

An International Study of Democracy and Perceived Wellbeing

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The present study evaluated 85,000 respondents (from almost 60 nations) in the *World Values Survey* (Wave -6) and the link between perceived democracy and income brackets, plus their current state of health, happiness, and satisfaction with both life and finances. Mean scores for each nation then informed a secondary analysis by including GDP/capita. Results showed that income brackets were correlated to health and financial satisfaction while GDP/capita correlated with financial satisfaction among both high and low-income levels. Multiple regression analyses confirmed the hypotheses: (a) that higher perceived democracy was positively related to wellbeing and health; and (b) that the relation between perceived democracy and wellbeing was moderated by income, with stronger correlations observed in both low-income and high-income (but not middle-income) nations. We conclude that democratic nations offer more personal and political freedoms, while securing better wages, income, and health care opportunities for their citizens. Future research is discussed.

Keywords: democracy, wellbeing, health, happiness, income

La présente étude a évalué le lien entre la démocratie perçue et les tranches de revenus, l'état de santé actuel, le bonheur, la satisfaction de vie et la satisfaction financière chez 85 000 participants répondants au *World Values Survey* (vague-6). Les scores moyens de chaque pays et le PIB/capital ont ensuite alimenté une analyse secondaire. Les résultats ont montré que la tranche de revenu était corrélée à la santé et à la satisfaction financière, mais que le PIB/habitant était corrélé à la satisfaction financière des niveaux de revenus élevés et faibles. Des analyses de régression multiple indiquent qu'une démocratie perçue plus élevée est positivement liée au bien-être et à la santé et que la relation entre la démocratie perçue et le bien-être était modérée par le revenu, avec des corrélations plus fortes dans les pays à revenu faible et élevé. Les recherches futures sont également discutées.

Mots-clés : démocratie, bien-être, santé, bonheur, revenu

Years ago, Qualter (1948) stated that democracy can be suitably captured in just three words: liberty, equality, and consent. Liberty in a democratic state is the protection from government intervention within the state; it allows the citizen to participate politically as an act of freedom. Equality, Qualter believed, is orthogonal to each of wealth, authority, and wisdom; it offers equal opportunities to the citizens to contribute to enforcing laws and offering protection from bias in the court and violence in the outside world. Finally, Qualter stated that the democratic wheel is powered by the consent of the governed, so that citizens enjoy the right to initiate laws and institute change. This idea of consent allows emphasis on the rights and freedoms of its people; this allows

people to act individualistically if no harm is done to others or laws are broken.

Presently, our central question states: Is democracy good for your health? In other words, do the citizens from a nation that offers consent so that they may enjoy liberty and equality thusly profit with an enhanced quality of life? While democracy is typically known as a representative form of government that emphasizes their citizens' freedom and voting rights, this study uses the term perceived democracy. Since democracy is widely used, it can hold various interpretations dependently on how individuals understand it. For this study, participants answer according to their own perception of how democratic their nation is. When referring to health, questions surround the participants overall wellbeing. With attempts to secure a wholistic definition, the current study uses questions that pertain to their individual health, happiness, financial satisfaction, and life satisfaction to evaluate wellbeing.

The literature addresses these questions at either the individual- or national-level; we suggest that a union of the two is needed. This study aims to add to

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the current literature gap by not only looking at the nation's impact on their citizens' wellbeing, but to also consider the individual effect of how democracy correlates with life at different income levels. Starting with an assessment of democratic values and wellbeing among respondents from around the world, mean levels of happiness can be combined with national democracy and Gross Domestic Product (GDP) data to offer another perspective on this central question. GDP is the overall value of products/services made within each country and provides a snapshot of the growth rate of each economy. Based on the research conducted in the following sections, we predict that the relation between democracy and wellbeing would depend upon the relative level of wealth distributed among a nation's citizens.

The social significance behind this study can help provide future research and evidence for political directions, policies, or funding that may impact society for the better. Such research can aid with fueling arguments and discussion points when trying to resolve political conflicts or disagreements. For example, it may help provide strength for arguments surrounding what is needed for investing in a healthier, happier, and financially more stable society.

Democracy Predicts Better Health

To evaluate the link between democratic governance and citizens' health, researchers have investigated various indices, including government structure, infant mortality, disease-specific mortality, life expectancy, socioeconomic, income, and education (Bollyky & Templin, 2019; Krueger et al., 2015; Muntaner, 2013; Windt & Vandoros, 2017). The link between democracy and health may arguably be indirect. This could lead to the assumption that democracies offer their citizens better education, which then leads to better nutrition and personal hygiene and later enhanced long-term health outcomes. To test this, Krueger et al. (2015) compared individual-level predictors (i.e. education, employment, and personal assets) to national-level health outcomes (viz. GDP/capita and regions). Their study found that whereas education was indeed associated with health, it did not significantly mediate the relation between democracy and health. The authors concluded that democracies typically invest more into both health and education initiatives, which often impacts the wider population rather than individual citizens.

