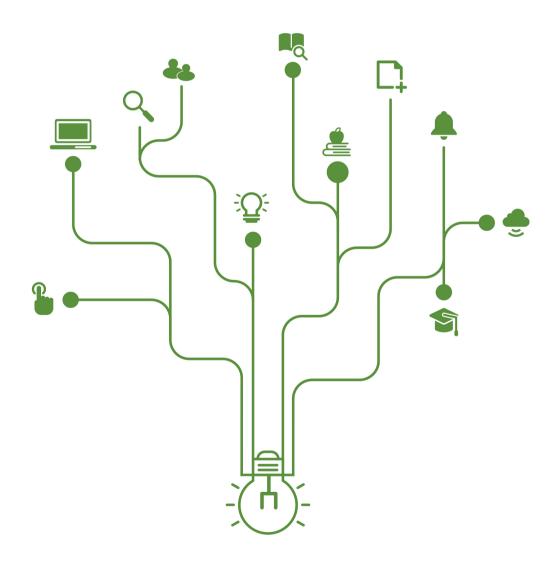
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# Happiness and the Quality of Government

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## Happiness and the Quality of Government

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## **Abstract**

This paper uses happiness data to assess the quality of government. Our happiness data are drawn from the Gallup World Poll, starting in 2005 and extending to 2017 or 2018. In our analysis of the panel of more than 150 countries and generally over 1,500 national-level observations, we show that government delivery quality is significantly correlated with national happiness, but democratic quality is not. We also analyze other quality of government indicators. Confidence in government is correlated with happiness, however forms of democracy and government spending seem not. We further discuss three channels (including peace and conflict, trust, and inequality) whereby quality of government and happiness are linked. We finally summarize what has been learned about how government policies could be formed to improve citizens' happiness.

#### **Keywords:**

Happiness, Subjective well-being, Quality of government, Delivery quality, Democratic quality, Confidence in government, Government spending, Peace, Conflict, Trust, Inequality **JEL:** H1; H5; I3

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#### Introduction

This chapter has three main purposes. The first is to explain how and why there is increasing interest in using happiness data and research to measure the quality of life, to help governments make policy choices, and to evaluate the effects of government policies. A review of important milestones marking the changes in policy perspective is presented.

The second purpose is to bring together the largest available sets of existing national-level measures of the quality of governance, and to assess the extent to which they contribute to explaining the levels and changes in life evaluations in more than 150 countries over the years 2005-2017, using data from the Gallup World Poll. In our view, happiness data provide the most appropriate means for learning what types and styles of government are most helpful, as experienced by each country's residents.

The third purpose is to dig slightly deeper into some of the channels whereby happiness and government quality are linked. We emphasize three channels: conflict, trust, and inequality. Conflict and inequality are partly created by governments, and make other policy objectives harder to reach. Trust is an asset partly due to government actions, and is good for happiness in its own right as well as aiding the achievement of other policy objectives.

A short concluding section summarizes what has thus far been learned about how governments could be changed so as to improve well-being in all countries, as measured by people's own evaluations of their lives.

## Setting the Stage

There is now widespread interest in refocusing government policies with the explicit aim of increasing equitable and sustainable human well-being. This change in policy perspective has been decades in the making, built on a growing dissatisfaction with using GDP per capita as a sufficient measure of human progress (Stiglitz, Sen, and Fitoussi 2009), inspired by the Bhutanese choice more than 40 years ago to make happiness a national objective, and fuelled by decades of research aimed at creating a transdisciplinary science of happiness (Ura et al. 2015). These converging threads came together on July 19, 2011, when the United Nations General Assembly adopted a Bhutan-sponsored resolution that "called on United Nations Member States to undertake steps that give more importance to happiness and well-being in determining how to achieve and measure social

and economic development."1)

That resolution then led to a High Level Meeting on Well-Being and Happiness: Defining a New Economic Paradigm,<sup>2)</sup> convened by Jigme Y. Thinley, Prime Minister of Bhutan, at the United Nations on April 2, 2012. That meeting marked the release of the first World Happiness Report (Helliwell, Layard, and Sachs 2012), bringing together the available global data on national happiness and reviewing related evidence from the emerging science of happiness. That report, which in turn built on many other reviews of the science of well-being, provided strong support for the view that the quality of people's lives can be coherently and reliably assessed by a variety of subjective well-being measures, collectively referred to in this chapter as "happiness". It also built upon, as did the UN meeting itself, the UK launch of a well-being initiative in November 2010, still unique in combining engagement at the highest level from the political, administrative, and data-gathering pillars of government. The initial constellation of these three supporting pillars was probably crucial in establishing widespread data-gathering and discussions. Once started, these data and discussions have fueled a broad swath of innovations in firms and communities, and a variety of within-government and cross-pillar organizations, that have continued to deliver research and applications despite not being a central feature of the political environment.

