paper attempts to provide empirical evidence for such claims, with supporting literature from economics and psychology. First, a verification of the effect of the objective indicators of well-being such as the cognitive dimensions of human needs, i.e., income and the human development index shall be performed, and, second, an explanation of happiness as human flourishing including social comparisons, an evaluation of life based on their relative perceptions of others would be performed. The results show, using ordinary least squares, that although happiness is explained by objective measurements of needs gratification, and, subjective variables describing social comparisons, appraisals and affective experience, persons evaluate their life based on information which have an enduring effect, that is achieved and stabilized with time. Life satisfaction may be evaluated from the angle of contentment for one's current income situation, one's level of needs gratification, and later on, one's capacity to act freely.

Keywords happiness, human flourishing, basic needs, income aspiration, economic freedom

Introduction

An individual's judgment of well-being is affected by their perception of income relative to the income of others, their quality of living relative to that of others, as well as their freedom of movement such as their ability to trade, make business deals, obtain employment, exercise their civic rights and fulfill their duties, as well as their capacity to own property or assets. Aspirations for higher income may lead to

a lowering of one's evaluation of life satisfaction. Due to the process of hedonic adaptation, or the person's capacity to adapt to one's current well-being status, however, income aspirations may increase with current income. Individuals, through time, achieve a more realistic view of their income levels and thus become satisfied with the income they currently have even if they would have aspired for a higher level in the past. People's perceptions of their

income are partly formed by social comparisons. Our level of satisfaction over our income depends on what we see around us. We compare ourselves to our neighbors, friends, colleagues, to a reference group, or as to how we perceive ourselves in the social hierarchy. These observations can be verified using longitudinal studies of subjective well-being and its relation to subjective income evaluations.

However, the anchoring of one's perceptions is based not only on subjective valuations of others. It is also based on objective information such as capabilities or functionings: the ability to exercise one's rights, the ability to communicate one's views, the capacity to obtain education and to improve one's standard of living. Although a person's valuations of one's economic, social and political environment may be limited by the amount of knowledge and information that is made available to everyone, it is possible to explain life satisfaction and happiness using a combination of variables which indicate objective and subjective well-being.

In this study, cross-section data will be used, and thus, only a country average of objective and subjective indicators of well-being will be included in the analysis. The impact of income perceptions, as well as objective income data, will be done on life satisfaction. Differences in the sensitivity of various human-development levels grouped or differentiated across countries shall be done in order to verify the tendency to evaluate life satisfaction, income, capabilities and freedom from social comparisons. Time series analysis cannot be employed in the methodology due to the absence of a complete time series of the variables across the countries included in the study.

The study aims to achieve the following. First, it aims to empirically verify the effect of the cognitive dimensions of human needs, along with the gratification of basic needs. Second, it aims to explain happiness as human flourishing, using objective and subjective indicators of well-being. All objectives would combine the affective and cognitive dimensions of a person's life evaluation. Cross-section

data on life satisfaction, over-all happiness, measurements of basic needs gratification and freedom for the 169 countries included in the Human Development Report 2010, World Values Survey and the Gallup World Poll, will be used.

The literature on happiness research is vast even from the angle of cross-country comparisons of happiness. Focus shall be placed on the effect of subjective income valuations or assessments on happiness and life satisfaction. The relevant literature shall be discussed along with the articulation of the framework.

Theoretical Framework

The capability approach is a strand in welfare economics that focuses on "freedom to promote valuable beings and doings" rather than on "utility" in the sense of "income, commodities, or people's happiness." The capability approach builds on the work of Sen (2000).

Quality-of-life and human flourishing have been main policy goals, thus, an appropriate assessment and measurement of these factors are essential for human development. As a consequence, research on happiness and life satisfaction has focused on a clarification of the happiness approach to incorporate the capabilities approach and quality-of-life research into subjective well-being. (Veenhoven, 2000)

In quality-of-life research, this capability approach is often contrasted with the 'happiness approach' of which Diener (1999) and Veenhoven (1984) are representatives. The present study follows the theoretical and empirical methodology established by Deiner and Veenhoven (Veenhoven, 2000) and Rojas and Veenhoven (2011) in the measurement and analysis of life satisfaction. The anchoring of empirical observations by Deiner and Veenhoven into the mainstream economics literature shall be supported by the writings of Easterlin (1995, 2001) Rablen (2008), Drakopoulos (2008) and Bruni (2007a, 2007b).

Mainstream economics makes use of cardinal

utility when making social comparisons. Social comparisons arise from a concern for a ranked position in the income distribution. Self-comparison generates a process of adaptation to income over time (Rablen, 2008). However, more recent events have a greater effect on one’s contextual view of life, i.e. patterns of human survival and freedom. This would have an effect on a person’s evaluation of life. One’s utility from income then becomes contingent on a reference point, i.e. one’s income level over a prolonged period but relative to the over-all income level of a reference group (Rablen, 2008). The reference contingency of income is not arbitrary but is based on an objective view of income. It is related to objective measurements of inequality and deprivation, which are referenced or subjected to one’s income group. But inequality and deprivation are concepts which hinge not only on one’s income level but are also supported by objective measurements of development as well.