To further explore the individual-level link between health and democracy, Windt and Vandoros (2017) used a probit analysis to compare micro-level democratic governments in Eastern Congo but uncovered only weak associations. The authors

suggested the role of third variables such as available resources and financial advantages, which allow some democracies the opportunity to provide vital health interventions; without which, various democratic villages within Eastern Congo would be unable to allocate resources onto health initiatives. Research on life expectancy, infant mortality, and disease-specific mortality further nurtures our discussion. Bollyky and Templin (2019) and Patterson and Veenstra (2016) found that democratic nations typically garner their citizens 14 additional years of life expectancy, and more years still with longer stretches of democratic rule (viz. 25 or more years). Over that time, democratic nations further witness a decrease in both infant mortality (78% on average) and disease-specific mortality, including cardiovascular disease, tuberculosis, transport injuries, and non-communicable diseases. As Bollyky and Templin (2019, p.1) write, "healthy populations can only be sustained with healthy and accountable political systems."

In sum, it is clear that studies have identified a moderate and reliable correlation between health and democracy. However, one must consider the duration of democratic governance, the resources and finances available for interventions, and the availability of education within each nation. While this research adds significant knowledge to our topic, we wish to explore further into the financial aspects of health and democracy. To specify, we wish to expand on the assumptions behind healthcare and wage/income initiatives (Krueger et al., 2015). Our study will use individual and national level income to determine whether income and healthcare-based initiatives may have a possible effect on democracy and health.

Democracy Predicts Greater Happiness

Research investigating how democratic governance impacts citizens' overall happiness has pursued the question by either a direct or indirect route, based on intervening variables such as culture, language, age, income, and gender. With favorable government policies delivered chiefly within democratic nations, Dorn et al. (2007) hypothesized that democratization would predict higher happiness. However, they further considered the indirect role of culture (specifically language and religion), since different cultures can hold unique definitions concerning what it means to be happy. Dorn and colleagues (2007) used responses from the International Social Survey Programme (ISSP) for their cross-national analysis of 28 nations. In support of the democratic governance impact on citizens' overall happiness, results showed that citizens' perceived democracy significantly predicted their happiness levels. However, whereas language

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correlated significantly with happiness, religion did not.

Orviska et al. (2012) also considered the role of culture in their analysis of the *World Values Survey* (WVS) (1994-2004), but further included the demographic factors of age, marital status, income, religion, language, and employment to unpack the link between democracy and happiness. They believed that results would vary (by specific culture) between and within countries. Results uncovered a positive correlation between democratic governance and both life satisfaction and happiness. Their correlations revealed that democracies (a) only mildly impacted high-income individuals, (b) positively impacted married couples, and (c) negatively impacted people with children (due to time and money constraints). Overall, this study offered supportive evidence for the link between democratic governance on happiness and life satisfaction. It also included the unique contributions of both culture and demographics to their mediation.

Similarly, Stadelmann-Steffen and Vatter (2012) examined the relation between democracy and happiness among citizens in Switzerland's 26 states (cantons). They reviewed data from the 2006 Swiss Volunteering Survey to then evaluate the tenability of two theories. The first theory, known as the direct happiness theory (Dorn et al., 2007), states that higher perceived democratic governance will predict higher happiness. Their second theory, called the indirect happiness theory, states that individual satisfaction with the government is related to the relative extent of democracy, and thus indirectly predicts higher happiness. The authors evaluated whether happiness would directly correlate with the level of democracy, or if a third variable (such as government satisfaction) mediated the association. Results supported an indirect relation between happiness and democracy levels, as routed through citizens' satisfaction with how democracy works. It should be noted that several extraneous variables were relevant in the understanding of the link between happiness and democracy, including education, unemployment, and culture (specifically among foreigners).

Ott (2011) examined both the quality and size of the government among 130 nations using both the *World Bank* and the *World Database of Happiness*. Quality of government was based on several factors, including accountability, stability or absence of violence, effectiveness, regulatory quality, rule of law, and control of corruption. Democratic Quality was based on the average of accountability and stability or absence of violence whereas Technical Quality was based on the average of effectiveness, regulatory quality, rule of law, and corruption control. Results

showed a positive correlation between average happiness and size of democracy. Ott (2011) also found a positive correlation between average happiness and democratic quality. The correlation for happiness and democratic governance was also not linear. The author explained that increase in average happiness may have been due to the interaction of technical and democratic equality (i.e., happiness is highest when they are both being used).

At this juncture, the two authors agree on a possible causal relationship to explain the correlation between democracy and happiness (Ott, 2011; Stadelmann-Steffen & Vatter, 2012). Like Stadelmann-Steffen and Vatter (2012), Ott (2011) suggested there could exist many explanations behind the results. Although the correlation between quality of government and happiness was significant, it begs the question of whether a causal relation or a third variable (wealth) model is more suitable. To test this notion, Ott controlled for GDP/capita and observed a sizable drop in the correlation between happiness and quality of government. Perhaps better government produces happier people, or (indirectly) good governance creates policies around wealth, freedom, healthcare, etc. that will positively impact citizens' happiness.

