Gama, Fábio Júnior Clemente; Quinet de Andrade Bastos, Suzana; Assis, Tiana de Paula
Does being ethical make you happier?

Does being ethical make you happier?

Gama, Fábio Júnior Clemente[*, a,b] ; Quinet de Andrade Bastos, Suzana[b]; Assis, Tiana de Paula[b]

Original Article

Abstract	Resumen
This paper proposes a contemporary assessment of Aristotle's discussion of ethics and happiness for 11 large cultural groups. Our study adopts the division of cultural regions proposed by Fellmann et al. (1997) and World Value Survey's subjective well-being and virtues data of 60.000 individuals for 55 countries between 2010 to 2014. The binary response model (probit) has life satisfaction as the dependent variable and as explanatory variables a group of ethical virtues. Such ethical virtues explore the perception that individuals have on issues related to humanitarianism, race, religion, and tax behavior; while intellectual virtues look at art, music, and education. Our results show that jointly (globally), countries presenting the virtues proposed by Aristotle is positively correlated with happiness. Additionally, our regional estimates suggest that cultural factors may influence which ethical values and behaviors are relevant to our level of life satisfaction in each macroregion.	¿**Ser ético te hace más feliz**? Este artículo propone una evaluación contemporánea de la discusión de Aristóteles sobre la ética y la felicidad para 11 grupos culturales. Adopta la división de regiones culturales de Fellmann et al. (1997) y los datos de bienestar subjetivo y virtudes de la Encuesta de Valor Mundial de 60.000 personas para 55 países entre 2010 y 2014. El modelo de respuesta binaria (probit) tiene la satisfacción con la vida como variable dependiente y como variables explicativas virtudes éticas. Estas virtudes exploran la percepción que tienen las personas sobre humanitarismo, raza, religión y comportamiento fiscal; mientras que las virtudes intelectuales miran el arte, música y educación. Resultados muestran que en conjunto los países que presentan las virtudes Aristótelicas se correlacionan positivamente con la felicidad. Las estimaciones sugieren que los factores culturales pueden influir en qué valores y comportamientos éticos son relevantes para nuestro nivel de satisfacción con la vida en cada macrorregión.
Keywords: ethics, Aristotle, happiness, eudaimonia.	*Palabras clave*: ética, Aristóteles, felicidad, eudaimonia.

Introduction

How can we live a good life? What influences the level of satisfaction with our lives? This is a complex broad discussion, being the subject of several fields of study, such as philosophy, psychology, sociology, economics, among others. Ancient Greek philosophers as Aristotle have sought to understand the relationship between how we, individuals, act during our lives and how

we behave towards happiness. For the author, happiness is the ultimate goal that everyone seeks to achieve throughout life, and other objects of pleasure – health, beauty, money or power – are valued only because we hope it will make us happy (Csikszentmihalyi & Larson, 1987).

The notion of happiness – eudaimonia – developed by the Greek philosopher goes beyond

the hedonic concept of happiness, which is viewed in a rather superficial manner. In the analysis made in the Nicomachean ethics of Aristotle (1954), the author argues that happiness does not consist of the goods we possess; but instead, in the way we live our lives, regardless of the circumstances: "healthy or not, rich or poor, educated or not, we should think about our lives and try to live them wel"' (Annas, 2011, p. 129). Thus, as the philosopher untangles his thinking on what would be the path to achieve happiness, Aristotle points to the virtues – identified as ethical and dianoetic – as a medium form, where he emphasizes that "the more a man has virtues, the happier he is" (Curzer, 2012, p. 216). Ethical (moral) virtues would be a habitus, that is, only through habit, they must be exercised. The dianoetic virtues (intellectual) would be the ones of rational contemplation, requiring time and experience to be learned (Şoşu, 2013).

Aristotle's ethics is commonly compared to other ideas of ethics, such as Kantian ethics. Although Kant denies the Aristotelian conclusion - the presence of the final good in itself -, and these two theories are studied as distinct concepts, some similarities can be observed between the two conceptions. Both authors believe that happiness is an individual pursuit, but what differs the authors' analysis is the fact that for Aristotle happiness is the ultimate good, one that finds satisfaction in itself and that all goods are lead to. In turn, for Kant happiness would be something undetermined and difficult to measure, that is, although humans always seek it, they will never know if it was achieved or not. Humans themselves would not know what happiness consists of (Atwell, 1986).

From the perspective of economic studies, Corbi and Menezes-Filho (2006) point out that since the term happiness is associated with various concepts and notions, specifying it consistently and comprehensively can become a laborious exercise. It has been observed for a long time that this line of research is reticent regarding the adoption of the subjectivist approach to welfare – mainly derived from surveys – being limited mainly to the objectivist analysis, where an individual's utility depended on goods, leisure and tangible services (Frey Bruno & Stutzer, 2010). Thus, simple economic indicators such as income level were widely employed as a central measure in studies that tackle social welfare – or

satisfaction (Diener & Seligman, 2004).