Thus, if the utility from income is reference-contingent and this reference contingency is hinged on objective measurements of income and development, then, one’s adaptation to life’s events would be evaluated from integrative notions of one’s income status. Subjective evaluations of income may explain one’s life satisfaction level, only as part satisfaction or contentment. But happiness, which views life satisfaction as a whole, which is enduring, would be hinged on more consistent and stable measurements of income.

a. The Psychology of Happiness

The succeeding discussion focuses on the conceptual articulation of Veenhoven on how quality-of-life and capabilities enter into subjective well-being research (Veenhoven, 2000).

The term ‘capability’ denotes chances for a good life, rather than the outcomes of life. Sen’s basic idea was that developmental policy should focus on *opportunities* for improving one’s lot rather than on the economic *outcomes*. The word ‘capability’ in Sen’s work refers to ‘being able’, typically being able to improve

one’s situation. Freedom from external restraints belongs in the top-left quadrant of Table 1, while the personal competency to use environmental chances belongs in the top-right quadrant. In Sen’s work, the emphasis is in the top-left quadrant, in particular where he argues against discrimination. Yet he also highlights education, which is an individual quality.

Under this scheme of denoting capabilities, satisfaction belongs to a person’s inner qualities which has life results or outcomes. Veenhoven (2000) distinguishes between satisfaction with parts of life and satisfaction which life-as-a-whole. Several terms are used in the discussions about satisfaction. What shall be articulated are passing satisfaction, part-satisfaction, peak experience, and, life satisfaction. (See Table 1)

Table 1 Four Kinds of Satisfaction

	Passing	Enduring
Part of Life	Pleasure	Part-Satisfaction
Life-as-a-whole	Peak Experience	Life-Satisfaction (Happiness)

Source: Veenhoven (1984, 2000, 2010)

Passing satisfaction with a part of life is called pleasure. Pleasures can be sensoric, such as a glass of good wine, or mental, such as the reading of this text. The idea that we should maximize such satisfactions is called ‘hedonism’. Part satisfaction refers to an enduring satisfaction with a part of life, also called domain-satisfaction when it concerns a field of life, such as work or marriage, and ‘aspect-satisfaction’ when it concerns a facet of life, such as its variety. Life satisfaction refers to enduring satisfaction with one’s life-as-a-whole and is also commonly referred to as ‘happiness’ or ‘subjective well-being’. (Veenhoven, 1984) In this paper, emphasis shall be placed on life satisfaction as enduring and which views life-as a-whole. The measurement, however, involves two types: life satisfaction as contentment, and, life satisfaction as best-worst, hereon called over-all happiness.

This view of happiness is analogous to the Aristotelian *eudaimonia*, or the person’s quest for the

good life, the quest for a life that practices human and civic virtues. The process of achieving this goal, as well as its final achievement, enables one to reach happiness. (Bruni 2007a, pp. 30-33).

b. The Economics of Happiness: Learning from Psychology

Linking capabilities with life satisfaction would mean that one has to know what capabilities and the exercise of freedom are required for leading a satisfying life. In that context the concern is neither with short-lived pleasures nor with incidental peak experiences. Likewise, satisfaction in particular domains of life does not denote a satisfying life, i.e. not high job-satisfaction if that goes at the cost of low satisfaction with family life.

When an integrative view of happiness is taken into consideration, then, one is eventually looking at happiness as human flourishing, or over-all happiness, not only life satisfaction as contentment. The consideration of happiness and life satisfaction as enduring and integrative is consistent with the tendency for individuals to consider quality of life. But an individual's evaluation of life is primarily based on income, both relative and absolute. Absolute income refers to one's capacity to earn above the income threshold in order to earn a decent living. Relative income, on the other hand, is evaluated according to environmental influences, for example, aspiring to have an income level that would allow a comfortable lifestyle, like that of one's peers, and be affordable (Veenhoven, 1991). The income aspiration hypothesis, as related to life satisfaction, conveys that individuals with high-income aspirations tend to underestimate their level of life satisfaction. Such individuals tend to lower their current levels of happiness when asked to evaluate their life satisfaction (Stutzer, 2004). Although persons may have income aspirations, individuals are capable of adapting to their environment. Pleasures, peak experiences and part satisfaction influence one's outlook and aspiration. All these are lived based on one's current level or standard of living. Thus, income

aspirations and adaptation, also called hedonic adaptation, both influence one's life assessment or life satisfaction. Lastly, people's aspirations are also formed and influenced partly by social comparisons. The greater the inequality in income, the greater the tendency of an individual to be happy when one is living at an income level that allows the minimum of needs satisfaction or fulfillment.

In discussing subjective well-being, however, authors are cautious regarding the stability or consistency of responses brought about by hedonic adaptation. Self-reports of happiness may contain errors as regards judgments on life. The current study hinges on the capacity of the human development index to allow an objective anchoring of subjective life valuations. Consistency in responses need not denote prolonged bias over life views when correlated to normative measurements of well-being (Comim, 2005). Normative views, then, on survival, health, education and autonomy or freedom would combine well to explain subjective valuations of life, as they are based on objective and economically measurable human needs.