Loubser and Steenekamp (2017) conducted a 10-nation study using the WVS but reported only a weak relation between happiness and democracy. However, further analysis based on economic development showed that the correlation was more substantial among first-world countries. Potts (2016) believed that this phenomenon stems from social and economic turmoil, general unease, and lack of faith following government turnover. Potts further noted that this phenomenon is more commonly observed when a communist state transforms into a democratic one, and the necessary restructuring initially renders low levels of happiness. This might occur because citizens still long for rules under the previous regime, or the current government fails to stimulate (and maybe even stifle) the economy. Potts (2016) compared happiness levels between democratic and non-democratic nations, but further differentiated nations by liberal vs. conservative governance. Specifically, liberal democracies typically ensure civil liberties that augment population happiness; they recognize individual freedoms which prevail in many policy areas and allow citizens to have more control over their political lives. Alternatively, non-liberal democracies offer their citizens little choice or representation within their government body; they may offer political rights to those in favor of their current government, but often withhold opportunities from minority groups. With data obtained from the Freedom in the World dataset (including measures of

civil and political rights), Potts (2016) found that happiness was highest among citizens living in liberal democracies. It may be argued that mitigating factors could explain these differing correlations, including culture, years of democratic governance, selection bias, transition of governance/years of establishment, GDP/capita, poverty, and unemployment (Potts, 2016).

To summarize, the research into the relation between happiness and democracy remains equivocal. Numerous third variables and smaller datasets could be considered impactful in explaining the outcomes. To reemphasize the study conducted by Dom and colleagues (2007), happiness is indirectly correlated to happiness. As stated throughout this subsection, the third variables that may need to be accounted for include: culture, language, age, income, gender, government policy, or the duration of democratic governance. While our study does not examine all these variables, it does take into consideration income at both the individual and the national level. Our research will then potentially add to the missing data and strengthen the correlation between democracy and happiness.

Democracy and Satisfaction with Finances

Does democratic governance yield enhance financial satisfaction (D'Ambrosio et al., 2020)? Researchers in the field must first differentiate between income (i.e., annual disposable household income) vs. wealth (i.e., net worth in a household). D'Ambrosio et al. (2020) suggested happiness is negatively impacted by substantial income losses (or 'shocks') but enjoys long-term benefits from wealth (including net real estate, and both business and personal financial assets). Overall, those with greater long-term wealth may be happier due to enhanced quality of life; they tend to live in better neighborhoods and invest in safer security measures. Of course, gains in income (rather than wealth) typically do not increase relative happiness (D'Ambrosio et al., 2020).

In support, Radcliff and Shufeldt (2016) identified a negative correlation between income and happiness in democratic states. That is, the more money an individual has, the less happy and satisfied they are with their government. This could potentially be due to low income and status individuals who benefit more from a democratic governance than those with higher income and status.

According to Acemoglu et al. (2008), democracy has a positive correlation with economic performance due to democratic nations favoring economic growth whereas other nations focus on repression or limited economic growth. The study compared the economic

growth and political state that countries used to be in approximately 500 years ago. The results showed that the countries who were undemocratic and had relatively small income levels were the richer democratic countries today. The authors attempted to evaluate whether reverse causality may influence the correlation to income and democracy. The study questioned whether income influenced democracy or vice versa. However, a lack of evidence to support the causal relationship between income and democracy was seen. This leaves to question: Does democracy influence financial and economic growth within a nation?

When taking into consideration the inequality of income and its effect on a person's quality of life, Zagorski and colleagues (2013) suggested there was no statistically significant effect on an individual's wellbeing in developed countries. This article used Europeans as its population of choice. The authors also noted that other developed nations, not only Europe, tend to have an equal distribution in education, higher amounts of skilled work forces, and fewer amounts of unskilled workforces (farming, labors, etc.). These differences all play a part in helping a country develop income and in return equates to less inequality. Additionally, these countries may offer welfare benefits such as healthcare, schools, transportations, laws. It is then possible that these welfare benefits could increase the wellbeing of the poor. While the study yielded results that were nonsignificant for whether inequality (Gini index) effects financial quality of life and subjective wellbeing, it does affect financial quality of life when GDP per capita is added. The authors predict this result is due to the disadvantages poor countries face due to the level of inequality. The findings lead these authors to hypothesize that directing policies in favor of eliminating inequality will not be beneficial in advanced countries. In contrast, advanced countries should focus on policy making that will speed up socioeconomic development and, in turn, contribute to happiness and wellbeing.

Overall, the research to date has identified a significant correlation between democracy and happiness, as qualified by income (socioeconomic status, SES)—positive with low SES, and negative with high SES. It is argued that democratic governments typically offer aid policies that benefit lower-SES citizens, leaving the rich unsatisfied with their government.

In sum, it can be suggested that both a positive and negative correlation can be seen between democracy and financial satisfaction. Democratic governments will focus their policies on lower income and SES individuals, leaving the rich underrepresented and

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unsatisfied with their government. This lack of representation and satisfaction is where the negative correlation between the two variables can be seen. However, poor/low SES to middle/working-class individuals will reap more benefits within a democratic regime, as evinced in a positive relation between democracy and income satisfaction. Since there is insufficient data on democracy and financial satisfaction, the current study will further examine this relationship.

