Government and Happiness in 130 Nations: Good Governance Fosters Higher Level and More Equality of Happiness

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Abstract  There are substantial differences in happiness in nations. Average happiness on scale 0–10 ranges in 2006 from 3.24 in Togo to 8.00 in Denmark and the inequality of happiness, as measured by the standard deviation, ranges from 0.85 in Laos to 3.02 in the Dominican Republic. Much of these differences are due to quality of governance and in particular to ‘technical’ quality. Once a minimum level is reached, rising technical quality boosts average happiness proportionally. Good governance does not only produce a higher level of happiness, but also lowers inequality of happiness among citizens. The relation between good governance and inequality of happiness is not linear, but follows a bell shaped pattern, inequality of happiness being highest in nations where the quality of government is at a medium level. The relation between the size of government and average happiness depends heavily on the quality of government; good-big government adds to happiness but bad-big government does not. Possible explanations of these findings are discussed.

Keywords  Happiness · Life satisfaction · Inequality · Kuznets curve · Inequality trap · Good governance · Technical quality · Democratic quality · Size of government

1 Introduction

People tend to believe that the impact of government on their happiness is low. Headey and Wearing (1992) found that people estimate that governments contribute less to happiness than any other potential source. Such beliefs are understandable since people are primarily confronted with - and interested in - individual differences in happiness within their own nations. Such differences are not related to common or collective conditions, but to individual differences in terms of employment, income, personality, education, gender, social relations and age.

Perhaps views on government would be different if people would be more familiar with differences across nations in average happiness and inequality in happiness. In 2006 average happiness ranged from 3.24 in Togo to 8.00 in Denmark on a 0–10-scale and the
inequality, as measured by the standard deviation, ranged from 0.85 in Laos to 3.02 in the Dominican Republic (see “Annex”). Such differences are largely due to institutional factors, such as economic development and political freedom (Ott 2005). Governments can play a role at that point.

In earlier research it was found that the quality of government has a substantial impact on average happiness, the level of happiness being higher in well governed nations (Helliwell and Huang 2008; Ott 2010). As yet there is hardly any research about the impact of good government on the inequality of happiness in nations. In this paper I explore the impact of government on both average happiness and inequality in happiness in nations. I will consider both quality and the size of governments. Since I am only interested the broad picture I will pay no attention to specific policies, nor to the impact of government on specific groups or at an individual level.

I will furthermore pay attention to the problem of an ‘inequality trap’ as described by Rothstein and Uslaner (2005). They find strong interdependencies between social-economic equality, good governance and trust. On that basis they argue that nations can get locked up in a paralyzing inequality trap: a high level of inequality, without any social trust, can make it impossible for governments to be effective, and to get out of this vicious circle.

This paper builds on an earlier cross-national study in which I found that higher levels of average happiness go together with more equality in the distribution (Ott 2005). This research was based on data about happiness in 78 relatively rich nations around 2000. Now we have data on happiness in 130 rich and poor nations around 2006. These new data allow a more profound analysis of the impact of government on happiness.

1.1 Research Questions

1. What is the relation between the quality of government and average happiness in nations?
2. What is the relation between the quality of government and inequality in happiness in nations?
3. What is the relation between the size of government and average happiness in nations?
4. What is the relation between the size of government and inequality in happiness in nations?

1.2 Plan of this Paper

I will start with a discussion of concepts and measures. The concept of happiness and its measurement is discussed in Sect. 2. The quality of government is discussed in Sect. 3, and the size of governments in Sect. 4. Next the answers to the research questions are discussed in Sects. 5, 6, and 7 respectively. The findings are discussed in Sect. 8. The conclusions are presented in Sect. 9.

2 Happiness in Nations

2.1 Concept

Following Veenhoven (1984) I define happiness as ‘the degree to which an individual judges the overall quality of his or her life-as-a-whole favorably’; in other words ‘how much one likes the life one lives’.
2.2 Measurement

Since happiness is something that an individual has in mind, it can be measured using questions. Many different questions are used; for an overview see the collection of Happiness Measures that is part of the World Database of Happiness (Veenhoven 2010a). The present analysis draws on responses to a survey question, developed by Cantril (1965), which reads as follows:

Suppose we say that the top of the ladder represents the best possible life for you and the bottom of the ladder represents the worst possible life for you. Where on this ladder do you feel you personally stand at the present time? Please use this card to help you with your answer.

| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|----|
| Worst possible life | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | Best possible life |

The formulation best and worst possible life invites respondents to take into account all relevant domains of their life, like social relations, work, housing, leisure and so on. This question invites a comparative appraisal of life and measures the cognitive dimension of happiness in the first place. As such it is classified as an indicator of ‘contentment’ in the Item Bank of the World Database of Happiness (Veenhoven 2010a).