However, the subjective measurement of happiness has proven to be a valuable – and necessary - complementary approach in social studies. Subjective well-being is a broader concept that outruns the mere level of utility involved in individual decisions (Frey Bruno & Stutzer 2010). Since this view has emerged in academia, we have observed a diverse range of studies that seek to understand what factors influence our state of happiness based on a subjective analysis. Di Tella, MacCulloch and Oswald (2001) and Caleiro (2012) investigate the relationship between unemployment and satisfaction, Hagerty (2000) and Alesina, Di Tella and MacCulloch (2004) the effect on the happiness of the income gap, and Easterlin (1974), Diener and Biswas-Diener (2002), Layard (2005), the relation of Gross Domestic Product (GDP) and happiness. Behavioral characteristics are also set under study, as in Putnam (1995), who suggests that individuals living in neighborhoods – or societies – where social capital is high – that is, where people establish a strong sense of trust and cooperation – , a higher level of satisfaction is observed among people. Such result can be corroborated by Helliwell (2003, p. 355) that shows that the people with the highest level of well-being would not be those "living in the richest countries, but those who live where social and political institutions are effective, where mutual trust is high and corruption is low".

Other studies as James (2011) adopt the World Values Survey (2005–2006) to focus on western countries for analysis of happiness. The results reveal a positive and generally significant effect of ethics on happiness, even after controlling for other factors known to be correlated with happiness. And, as presented by Kahana, Bhatta, Lovegreen, Kahana and Midlarsky (2013), altruistic attitudes, volunteering, and informal helping behaviors make unique contributions to the maintenance of life satisfaction, and other positive effects on well-being. Such evidence corroborates the hypothesis that predicts that happiness is derived from the cultivation of virtue, as discussed by Martin (2007).

Importantly, in studies that analyze moral values or behaviors taken as a role model, recognizing the possible influence of cultural factors becomes critical. On this matter, important literature has been highlighting the effect of

cultural factors over an individual's perception of happiness. In his paper, Morality and Cultural Differences, Cook (2003) points out that studies of 'cultural relativity' – a philosophical doctrine – show that morality is relative in every culture and therefore actions could only be judged as moral or not, according to the standards of morality established within the referred culture. Already Fu, Lee, Cameron and Xu (2001) and Jackson et al. (2008), based on experiments, evaluate and verify the disparities that exist in the judgment of individuals from different countries concerning moral values, and compare behaviors that outside the experiment, in the real world, would or would not be accepted. Testing how culture molds meanings and concepts, Lu, Gilmour and Kao (2001) find out that the same values may be different when comparing Eastern and Western societies. Ogihara and Uchida (2014) observe that in Japan an individualistic orientation was negatively related to subjective well-being, while in the U.S. the opposite effect was noted by the authors.

According to Organisation for Economic Co-operation and Development (OECD) (2013), measuring subjective well-being is essential for a broader understanding of individuals' quality of life, alongside other social and economic dimensions. Naturally, the empirical effort that entities, especially those that are linked to governments, devote to assessing the level of satisfaction of populations – carried out largely through surveys – has intensified. We found measures such as the Canadian Index of Wellbeing (CIW) – which assesses aspects related to the life quality of populations, including community vitality, democratic engagement, education, environment, leisure, and culture, use of time, among others. The European Social Survey, which produces information on the attitudes, beliefs, and behavior of 30 European countries, and the Well-being in the UK, produced by the British government - to name a few. Other reviews are Gallup (US), Istat (Italy), Health Utilities Inc. (Canada) and Institut national de la statistique et des études économiques (INSEE), France.

Within this context, we seek to empirically understand some of the determinants of happiness proposed in Aristotle's theoretical discussion that would otherwise be difficult to prove. To this end, we conduct two distinct approaches. Firstly, we investigate the correlation established between the Aristotelian set of virtues and the probability of happiness of the total number of individuals in our sample (i.e., all the regions of the world as a whole). Next, following the division of macro regions – based on cultural composition – established by Fellmann, Getis, Getis and Malinowski (1997), we analyze which virtues are relevant to happiness in culturally more homogeneous regions. In this way, besides investigating if being ethical makes us happier, we aim to understand if the place where we live can influence the behaviors that provide us with happiness.

The study proceeds as follows. In section 2 we present the Aristotelian theoretical discussion on ethics and happiness. Section 3 discusses the method and the database used. Then, in section 4, the results of the empirical application are displayed. Finally, section 5 presents the discussion and concludes.

Aristotle's Ethics and the Search for Happiness

Aristotle's work (384 BC – 322 BC) is broad and directed to various fields within philosophy. For Aristotle, the natural purpose of the human being is to have a good, just, and happy life. In this regard, ethics is the fundamental basis that humans make use to live and organize themselves in society, creating their principles, traditions, and laws. Living in society, humans are born ethical, that is, to be ethical turns out as a rational and natural virtue inherent to human beings. Thus, the overall tendency is to have individuals respecting one another and using ethical principles to evolve within the polis. However, what defines whether this individual will become an ethical being in the future are their good or bad choices throughout life (Do Amaral, Silva, & Gomes, 2012). The Aristotelian idea of ethics refers to the virtuous principles of the human being, founded on their well-being, common sense, and basic moral judgments so that the human being can become a good and virtuous being.