Present Study and Hypotheses

The present study asks how perceived democratic freedom relates to overall wellbeing, based on measures of relative wealth, health, and happiness. That is, do people who believe they live in more democratic nations enjoy a better life? Based on research by Dorn et al. (2007), who found that respondents' level of democracy was positively related to their perceived happiness and wellbeing, it was hypothesized that a higher perceived democratic governance will be related to greater wellbeing (as measured by life and financial satisfaction, perceived health, and happiness). Based on research by Van de Vliert and Postmes (2014), who found that income levels and life satisfaction were more strongly correlated in established nations, it was hypothesized that the correlation between the level of democracy and perceived wellbeing will be stronger in wealthier nations.

As there is a multitude of literature covering the correlation between democracy and health, the limitations arise when trying to determine which variables accurately measure health. Throughout the literature review process, it was discovered that each study uses their own variables to explore health. It leaves to question whether researchers can measure health while maintaining strong reliability. The current research aims to illuminate this limitation by breaking down health into wellbeing categories. These categories will then only consist of one variable for measurement rather than a multitude of variables. This could potentially lead to a more consistent and accurate display of health as a whole. Additionally, research with democracy and wealth seemed to be lacking when looking at wellbeing and health correlations. This research will provide a complete overlook of democracy, the wealth levels, and their influences on the participants overall wellbeing. In today's political climate, there is constant debate or public exposure to government parties and their policies. Our study thus offers insight and statistical support for why countries and their citizens may benefit from democratic governance. As governments are supposed to act and govern in the best interest of their people, our study aims to reveal that a

representative form of government may be needed to achieve this level of success.

Method

Statistical Analysis

The current study was conducted utilizing a significance level of .05 through the SPSS program (version 25). The independent variable in this study is democracy and the dependent variables include the wellbeing variables (i.e., health, happiness, life satisfaction, and financial satisfaction). To measure the first hypothesis, the study used a Pearson's product moment correlation model. This hypothesis examined whether there was a correlation between democracy and wellbeing. However, a multiple regression analysis was then used to assess our second hypothesis while looking at income (individually and nationally) as a moderator. The second hypothesis aimed to examine the correlation between democracy and wellbeing while considering different income levels. To analyze the differences between high- and low-income brackets at the individual level, independent-sample *t*-tests were used. Finally, we examined the differences in high and low national income levels with 1-tailed *t*-tests.

Procedure and Material

For the present study, we used a cross-national time series design using data from Wave-6 (2010-2014) of the WVS (Inglehart et al., 2014). Begun in 1981, the WVS compares respondents' social and political values, with responses from approximately 86 000 individuals from almost 60 nations. This data provided a reasonably accurate representation of the social and political state of a nation, both nationally and internationally. Through fieldwork conducted by each country's principal investigator (PI), surveys are typically a social scientist stationed at an academic institution. Surveys are delivered through structured questionnaires and administered face-to-face (recorded on either computer or paper). If respondents were unable to meet with the PI (due chiefly to regional isolation), the interview was conducted by phone. Questionnaires consisted of approximately 290 questions separated into 14 subsections that measure respondents' political and social attitudes.

For Wave-6, the WVS employed both stratified and probability sampling. Stratified sampling divides the entire national population into subgroups, from which random samples are drawn. Through probability sampling, the survey sets minimum sampling requirements for different countries, based on the overall population size. For example, although all countries must have a minimum sample size of 1 200, exceptions are made for countries with fewer

than 2 million residents (resulting samples approximate 1 000 surveys). The surveys are intended to be representative of the whole population aged 18 years of age or older. In some instances, the minimum age limit may be lowered if the sample size for the population of 18 years of age and older has not been achieved. To maintain this, all respondents are randomly selected regardless of culture, language, and citizenship. In some instances, the PI can lower the minimum age requirement below 18 years. Two layers of data mining were conducted, at the individual and national level.

Individual Data

The sample for this study consisted of 57 countries from the WVS database ($N = 85\,702$), of which 49% were male ($n = 41\,914$), 51% female ($n = 43\,741$), and 47 unspecified. Age was also reasonably well distributed: 29% of the sample was 18-29 years, 39% was 30-49 years, and 32% was 50-100 years.

Perceived democracy. Respondents were asked: *How democratically is your country being governed today? Using a scale from 1 to 10 -- where 1 means that it is 'not at all democratic' and 10 means that it is 'completely democratic' -- what position would you choose?*

Income. The survey asked: *Using this income scale -- where 1 indicates the lowest income group and 10 the highest income group in your country -- in what group is your household (counting all wages, salaries, pensions and other incomes that come in)?*

Wellbeing. We used four variables from the WVS to assess wellbeing: Health, Happiness, Life-Satisfaction, and Financial Satisfaction. The health question asked: *All in all, how would you describe your state of health these days?* The options included *poor, fair, good, and very good*. The happiness question asked: *Taking all things together, how happy would you say you are?* And rated using the following options: *not at all happy, not very happy, quite happy, and very happy*. For the life and financial satisfaction measures, a 10-point scale was used, where 1 = *completely dissatisfied* and 10 = *completely satisfied*. With respect to life satisfaction, the survey asked: *All things considered, how satisfied are you with your life as a whole these days?* With respect to financial satisfaction, the survey asked: *How satisfied are you with the financial situation of your household?*

National Data

In addition to perceived democracy, the four wellbeing measures were imported as national averages to the national dataset. The World Bank's

data (n.d.) were also used to identify the country's distribution of wealth, specifically GDP/capita – this is the gross domestic product (USD) produced by a country and then divided by the population. For this study, the most recent year (2018) was used. Scores ranged from Haiti's \$1867/person to Singapore's \$101 532/person.