Based on these insights, a relationship between life satisfaction, income aspiration, hedonic adaptation, capabilities, freedom and social comparisons shall be established, aside from the traditional variable, income, used to explain life satisfaction. Three propositions shall be formulated, taken from Stutzer (2004) and Drakopoulos (2008).

First, individual judgments of well-being are affected by their aspiration level over and above the effect of income and other individual characteristics. According to aspiration level theory, high income aspirations lead to a lower rate of subjective well-being or satisfaction, if current income is lower than the aspired income level. The conditions provide the essence of the hierarchical approach to life satisfaction. Income has a positive effect on life satisfaction. The implication indicates that income does not provide the same rate of satisfaction once a given income level has been reached, although it continues to have a positive effect (Drakopoulos, 2008). Once

basic needs are met, income ceases to be the most important variable to explain life satisfaction.

Second, due to processes of hedonic adaptation, people's income aspirations increase with their income and are thus positively dependent on their past income. Among the individual characteristics to control for income are variables measuring constitutive characteristics of the individual such as capabilities and economic freedom.

Third, people's income aspirations are partly formed by social comparisons. They build their aspirations based on a relevant others: their friends, community, or nation. It is to be expected that a higher average income level in a community is pushing up an individual's aspiration level and that this effect is larger for people who actively interact with other members of the community.

The three concepts of income aspiration, hedonic adaptation and social comparisons, economic concepts which have been enriched by the writings of Deiner, et al (1999), Kahneman and Veenhoven (1991), affect satisfaction and happiness from the angle of a cognitive evaluation of life experiences, in the language of psychology and sociology. In this sense, happiness is viewed as an overall evaluation of life, and, affective and cognitive appraisals constitute the hedonic aspect of affect and contentment (Veenhoven, 1984, 1991, 2009 and Veenhoven, et al, 2011).

One's over-all appraisal of life is anchored not on arbitrary mental constructs, which are variable. Rather, one's life appraisal is formed by innate needs, values and life direction or purpose. Needs and values are influenced by culture, but, are also formed by the person's capacity to determine what is good for oneself. Such appraisals, norms or standards are invariant; they are lasting. (Veenhoven, 1991)

Hedonic experiences interact with the objective and subjective goods which happen in life, and enables the person to judge the conditions which enables one to interact and respond to the demands of human nature. Needs have to be suf-

ficiently satisfied so as to enable persons to live as human beings. If the minimum of one's needs are being met, people feel good and on that basis tend to judge their life positively (Veenhoven, 1991). As a consequence, individuals adapt to the environment and one's evaluation of life in terms of happiness or satisfaction becomes consistent over a long period. The consistency of evaluations of life may evolve and change through time, but the change is a result of the person's judgment of their own well-being, i.e. psychological view and moral sphere. But the importance placed by the respondents on autonomy and self-determination in their life evaluations show that objective constituent factors explain happiness. Commitment to a set of goals provides a sense of personal agency and a sense of structure and meaning to daily life (Deiner et al, 1999).

The satisfaction of basic needs is only a necessary condition, it is not a sufficient condition for happiness. The methods of economics, psychology and sociology can only formulate the necessary conditions for happiness. These sciences do not claim to explain happiness in the fullness of its meaning.

The claims on happiness are valid even when we consider the happiness levels of nations. For example, The Philippines scored higher in terms of life satisfaction as contentment and over-all happiness than Bulgaria, even though Bulgaria has more than double the per capita gross national income of Php 4,002 of the Philippines as of 2008 (See Table 2). Bulgaria also has a lower level of income inequality, a higher level of economic freedom, and a higher level of human development than the Philippines, but RP's life satisfaction and over-all happiness score from 2006 to 2009 is significantly higher than Bulgaria, a country forming part of the high income and high human development set of nations. On the other hand, Bangladesh, a country whose life satisfaction and over-all happiness score is slightly higher than the Philippines, has only a third of RP's per capita gross national income, belongs to the low income and low HDI set of countries, has a much higher income inequality index, and a lower level of

economic freedom index than the Philippines.

Inclusive economic development results from the achievement of easy access especially to the lower income strata of basic needs and secondary needs. There is no assurance, on the other hand, that the achievement of such secondary needs would bring an increase in happiness. Thus, happiness is achieved when individuals in a society achieve basic needs, but, a further improvement in income and therefore a demand for luxuries and non-basic goods and services, do not necessarily further increase happiness (Drakopoulos, 2008). Bruni (2007a, 2007b) argues that social or interpersonal relationships, friendship, the development of trust in the market economy, all bring about greater happiness in countries with higher income than the mere gratification of basic needs.