According to Malinoski and Silva (2004), every individual action is aimed at some ultimate good. This good has a hierarchy and within it, we can observe the relative and intrinsic goods of man. Relative goods change over a lifetime, as human beings always want more over time – material goods, for example. On the other hand, goods intrinsic to men are those that do not need other

goods, that is, they are self-sufficient by themselves. Aristotle observes the means, ends of these goods, and human actions, proposing that the ends of all possible actions should lead to a final good. However, there is an infinite variety of actions and goods that lead to a supreme good, which is self-sufficient, not being a mean to other goods but the good of all goods. This way, there will be one of these intrinsic goods which is only and greater well enough to make human life worthy and valuable. Without it, no human effort would be made and compensated. One tries then to find this good which makes all human life real and valuable, which without it the human being would be as irrational animals and would not perform the characteristic human activity. Aristotle believes that this ultimate good is happiness. In this way, happiness is the only final good, the one that is desired by itself and is the good of all goods. Thus, the focus of the study of Aristotelian ethics turns to the pursuit of the ultimate good that the individual seeks throughout their life: happiness (Tugendhat, 2008). According to Aristotle (1954, p.14):

Now such a thing happiness, above all else, is held to be; for this, we choose always for self and never for the sake of something else, but honor, pleasure, reason, and every virtue we choose indeed for themselves (for if nothing resulted from them we should still choose each of them), but we choose them also for the sake of happiness, judging that by means of them we shall be happy. Happiness, on the other hand, no one chooses for the sake of these, nor, in general, for anything other than itself.

Understanding that the ultimate good is the goal of each individual, Aristotle then argues about human nature and its attributes that should be involved in such a pursuit for happiness. As the author compares the human being to other animals of nature, he highlights the three portions that make up the soul of all living beings: nourishing, sensitive and intellectual. The difference between human beings and other beings is to possess the latter, the intellective soul, which is of rational response, thus composing human excellence. The irrational portions of the soul — nourishing and sensitive — must be subject to its rational portion. From these two soul natures, Aristotle derives two types of virtues that correspond to the rational and the irrational soul: the intellectual (dianoetic) virtues and the ethical

virtues, respectively (Nodari, 1997).

A fundamental concept for the understanding of the Aristotelian work is the concept of virtue – excellence. Thus, like the Greek philosophers prior to Aristotle, the latter believes in virtues as being the average action of the individual during their life, that is, men must follow all that was instructed as right. To be good one must have knowledge of the virtues, to be an evil individual it only takes not to know them. Aristotelian happiness, then, derives from two genres of human virtues called cardinal virtues, since they group all the other virtues themselves (Silva, 2008). Among these cardinal virtues, the intellectual (dianoetic) virtues are those linked to a group of elements such as art, wisdom, science among others: while moral (ethical) virtues are linked to the implicit human character. The intellectual virtues, however, are only fully realized in the heyday of human life as the individual must pass through some "faculties" – a term used by Aristotle to refer to the teaching of the individual – which will give them the ability to acquire such virtues over time.

On the other hand, moral virtues are intrinsic to an individual's behavior and habits and for this to achieve a high level of happiness, they must maintain themselves on the average level of these virtues over time. This is because an individual is subject to sufferings and pleasures throughout their existence, which, when they surpass the average intellectual virtue, can destroy it (Nodari, 1997). Therefore, according to Aristotle (1954, pp. 28-29):

Virtue too is distinguished into kinds in accordance with this difference; for we say that some of the virtues are intellectual and others moral, philosophic wisdom and understanding and practical wisdom being intellectual, liberality and temperance moral. For in speaking about a man's character we do not say that he is wise or has understanding but that he is good-tempered or temperate; yet we praise the wise man also with respect to his state of mind; and of states of mind we call those which merit praise virtues. Ethical virtue is then derived from humans' habits and expresses its tendency to act, but in no way determines it.

Ethical virtue is due to practice, that is, those who perform good deeds will be considered a good individual and become just by doing righteous deeds in this way. However, it is not a

virtue that is a natural condition of humans, since if it were natural it could not be altered by habits. Therefore, an individual is not born endowed with any moral virtue. Only through the practice individuals can develop their potentiality in a certain ethical aspect. Aristotle cites various kinds of virtues, such as courage, temperance, liberality, magnificence, magnanimity, gentleness, truth, and justice. Those individuals who seek happiness must then perform acts that follow the mean between two vices, not incurring in excesses or deficiencies of these virtues (Nodari, 1997).

Intellectual virtues, in turn, represent the rational thinking of individuals. The scientific knowledge plays a fundamental role in the pursuit of happiness for Aristotle since it is something learned by the individual during their 'faculties' with universal proportion and conclusions that can be demonstrated. In this regard the intellectual rationality of human beings is divided into two segments: speculative wisdom and practical wisdom. The former relates to sciences and its contemplation of unchanging things, the latter, to the contingent and things subject to change over time (Aristotle, 1954). Aristotle then exemplifies the distinction between these two rationalities, pointing the virtue of speculative reason as wisdom (sophia) and practical virtue as prudence (phronesis).