Life evaluations were granted a central role in the World Happiness Reports because they provide an umbrella that can enable comparisons of the relative importance of the supporting pillars for good lives. The OECD Guidelines on Measuring Subjective Well-Being (OECD 2013) also emphasize the need to measure life evaluations as a primary indicator, ideally in concert with monitoring affect (i.e., both positive and negative aspects of people's daily emotions and experiences); "Eudaimonia" (i.e. measures of life purpose); and other factors that have been found to support better lives (e.g. income, health, good jobs, family and friends, welcoming communities, good government, trust, and generosity). Having an umbrella measure of subjective well-being permits the relative importance of these factors supporting well-being to be assessed, making it possible to move beyond a general wish to improve well-being towards some specific policies with established credentials for supporting better lives.

Both before and after the April 2012 UN meeting, attempts were made to sketch the possible implications of happiness research for public policies. A number of national and international efforts also aim to develop a well-being policy framework, as summarized in

<sup>1)</sup> Resolution 65/309. See http://www.un.org/apps/news/story.asp?NewsID=39084#.Whd0DLYZP3h

<sup>2)</sup> For the report of the meeting, see: https://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=617&menu=35

Durand and Exton (2019). Using happiness data and research to assess the value of political institutions and policies seems especially appropriate, since many national constitutions and most policy platforms relate to the quality of life, and the existence and re-election of democratic governments depend on maintaining a sufficient level of citizen satisfaction with the quality of life. Nonetheless, until recently most studies of the sources of electoral support have focused on economic conditions rather than more general measures of the quality of life. More recently, when comparisons have been made between economic performance and life satisfaction as determinants of electoral outcomes, the latter has been found to be more important (Esaiasson, Dahlberg, and Kokkonen 2019; Ward 2019a, 2019b). If these results are confirmed more broadly, they will tend to give happiness a more central role in political science, political platforms and public policies.

There are three key components required to support systematic attempts to design and evaluate government institutions and policies in terms of their likely effects on people's own evaluations of the quality of their lives. The first is the collection of happiness data in sufficient detail to support research into the reasons why some neighbourhoods and nations are happier than others. Relatively few countries are yet assessing subjective well-being in enough detail and frequency to support research sufficient to formulate policies focused on well-being.

Second, governments are unlikely to change their policy objectives unless supported by public opinion. There is already apparent support, in most countries, for a policy framework designed to deliver sustainability, as witnessed by the breadth of national commitments to the Paris Accord establishing the Sustainable Development Goals. Subjective well-being is included among the many goals, but more importantly has the potential for being used as an umbrella welfare measure to help to establish the relative importance of what otherwise risk being too many unrelated goals. In this important area, as in others, the availability of an empirically useful measure of individual and societal wellbeing can help to galvanize as well as direct public and political thought and actions.

Third, to convert broad objectives to specific policies, and to effectively rank alternative ways to design and deliver public services, requires a much broader and more comprehensive form of cost/benefit analysis. The basic idea is simple. Many policies have expected consequences for a variety of economic and social outcomes, for a range of beneficiaries, and with various ways of distributing the costs and efforts of policy design and delivery. Traditional cost/benefit analysis includes costs and consequences that are directly measured at market prices, with non-market outcomes, such as the level of social

trust in a community, being mentioned in discussions as being relevant, but being left out of any explicit calculations used to support the ranking of alternative policies. To go further requires extending the evaluation of alternative policies to include their expected contributions to subjective well-being, using empirical research to establish the weights assigned to the various outcomes when measuring the overall costs and benefits. These practices are increasingly established within the policy green books and evaluation practices used in departments and cabinet offices in several countries, and probably represent the most important shift required to implement a well-being approach to the evaluation and design of government institutions and policies.

## Happiness and the Quality of National Governments

We use 'happiness' as a shorthand way of describing a three-member family of measures of subjective well-being comprising life evaluations, positive affect and negative affect (Durand and Smith 2013; OECD 2013).3) Happiness as an emotion is part of positive affect, while happiness about one's overall life is an evaluative judgment. Judgments about life satisfaction or happiness with life deliver quite different answers than do questions about happiness as an emotion, with life evaluations being more reflective of a wide range of life circumstances. Most of the research linking happiness and the quality of government has made use of some form of life evaluations, whether happiness with life, satisfaction with life, or the Cantril ladder question asking people to think of their lives as a ladder, with the best possible life for them as a 10 and the worst possible life as a zero, and to rate their current lives on that scale. There is good reason for this preference for life evaluations. They vary more across countries than do emotional measures, and these differences are much more explicable in terms of national variations in the social, political, and economic circumstances of life than is the case for either positive or negative emotions. Life evaluations are themselves supported also by positive emotions, without being strongly affected by negative ones as shown in Table 2.1 of Helliwell, Layard, and Sachs (2019, 20). Life evaluations thus provide a more powerful tool for assessing the importance of various aspects of the quality of government. Good government may or may not make you feel happy, but does, as we shall show, make you happier with your life as a whole.