2.3 Reliability and Validity of Self-Reported Happiness

The reliability of the individual answers on happiness-questions is limited. There is some instability in the answers and the answers are vulnerable to contextual bias, like the sequence of the questions in the survey, characteristics of the interviewer and the weather. Much of these ‘random-errors’ usually offset each other in the average happiness in nations. The assessment of average happiness in a nation is therefore less vulnerable to measurement bias than the assessment of individual happiness. The distribution of happiness appears to be rather stable in most nations in subsequent surveys (Time Trends in the World Database of Happiness, Veenhoven 2010c). The above mentioned question on life-satisfaction has evident face validity; the question clearly addresses happiness as defined. Previous research has also shown high congruent validity as expressed in consistency in responses to this question, when asked in different ways, such as in written questionnaires, face-to face interviews or interrogation by professional psychologists (Wessman and Ricks 1966; Oswald and Wu 2010). External validity appears in logical correlations with various conditions that are likely to be related to average happiness, such as wealth, economic freedom, gender equality and life-expectancy.

2.4 Data-Source (Data in “Annex”)

The question developed by Cantril has figured in many national surveys and has been used since 2006 in the Gallup World Polls. All findings gathered with this question are brought together in the collection ‘Happiness in Nations’ which is part of the World Database of Happiness, and coded as responses to question type 31 (Veenhoven 2010b). This analysis draws on that source and uses all the findings for the year 2006. I use the mean as an indicator for the level of happiness and the standard deviation (SD) as an indicator for
inequality of happiness, following Kalmijn and Veenhoven (2005). A low standard deviation indicates low inequality; a high standard deviation indicates high inequality.

3 Quality of Governments in Nations

3.1 Concept

I follow Helliwell and Huang (2008) and use the terms governance and government as equivalents. Both terms include administration by governments and their legislation and jurisdiction.

The World Bank defines governance as follows: “governance consists of the traditions and institutions by which authority in a country is exercised. This includes the process by which governments are selected, monitored and replaced; the capacity of the government to effectively formulate and implement sound policies; and the respect of citizens and the state for the institutions that govern economic and social interactions among them” (Kaufmann et al. 2008, p. 7). The following aspects of good governance are discerned (ibid. pp. 7 and 8).

Voice and Accountability The extent to which a country’s citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.

Political Stability and Absence of Violence Perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including domestic violence and terrorism.

Government Effectiveness The quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government’s commitment to such policies.

Regulatory Quality The ability of the government to formulate and implement sound policies and regulations that permits and promotes private sector development.

Rule of Law The extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, the police, and the courts, as well as the likelihood of crime and violence.

Control of Corruption The extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as capture of the state by elites and private interests.

3.2 Democratic and Technical Quality

The six aspects of governance are all highly correlated, but the correlations between the first two and the remaining four are somewhat lower (Table 1). There is also a conceptual difference: the first two have to do with the political situation and the remaining four have

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1 I do not report the significance. Significance is the chance that the correlation observed in the sample does not correspond with the correlation in the population from which the sample was drawn. My set of nations is not a random sample of all nations; nations were included if the required data was available.
to do with the institutional quality and effectiveness. I follow Helliwell and Huang (2008) who discern these types of quality and call them \textit{GovDem} (average of the first two) and \textit{GovDo} (average of the last four). I will call them democratic and technical quality of government.

3.3 Measurement

To assess the above mentioned aspects of quality of governments the World Bank collects data from independent sources produced by different organizations. These data sources consist of surveys among firms and individuals, assessments by commercial risk rating agencies, non-governmental organizations, and a number of multilateral aid agencies and other public sector organizations.\footnote{2} For 2006 data were derived from 33 different sources from 30 different organizations.\footnote{3}

3.4 Data-Source (Data in “Annex”)

All these data, background information included, are available at the website of the World Bank; Governance Matters VII: Aggregate and Individual Governance Indicators for 1996–2007; as published in World Bank Policy Research Working Paper 4654 (Kaufmann et al. 2008).