To humans attain full knowledge they must lay hold of five main intellectual ethics: science, philosophical wisdom, intelligence, art, and discernment. From those, science, philosophical wisdom, and intelligence are classified exclusively in the speculative field. On one hand, art and discernment, although composing the intellectual cardinal virtue, are considered relatively a practical virtue, since art, for example, is linked to human's production in a concrete way, i.e., their sculptures, constructions, objects, among others. On the other hand, discernment refers to an individual's conduct, whether the action performed is legal or illegal and whether it reveals their ethical and/or political values (Aristotle, 1954).

Prudence, or phronesis, although considered an intellectual virtue, is also highlighted in the analysis of an individual's actions, since it is prudence the virtue that determines the actions of the individual, which, in turn, are based on a moral standard and executed according to the intellectual virtues. Prudence determines the means necessary for the individual to achieve the

ends desired and which action should be initiated. In other words, to initiate an action, humans start thinking about the uncertainties of the future and the past experiences to achieve the desired good. According to Aristotle (1954), thinking itself does not change the scope of the desired good in any way, what determines the search are the actions (Silva, 2008). According to Aristotle (1954, p. 125):

> The origin of action-its efficient, not its final cause-is choice, and that of choice is desire and reasoning with a view to an end. This is why choice cannot exist either without reason and intellect or without a moral state; for good action and its opposite cannot exist without a combination of intellect and character. Intellect itself, however, moves nothing, but only the intellect which aims at an end and is practical.

Therefore, we can observe that intellectual virtue and moral virtue are linked. Intellectual virtue occurs mainly in the practical aspect and moral virtue within the ethical context, that is, when individuals desire something, they first reflect evaluating their moral virtues and then comes out with a judgment of what attitude they must have to achieve their goal. In this context, faculties deliberate the best means, following the moral virtues to reach the desired end. With the constant practice of these cardinal virtues, humans can increasingly perfect themselves in their excellences. Attitudes and the pursuit for goods help individuals to pursue the heyday of human life, which would be the achievement of the ultimate good, the one Aristotle defines as happiness (Silva, 2008).

Methods

Participants

Individuals aged between 18 and 65 participated in the research. Advancing to the approximation of virtues and treatment of variables, we use data from the World Value Survey (WVS) referring to research developed by Inglehart et al. (2018). In this study, wave data 6 is used, which is applied from the year 2010 to 2014, totaling more than 60.000 individuals interviewed throughout 55 countries.

Materials

Our approach on a macro-regional division follows the classification of cultural kingdoms of Fellmann et al. (1997), in which geographic,

cultural, economic, political and physical aspects are evaluated for the world delimitation in 11 major groups: North American, Latin American, European, Slavic, Islamic, Sub-Saharan, Indian, Sino-Japanese, Southeast Asian, and Oceania. According to Anděl, Bičík, & Bláha (2018), a cultural realm can be understood as large and complex territorial units, defined based on the similarity of cultural traditions. Thus, through the classification of Fellmann et al. (1997), we established the following 11 macro regions in our sample: North American (United States), Latin American (Argentina, Brazil, Colombia, Chile, Ecuador, Haiti, Mexico, Peru, and Uruguay), European (Netherlands, Sweden, Spain, Estonia, Romania, Poland, and Slovenia), Slavic (Russia, Belarus, Ukraine, Georgia, and Armenia), Islamic Republic (Azerbaijan, Kyrgyzstan, Kazakhstan, Uzbekistan, Iraq, Jordan, Lebanon, Palestine, Turkey, Yemen, Kuwait, Algeria, Libya Tunisia, Morocco and Pakistan), Sub-Saharan Africa (Rwanda, South Africa, Zimbabwe, Ghana and Nigeria), Indiana (India), Sino-Japanese (China, Hong Kong, Japan and South Korea), Southeast Asia (Thailand, Malaysia, Singapore and the Philippines), Australia-Oceania (Australia and New Zealand).

The measure of happiness is satisfaction with life. This indicator is commonly used in studies aimed at identifying the individual utility in a sample – Corbi and Menezes-Filho (2006). Based on respondents' answers (on a numerical 10-point scale) to the question: "How satisfied are you with your life as a whole these days?" for values greater or equal to 5 we adopt a dummy that equals to 1 and 0 otherwise – following a categorization such as that adopted in Campante and Yanagizawa-Drott (2015).

To assess the ethical virtues, we selected a set of proxy questions. Liberality has as proxy question: "Active/inactive member: humanitarian or charitable organization", which takes the value 1 if the answer is "active member" and 0 for the other options. The virtue of friendship has as proxy question: "Would not like to have as neighbors: People of a different race", which takes the value 1 if the answer is "not mentioned" and 0 if "mentioned". Gentleness is measured by the question: "The only acceptable religion is mine", which takes the value 1 if answered "disagree" or "strongly disagree" and value 0 if "strongly agree" or "agree". Justice, which uses the question:

"Justifiable: cheating on taxes if you have a chance" (on a scale from 0 to 10), takes the value 1 if the answer is "never justifiable" and 0 for the others options.