Results

A significance level of .05 was utilized for all analyses, conducted using SPSS (Version 25). Table 1 shows the variable means, standard deviations, and intercorrelations. The first hypothesis stating that higher perceived democratic governance would be positively related to wellbeing was supported using Pearson's product moment correlation. This analysis was deemed suitable given the continuous nature of the variables and questions of their relative association. Specifically, the level of democracy perceived by respondents was positively correlated with each of the health and wellbeing variables ($ps < .05$).

To evaluate the second hypothesis stating that the correlation between democracy and wellbeing would be stronger among wealthier nations, we conducted a hierarchical multiple least-squares regression analysis where income was expected to moderate the relation between perceived democracy and wellbeing. We first standardized both democracy and income brackets to facilitate the hierarchical analysis using standardized predictors and their product. The results in Table 2 showed that the regression of perceived democracy onto wellbeing was significantly moderated by income ($ps < .001$) for happiness, $F(3, 79598) = 1490$, $R^2 = .53$; health, $F(3, 79909) = 1390$, $R^2 = .05$; life satisfaction, $F(3, 79855) = 3097$, $R^2 = .10$; and financial satisfaction, $F(3, 79873) = 5777$, $R^2 = .18$. We then compared the correlations between democracy and wellbeing by income brackets (see Table 3), collapsing the lowest two levels into one, and the highest three levels into one (due to modest cell sizes). Inspection of the correlations showed that the association between perceived democratic governance and wellbeing was significantly (though not substantially) weaker among respondents living in higher income brackets. To show this, Figures 1-4 were split into our three-income brackets (low, medium, and high) for ease of interpretation. We compared the correlation between democratic governance and each index of wellbeing using Fisher's z-test of independent correlations (Field, 2020). The results in Table 4 show that these correlation differences were not significant. We concluded that although the multiple regression analysis suggested significant moderation by income, the impact was trivial and likely we believe a function

of extremely high sample size (resulting in excessive power and possible Type I errors).

We then pursued a different vein in our evaluation of the second hypothesis, while tempering the high power. We distilled the broad individual respondent dataset into a national matrix of 57 countries which included the means of wellbeing and perceived democracy; we then halved the nations into groups of near equal size based on national GDP/capita; an independent-samples *t*-test showed a marked difference in GDP/capita between wealthier nations ($M = \$37\,543/\text{cap}$, $SD = \$18\,034$) vs. less wealthy nations ($M = \$9\,915/\text{cap}$, $SD = \$5191$), $t(32.8) = 7.92$, $p < .001$ (corrected for heterogeneous variances). *T*-tests failed to uncover a difference in levels of either happiness or health by national distribution of wealth ($ps > .05$). However, there was a significant difference in life satisfaction, $t(44.7) = 3.75$, $p < .001$; where respondents from wealthier nations reported significantly greater life satisfaction ($M = 7.13$, $SD = .53$, $n = 29$) than respondents from less wealthy nations ($M = 6.42$, $SD = .86$, $n = 28$). Similarly, respondents from more wealthy nations reported significantly greater financial satisfaction ($M = 6.17$, $SD = .57$, $n = 29$) than respondents from less wealthy nations ($M = 5.49$, $SD = .90$, $n = 28$), $t(45.3) = 3.36$, $p = .001$. Both statistics were corrected for heterogeneous variances.

Although the correlations between national perceived democracy and each of happiness, health, life satisfaction, and financial satisfaction were significant ($ps < .001$: $rs = .59$, $.45$, $.66$, $.67$, respectively), we split those correlations according to high and low GDP/capita nations (see Table 4) as a test of moderation. Using a 1-tailed *t*-test, we compared the correlation coefficients from independent samples (Cohen & Cohen, 1983). Results showed no significant difference in the democracy-wellbeing correlations from low- vs. high-income nations ($ps > .05$).

Discussion

The present study addressed the question—Is democracy good for your health (in addition to overall wellbeing)—by evaluating two hypotheses: 1) that the correlation between perceived democratic governance and perceived health and wellbeing would be significant; 2) that those correlations would be higher among citizens from wealthier nations. Analysis of Wave-6 WVS data uncovered full support for the first hypothesis, but only partial support for the second.

At the individual level, our analysis revealed a significant positive correlation between perceived democracy and all measures of perceived health and wellbeing. Whereas it could be said that democratic

rule engenders happy and healthy citizens, it could be equally true that those same citizens harbor a rosier outlook on their nation's support for personal freedom. Future research involving latent variable path modeling could offer a glimpse into a potential causal mechanism. This may offer the opportunity to develop an understanding behind how the correlations between our variables are formed, and potentially expand onto why these correlations may have occurred.