The above-mentioned tenet can only be shown empirically. Mainstream economics, to date, still does not provide a formal mechanism to show how the gratification of basic needs and the satisfaction of secondary needs translate into happiness. Neoclassical economics has translated happiness to merely a matter of preferences and non-quantifiable value judgments. Due to the logical positivist foundations of rational choice theory, preferences or choices that would lead to happiness have been reduced to sentiments, and sentiments are non-scientific or irrational. This conceptualization of happiness is contradictory

to the Cambridge tradition of viewing happiness as goal-oriented, *eudaimonia*, more akin to human flourishing, the pursuit of virtue. Psychologists and sociologists, on the other hand, have developed a view of rationality which connects affect and cognition to economic decision-making. Their findings are being accepted and tested by behavioral economists in order to verify the assumptions behind choices thereby enriching the conceptualization of economic rationality. (Bruni, 2007a, 2007b)

Empirical Methodology

An attempt to estimate the individual’s assessment of happiness, based on the methodology formulated by Rojas and Veenhoven (2011). Veenhoven (1984, p. 22–32), distinguishes between ‘overall’ happiness and ‘components’ of happiness, assuming that the latter function as ‘sub-totals’ in the overall evaluation of life. Overall happiness is defined as “the degree to which an individual judges the overall quality of his life-as-a-whole favorably.” Over-all happiness can be categorized into two components: hedonic level of affect and contentment.

In the hedonic level of affect Veenhoven (2009) states that we experience different kinds of affects: feelings, emotions and moods. We typically estimate the pleasantness in feelings, in emotions, as well as in moods. Veenhoven (2009) calls this ‘hedonic

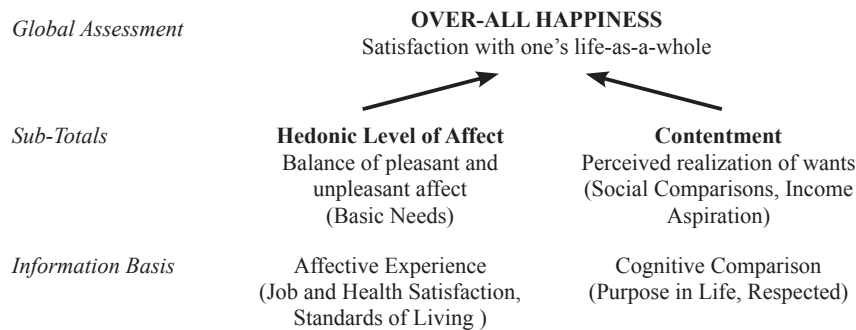
Table 2 Comparison of Selected Countries

	Life Satisfaction as Contentment	Over-All Happiness	Real Gross National Income per Capita (2008)	Human Development Index	Non-Income Human Development Index	Gini Coefficient 2000-2010	Economic Freedom Index
Norway	8.1	7.5	58,810	0.94	0.95	25.8	68.80
Australia	7.9	7.4	38,692	0.94	0.99	35.2	81.68
Bulgaria	4.4	3.8	11,139	0.74	0.80	29.2	63.48
Brazil	7.6	6.4	10,607	0.70	0.73	55.0	57.12
Thailand	6.3	5.9	8,001	0.65	0.68	42.5	63.24
Philippines	5.5	4.7	4,002	0.64	0.73	44.0	56.28
Indonesia	5.7	4.9	3,957	0.60	0.66	37.6	53.44
India	5.5	5.5	3,337	0.52	0.55	36.8	53.68
Zimbabwe	2.8	3.5	176	0.14	0.47	50.1	27.82

Source: Human Development Report 2010, World Values Survey, Gallop World Poll

level of affect’ and this concept fits the above-mentioned ‘affective’ definitions of happiness. Contentment is another component of over-all happiness. Most adults evaluate their life with the use of reason and compare life-as-it-is with notions of how they want life-to-be. The degree to which an individual perceives his wants to be met is called ‘contentment’ by Veenhoven and this concept equals the above mentioned ‘cognitive’ definitions of happiness. This concept presupposes that the individual has developed some conscious wants and has formed an idea about their realization (See Figure 1). The operationalization of these psychological concepts, are summarized in Table 3. The presupposed empirical consequences are not fixed as the individual’s behavior may vary depending on the substrate, i.e. human nature and culture.

Now that the concept of happiness has been defined, the operationalization of one’s evaluation of life shall begin by using a robust estimator for life satisfaction, the 11-scale life satisfaction measurement (i.e. life satisfaction as contentment, and, over-all happiness using the Cantril ladder scale developed by Cantril, 1967), objective indicators of well-being such as the human development index and the gross national income per capita, and, subjective measurements of family income such as the inequality of income index (perceptions or subjective measurements of family income) shall be used along with selected subjective well-being measurements such as the experience of respect, social support, having a purpose in life and improvements in the standard of living, as reported in the Gallup World Poll. The matching of such indicators with the



Source: Veenhoven (2009)

Fig. 1 Happiness and its Components

Table 3 Explanation of Over-all Happiness and its Components

Concept	Definition	Empirical Consequences
Over-all Happiness	<ul style="list-style-type: none"> The degree and attitude to which an individual judges the overall quality of his life-as-a-whole, drawing on different sources of information, called ‘components’ of happiness. 	<ul style="list-style-type: none"> How well we live up to standards of the good life, how well we feel affectively.
Hedonic level of Affect	<ul style="list-style-type: none"> Feelings, emotions, moods, with its different dimensions: active–inactive, and, pleasant–unpleasant (‘hedonic tone’). Assessment is in terms of pleasantness in feelings, emotions, moods. 	<ul style="list-style-type: none"> Does not presume subjective awareness of an average level. One can feel good most of the time, without being fully aware of that.
Contentment	<ul style="list-style-type: none"> Evaluate their life with the use of reason and compare life-as-it-is with notions of how they want life-to-be. 	<ul style="list-style-type: none"> Presupposes that the individual has developed some conscious wants and has formed an idea about their realization

Source: Veenhoven (2009)

variables are presented in the following table. (See Table 4)

Due to the possible bias that can occur when relating the components of happiness with over-all happiness and contentment, the study makes use of objective indicators of needs gratification. The use of objective indicators allows the identification of a benchmark, with the use of a robust indicator such as income per capita and the non-income human development index, when comparing evaluations of happiness across countries. The interrelationships among the variables will result to a formulation of happiness that is strengthened by the use of all the variables chosen to characterize human flourishing.