The second group of proxy variables aims to capture the intellectual virtues, which are associated with the speculative and practical wisdom of individuals. Regarding intellectual virtues in their practical spectrum, a proxy question that relates to the exercise of art is "Active/inactive member: art, music or educational organization" – which takes the value 1 if the answer is "active member" and 0 for the other options. Regarding sciences and the commitment of individuals to promote their scientific knowledge, the question: "Highest educational attainment" was used. In this question, firstly, we account for the female and male averages of years of study of individuals aged 25 and over – data produced by United Nations Educational, Scientific and Cultural Organization (UNESCO, 2019) – from each country. Thus, where respondents report having more years of schooling than the average years of schooling - men and women - in their respective countries, they were treated as virtuous and, if not equal to or below to the country average, they did not bear the investigated virtue.

As we evaluate regional virtue patterns on the likelihood of being happy throughout different macro regions, we seek to understand where nationalism would be meaningful and how it would impact happiness. Nationalism, which can be understood as a sense of identification with a group of people who share a number of characteristics, such as history, language, culture, or territory (Searle-White, 2001), is approximated by the question "How proud of your nationality", assuming a value of 1 if the answer is "really proud" or "very proud", and 0 if "not very proud", "not proud" or "I am not [nationality]". Although we do not assume that hostility and /or prejudice is an intrinsic behavior of nationalistic individuals, however, when comparing the results of cultural control with the other explanatory variables, it is possible to find some indications if intolerance against those "non-member" individuals is established or not - that is, not seen as individuals within the cultural ethos of the region.

Procedures

According to the WVS, the survey was carried out by professional organizations using face-to-

face interviews or phone interviews for remote areas. Respondent's answers could be recorded in a paper questionnaire (traditional way) or by CAPI (Computer Assisted Personal Interview). Each country is left with a representative national sample of its public. These persons are then interviewed during a limited time frame decided by the Executive Committee of the World Values Survey using the uniformly structured questionnaires. During the fieldwork, the agency must report in writing according to a specific checklist. Internal consistency checks are made between the sampling design and the outcome and rigorous data cleaning procedures are followed at the WVS data archive. No country is included in a wave before full documentation has been delivered. This means a data set with the completed methodological questionnaire and a report of country-specific information (for example important political events during the fieldwork, problems particular to the country). Once all the surveys are completed, the Principal Investigator has access to all surveys and data.

Data Analysis

The research presents an empirical strategy based on Campante and Yanagizawa-Drott (2015). A binary response regression model is estimated using the software Stata 12 and having life satisfaction as the dependent variable and as explanatory variables a group of ethical virtues. Our main approach is therefore to investigate correlation. As a measurement tool, we make use of the probit regression method, in which the interest of the analysis consists of the probability of response of the dependent variable (Y) to assume the value 0 or 1 (Wooldridge, 2016). That is, it is a binary response model that seeks to predict, through its explanatory variables, the occurrence or not of a certain event – in our case, to be happy or not. It is the coefficients of the explanatory variables – virtues – that quantitatively report the increase – or decrease – in the odds ratio of the investigated event to occur. Thus, by analyzing the marginal effects derived from probit regressions, we can see if by increasing one unit in an explanatory variable result in a percentage increase – or reduction – in the probability of the dependent variable to assume the value 1.

Ethical Aspects

The paper used open-access data from WVS,

and in accordance with the ethical standards of WVS, all deposited data has been made anonymous and the archive deposited files have no means to trace the respondents.

Results

Table 1 reports the marginal effects on response probabilities without distinguishing between regions. There is an alternative approach to the analysis of "marginal effects" to interpret the results of the estimations of the probit models, which is constructed by analyzing the "odds ratio". However, it was adopted the "marginal effects" analysis, which according to Breen Karlson, & Holm (2018), is easier for readers to understand, when expressing relationships in terms of probability.

Despite the small magnitude of the marginal response, all proxy variables for the set of ethical and dianoetic virtues perform the expected positive correlation, and with significance at 1%. The ethical virtues coefficients report that those individuals who possess them are between 2% and 3.8% more likely to be happy compared to those who are not virtuous. Regarding the dianoetic virtues, which evaluate the human practical and speculative wisdom, there is an increase of about 3.1% and 4.1%, respectively, in the probability of the holders of such virtues to be happy. Regarding the coefficient for cultural control, it is noted that nationalism has a considerable effect on the chances of the global sample reporting itself happy, with an increase of about 10%.

Analyzing Table 2, we observe that justice has more frequently significance in different regions of the world. In places as Latin America (6%), North America (4%) and Oceania (4%) the virtue is positively significant for happiness, i.e., individuals who do not cheat on taxes are more likely to be happy. However, in sub-Saharan Africa and the Slav countries, the coefficient has significance and a negative sign, indicating an inverse relationship between tax cheating and the likelihood of happiness. On the other hand, virtue liberality – approximated by participation in humanitarian organizations – although not assuming negative values in any region, has significance only in Latin America (4.6%) and India (5.7%), which indicates how restricted is the correlation established between practicing this virtue and the increase in the likelihood of happiness when geographically

analyzed.

Tabla 1.