In our investigation into the second question—that income would qualify the relation between democracy and wellbeing—results were mixed. On one hand, following the analysis of respondents' perceptions of democratic governance, results showed that income acted as a significant moderator for all four measures of health and wellbeing. However, when conducted at the national level—having distilled the respondents' ratings into national averages—the data showed significant discrimination between nations with higher vs. lower GDP/capita for both life and financial satisfaction (but not happiness or health). Finally, the democracy-wellbeing correlations (as split by low- vs. high-GDP/capita) were not significantly different from each other. In short, it may be the case that our discovery of an income moderation between democracy and both happiness and health (when using the massive dataset) was only detectable in light of enormously high power.

Democracy and Wellbeing

As a parallel to past research, our results further supported the link between democracy and both (a) perceived health (Bollyky & Templin, 2019; Muntaner, 2013, Patterson & Veenstra, 2016; Windt & Vondoros, 2017); and (b) life satisfaction (Dorn et al., 2007; Loubser & Steenekamp, 2017; Orviska et al., 2014). Whereas prior research included various socio-demographic controls such as culture, religion, language, and length of democratic rule (Patterson & Veenstra, 2016), the present study accounted for respondents' perceived level of relative income wealth distribution. We reported that wealth distribution did not significantly temper the relation between democratic governance and wellbeing. This does mirror the results of D'Ambrosio et al. (2020) who suggested that long-term (rather than short-term) wealth has a greater correlation to life satisfaction. Indeed, democracy itself offers many opportunities for individual decision-making, income opportunities for lower socioeconomic groups, and provisions for mandatory healthcare. Conclusions can be drawn on how to improve a person's perceived wellbeing comparing these varied inputs which may perhaps determine whether a more democratic environment will prove impactful. We will now review how our

results mirror those prior, as divided by each measure of wellbeing.

Health. Our results showed that health was positively correlated to both democracy and income, but not national distribution of wealth (GDP/capita). Krueger et al. (2015) similarly examined self-rated health and democracy and their results parallel our own. However, whereas their individual-level variables (education, wealth, and employment) were all positively correlated to health, they did not serve as significant mediators. This was not an unreasonable assumption given that several studies had identified enhanced health outcomes among people from higher income brackets (Patterson & Veenstra, 2016). It remains arguable that health will thrive within higher income brackets because of the relative affordability of medical care, procedures, medications, etc. So too, a democratic state would implement policies to help its less financially fortunate citizens through programs such as Medicaid and Medicare. It should be noted that by various efforts to identify significant mediators and moderators of this relation (including income, participation in policy making, education, employment, and SES), it has remained elusive as to how and why they serve as mediators within this model.

Happiness. The present study determined that democracy was correlated to happiness, but both income and national wealth could not (at least in the national data) account for this association. To further explain, this could mean that a democratic government offers other policies that promote happiness among its citizens that are not related to income or national wealth. For example, a democratic government is considered a representative state, meaning that it governs based on what's best for the majority of its people. They support policies that embrace political freedoms (voting rights) and personal freedoms (human rights, racial equality, gender equality, LGBTQ+ rights, etc.). Similarly to the works of Dorn and colleagues (2007), these public policies could be considerable variables that influence the happiness levels in democratically run states. Based on work by both Orviska et al. (2014) and Stadelmann-Steffen and Vatter (2012), it was suggested that happiness would indirectly impact ratings of democracy; they further highlighted a series of intervening variables. Whereas our results (at least nationally) implied that national wealth and income do not moderate the association between perceived democracy and happiness, they also align with data suggesting that citizens' overall satisfaction with their government's ability to generate personal wealth will necessarily augment perceived happiness (Loubser & Steenekamp, 2017; Ott, 2011).

Life-Satisfaction. This study supported a positive correlation between life satisfaction and each of perceived democracy, income brackets, and GDP/capita. Since our results show that democracy has a correlation to both income and national wealth, it could be predicted that life satisfaction may also be the result of government policy and personal freedoms. Previous research had hypothesized that the correlation between life satisfaction and democracy could result from several mediators and moderators, including democratic policy outcomes (Radcliff & Shufeldt, 2016) and political participation (Owen et al., 2008). We note presently that our study did not account for the same intervening variables as Owen et al. (2008), however our inclusion of both perceived income brackets and national wealth distribution adds necessary controls to the understanding of possible mediators.

Financial-Satisfaction. We identified a significant positive correlation between democracy and financial satisfaction, though income and GDP/capita did not serve as significant moderators. To expand, this identifies that democracy somehow has a positive correlation to financial satisfaction, but it does not rely as heavily on income and GDP. This could lead to possible assumptions that although a democratic government may put forward wage initiatives and policies geared toward the lower class, it does not have a strong influence on citizen satisfaction level. Individuals with higher income will not rely on democratic policies and therefore their satisfaction will not be dependent on democracy. We can draw the assumption that the middle-class may feel disregarded or left out with democratic low-income initiatives/programs and be happy with their own finances without the help from the government. The results show that individuals democratic governance is correlated with financial satisfaction, but not as strongly as we predicted. Levin-Waldman (2011) discussed the influence of wage policy, income distribution, and democratic governance on citizens' financial security, wherein more democratic nations enforce legal, political, social, and economic equalities. He further explains how economic and financial differences in the electorate may offer advantages to those in one income category, but disadvantages to another. Arguably, these differences could result simply from the availability of key resources, so that low-income nations benefit greatly from the policies (such as wage initiatives) endorsed within a democratic (even socialist) regime (Radcliff & Shufeldt, 2016).