<sup>3)</sup> The OECD also proposed having a measure of life purpose, and such a question is one of the four key well-being questions used by the UK Office for National Statistics. In our Aristotelian view, a sense of purpose should be a strong support for life evaluations, but there is unfortunately not yet such a question in the Gallup World Poll.

Most of the existing literature on the empirical linkages between happiness and government quality have been cross-sectional in nature, mainly because of the relatively short time span of suitable survey evidence, coupled with the frequently slow pace of change in the quality of the political institutions being studied. One frequent finding of this research has been that if the six World Bank measures of government quality (Kaufmann, Kraay, and Zoido-Lobaton 1999) are divided into two groups, one related to the honesty and effectiveness of policy design and delivery, and the other related to the quality of the electoral process, that quality of delivery is more important than democracy as a support for higher life evaluations (e.g. Helliwell and Huang 2008; Ott 2010), especially for countries with lower levels of delivery quality (Helliwell et al. 2018).

Only recently has the run of available data come to be long enough to permit the analysis to focus on the consequences of within-country changes rather than long-standing differences between countries (e.g. Diaz-Serrano and Rodríguez-Pose 2012; Helliwell et al. 2018; Nikolova 2016; Ovaska and Takashima 2010; Whiteley et al. 2010; Yamamura 2011). The ability to study changes within a given set of national institutions enables attribution of changes in life satisfaction to changes in the quality of government within a policy-relevant time horizon, even if it limits the scope for the study of the effects of broader systemic changes in the nature of public institutions. These broad systemic changes are perhaps best assessed by cross-sectional analysis combined with a closer examination of the time series evidence in those cases where an important institutional change takes place.

Since our interest in this chapter includes the analysis of different types of institutions that change very slowly, and of changes of government quality that occur reasonably often within the period covered by the available data, our analysis makes use of pooled samples of data covering more than a dozen years for more than 150 countries, doing our analysis with and without country fixed effects, with the latter delivering results that depend on what is happening within individual countries.

Our main analysis makes use of data from the Gallup World Poll, starting in 2005 and extending to 2017 or 2018, producing a panel of generally more than 1500 observations. Our analysis ends in 2017 in those cases where the quality of government variables are not available for 2018. Table A1 describes the main variables used in analysis and their sources, while Statistical Appendix 2 of World Happiness Report 2019 (WHR 2019 SA2) has more details and also shows the correlations among the variables (Helliwell, Huang, and Wang 2019).

#### Delivery quality and democratic quality

Table 1 shows our latest results comparing the life evaluation effects of the World Bank government quality variables divided into two groups, as we and others have done in previous work. This new estimation involves more data than we and others have used previously, and is mainly based on analysis employing country fixed effects. The new results replicate the basic earlier finding that within-country differences in the quality of delivery (the average for effectiveness, rule of law,4) regulatory quality, and absence of corruption) have significant linkages to life evaluations. As before, there is no such linkage for differences in democratic quality, as represented by two measures, one capturing voice and accountability, and the other stability and freedom from violence. We shall return later to consider the democratic and violence aspects.

There are three equations in Table 1. The first just includes the delivery and democratic variables, and shows a substantial link between a country's delivery quality and average life evaluations, with an increase in governmental quality equal to one standard deviation associated with a 0.7 point increase in average life evaluations. The second equation adds GDP per capita, which attracts a significant positive coefficient, and lowers the coefficient on delivery quality by about one-third. Such a reduction is to be expected, as better government should improve the ability to produce GDP. The third equation adds the three social variables included in the World Happiness Report framework for explaining this same sample of life evaluations. Healthy life expectancy is not included, since the country fixed effects estimation excludes the effects of inter-country differences, and the healthy life expectancy data follow simple time trends and hence do not add to the explanation of within-country changes. The corruption variable is excluded because it is a key part of the delivery variable. Adding the social variables reduces the remaining impact from delivery quality, and for mostly the same reasons as for income. For example, countries where delivery quality is high are also likely to provide the breadth and quality of public services that permit higher fractions of the population to feel that they are free to make key life decisions. Indeed, in these data the simple correlation between delivery and freedom (+0.48) is even higher than that between democratic quality and freedom (+0.45). In none of the equations does democratic quality show a significant additional linkage to life evaluations once the other variables in the equation are taken into account, despite the high simple correlation (which includes differences among countries as well as

<sup>4)</sup> Nikolova (2016) finds the rule of law to help explain changes in the happiness gap between the transition and non-transition countries of Europe.

over time) between democratic quality and life evaluations (+0.62), which is nonetheless less than between delivery quality and life evaluations (+0.71).5)

When we previously divided our sample of countries into those with high and low delivery quality, we found that the democratic quality variable did have positive linkages to life evaluations in countries with higher than average delivery quality. However, that result is not replicated in our new longer data sample, where we find that changes in democratic quality have no impact in either group of countries. This result is not driven by the infrequency of within-country changes in democratic quality, since it is also found in a pure cross-sectional analysis.<sup>6</sup>)