Assessing the marginal effect of virtues globally

Life satisfaction						
Ethic virtues				Dianoetic virtues		Cultural control
Liberality	Friendship	Gentleness	Justice	Art	Scientific knowledge	Nationalism
.038***	.027***	.032***	.02***	.031***	.041***	.10***

Note. Explanatory variables: Active / Inactive membership: Humanitarian or charitable organization (liberality); Would not like to have as neighbors: People of a different race (friendship); The only acceptable religion is my religion (gentleness); Justifiable: Cheating on taxes if you have a chance (justice); Active / Inactive membership: Art, music or educational organization (art); Highest educational level attained (scientific knowledge). Cultural control: Nationalism: How proud of nationality. ***p < .01, **p < .05, *p < .10. Source: Elaborated by the authors based on World Value Survey data.

Tabla 2.

Assessing the marginal effect of virtues regionally

Life Satisfaction										
	North American	Latin American	European	Slavic	Islamic	Sub-Saharan African	Sino-Japanese	Indian	South-Eastern Asian	Australian-Oceanic
Liberality	.018	.046***	.018	.037	.008	.026	.027	.057**	-.00	.012
Friendship	.04	.009	.025	.035**	.012**	-.066	.047***	.003	.016*	.17***
Gentleness	-.026**	-.013**	.004	.073***	.017***	.036***	-.01	.072***	.006	.045
Justice	.04***	.061***	-.003	-.029**	035***	-.041***	-.006	-.003	.008	.043***
Art	.012	.040***	.023**	.075**	-.024*	.018	.015	-.005	-.002	.031*
Scientific knowledge	-.005	-.013**	.026***	.027**	.07***	.10***	.021	.086***	.017**	-.014
Nationalism	.11***	.023**	.042***	.098***	.14***	.12***	.091***	.174***	.137***	-.003

Note. Explanatory variables: Active / Inactive membership: Humanitarian or charitable organization (liberality); Would not like to have as neighbors: People of a different race (friendship); The only acceptable religion is my religion (gentleness); Justifiable: Cheating on taxes if you have a chance (justice); Active / Inactive membership: Art, music or educational organization (art); Highest educational level attained (scientific knowledge). Cultural control: Nationalism: How proud of nationality. ***p < .01, **p < .05, *p < .10. Source: Elaborated by the authors based on World Value Survey data.

When we look at religious tolerance – gentleness – in Slavic, Islamic, sub-Saharan Africa and India regions, this behavior positively affects the happiness of individuals. However, in the United States and Latin America, the sign of the coefficients – 2.6% and - 1%, respectively, indicate that this virtue does not contribute to happiness. On the contrary, it does decrease the likelihood of individuals being happy. In this case, it is worth noting that although they are statistically significant, some correlations may not exist due to the low value of the coefficient. In turn, when dealing with other virtue, friendship, that is also approximated by tolerance – racial, in this case – we note that no region establishes a relationship of diminishing this virtue with increasing in happiness, which indicates more individuals racially tolerant as being more likely to be happy.

Analyzing our cultural control – nationalism – we visualize some specific traits of the studied regions. Except for Oceania, nationalism demonstrates statistical significance in the different macro-regions we study, pointing to a greater likelihood of happiness for those

individuals who place a high value on their cultural identity (i.e., being nationalist increases the chances of being happy).

Finally, regarding the dianoetic virtues results, we observe that the practical wisdom (art), linked to activities that stimulate the creativity of individuals, such as music and the arts, does not impact many regions. The chance increase is observed only in Latin America (4%), Europe (2.3%) and the Slavic countries (7.5%). In turn, the exercise of practical wisdom — average years of study — has a notorious correlation on specific regions —, being significant in most areas. However, again, despite the coefficient being statistically significant, it has a low correlation. In this case, it is possible that scientific knowledge and happiness are not correlated. In India and Islamic countries, the virtue increases the likelihood of individuals being happy by 8.6% and 7%, respectively. The European and the Slavic region correlates only 2.7% to a higher level of happiness. In Latin America, however, we note a negative correlation, which indicates an inverse relationship between higher levels of study and the increase in the likelihood of being happy.

Discussion and concluding

Using a marginal response propensity model, we compare the increase in the likelihood of individuals considering themselves happy as they do or do not present different types of virtuous behavior. Our empirical analysis was inspired by the Aristotelian discussion of virtues - ethical and dianoetic virtues– in which the author proposes that being a virtuous individual can lead us to happiness. In general, the evidence in our present study corroborated Aristoteles' work, indicating that a set of ethical and dianoetic virtues have a positive correlation with the level of a person's life satisfaction. Additionally, we also identified the influence of cultural aspects in the perception of happiness in some regions.

Looking pieces of at these evidences, we can highlight some points. The first is related to the positive effect of knowledge on happiness. This result, in the light of the ethical concept of education, indicates that education as an instrument of social formation, which aims to achieve critical thinking, community spirit, and the promotion of reflection and attitudes aligned to awareness and actions that generate results for

the world (Savi Neto & de La Fare, 2019), may not be assimilated equally with such purpose in different regions of the world.