Strengths, Limitations and Future Research

Much like prior research, the present study carries some limitations what warrant mention. To begin, the

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variables selected to evaluate our research questions were chosen according to what would represent wellbeing most accurately. When conducting their research, the WVS used single-item measures to assess variables such as health, happiness, life satisfaction, and financial satisfaction. It could be argued that such variables cannot be accurately measured by using only a single question. How can a single question determine what makes a nation 'healthy' or 'happy' when these nations have their own differences in beliefs or cultural values? It can also be argued that the complexity of such variables cannot be answered by a single question. Instead, a series of questions may be needed to develop an overall in-depth look at what makes a nation healthy, happy, or satisfied with their life and finances. This study also only examined select nations, leaving a large amount unaccounted for. Our results support that democratic nations are better for one's wellbeing, but only a quarter of the world's nations were used. While our data was limited to 57 nations, we hope this research can be generalized and used to reach a broader range at the international level.

Although the study reveals some limitations, it also holds many strengths. The results reveal that there is a correlation between democracy and its impact on an individual's health. Unlike the literature reviewed, this study aimed to illuminate third party variables (e.g., culture, age, language, etc.) and examine the participants' own views on our variables. The questions used, which were asked through the WVS, indicated the participants' individualistic personal beliefs and experiences with health, happiness, finances, and life satisfaction. Such questions offer insight on the real-world experiences our participants are facing. These experiences allow us to evaluate our predictions of the relationship between democracy and health. Since our study used correlational research, it has offered potentially useful information regarding the outcomes of governance on the population's wellbeing. For example, the results show a correlation between democracy and both financial satisfaction and life satisfaction. This information can be used when moving forward with implementing democratic practices which favor a holistic approach that enforce policies and initiatives that benefit the population majority. Similarly, health was positively correlated to democracy and income. This information could also be used in favor of public funding and healthcare initiatives as support for backing their overall benefits on the population. Finally, unlike previous research, our study did not just examine one possible variable, but four. Research often looked at the correlation between democracy and one topic, such as health, income, happiness, or culture. Limiting a study to one topic does not offer a complete and holistic approach. Our study wanted to better

examine the correlation of democracy and an individual's wellbeing. To do this, we knew that a different approach would be needed by using multiple topics of wellbeing. Our research offered a plentiful amount of insight on the benefits of democracy on the population's wellbeing. While we address that it cannot be stated that democracy causes a better outcome for people's health, it does offer useful information that indicates they are positively related somehow.

The present study offers sound evidence that democracy *is good* for one's health and wellbeing, and that for the most part is largely inert to levels of personal and nationally distributed income. Future research may wish to collect data from samples of democratic policy (wage initiatives, enforce focus on low/working class) or distribution of wealth to further explore national wealth and its correlation to democracy and financial satisfaction. To further examine why GDP/capita (national wealth) had a greater significance for wealthier countries than less-wealthier nations when looking at life satisfaction and financial satisfaction, individual and/or national debt could be considered for wellbeing. For example, research could look at debt (individually and nationally) and its correlation to wellbeing within different nations. This study also found a positive correlation between income and financial satisfaction and health. It was suggested that quality of life could influence these variables as well as higher income could be related to better health and financial support/satisfaction. Examining the differences between citizen's level of quality of life could offer statistical proof to these suggestions. A final area to explore could be how democracy may correlate to wellbeing in politically split nations such as the United States. Comparing how different states vary in favor/opposition to democracy and examining what differs state-by-state would be a possibility.

Conclusion

Democracy offers many opportunities for potential growth and involvement surrounding political participation, income and wage opportunities, better healthcare options, and creates policies which are centered around the majority population. It can be concluded that results of this research could be utilized to alter messaging in political realms and target marketing to educate constituents on political goals. As stated previously, our research offers insight on the benefits of having a representative and democratic state of governance. For example, if the political goal is to convince the public that wage or healthcare initiatives are successful, our study can be used as supporting evidence or inspire additional research to be conducted. A better understanding of

the veiled benefits to a democratic governance could undoubtedly increase the nation's overall wellbeing while developing both collective and individual potential.

There are a multitude of wellbeing variables and numerous interaction/outside moderator variables that can contribute to research regarding this field. This then suggests that the research surrounding democracy's correlation with wellbeing will never truly be complete and a unanimous answer to: How does democracy foster wellness outcomes within each nation? Although this may be the case, it does not diminish the social importance or relevance behind studying this topic. As government policies are constantly changing or being challenged, this type of research will never be complete.

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Appendix

Table 1

Individual Level: Correlations of Democracy, Income, Health and Wellbeing

Measure	Democr	Income	Happy	Health	Life_Sat	Fin_Sat
Perceived Democracy	---					
Income Bracket	.14	---				
Happiness	.16	.19	---			
Health	.11	.21	.38	---		
Life Satisfaction	.22	.27	.46	.29	---	
Financial Satisfaction	.22	.39	.32	.24	.50	---
Mean	6.00	4.74	3.13	2.90	6.78	5.85
<i>SD</i>	2.53	2.10	.075	.85	2.29	2.47

Note. All correlations significant, $p < .001$.