To check the validity of these data I compared the World Bank ratings about technical quality of government with the “Failed State Index” (Foreign Policy 2007). Attributes of state failure are loss of physical control of territory, loss of monopoly on the legitimate use of force, erosion of legitimate authority to make collective decisions, inability to provide reasonable public services and inability to interact with other states as a full member of the international community. The concepts of technical quality and state failure are similar and scores for technical quality and the “Failed State Index”, are highly correlated \((r = +0.92\) in 2006). To check the validity of the data for democratic quality I compared these ratings with the Political Rights Index (Freedom House 2007) which measures the degree of

\begin{table}
\centering
\caption{Correlations between indicators of government quality in 138 nations around 2005}
\begin{tabular}{lccccc}
\hline
 & Voice + Acc. & Political & Gov. & Regulatory & Rule of \\
 & & stability & effective & quality & law \\
\hline
Voice + accountability & X & & & & \\
Political stability & 0.69 & X & & & \\
Government effectiveness & 0.81 & 0.77 & X & & \\
Regulatory quality & 0.85 & 0.75 & 0.95 & X & \\
Rule of law & 0.80 & 0.78 & 0.97 & 0.94 & X \\
Control of corruption & 0.79 & 0.77 & 0.96 & 0.91 & 0.98 \\
\hline
\end{tabular}
\end{table}

\textit{Data: World Bank 2006}

\footnote{2}{For a discussion see Governance Indicators: Where Are We, Where Should We Be Going?, by Kaufmann and Kraay (2008).}

\footnote{3}{The World Bank transforms this information into scores for each of the six sub-indicators with a mean of 0 and a standard deviation of 1 in the original sample of 212 nations and regions (standardized \(z\)-scores, approximately between \(-2.5\) and \(+2.5\); indicating relative positions in a specific year, in my sample in 2006).}
freedom in the electoral process, political pluralism and participation, and functioning of government. The concepts democratic quality and political rights are also very similar, and scores for democratic quality and political rights are also highly correlated (r = +0.71 in 2006).

4 Size of Governments in Nations

4.1 Concept

The size of government is interpreted here as the relative importance of all government activities in society taken together. In every society we can make a distinction between horizontal and vertical relations between people or organizations (agents). Horizontal relations are based on equality and free will, while vertical relations are based on hierarchy, power and authority. The typical juridical arrangement for horizontal relations is a contract based on consensus. For vertical relations it is an order, a legal decree, or a decision; in democratic nations eventually based on legislation. The distinction between horizontal and vertical relations is important because it runs parallel with the distinction between individual and collective responsibility. People have a clear and full individual responsibility in horizontal relations, but in vertical relations their responsibility is rather limited. The size of governments determines the relative importance of vertical relations in societies. This, and the additional consequences in terms of regulation and taxation, explains the importance of the size of governments as a political issue.

4.2 Measurement

There are many ways to measure the size of governments. Here I use two financial indicators: the relative importance of government consumption and the relative importance of total government expenditures. Government Consumption is measured as a percentage of total national consumption, and Government Expenditures as a percentage of GDP. Government Expenditures is a comprehensive indicator for the financial importance of governments. Government Consumption is more informative for the importance of actual activities.

4.3 Data-Source (Data in “Annex”)

Data about Government Consumption are obtained from the Fraser Institute (Gwartney and Lawson 2006) and data about Government Expenditures from the Heritage Foundation (2010).

5 Good Governance and Level of Happiness in Nations

Research question 1 was about the relation between the quality of government and average happiness. In Sect. 5.1 I will consider that question for technical quality and in Sect. 5.2 for democratic quality. The findings are summarized in Sect. 5.3.
5.1 Average Happiness Higher with Technical Good Governance?

The first question is whether the earlier found positive correlation between technical quality of government and average happiness in nations is replicated in this larger sample of nations. This appears to be the case. The relationship is clearly positive. See Fig. 1 which shows a clear pattern with few outliers. The zero-order correlation between average happiness and technical quality is +0.75. A correlation of +0.75 is a very strong correlation and particularly meaningful since the variables involved are all very stable over the years. A look at the scatter diagram shows that the relationship is linear; there is no clear pattern of diminishing or increasing returns of technical good governance. Consequently a quadratic function does not fit the data substantially better than a linear one. The correlation is higher in the right top section; this will be discussed in Sect. 5.3.