Another highlight is the positive relationship between nationalism and happiness for most regions. According to the Theory of Social Identity (Tajfel & Turner, 1979), there are two forming components of our identity: an individual component and a social component, where individuals affiliated with groups to raise their self-esteem. Therefore, through an intergroup bias (such as nationalism), it is possible for individuals to create a positive sense of self-esteem and strengthen it through the act of comparing and defaming individuals perceived as inferior – the ones not considered members of the social group. However, the work developed by Crocker and Schwartz (1985) shows that the search for individual self-esteem may also lead to the establishment of strong identification with disadvantaged and lower status groups.

In the United States and Latin America, we find that being tolerant of people from different religious backgrounds does not increase the likelihood of happiness. In fact, we observe a positive correlation between religious intolerance (gentleness) and happiness in these places. The United States of America is one of the countries with the highest increase in happiness in the face of nationalism (11%). However, we have not observed in any of the remaining macro-regions correlation coefficients of nationalism and racial intolerance – the absence of friendship – coexisting for the increase in the likelihood of happiness. Therefore, we can understand that certain intolerances may stand out in nationalist regions, and it is possible that in these areas where being nationalistic is unrelated to religious intolerance and/or racial intolerance it occurs due to the sense of cultural identity of these places not being biased towards individuals who are not seen as members of national identity.

Finally, we could also visualize how cultural differences can influence the impact of virtues on happiness. The disparities we observed among different regions can be understood according to the analysis brought by Cook (2003), which highlights the concept of "cultural relativity", where morality becomes something relative in each culture and, therefore, actions can only be judged moral or otherwise according to the standards of morality established within each culture. In

addition, as we control our estimations for nationalism, we could note how the cultural identity of each area can influence the significance – or absence of – of virtues related to the racial and religious tolerance.

Therefore, the present study brings new empirical results regarding the ethical relationship and Aristotelian happiness which, until now, has been mainly focused on the theoretical field of philosophy. As a suggestion for future contributions, we advise that the authors seek to understand how other cultural factors that have become of great relevance today – such as political factors or related to the advancement of technology – can influence how we experience our perception of happiness.

References

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. doi: 10.1016/j.jpubeco.2003.07.006

Anděl, J., Bičík, I., & Bláha, J. D. (2018). Concepts and delimitation of the world's macro-regions. *Miscellanea Geographica*, *22*(1), 16-21. doi: 10.2478/mgrsd-2018-0001

Annas, J. (2011). *Intelligent virtue*. Oxford: Oxford University Press.

Aristotle (1954). *Nicomachean ethics*. Oxford: Oxford University Press.

Atwell, J. E. (1986). *Ends and principles in Kant's moral thought*. Dordrecht: Kluwer Academic Publishers.

Breen, R., Karlson, K. B., & Holm, A. (2018) Interpreting and Understanding Logits, Probits, and Other NonLinear Probability Models. *The Annual Review of Sociology*, *44*(1), 39–54. doi: 10.1146/annurev-soc-073117-041429

Caleiro, A. (2012). Unemployment versus happiness in Portugal. En A. Bento-Gonçalves, & A. Vieira (Eds.), *Portugal: Economic, Political and Social Issues* (pp. 113-123). New York: Nova Science Publishers.

Campante, F., & Yanagizawa-Drott, D. (2015). Does religion affect economic growth and happiness? Evidence from Ramadan. *The Quarterly Journal of Economics*, *130*(2), 615-658. doi: 10.2139/ssrn.2410395

Cook, J. W. (2003). *Morality and cultural differences*. Oxford: Oxford University Press.

Corbi, R. B., & Menezes-Filho, N. A. (2006). Os determinantes empíricos da felicidade no Brasil. *Brazilian Journal of Political Economy*, *26*(4), 518-536. doi: 10.1590/S0101-31572006000400003

Crocker, J., & Schwartz, I. (1985). Prejudice and ingroup favoritism in a minimal intergroup situation: Effects of self-esteem. *Personality and Social Psychology Bulletin*, *11*(4), 379-386. doi: 10.1177/0146167285114004

Csikszentmihalyi, M., & Larson, R. (1987). Validity and reliability of the Experience Sampling Method. *The Journal of Nervous and Mental Disease*, *175*(9), 526–36.

Curzer, H. J. (2012). *Aristotle and the Virtues*. Oxford: Oxford University Press.

Di Tella, R., MacCulloch, R. J., & Oswald, A. J. (2001). Preferences over inflation and unemployment: Evidence from surveys of happiness. *American Economic Review*, *91*(1), 335-341. doi: 10.1007/978-90-481-2350-6_9

Diener, E., & Biswas-Diener, R. (2002). Will money increase subjective well-being? *Social Indicators Research*, *57*(2), 119-169. doi: 10.1023/A:1014411319119

Diener, E., & Seligman, M. E. (2004). Beyond money: Toward an economy of well-being. *Psychological Science in the Public Interest*, *5*(1), 1-31. doi: 10.1007/978-90-481-2350-6_9

Do Amaral, R. A. P., Silva, D. A., & Gomes, L. I. (2012). A eudaimonía aristotélica: a felicidade como fim ético. *Revista Vozes dos Vales*, *1*(1), 1-20.

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

Fellmann, J. D., Getis, A., Getis, J., & Malinowski, J. C. (1997). *Human geography: Landscapes of human activities*. New York: WCB/McGraw-Hill.