Now that the variables used in the study have been defined and operationalized, the hypotheses to be tested can be formulated.

Hypothesis 1. Life satisfaction (contentment) and over-all happiness can be explained by the gratification of basic needs and by the cognition of one’s life satisfaction relative to society.

The cognition of life satisfaction, usually through a comparison of one’s income relative to society, can be explained by income aspiration, the perception of inequality, and one’s reflected appraisal of society such as having respect for others, having a purpose in life and the presence of social support networks.

Income aspiration is affected by social comparisons, and therefore adjusts relative to one’s standing or position in relation to others. Through time, the assessment of one’s life satisfaction adapts to the environment and becomes stable.

The first hypothesis intends to capture the effect of variables indicating human flourishing, i.e. income, the non-income human development index as well as subjective measurements of well-being from the World Values Survey and Gallup World Polls which explain the effect of social constructions such as percentage of population having a purpose in life, are respected, have a social network, and social comparisons such as income aspirations and income inequality.

These variables shall be regressed on both measurements of happiness. All the explanatory variables indicating social construction are expected to have a positive sign when regressed with life satisfaction (contentment) and over-all happiness as dependent variables. The signs of the income inequality variable and the income aspiration variable are expected to be either positive or negative depending on the HDI level.

Countries with a higher level of income and human development would experience lower levels of income inequality indexes (perceptions of

Table 4 Variables used in the Regression

Life Satisfaction (LS)	Over-all Happiness (Life satisfaction as best-worst averaged from 2006 to 2009) and Life satisfaction (contentment, averaged from 2006 to 2009). These indicators were obtained from the World Values Survey
Non-Income HDI (NINCHDI)	Non-Income Human Development Index (HDI) for 2010. This variable captures the effect of the gratification of basic needs to life satisfaction.
Real Gross National Income per Capita (INCOME) and the Inequality of Income	Logarithm of gross national income per capita for 2010, obtained from the UNDP Human Development Report for 2010. The Inequality of Income Variable used is the GINI Coefficient averaged from 2000 to 2010.
Economic Freedom Index (EFI)	Economic Freedom Index averaged from 2006 to 2010. The compounded growth rate of the economic freedom index from 1995 to 2010 shall also be included to incorporate the effect of sustained levels of economic freedom for some countries, obtained from the 2011 Economic Freedom Index published by the Heritage Foundation, Inc.
Subjective Well-Being (SWB)	Subjective well-being indicators: (Indicators of reciprocity: percentage of respondents who perceive that there is respect of persons in society, have social support networks and have a purpose in life); standard of living, job, personal health satisfaction and negative experience. Income aspiration variable, hedonic adaptation variable (uses the compounded growth rate of the economic freedom index from 1998 to 2010, and, the life aspiration variables) all which are expected to be positive and significant for high HDI countries

income inequality) than countries which have a lower income level and human development index. Income inequality and income aspiration are expected to have a negative and positive correlation, respectively, with life satisfaction (contentment) and over-all happiness for countries with a high HDI. When individuals realize that their current income is the same, or, is above their aspired-for income, then, the income aspiration variable would have a significant positive correlation with life satisfaction (contentment) and over-all happiness.

For countries with a moderate to low level of development, the need to gratify basic needs and to have a life sustaining income may be a priority in order to achieve happiness. Thus, the income inequality may not even be significant. However, the knowledge that one's current level of income is below one's aspired-for income would mean that income aspiration has a significantly negative correlation with life satisfaction (contentment) and over-all happiness.

The relative valuations of the responses shall be incorporated in the same regressions made by HDI level: medium to low (HDI level less than 0.68) and high to very high (HDI level greater than or equal to 0.68).

Hypothesis 2. Life satisfaction (contentment) and over-all happiness increase when other variables which incorporate affective experience, adjustment of standards, and, the inclusion of basic and constitutive needs such as economic freedom, all of which characterize human flourishing, are included.

The basic claim of this analysis is that economic freedom and autonomy freedom complement each other in the enhancement of an individual's well-being. For a given level of autonomy freedom, the probability of greater well-being is higher for individuals who live in countries with a higher level of economic freedom and lower for individuals who live in countries with a lower level of economic freedom. Also, given increase in autonomy freedom has a larger impact on well-being in countries where

economic freedom is lower and a smaller impact on well-being in countries where economic freedom is higher (Bavetta et al, 2011). Thus, we can expect that the economic freedom index averaged from 2006 to 2010 is expected to have a higher coefficient value for high HDI countries in comparison to the coefficient of the model for medium to low HDI countries.