Table 1: Subjective Well-being and Quality of Government Measured by WGI Indicators of Governance, Country Fixed Effects Regressions, Sample Period 2005–2017

of Governance, Country	Fixed Effects	Regressions, Sample	Period 2005-2017			
_	Dependent Variable					
Independent Variable	SWB	SWB	SWB			
Democratic Quality	0.19	0.12	0.09			
_	(0.13)	(0.12)	(0.11)			
Delivery Quality	0.69	0.45	0.28			
	(0.2)***	(0.19)**	(0.17)*			
Log GDP per capita		0.84	0.77			
_		(0.23)***	(0.2)***			
Freedom to make life choices			0.92			
_			(0.21)***			
Generosity			0.29			
			(0.18)			
Social support			1.61			
			(0.29)***			
Year fixed effects	Included	Included	Included			
Country fixed effects	Included	Included	Included			
Number of countries	162	162	160			
Number of obs.	1548	1548	1469			
Within-country R-squared	0.08	0.11	0.19			

Notes: Standard errors in parentheses are cluster-adjusted at the country level. \*, \*\*, and \*\*\* indicate statistical significance at 10 percent, 5 percent and 1 percent levels respectively.

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<sup>5)</sup> We also ran regressions that replace the democratic and delivery indicator with a single measure of governance, the absence of corruption from the World Bank government quality indicators. Corruption control has a positive and statistically significant effect in the simplest specification. But when GDP per person is added to the right-hand side as a control variable, the estimated effect of corruption control drops by half and the statistical significance disappears. When other control variables in Table 1 are included, the estimated effect of the corruption variable is close to zero.

<sup>6)</sup> See columns 1 and 2 of Table 14 of Statistical Appendix 2 of World Happiness Report 2019.

#### Assessing other measures of government quality

Besides the World Bank government quality variables that we use to construct the delivery and democratic quality measures, the literature has other frequently used measures of government quality. In chapter 2 of the World Happiness Report 2019 we consider five of them - corruption perceptions, political rights, civil liberties, economic freedom and political freedom<sup>7) -</sup> in a regression model identical to those reported in Table 1, except that the variables for delivery and democratic quality are replaced by the five alternative measures. We find that only the corruption index has a significant positive effect in the first equation, where no other variables are included. The same result is found even if the variables are tested one by one within the fixed effects framework. This lack of correlation is of course strongly influenced by the use of country fixed effects, which transfer the cross-country linkages into the country-specific fixed effects. If instead, we look at the simple correlations for the whole data sample, with most of their variation coming from differences across countries, then there are significant linkages for each of these variables, although only for the corruption perceptions index is the correlation with life evaluations (+0.68) close to that of the delivery variable (+0.70). This similarity is to be expected, as corruption perceptions are a key variable in explaining life evaluations, and are also a key element in the delivery quality variable. If we add GDP per capita to the right-hand side of the regression, even the within-country changes in corruption are no longer significant incremental contributors to life evaluations, suggesting that much of their influence is mediated by changes in GDP per capita. When the social variables are added in the third column, they keep their importance, while the government quality indicators remain insignificant.8)

To confirm the robustness of this empirical preference for delivery quality over the other measures of the quality of governance, Table 2 shows pure cross-section results for changes from 2005-2008 to 2016-2018. The first column shows life evaluations to have increased more in countries where delivery quality has increased, even excluding effects flowing through increases in GDP. Column 2 takes out the delivery quality index, and includes the five alternative quality measures, for the smaller number of countries for which these variables are available. In this cross-section, the economic freedom index acquires significance at the 10% level, but this is lost in column 3 when the delivery

<sup>7)</sup> Political Rights (pr) and Civil Liberties (cl) indices are from the Freedom House. Corruption Perception Index (cpi) is from the Transparency International. World Press Freedom Index (wpfi) is from the Reporters without Borders. Index of Economic Freedom (wefi) is from the Heritage Foundation.

<sup>8)</sup> See Table 12 of Statistical Appendix 2 of World Happiness Report 2019.

quality variable is re-introduced. We therefore conclude that changes in delivery quality, whether on a year to year basis, or over a decade, contribute to national average life evaluations, and that nothing further is added from any of the other quality measures tested in Table 2.

Table 2: Cross-sectional Regressions of Changes from 2005-08 to 2016-18

	Dep	e	
Independent Variable	SWB	SWB	SWB
Democratic Quality	04		
	(0.18)		
Delivery Quality	0.53		0.68
	(0.26)**		(0.39)*
Log GDP per capita	0.65	1.04	0.9
	(0.28)**	(0.33)***	(0.34)***
Corruption Perception Index on standardized scale		18	43
		(0.21)	(0.25)*
Political Rights on standardized scale		19	14
		(0.31)	(0.31)
Civil Liberties on standardized scale		0.2	0.14
		(0.34)	(0.34)
World Press Freedom Index on standardized scale		06	02
		(0.15)	(0.15)
Index of Economic Freedom on standardized scale		0.26	0.16
		(0.14)*	(0.15)
Number of countries	128	112	112
Number of obs.	128	112	112
R-squared	0.14	0.15	0.17

Note: Standard errors are in parentheses. \*, \*\*, and \*\*\* indicate statistical significance at 10 percent, 5 percent and 1 percent levels respectively.