5.2 Average Happiness Higher with Democratic Governance?

Average happiness is also connected with the democratic quality of governance, but the positive correlation is somewhat lower: +0.60. The technical quality is apparently the dominant type of government quality and the partial correlations (see footnote 4) support this finding: the partial correlation between happiness and technical quality remains high, if controlled for democratic quality ($r_p = +0.58$), while the partial correlation between happiness and democratic quality becomes low and negative ($r_p = -0.17$), if controlled for technical quality. The relation between happiness and democratic quality is presented in Fig. 2. There is a pattern of increasing returns of democracy and a quadratic function creates a better fit than a linear one. The correlation is again higher in the right top section; this will be discussed in Sect. 5.3

5.3 Quality and Average Happiness in a Nutshell

The correlations are higher in the right top sections of Figs. 1 and 2 than in the bottom left sections, i.e. scores are closer to the fit-lines. Government qualities seem to need some minimal level to develop correlations with happiness. An additional explanation for the lower correlations at the left sides is natural resources. Some governments can collect a lot of money without taxation by the exploitation of natural resources. Even if their qualities are at a low level, they can still contribute to average happiness. The increasing returns of democracy might be an outcome of interaction effects between technical quality and democracy. In a metaphor: technical quality is the engine of governments and democracy is a steering mechanism. The engine has to start first, but together they achieve the best outcomes for happiness. Helliwell and Huang (2008) argue that technical quality precedes

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4 A zero-order correlation is the correlation between two variables as such, without taking into account the effect of any other variable(s). A partial correlation measures the correlation between two variables with the effects of one (or more) variable(s), interaction effects included, controlled or removed.

5 This stability of happiness, government qualities and size of governments over the years is visible in the different datasets mentioned in the references.

6 A linear function explains 56% of the variance (R squared) in average happiness, a quadratic function 57%.

7 A linear function explains 36% of the variance (R squared) in average happiness, a quadratic function 43%.

8 The correlations between the technical quality of government and happiness, not just in terms of average happiness but in terms of inequality as well, are independent of culture, wealth, and the size of governments.
democracy because democracy is only worthwhile and interesting if governments have some minimal power.

6 Good Governance and Inequality in Happiness in Nations

Research question 2 is about the relation between the quality of government and inequality in happiness. In Sect. 6.1 I will consider that question for technical quality and in Sect. 6.2 for democratic quality. The findings are summarized in Sect. 6.3.

6.1 Less Inequality with Technical Good Governance?

In Fig. 3 we see the relationship between technical good governance and inequality in happiness as expressed in the standard deviation. There is a negative correlation (−0.18) but this statistic is not very informative because the relation is not linear. Inequality goes
up first with higher technical quality and goes down if a certain level is reached (z-score close to 0, = average score in 2006). Consequently a quadratic function creates a better fit than a linear one.⁹ We see a low but positive correlation with inequality in happiness (≈0.29) for nations with a low level of technical quality (z-score < 0) and a substantial negative correlation with inequality in happiness (≈−0.64) for nations with a high technical quality (z-score > 0).

6.2 Less Inequality with Democratic Good Governance?

Inequality in happiness is in a similar way connected with the democratic quality of governance¹⁰ (Fig. 4), but the correlations are lower (−0.06, for all nations; +0.21 for nations with a low level of technical quality; and −0.24 for nations with a high quality of democratic quality). Such correlations are not impressive but it is still interesting that the correlation is again positive at low quality-levels and negative at high quality-levels. The

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⁹ A linear function explains 3% of the variance (R squared) in the inequality of happiness, a quadratic function 21%.

¹⁰ A linear function explains less than 1% of the variance (R squared) in the inequality of happiness, a quadratic function 7%.
technical quality is apparently also the dominant type of government quality in relation to inequality in happiness. This finding is interesting since one might have expected a stronger relationship between democracy and (in)equality.

6.3 Quality and Inequality in Happiness in a Nutshell

Quality-improvements at low levels seem to go together with more inequality, while quality-improvements at -already- high levels seem to go together with less inequality. This relationship will be discussed in Sect. 8.2.