The inclusion of other subjective well-being variables which incorporate affective experience such as job, standard of living and personal health satisfaction, and, the experience of something negative, garner a more robust explanation of over-all happiness and contentment. Only the negative experience variable is expected to be negative, while the other variables are expected to be positive.

Aside from affective experience, another variable, under social construction, a cognitive variable, is hedonic adaptation. This signifies that through time, that is, a prolonged experience of economic freedom and the gratification of basic needs, countries become happier or more contented, even with the onset of negative experiences. This means that countries with high HDI, who also have a positive growth rate for economic freedom, basic needs, income and income aspirations, as well as the social comparison and social construction variables all have greater explanatory power than for countries with low to medium HDI. Cross-section data shall be used across 169 countries included in the Human Development Report.

The cardinalized nature of the life satisfaction measurements enables one to perform robust statistical tests on the factors explaining one's valuation of happiness and life satisfaction. The study uses ordinary least squares regression, corrected for inherent variations or differences, which are non-random, in life evaluations across countries or heteroskedasticity, in order to determine the explanatory power of the selected variables to life satisfaction. The presence of a difference in income perceptions by human development level, that is, grouping the countries into low to medium human development index, and, high to very high human development index is deter-

mined using the Chow Breakpoint test, an empirical method which tests whether dividing the data set into two groups: high and very high HDI versus medium to low HDI would incur significantly different regression results. Appropriate tests shall be used in order to determine the validity and difference of the coefficients resulting from the regressions for both groups of countries.

Results of the Study

The results of the study are presented using the three hypotheses formulated.

Hypothesis 1. Life satisfaction (contentment) and over-all happiness can be explained by the gratification of basic needs and by the cognition of one’s life satisfaction relative to society.

Both sets of regression results for contentment and over-all happiness show that obtaining higher income, the gratification of basic needs, the fulfillment of an income level that goes beyond one’s aspired for income, the cognition that one’s human development and income level is higher or better than society as a whole, and one’s appraisal of society’s values: having a purpose in life, respect and the presence of social support networks all increase one’s happiness level. All these variables have a significant level of explanatory power for high HDI countries. The conjecture that once a country achieves an income level that goes beyond the

aspired for income and has experienced many years of basic needs gratification, then such a society is more able to appreciate values in relation to one’s social environment. Thus, the greater the number of persons who have a purpose in life, are respected and have social support networks, the greater is their over-all happiness level. (See Table 5)

The explanatory power of the model with the inclusion of social comparison and constructs significantly increased, except for the medium to low HDI countries. Even the expected sign for the income aspiration variable for high vis-à-vis medium to low HDI countries are empirically verified. The results show that interrelationships, though made only on the basis of social comparisons and constructs, have a greater capacity to explain the happiness of nations. However, other variables will be needed to explain the over-all happiness level of medium to low HDI countries.

Hypothesis 2. Life satisfaction (contentment) and over-all happiness increase when other variables which incorporate affective experience, adjustment of standards, and, the inclusion of basic and constitutive needs such as economic freedom, all of which characterize human flourishing, are included.

The indicators which explain need-satisfaction, social construction, comparison, reflected appraisal and affective experience have all contributed to

Table 5 Basic Needs, Income and Happiness

Variables	Expected Sign	Happiness as Contentment			Over-all Happiness (Evaluative Happiness)		
		All Nations	High HDI	Medium to Low HDI	All Nations	High HDI	Medium to Low HDI
C	+ or -		N*			N*	pp
Income per capita (Logarithm of Real Gross National Income per capita)	+	P*	N*	P*	P*	P*	P*
Non-Income HDI	+	P*	p	P*	p	P*	p
R² adjusted		0.63	0.37	0.5	0.66	0.47	0.5
Number of Observations		144	77	67	132	71	61

Sources: World Database of Happiness, UNDP, Author’s Framework

Note: n (negative) and p (positive) refer to the p-values and signs of the explanatory variables. P* or N* refers to a p-value of < 0.01, pp or nn refers to a p-value of 0.02-0.05, p or n refers to a p-value of 0.06-0.15. Empty cells refer to not significant coefficients of the variables. (See Appendix 3 for the coefficients)

explaining the trend across countries as regards happiness evaluations. The perception of respect for persons in society was removed in the regression as the variable's explanatory power is no longer significant. The other variables have increased their significance in explaining over-all happiness and contentment especially for high HDI countries. In fact, the regression models which explain happiness as human flourishing garnered the best results. (See Table 6)

Surprisingly, life satisfaction as contentment increases when economic freedom decreases for the regressions in high and very high HDI countries as the expected relationship is positive. The result may be explained by the prolonged years in which high-income countries have experienced autonomy and freedom. As a result, a slight decrease in the

economic freedom indexes of high-income countries turns out to have a negative sign for life satisfaction.

On the other hand, when considering the level of economic freedom from 2010 as compared to the economic freedom level in 1998, the result is a positive sign for over-all happiness, although the coefficient is not significantly different from zero. This means that the greater the change in the economic freedom index for high to very HDI countries, a slight increase in over-all happiness ensues.