Frey Bruno, S., & Stutzer, A. (2010). *Happiness and economics: How the economy and institutions affect human well-being*. New Jersey: Princeton University Press.

Fu, G., Lee, K., Cameron, C. A., & Xu, F. (2001). Chinese and Canadian adults' categorization and evaluation of lie-and truth-telling about prosocial and antisocial behaviors. *Journal of Cross-Cultural Psychology*, *32*(6), 720-727. doi: 10.1177/0022022101032006005

Hagerty, M. R. (2000). Social comparisons of income in one's community: Evidence from national surveys of income and happiness. *Journal of Personality and Social Psychology*, *78*(4), 764-771. doi: 10.1037//0022-3514.78.4.764

Helliwell, J. F. (2003). How's life? Combining individual and national variables to explain subjective well-being. *Economic Modelling*, *20*(2), 331-360. doi: 10.1016/S0264-9993(02)00057-3

Inglehart, R. C., Haerpfer, A., Moreno, C., Welzel, K., Kizilova, J., Diez-Medrano, M., … Puranen, B.

(2018). *World Values Survey: Round Six - Country-Pooled Datafile.* Madrid: JD Systems Institute & WVSA Secretariat. doi: 10.14281/18241.8.

Jackson, L. A., Zhao, Y., Qiu, W., Kolenic III, A., Fitzgerald, H. E., Harold, R., & Von Eye, A. (2008). Cultural differences in morality in the real and virtual worlds: A comparison of Chinese and US youth. *Cyber Psychology & Behavior*, *11*(3), 279-286. doi: 10.1089/cpb.2007.0098

James, Jr. H. S. (2011). Is the just man a happy man? An empirical study of the relationship between ethics and subjective well-being. *Kyklos*, *64*(2), 193-212. doi: 10.1111/j.1467-6435.2011.00502.x

Kahana, E., Bhatta, T., Lovegreen, L. D., Kahana, B., & Midlarsky, E. (2013). Altruism, helping, and volunteering: Pathways to well-being in late life. *Journal of Aging and Health*, *25*(1), 159-187. doi: 10.1177/0898264312469665

Layard, R. (2005). *Happiness: Lessons from a New Science*. London: Penguin Books.

Lu, L., Gilmour, R., & Kao, S. F. (2001). Cultural values and happiness: An East-West dialogue. *The Journal of Social Psychology*, *141*(4), 477-493. doi: 10.1080/00224540109600566

Malinoski, J., & Silva, S. (2004). *Felicidade: o bem supremo, no livro I da obra: Ética a Nicômaco de Aristóteles*. Trabajo presentado en II Seminário Nacional de Filosofia e Educação: Confluências. Universidade Federal de Santa María, Brasil.

Martin, M. W. (2007). Happiness and virtue in positive psychology. *Journal for the Theory of Social Behaviour*, *37*(1), 89-103. doi: 10.1111/j.1468-5914.2007.00322.x

Nodari, P. C. A. (1997). Ética Aristotélica. *Síntese Revista de Filosofia, 24*(78), 383-410.

Ogihara, Y., & Uchida, Y. (2014). Does individualism bring happiness? Negative effects of individualism on interpersonal relationships and happiness. *Frontiers in Psychology*, *5*(135), 1-8. doi: 10.3389/fpsyg.2014.00135

Organisation for Economic Co-operation and Development (2013). *OECD Guidelines on Measuring Subjective Well-being*. Paris: OECD Publishing.

Putnam, R. D. (1995). Bowling alone: America's declining social capital. *Journal of Democracy*, *6*(1), 65-78.

Savi Neto, P., & de La Fare, M. (2019). Regulação da pesquisa em educação: tensões entre autonomia ética e heteronomia normativa. *Educação & Sociedade*, *146*(40), 1-17. doi: 10.1590/es0101-73302019191340.

Searle-White, J. (2001). *The Psychology of Nationalism.* New York: Palgrave/St. Martin's Press.

Silva, S. L. D. (2008). *A ética das virtudes de Aristóteles.* Disertación de Maestría. Universidad del Valle del Rio de los Sinos, San Leopoldo, Río Grande del Sur, Brasil. Recuperado de: http://www.repositorio.jesuita.org.br/bitstream/handle/UNISINOS/2039/SandroSilvaFilosofia.pdf?sequence=1&isAllowed=y

Şoşu, L. (2013). Moulding a competitive student in the light of E. Coserius deontology. *Glotodidactica Biannual Journal of Applied Linguistics*, *1*(4), 7-19.

Tajfel, H., & Turner, J. (1979). An Integrative Theory of Intergroup Conflict. En W. G. Austin & S. Worchel (Eds.) *The Social Psychology of Intergroup Relations* (pp. 33-47). Monterey, CA: Wadsworth.

Tugendhat, E. (2008). *Lições sobre Ética.* Petrópolis: Editora Vozes.

United Nations Educational Scientific and Cultural Organization, UNESCO (2019). *Resource document.* Recuperado de: http://hdr.undp.org/en/data.

Wooldridge, J. M. (2016). *Introductory econometrics: A modern approach*. Toronto: Nelson Education.