#### Confidence in government

The Gallup World Poll asks respondents, yes or no, whether they have confidence in their national governments. The fraction of respondents answering 'yes' can be used as a supplementary subjective measure of the quality of governance, as seen by those living within that system. Table 3 presents some results from country fixed effects regressions showing that changes within the sample period contribute to average life evaluations above and beyond what is explained by delivery quality, GDP per capita, and the three social variables. The same pattern of results holds both with and without adding the social variables, so Table 3 adopts the simpler structure. Column 1 includes confidence in government on its own, while column 2 adds GDP per capita, and column 3 adds

democratic and delivery quality. Confidence in government retains explanatory power when delivery quality is introduced. Delivery quality itself has a lower effect when confidence in government is included. Although the two variables have essentially no correlation in the full sample, within-country changes are significantly positively related, thereby increasing confidence in both variables as indicators of changes within a country, and reducing their coefficients in fixed effects specifications where both are included.

Table 3: Gallup World Poll's Measure of Confidence in National Government; Country Fixed Effects Regressions; Sample Period 2005-2017/18

	Dependent Variable					
Independent Variable	SWB	SWB	SWB			
Confidence in national government	0.83	0.68	0.6			
	(0.18)***	(0.15)***	(0.16)***			
Log GDP per capita		1.08	0.93			
		(0.28)***	(0.27)***			
Democratic Quality			003			
			(0.11)			
Delivery Quality			0.39			
			(0.21)*			
Year fixed effects	Included	Included	Included			
Country fixed effects	Included	Included	Included			
Number of countries	152	152	152			
Number of obs.	1504	1504	1388			
Within-country R-squared	0.09	0.13	0.14			

Notes: Standard errors in parentheses are cluster-adjusted at the country level. \*, \*\*, and \*\*\* indicate statistical significance at 10 percent, 5 percent and 1 percent levels respectively.

Experiments using the data from one half of each year's sample to measure the average confidence in government to explain the life evaluations of the other half of the sample would slightly reduce these effects (as shown in WHR 2018 for other variables), but leave their structure intact. Here we can report a similar experiment, replacing the confidence measure from the same survey with the confidence measure from the survey done in the year before. This way the key explanatory variable (the confidence measure) and the variable to be explained (the happiness measure) come from different respondents and also different, though adjacent, years. The estimated effects of the confidence measure drop slightly (by about 20%), but retain all their statistical significance.

#### Forms of governments and how governments are elected

Here we return to the question of the structure and operation of the electoral system. The results reported above attach only modest importance, in life satisfaction terms, to whether a system is or is not a functioning democracy. Of the total observations in our dataset, slightly more than half (54%) are recorded as democracies<sup>9</sup>, and those recorded as democracies on average have higher life evaluations than those which are not, 5.9 vs 4.9 on the 0 to 10 scale, using all data from 2005 to 2018. And within democracies, parliamentary democracies with proportional representation have the highest average life evaluations, averaging 6.4. Digging deeper into these simple averages, Table 4 contains six equations including the three variables reflecting political structure: democracy, democracy with proportional representation, and parliamentary democracy, with year fixed effects (but not with country fixed effects) and a variety of other control variables. Altman, Flavin, and Radcliff (2017) reported, among the OECD countries, higher life satisfaction in those with a parliamentary or proportional representation systems. Columns 1 to 3 are without regional control variables, while columns 3 to 6 include them. The first column includes just the three political structure variables, while column 2 adds GDP per capita and column 3 also adds delivery quality, perceptions of corruption, and the three social variables. In all three cases, being democratic is estimated to have a significant positive impact, ranging from +0.67 in the simplest case to +0.42 in the case with the most controls, but still without regional fixed effects. Proportional representation and a parliamentary form both add some positive contribution in the simplest case, with coefficients for the three variables summing to over +1.5 points.<sup>10)</sup> But by the time the column 3 controls have been added, the net effect for the proportional parliamentary democracies is down to +0.3 points. Columns 3 to 6 repeat the same equations with the addition of control variables for each of the ten global regions. In these equations, the effects of different political systems are estimated relative to other countries in the same continental region, as well as the relatively rare within-country changes. In none of the cases with regional controls are there any significant effects from the political system variables. Thus we conclude that the effects found in columns 1 to 3 risk being based on differences in life circumstances across global regions that are possibly attributable to factors beyond the ways in which governments are elected. We do not present results with country fixed effects, since they are even less able than columns 3 to 6 to show any

<sup>9)</sup> We follow the regime classification in Authoritarian Regimes Dataset (Hadenius and Teorell, 2007; Wahman, Teorell, and Hadenius, 2013).