If we compare Figs. 3 and 4 with Figs. 1 and 2 we see that the conclusion of Ott (2005), that there is in general a positive relation between average happiness and equality in happiness, is not replicated. This is clearly a consequence of a difference in the composition of the samples of nations which were analyzed. The sample in 2004 consisted of 78 nations with relatively high levels of government qualities. The sample now used consists of 130 nations, including nations with relatively low levels of government qualities. In other words: the left sides in Figs. 3 and 4 are ‘quite new’.

7 Size of Governments and Happiness in Nations

Research question 3 and 4 are about the relation between the size of government and \textit{average} happiness and between the size of government and \textit{inequality} in happiness. The
link with average happiness will be considered in Sect. 7.1 and with inequality in happiness in Sect. 7.2. The findings are summarized in Sect. 7.3.

7.1 Size of Government and Average Happiness

There appears to be a positive correlation between the size of governments and average happiness in nations. In the general sample of 130 nations: the zero-sum correlations are moderate but positive: +0.46 and +0.51 for Government Consumption and Expenditures. Bigger governments go together with a higher average happiness. The partial correlations however, if controlled for quality, are still positive but much lower, and in particular if controlled for technical quality (Table 2).

We may conclude that the correlation between size of governments and average happiness depends heavily on the quality of government, and in particular on technical quality.

7.2 Size of Government and Inequality in Happiness

There appears to be a negative but low correlation between the size of governments and the standard deviation in happiness. The zero-sum correlations are −0.23 and −0.09 for government consumption and government expenditures. Such correlations are too low to be meaningful.
The quality of governance appears to be more important for happiness than the size of a government. The correlation of quality of government with happiness is independent of size. Size has only some correlation with average happiness and this correlation depends heavily on the quality of government, and in particular on technical quality. Big government by itself does not go together with greater happiness for a greater number, but good + big government does.

8 Discussion

There is a high correlation between the quality of government and average happiness in nations, with technical quality as the leading aspect. The correlation between the quality of government and inequality in happiness is lower, in particular for democratic quality. It is interesting however that inequality is apparently at a maximum at medium quality-levels, and lower at any other levels.

How can we explain the correlation between the quality of government and happiness? Is it a matter of causality, or are there alternative explanations? A causal relation can explain the positive relation with average happiness, but if there is such a causal relation we still need some additional explanation for the bell shaped relation with inequality in happiness. A third question is about the possibility of an inequality trap as posited by Rothstein and Uslaner (2005): how can governments stay out, or get out, of an inequality trap? The first two questions will be addressed in Sects. 8.1 and 8.2; the third question in Sect. 8.3.

8.1 Causality: Does Good Governance Make us Happier?

There are three possible explanations for the observed correlation between government quality and happiness. In the absence of adequate longitudinal data we can only compare their plausibility at face-value.

8.1.1 Spurious Correlation?

In this explanation, there is no causal relation between good governance and happiness, but both variables are dependent on a third variable. Wealth could be such a variable since wealth is likely to affect both happiness and the quality of government. At first sight this seems to be the case: when income per capita is controlled the correlation between average
happiness and technical quality of government drops from +0.75 to +0.14 and with democratic quality it drops from +0.60 to +0.40. Yet this leaves still some correlation independent of wealth. Moreover, wealth of the nation depends obviously to a great extent on quality of government and this is not reflected in the partial correlations. There is a large literature on the effect of institutional quality on economic growth and the experts of the World Bank estimate that a nation improving the quality of its governance from ‘low’ to ‘average’ can almost triple income per capita in the long term. In that line Kaufmann (2005, myth 4, p. 1) makes the following observation about causality:

In fact, the evidence points to the causality being in the direction of better governance leading to higher economic growth. A number of emerging economies, including the Baltic States, Botswana, Chile and Slovenia, have shown that it is possible to reach high standards of governance without yet having joined the ranks of wealthy nations.

8.1.2 Impact of Happiness on Government?

In this explanation happiness affects quality of government rather than vice versa. Various effects can be involved: e.g. happy citizens being more apt to vote for investment in public goods, more willing to participate in government, and less apt to obstructive behavior. Such explanations fit the literature on benefits of happiness (Lyubomirsky et al. 2005; Guven 2009). Still, this is unlikely to be the whole story, for instance because good governance roots in historical developments, which were not always particularly happy.