Table 2

Wellbeing by Income and Democracy Moderation Analysis

Wellbeing B	<i>SE B</i>	Beta	<i>t</i>	<i>p</i>
Happiness				
Income	.139	.003	.185	53.16 < .001
Democracy	.102	.003	.136	39.10 < .001
Income x Democ	-.018	.002	-.026	-7.65 < .001
Health				
Income	.176	.003	.207	59.94 < .001
Democracy	.068	.003	.080	22.94 < .001

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Income x Democ	-.014	.003	-.018	-5.09	< .001
Life Satisfaction					
Income	.601	.008	.263	77.10	< .001
Democracy	.415	.008	.182	53.81	< .001
Income x Democ	-.104	.007	-.049	-14.56	< .001
Financial Satisfaction					
Income	.949	.008	.385	118.0	< .001
Democracy	.411	.008	.167	51.50	< .001
Income x Democ	-.115	.007	-.050	-15.59	< .001

Table 3

Democracy and Wellbeing Correlations by Income Level: Individual Level

Income (n)	Happiness	Health	Life_Sat	Fin_Sat
Lowest (15176)	.159	.075	.227	.236
Third (9709)	.168	.118	.219	.232
Fourth (11451)	.143	.090	.213	.197
Fifth (17181)	.118	.078	.180	.161
Sixth (12206)	.121	.085	.135	.124
Seventh (9265)	.132	.066	.141	.119
Eighth+ (7554)	.091	.025	.121	.114

Table 4

Democracy and Wellbeing Correlations by GDP/capita: National Level (N = 57)

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Wellbeing	Low GDP/cap (<i>n</i> = 29)	High GDP/cap (<i>n</i> = 28)	<i>z</i> *	<i>p</i>
Happiness	.551	.601	.267	.394
Health	.487	.451	.165	.488
Life Satisfaction	.678	.523	.874	.191
Financial Satisfaction	.658	.582	.442	.330

Note. *1-tailed *z*-test

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Figure 1

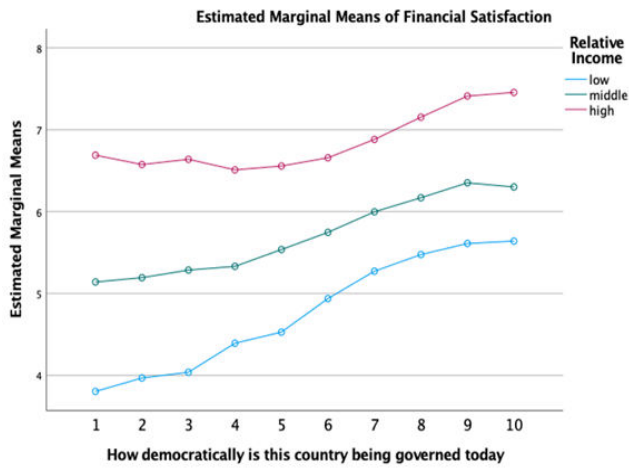


Figure 2

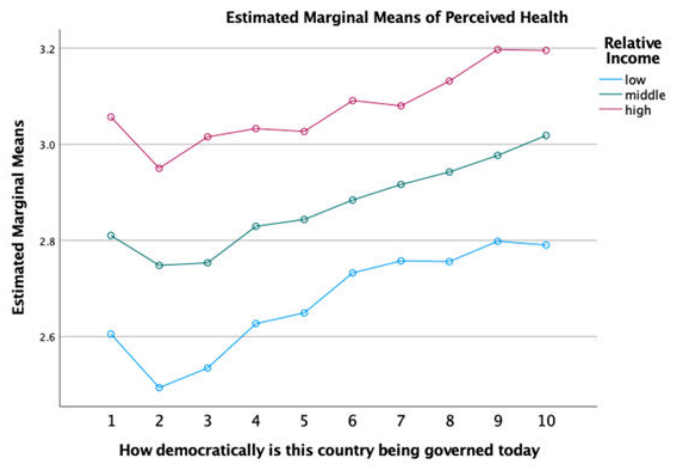


Figure 3

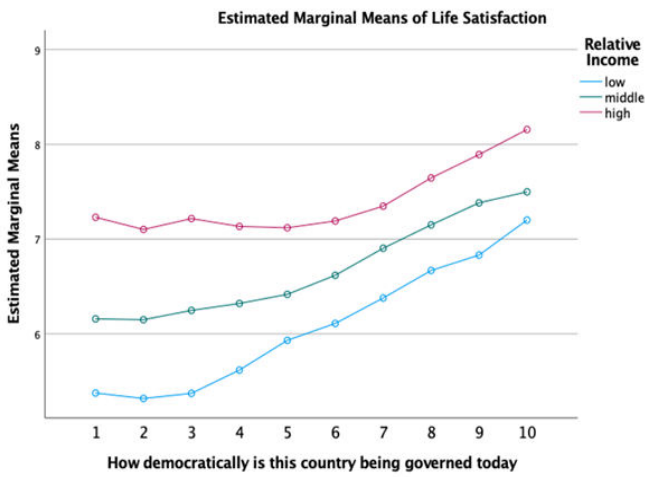


Figure 4