The low to middle HDI countries moderately increase their over-all happiness when economic freedom increases. However, these countries still have to manifest a sustained level of increases in economic freedom for the variable to cause an increase in over-all happiness.

Hedonic adaptation behavior is not captured by

Table 6 Happiness as Human Flourishing

Variables	Expected Sign	Happiness as Contentment			Over-all Happiness (Human Flourishing)		
		All Nations	High HDI	Medium to Low HDI	All Nations	High HDI	Medium to Low HDI
C	+ or -				<i>N*</i>	<i>N*</i>	
Gratification of Basic Needs							
Income per capita	+	<i>P*</i>	<i>pp</i>		<i>P*</i>	<i>p</i>	<i>pp</i>
Non-Income HDI	+	<i>pp</i>	<i>p</i>	<i>pp</i>			<i>pp</i>
Economic Freedom (2006-2010)	+ or -		<i>nn</i>	<i>p</i>			
Social Construction							
Gini Coefficient (2000-2010)	+ or -		<i>p</i>			<i>p</i>	
Comparison							
Income Aspiration	+ or -	<i>N*</i>	<i>nn</i>	<i>N*</i>	<i>P*</i>	<i>P*</i>	
Reflected Appraisal							
Having a Purpose in Life	+	<i>pp</i>	<i>pp</i>		<i>p</i>	<i>P*</i>	
Presence of Social Networks	+	<i>pp</i>	<i>P*</i>		<i>pp</i>	<i>pp</i>	
Affective Experience							
Personal Health Satisfaction	+				<i>p</i>		<i>P*</i>
Job Satisfaction	+	<i>pp</i>	<i>pp</i>		<i>p</i>	<i>pp</i>	
Standard of Living Satisfaction	+	<i>P*</i>	<i>P*</i>	<i>pp</i>	<i>P*</i>	<i>P*</i>	
Negative Experience	-		<i>n</i>			<i>n</i>	
R ² adjusted		0.85	0.88	0.65	0.86	0.84	0.77
Number of Observations		144	77	67	132	71	61

Source: World Database of Happiness, UNDP, Author's Framework

Note: n (negative) and p (positive) refer to the p-values and signs of the explanatory variables. *P** or *N** refers to a p-value of < 0.01, *pp* or *nn* refers to a p-value of 0.02-0.05, *p* or *n* refers to a p-value of 0.06 - 0.15. Empty cells refer to not significant coefficients of the variables.

the variables as countries with high HDI still manifest a need to reach their aspired-for income, as the result for life satisfaction as contentment has a negative sign for the income aspiration variable. The compounded growth rate for economic freedom is not significant. Thus, even if countries with high HDI may have experienced a sustained level of economic growth for at least 10 years, they still aspire for a higher level of income.

Comparing this result with the over-all happiness assessment across nations, when individuals are given a chance to reflect on their best possible world and made to assess and compare it with their current life, a more sober evaluation of happiness results. Current levels of income are close to reaching their income aspiration. They are happy with their current level of personal health and social support, whereas, the income aspiration variable, personal health and social support network satisfaction are not significant with medium to low HDI countries.

For low to moderate HDI countries, both income and the human development indexes, the variables reflecting the most constitutive of human needs, including their satisfaction for personal health, all explain over-all happiness. The other explanatory variables are not strong enough to cause an impact in the happiness evaluations of low to moderate level HDI countries.

Another surprising result is the positive effect of the Gini coefficient, the variable representing the effect of social comparisons, with over-all happiness and contentment. Nations increase their happiness level even with slight increases in income inequality.

What could explain the difference in the sign of the income aspiration variable among high HDI countries is that income aspiration variable is significantly negative when countries assess their life satisfaction contentment level and is positive when countries assess their over-all happiness level. Take note that the constant, C , in the model is significant and negative for over-all happiness, while it is not significant for contentment. The constant measures the level of happiness when all the variables are

removed in the model. This means that when an individual's basic needs, including freedom, are not gratified, there is no inequality because there is no income, perceptions of purpose in life and social support are non-existent, and, persons are not satisfied with their personal health, job and standard of living, then, one's current life evaluation is way below one's perceived best possible life, resulting to a negative over-all happiness level, signifying misery. When life is evaluated integrally, over-all happiness is assessed based on what it could have been without the current state of amenities. Pessimism diminishes and one becomes happy with the current level of income.

Conclusion

The results show that both objective and subjective indicators have a greater ability to explain life satisfaction across countries and across periods, with a more integrated view of life observed for the life satisfaction (best-worst) or over-all happiness case.

The stability and consistency of the hedonic adaptation indicator signifies that the evaluation of life satisfaction is made across time and is not subjected to arbitrary assessments. Income aspiration then affects life satisfaction when anchored or considered in relation to one's life as a whole and across time. This is more observed with high and very high HDI countries. (See Table 6)

Another manifestation of the life-as-a-whole assessment of life satisfaction or over-all happiness and contentment is the greater capacity of income per capita, the non-income human development index, income aspiration, and the reflected appraisal and affect variables to predict life satisfaction evaluations. The results are consistent whether or not the data is grouped by HDI level. Thus, the assessment of happiness based on the relative contingency effect, as observed in the income aspiration variable, and relative deprivation assessment of individuals, as observed in the Gini coefficient, are a result of a more enduring, permanent or consistent life evaluations.