8.1.3 Causality: Effect of Government Quality?

The last explanation is that better government makes happier citizens and this explanation appeals most to common sense. There must be some truth in this explanation, since alternative explanations are insufficient to explain the correlation completely. The fact that governance is by definition an intentional activity supports this vision. If so, how does good governance add to average happiness? The data cannot tell us as yet, but we can discern some possible direct and indirect effects. It is worth noting that these effects are independent of the opinions people may have about their government, and independent of their trust in government.

Possible direct effects Good governance can be a source of happiness in itself. It makes a difference if citizens are treated carefully and respectfully. As pointed out by Frey and Stutzer participation in elections (voice) contributes to happiness, independent of the outcomes (Frey and Stutzer 2005). These direct effects are examples of ‘procedural utility’ (Frey and Stutzer 2005).

Possible indirect effects Good governments will be more effective in creating conditions that contribute to average happiness, such as wealth, economic freedom, gender equality, healthcare and safety. Likewise, good governments can create individual freedom, by maintaining stable and predictable conditions that enable people to make their own

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11 These factors provide for a reasonable explanation of the differences in average happiness in 2006. If these factors are used as independent factors in a linear regression, with life-expectancy as a proxy for healthcare and safety, they explain 72% of the variance (adjusted R-square). Apparently there is a strong relation between subjective happiness and actual conditions.

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decisions in life (Veenhoven 1999). This is what Frey and Stutzer (2005) refer to as 'output utility'.

8.2 Why is the Relationship with Inequality of Happiness a Bell Shaped Curve?

An unexpected result of this study is the bell-shape relationship between government quality and inequality in happiness (Figs. 3, 4), suggesting that a gradual improvement of government qualities, starting at a low level, will lead to more inequality first and less inequality later. This suggestion is plausible, if we may assume that there is indeed some causality between the quality of government and happiness. Even if governments are not corrupt it is inevitable that specific groups will benefit in a disproportional way in the first stages of such developments. In later stages governments can reduce inequality by paying more attention to people who stay behind, and by improving collective goods and services that will reduce the impact of social-economic inequality on the quality of life. This pattern is comparable to the ‘Kuznets-curve’. Kuznets (1955) discovered that social-economic inequality increases over time, while a country is developing. Then after a certain wealth is attained income-inequality begins to decrease. Economic growth is the principal factor behind this development. The theory behind this curve is however rather complicated and not very convincing, and there is some inconsistency with actual empirical facts. Since the rise of economic neo-liberalism, as defended by M. Thatcher and R. Reagan, social-economic inequality has increased, at least in the UK and the USA, in combination with high levels of economic growth. This is inconsistent with the Kuznets-theory. Perhaps the bell-shaped Kuznets-curve is more adequate as a model for the relation between government quality and inequality in happiness. The theory is at least more plausible. Unfortunately we have no empirical data to check this theory, because data about the quality of governments is only available since 1998.

Even if we accept the theory it is still difficult to predict what will happen in the future, because the actual developments in the world are on balance not clearly positive or negative. As Kaufmann et al. (2008, p. 1) put it:

In assessing trends over time, we find that 31 percent of countries experience significant changes over the decade 1998–2007 in at least one of the six indicators (roughly evenly divided between significant improvements and deteriorations). This highlights the fact that governance can and does change even over relatively short periods such as a decade. This should both provide encouragement to reformers seeking to improve governance, as well as warn against complacency in other cases as sharp deteriorations in governance are possible.

There are no decisive arguments yet for optimism or pessimism. One potential reason for pessimism is the possibility of an inequality trap by the interdependencies between social-economic inequality, trust, and good governance.

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12 Theory states that in early stages of development, when investment in physical capital like land is the main mechanism of economic growth, inequality encourages growth by allocating resources towards those who save and invest the most. In mature economies human capital takes the place of physical capital as a source of growth and inequality will decline. First, a rise of mass education movement may open opportunity for all and reduce the gap in income inequality. Second, social policy put forth by the government as a nation becomes rich may explain a decline in inequality, as the government provides transfers, welfare, retirement pension, and public health care.
8.3 Can Happiness Help Governments Out of an ‘Inequality Trap’?