<sup>10)</sup> This is consistent with the results of Altman, Flavin, and Radcliff (2017) for the OECD countries.

impact from systemic variables.

Table 4: Happiness, Forms of Government and Electoral Systems; Pooled Regressions without and with Regional Fixed Effects; Sample Period 2005-2018

			Dependent	Variable		
Independent Variable	SWB	SWB	SWB	SWB	SWB	SWB
Democracy, QGI	0.67	0.51	0.42	0.28	0.14	0.1
	(0.2)***	(0.12)***	(0.12)***	(0.18)	(0.09)	(0.09)
Proportional Representation	0.47	0.16	0.07	0.09	0.07	0.01
	(0.2)**	(0.14)	(0.11)	(0.14)	(0.11)	(0.1)
Parliamentary Democracy	0.35	33	28	0.1	0.04	0.04
	(0.2)*	(0.15)**	(0.13)**	(0.22)	(0.17)	(0.14)
Log GDP per capita		0.68	0.45		0.62	0.35
		(0.04)***	(0.06)***		(0.06)***	(0.07)***
Year fixed effects	Included	Included	Included	Included	Included	Included
Regional fixed effects				Included	Included	Included
Social variable controls			Included			Included
Number of countries	144	144	136	144	144	136
Number of obs.	1453	1453	1212	1453	1453	1212
R-squared	0.28	0.65	0.76	0.6	0.73	0.8

Notes: The social variable controls in columns 4 and 6 are the same ones that are used in Table 1, namely the perception of corruption, freedom to make life choices, generosity, and social support, all from the Gallup World Poll. Standard errors in parentheses are cluster-adjusted at the level of countries. \*, \*\*, and \*\*\* indicate statistical significance at 10 percent, 5 percent and 1 percent levels respectively.

#### How governments spend

In chapter 2 of the World Happiness Report 2019 we also tested some particular government expenditure patterns that might have possible implications for average life evaluations. In a full equilibrium, if every country had the structure of government that was best for the subjective well-being of its citizens, then spending patterns in each country would simply reflect the preferences of that country's voters, and international variations would reflect differences in tastes and circumstances across countries. This may also explain the mixed findings linking government size to happiness (Bjørnskov, Dreher, and Fischer 2007; Flavin, Pacek, and Radcliff 2014; Ott 2010, 2011, 2015; Persson and Rothstein 2015; Ram 2009; Yamamura 2011). The four variables we consider are government education spending, government healthcare spending, and military spending (all as % of GDP) and a cross-sectional measure of the breadth of coverage of a country's social safety net system, on a scale of 1 to 10. Here we briefly summarize the key findings. 11) We find that social safety net coverage takes a significant positive coefficient, with or without regional fixed effects, but only in the simplest form excluding income and

<sup>11)</sup> Detailed estimates are reported in Tables 16-18 of Statistical Appendix 2 of World Happiness Report 2019.

other control variables. Government spending on education has no impact in any of the equations, with or without regional fixed effects, while healthcare spending has a positive coefficient, and military spending a negative one in the equations with the largest set of control variables, both with and without the additional of regional fixed effects. But these effects disappear when country fixed effects are used. This indicates that statistical significance for healthcare and military spending mostly arises from differences across countries.

## Mediating Factors: Conflict, Trust and Inequality

Here we consider some factors that are important for subjective well-being and are also affected by the quality of government. We look especially at conflicts, trust and inequality of wellbeing.

#### War and peace

In this section, we show that conflicts<sup>12)</sup> and the global peace index<sup>13)</sup> both provide important channels by which good government helps to support high life evaluations.

One of the benefits of good government should be to reduce the incidence of violence, and more generally to enable citizens to live in peace. Indeed, the absence of conflict is one of the components of the World Bank's measure of political stability. Since that measure was not found earlier to significantly affect life evaluations, we return to the issue here more directly. We look first at the incidence of violence, and then consider the global peace index. To assess whether the prevalence of violence is associated with lower life evaluations, we make use of data published by the Uppsala Conflict Data Program. Table 5 shows two sets of three columns each. In every column there are two conflict variables, each on a zero to 1 basis. The first conflict variable indicates a country and year in which there were any conflict deaths recorded, and the second takes the value of 1.0 for any country year where the conflict death rate was in the 90th percentile of all cases where conflict deaths were recorded. In our sample of 2,100 country-years, about 600 had some conflict deaths recorded, while in 60 country-years (the top decile) the conflict death rates ranged from 7.5 to 70 deaths per 100 thousand population. There were 14 different countries that had one or more years of conflict deaths in the 90th percentile. 14)

<sup>12)</sup> For single country evidence for Ukraine, see Coupe and Obrizan (2016). For estimates of the well-being consequences of terrorism in France and the United Kingdom, see Frey, Luechinger, and Stutzer (2009).