The analysis of the regression results are more akin to a conclusion that life evaluations, although they include both objective and subjective valuations of well-being, are a result of a rational choice and decision, rather than arbitrary mental constructs.

The enrichment of the utility function, using life evaluations of happiness as contributed by the science of psychology to economics, has resulted to a more realistic and humane view of happiness. Even from an economics standpoint, happiness is indeed human flourishing.

Suggestions for Future Research

The anchoring of life satisfaction measurements on objective and enduring or stable subjective measurements of well-being show that the utility of income follows mainstream economic theory even in the presence of social comparisons and relative deprivations. Further research can be made on a more firm and empirically verified theoretical grounding for reference contingency behavior and prospect theory. This suggestion is in line with the suggestions of Rablen (2008).

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Appendix 1 Descriptive Statistics of Chosen Indicators

	Life Satisfaction as Contentment	Over-All Happiness	Real Gross National Income per Capita (2008) In US\$	Human Development Index 2010	Non-Income Human Development Index 2010	Gini Coefficient 2000-2010	Economic Freedom Index 2006-2010
All Countries							
Mean	5.86	5.43	13,737.49	0.64	0.68	40.79	59.91
Median	5.85	5.27	7,258.000	0.68	0.72	39.80	58.96
Maximum	8.50	8.00	81,011.00	0.94	0.99	74.30	89.58
Minimum	2.40	3.22	176.00	0.14	0.28	16.80	27.82
Observations	144	132	169	169	169	145	163
High HDI Countries (HDI Level from 0.68 to 0.94)							
Mean	6.65	6.10	24,029.24	0.79	0.82	37.03	66.02
Median	6.70	6.08	21,004.00	0.78	0.80	36.00	66.11
Maximum	8.50	8.00	81,011.00	0.94	0.99	59.60	89.58
Minimum	4.30	3.79	4,038.00	0.68	0.68	16.80	38.52
Observations	77	71	85	85	85	69	82
Low to Medium HDI Countries (HDI Level from 0.14 to 0.67)							
Mean	4.96	4.65	3,323.23	0.48	0.53	44.19	53.71
Median	5.00	4.65	2,212.00	0.48	0.53	43.05	54.15
Maximum	7.60	6.21	22,218.00	0.67	0.77	74.30	69.34
Minimum	2.40	3.22	176.00	0.14	0.28	29.80	27.82
Observations	67	61	84	84	84	76	81

Source: Human Development Report 2010, World Values Survey, Gallop World Poll 2010

Appendix 2 Countries Included in the Study Grouped by Human Development Index Level

Very High	High	Moderate	Low
Norway	Bahamas	Fiji	Kenya
Australia	Lithuania	Turkmenistan	Bangladesh
New Zealand	Chile	Dominican Republic	Ghana
United States	Argentina	China	Cameroon
Ireland	Kuwait	El Salvador	Myanmar
Liechtenstein	Latvia	Sri Lanka	Yemen
Netherlands	Montenegro	Thailand	Benin
Canada	Romania	Gabon	Madagascar
Sweden	Croatia	Suriname	Mauritania
Germany	Uruguay	Bolivia	Papua New Guinea
Japan	Libyan Arab Jamahiriya	Paraguay	Nepal
Korea	Panama	Philippines	Togo
Switzerland	Saudi Arabia	Botswana	Comoros
France	Mexico	Moldova	Lesotho
Israel	Malaysia	Mongolia	Nigeria
Finland	Bulgaria	Egypt	Uganda
Iceland	Trinidad and Tobago	Uzbekistan	Senegal
Belgium	Serbia	Micronesia	Haiti
Denmark	Belarus	Guyana	Angola
Spain	Costa Rica	Namibia	Djibouti
Hong Kong, China	Peru	Honduras	Tanzania
Greece	Albania	Maldives	Côte d'Ivoire
Italy	Russian Federation	Indonesia	Zambia

Very High	High	Moderate	Low
Luxembourg	Kazakhstan	Kyrgyzstan	Gambia
Austria	Azerbaijan	South Africa	Rwanda
United Kingdom	Bosnia and Herzegovina	Syrian Arab Republic	Malawi
Singapore	Ukraine	Tajikistan	Sudan
Czech Republic	Iran	Viet Nam	Afghanistan
Slovenia	Macedonia	Morocco	Guinea
Andorra	Mauritius	Nicaragua	Ethiopia
Slovakia	Brazil	Guatemala	Sierra Leone
United Arab Emirates	Georgia	Equatorial Guinea	Central African Republic
Malta	Venezuela	Cape Verde	Mali
Estonia	Armenia	India	Burkina Faso
Cyprus	Ecuador	Timor-Leste	Liberia
Hungary	Belize	Swaziland	Chad
Brunei Darussalam	Colombia	Lao People's Democratic Republic	Guinea-Bissau
Qatar	Jamaica	Solomon Islands	Mozambique
Bahrain	Tunisia	Cambodia	Burundi
Portugal	Jordan	Pakistan	Niger
Poland	Turkey	Congo	Congo (Democratic Republic)
Barbados	Algeria	Sao Tome and Principe	Zimbabwe