Rothstein and Uslaner (2005) find, with references to the social-economic histories in Scandinavian countries, that honest and effective governments can create more social-economic equality. This leads to more social trust, and trust is an important condition for good governance. These interdependencies between equality, good governance, and trust imply however that nations can also get locked up in a paralyzing inequality trap. As Rothstein and Uslaner (ibid, p. 45) put it:

> While equality and honest government come first, the reciprocal effects we posit make it difficult (at best) for countries to escape the inequality trap.

How can governments overcome this social-economic inequality trap? The interdependencies between social-economic inequality, governance and trust are, first of all, not complete. Every one of these variables can, up to a point, be manipulated independently of the other two. Social-economic inequality can be reduced by trade-unions, selective foreign aid and non-governmental organizations, independently of government and trust. Governance can be improved by technical advice and support from international organizations like the World Bank, IMF and OECD. And last but not least: trust can go up by cooperation, common interests and solidarity. In that respect there are ample opportunities to avoid deadlocks, or to get out of them.

A more specific additional option is the promotion of happiness. Happiness is probably less vulnerable for social-economic inequality than trust. The impact of social-economic inequality on happiness is relatively low (Veenhoven 2005). As discussed in the previous sections happiness depends heavily on the quality of governments, but there is also a positive impact of happiness on governance and trust. As Guven puts it (2009, abstract):

> Happy people have a higher desire to vote, perform more volunteer work, and more frequently participate in public activities. They also have a higher respect for law and order, hold more association memberships, are more attached to their neighborhood, and extend more help to others.

The promotion of happiness is therefore an interesting additional option to stay away from the inequality trap as posited by Rothstein and Uslaner. In many nations average happiness has increased by developments like economic growth, emancipation, individualization and life-style differentiation (Veenhoven 1999). Some minorities have successfully pressed for equal opportunities, in particular women, handicapped people, homosexuals, black people and the elderly. Governments can support and stimulate such

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13 Three interesting down-to-earth options for poor nations are:

a. the registration of property rights, in particular for real estate, i.e. have a land registry. As has been demonstrated by De Soto (2000) this is an important condition for economic development.

b. to register people, i.e. set up registrar’s offices, as a necessary condition to organise adequate public education and health services.

c. to develop and implement general principles of good governance, to achieve decent and respectful relations between government institutions and citizens. Well-known examples are: carefulness and accuracy of decisions, respecting all interests, accounting for decisions, fair-play and equality (equal situations are treated equally), respect for reasonable expectations, no détournement de pouvoir (powers have to be used in accordance with their legal background), proportionality (no disproportional consequences for citizens, relative to public interests).

14 The correlation between social-economic inequality and happiness is also lower than the correlation between social-economic and trust: around 2006 –0.25 and –0.36 respectively.
developments. This is an additional option for governments to stay away or to get out of a social-economic inequality trap. Obviously this additional option is unfeasible if there is a visible and appalling economic inequality, beyond any moral standards. Then social trust will evaporate and the government will be paralyzed indeed by the unwillingness of people to cooperate.

9 Conclusions

There is a positive relation between the quality of government, the technical quality in particular, and average happiness in nations. There is a bell shaped relation with inequality in happiness. The relations are up to a point based on causality. These findings suggest that improvement of the technical quality will usually lead to a higher average happiness. Starting at a low level this improvement will also lead to more inequality in happiness firstly and to less inequality later. The relation between the size of government and average happiness depends on the quality of governments; big government adds to happiness only when its quality is good.

It seems plausible therefore that government can promote happiness, and reduce inequality eventually, by improving their quality and their technical quality in particular. This conclusion is interesting because the improvement of technical quality is usually not a controversial issue. Most people will agree that improving the technical quality is perfectly all right, even if they have different political priorities otherwise.

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Annex

Average happiness: (0–10-scale, worst/best possible life).
Inequality in happiness: standard deviation happiness in nations (low/high inequality).
Data-source happiness: Veenhoven (2010b).

Technical quality of governments: average standardized scores (low–high) for: government effectiveness, regulatory quality, rule of law and control of corruption.
Democratic quality of governments: average standardized scores (low–high) for: voice and accountability and political stability.
Data-source quality of governments: World Bank Kaufmann et al. (2008).

Government consumption: percentage of government consumption in total national consumption (reversed to 0–10-scale, high-low level of government consumption).
Data-source: Fraser Institute, Gwartney and Lawson (2006).