<sup>13)</sup> See http://visionofhumanity.org/indexes/global-peace-index/

The results reported in columns 1-3 of Table 5 are all from regressions that include country fixed effects. The first column contains only the conflict variables, the second adds the log of GDP per capita, and the third adds corruption, freedom to make life choices, generosity, and social support. The estimates suggest negative impacts from any conflict deaths, and a much greater impact for those countries in the 90th percentile. They also suggest that when GDP and other social variables are added, there is a substantial reduction in the negative impacts of conflicts, indicating that some of the adverse effect of conflicts on population happiness is likely due to weakening economic activity and damage to the social fabric.

Columns 4-6 of Table 5 present the results when the conflict-death variables are replaced by the Global Peace Index in regressions with country and year fixed effects. The Global Peace Index takes a negative sign in almost all specifications because the index is defined so that higher values indicate a less peaceful country. The variable rates each of more than 160 countries in each year from 2008 to 2018 in three domains: societal safety and security, the extent of continuing domestic and international conflict, and the degree of militarization. The estimated happiness effects for the peace index are significant in all three cases, even though with a smaller estimated effect in the final column with the fullest set of economic and social control variables. Thus part of the negative effect from conflict and violence flows through the economic and social channels.

Table 5: Happiness, Conflicts and Peace; Country Fixed Effects Regressions; Sample Period 2005-2017

	Dependent Variable					
Independent Variable	SWB	SWB	SWB	SWB	SWB	SWB
Having conflict deaths reported in Uppsala GED (0 or 1)	08	04	01			
	(0.04)*	(0.04)	(0.04)			
Conflict death rate ranked above 90th percentile (0 or 1)	18	02	06			
	(0.09)**	(0.08)	(0.08)			
Global Peace Index				60	37	32
				(0.18)***	(0.17)**	(0.18)*
Log GDP per capita		1.07	0.95		1.02	0.95
		(0.24)***	(0.26)***		(0.29)***	(0.33)***
Year fixed effects	Included	Included	Included	Included	Included	Included

<sup>14)</sup> These countries are listed in Table 20 of Statistical Appendix 2. Note that Syria is not one of these countries, since their data are not included the version 18.1 of the Uppsala data.

Country fixed effects	Included	Included	Included	Included	Included	Included
Social variable controls			Included			Included
Number of countries	161	161	157	154	154	151
Number of obs.	1542	1542	1402	1416	1416	1318
Within-country R-squared	0.04	0.09	0.18	0.05	0.08	0.18

Notes: The social variable controls in columns 4 and 6 are the same ones that are used in Table 1, namely the perception of corruption, freedom to make life choices, generosity, and social support, all from the Gallup World Poll. Standard errors in parentheses are cluster-adjusted at the level of countries. \*, \*\*, and \*\*\* indicate statistical significance at 10 percent, 5 percent and 1 percent levels respectively.

#### Trust and inequality

We consider trust and inequality together, since some recent evidence shows them to have inter-related impacts on life evaluations. For example, there is substantial evidence that high trust societies are more resilient in the face of external shocks including earthquakes, floods and economic crises (Helliwell, Huang, and Wang 2014). In a parallel way, individuals who feel that others can be trusted, and have a sense of belonging to their communities, are more resilient in the face of hardships ranging from unemployment and ill-health to discrimination. Although any of those adverse situations significantly reduces an individual's life evaluations, the loss is less for those who live in a high-trust environment (Helliwell, Huang, and Wang 2018). Similarly, the well-being costs to children facing discrimination because of their disabilities are much less for those who feel a sense of belonging in their local communities (Daley, Phipps, and Branscombe 2018). Trust and belonging thereby not only raise subjective well-being for all, they reduce inequality of well-being. They do so by providing larger gains for those who are subject to conditions – such as illness, unemployment and discrimination - that would otherwise be likely to place them at the bottom of the happiness distribution. 15)

Many countries have had sharply growing inequality of income and wealth in the last decades of the 20th century and the first two decades of this century. These increases have had political salience in many countries, and have been linked to changes in a variety of measures of well-being (e.g. Pickett and Wilkinson 2015). However, if income is too narrow a measure for human progress, then inequality of the distributions of income and wealth is also too narrow an indicator of inequality. Goff, Helliwell, and Mayraz (2018), making use of individual-level data from three large international surveys, found that inequality of the distribution of happiness, as measured by the standard deviation of the within-country distribution of individual life evaluations, is more closely linked to average life evaluations than are the usual measures of inequality in the distribution of

<sup>15)</sup> See Ovaska and Takashima (2010) for discussion of other likely factors influencing well-being inequality.

income. This continues to be the case even when efforts are made to reduce the risk posed by possible mechanical linkages between the mean and the standard deviation of life evaluations. Another link between inequality and trust enters here, as the same study finds that well-being inequality is stronger than income inequality as a predictor of international differences in average rates of social trust, even when average well-being levels are among the predictors. This is so despite the fact that income inequality has been found to be a strong predictor of international trust differences (Rothstein and Uslaner 2005). A final empirical support for the greater generality of well-being inequality is that it has a greater well-being effect than does income inequality to an extent that is greater for those who report themselves in surveys to favour more equality. 16)

Another way of measuring well-being inequality is to look at the quantile averages or percentile boundaries, thereby reducing the possibilities for end-point effects to influence the measure. Recent research has shown a growing spread of the global distribution of well-being scores, especially since 2010 (Nichols and Reinhart 2019). And this growing dispersion, which has happened much more in some countries than others, has been found to significantly reduce average life evaluations, even more than found for income inequality or the standard deviation of life evaluations.

#### Choosing Government Policies to Improve Lives

One advantage of focusing policy attention on well-being inequality rather than income inequality is that there are many more win-win policy options for reducing well-being inequality. When it comes to the distribution of income and wealth, most policy options involve targeted transfer of financial resources from the top to the bottom, sometimes angering those being taxed and stigmatizing the recipients. By contrast, creating happiness for those who have little does not require any transfers from those who are already happier. In fact, recent research has shown that a wide range of prosocial actions are likely to improve the subjective well-being of both the givers and receivers of such kindness (For a recent survey, see Aknin et al. 2019), especially when under the volition of the donor.

More generally, changes in the structure of government to increase the options for individuals and communities to share in the design and implementation of their own institutions is likely to improve outcomes in several ways, because such collaborations encourage engagement, increase the scope for innovation, and build social connections that

<sup>16)</sup> All three of these results are from Goff et al. (2018).

raise subjective well-being above and beyond what they contribute to solving the specific problems at hand. This may be part of the reason why studies find that people are happier in more decentralized systems (Flavin, Pacek, and Radcliff 2014; Rodríguez-Pose and Maslauskaite 2012), especially for the raising of revenues (Diaz-Serrano and Rodríguez-Pose 2012), and are happier when they share the political views of the party in power (Di Tella and MacCullough 2005; Tavits 2008) and are more directly involved in policy choices (Stutzer and Frey 2006). The large negative effects of corruption on happiness (Helliwell, Layard, and Sachs 2019, 20) may reflect in part that corruption must lessen the extent to which citizens see themselves as parts of trustworthy collaborations to improve lives. Emphasis on the 'how' of policy design and delivery is still much less central to policy thinking than it should be.<sup>17)</sup>

There is a growing range of evaluations of government policies intended to improve happiness in many policy areas. At the broadest level, the OECD has recommended that countries adopt a whole-of-government approach to improving well-being, supported by broader and more systematic collection of well-being data, and the development and application of policy evaluation tools that use subjective well-being as the objective and as the means for comparing monetary and non-monetary costs and outcomes (Durand and Exton 2019). Within healthcare, using the happiness lens to evaluate different treatment alternatives has been advocated as a means of producing much better health and more happiness with less drain on scarce resources (Peasgood, Foster, and Dolan 2019). Within schools, positive education policies designed to produce better lives for students have been tested and affirmed in large scale trials in countries around the world (Seligman and Adler 2019). Finally, a large variety of urban policies, frequently involving a mix of bottom-up and top-down collaboration to build successful communities, has exposed the importance and value of enabling people to work together in creating happier communities, especially in urban areas, where such connections require more innovation to create (Bin Bishr et al. 2019).

There is a growing body of evidence illustrating feasible changes in the structure of government that are likely to improve population well-being, as measured by people's own life evaluations (Diener and Biswas-Diener 2019). What is required to move beyond the possible to the actual? The case studies reviewed above are replete with reasons why existing policies and approaches tend to stick to time-tested procedures. Risk minimization is the norm, and innovation remains exceptional, especially that required to build cross-silo

<sup>17)</sup> For an example of evidence showing that procedural utility has empirical relevance, see Stutzer and Frey (2006), and Helliwell et al. (2014).

cooperation of the sort required. It is simply very hard to change the course of the ship of state, especially when it requires top-to-bottom and ministry-to-ministry collaboration. Add in the growing climate of risk aversion, and innovation looks to be ever more difficult. One way of establishing entry points, and building up experience and experimental evidence about what works to deliver more happiness, might be to establish 'partnerships for happiness' (Helliwell 2019). These could take different forms in different circumstances, but essentially they would typically start small and explicitly experimental, providing freedom of action and innovation for those willing to collaborate. Such partnerships would ideally involve cooperation across policy silos and from up and down the administrative structure. It would probably be important to keep the initial efforts explicitly experimental, accepting that failures are to be expected in any well-designed learning strategy, and to give higher levels of government the distance and deniability they may at first require.

From either a scientific or a political perspective, the small scale and flexible nature of partnerships for happiness make them perhaps the most efficient way of acquiring enough information to inform future choices. Although the logic of redesigning government to build happiness may be very strong, there is still much to be learned about the best ways of doing so. Opening the doors to innovation may be difficult, but it remains the essential next step. The related research agenda is both pressing and increasingly feasible as the range of available happiness data continues to grow alongside a parallel growth in policy interest.

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