Government expenditures: percentage of government expenditures in GDP (reversed to 0–100-scale, high-low levels of government expenditures).
Data-source: Heritage Foundation & Wall Street Journal (2010).
### Data 2006

| Country        | Average happiness | Inequality happiness | Technical quality | Democratic quality | Government consumption | Government expenditures |
|----------------|-------------------|----------------------|-------------------|--------------------|------------------------|------------------------|
| Albania        | 4.74              | 1.81                 | \(-0.49\)          | \(-0.19\)          | 9.11                   | 75.6                   |
| Algeria        | 5.91              | 1.97                 | \(-0.55\)          | \(-0.97\)          | 4.02                   | 74.4                   |
| Angola         | 4.46              | 1.78                 | \(-1.21\)          | \(-0.82\)          | 1.69                   | 40.1                   |
| Argentina      | 6.27              | 2.01                 | \(-0.44\)          | 0.19               | 6.66                   | 81.5                   |
| Armenia        | 4.21              | 1.99                 | \(-0.28\)          | \(-0.47\)          | 7.76                   | 90.7                   |
| Australia      | 7.42              | 1.46                 | 1.84               | 1.12               | 4.64                   | 62.2                   |
| Austria        | 7.12              | 1.80                 | 1.78               | 1.22               | 4.57                   | 23.2                   |
| Azerbaijan     | 4.80              | 1.59                 | \(-0.77\)          | \(-1.09\)          | 5.91                   | 77.8                   |
| Bangladesh     | 4.31              | 1.76                 | \(-0.93\)          | \(-0.98\)          | 9.72                   | 94.4                   |
| Belarus        | 5.66              | 1.77                 | \(-1.22\)          | \(-0.84\)          | 3.32                   |                       |
| Belgium        | 7.39              | 1.43                 | 1.50               | 1.09               | 2.96                   | 26.8                   |
| Benin          | 3.52              | 1.63                 | \(-0.52\)          | 0.33               | 7.75                   | 86.6                   |
| Bolivia        | 5.36              | 1.81                 | \(-0.78\)          | \(-0.43\)          | 6.21                   | 68.1                   |
| Bosnia & H.    | 5.06              | 2.36                 | \(-0.46\)          | \(-0.16\)          | 5.59                   | 47.8                   |
| Botswana       | 4.63              | 2.07                 | 0.67               | 0.90               | 0.00                   | 50.5                   |
| Brazil         | 6.51              | 2.62                 | \(-0.20\)          | 0.15               | 4.46                   | 71.7                   |
| Bulgaria       | 3.77              | 1.91                 | 0.10               | 0.51               | 5.86                   | 49.8                   |
| Burkina F.     | 3.80              | 1.56                 | \(-0.54\)          | \(-0.18\)          | 5.55                   | 87.3                   |
| Burma/My.      | 5.32              | 1.46                 | \(-1.73\)          | \(-1.51\)          | 97.3                   |                       |
| Burundi        | 4.38              | 1.40                 | \(-1.15\)          | \(-1.22\)          | 4.61                   | 62.6                   |
| Cambodia       | 3.63              | 1.68                 | \(-0.97\)          | \(-0.64\)          | 90.9                   |                       |
| Cameroon       | 3.92              | 1.86                 | \(-0.90\)          | \(-0.64\)          | 8.02                   | 93.0                   |
| Canada         | 7.40              | 1.56                 | 1.86               | 1.21               | 4.24                   | 53.4                   |
| Chad           | 3.44              | 1.76                 | \(-1.25\)          | \(-1.64\)          | 8.90                   | 85.2                   |
| Chile          | 6.24              | 2.19                 | 1.27               | 0.84               | 7.21                   | 87.5                   |
| China          | 4.77              | 1.95                 | \(-0.34\)          | \(-1.02\)          | 3.72                   | 86.0                   |
| Colombia       | 5.95              | 2.44                 | \(-0.17\)          | \(-0.95\)          | 5.16                   | 68.3                   |
| Costa Rica     | 7.04              | 2.11                 | 0.39               | 0.90               | 6.68                   | 85.2                   |
| Croatia        | 5.77              | 2.15                 | 0.23               | 0.49               | 23.2                   |                       |
| Cuba           | 5.45              | 2.11                 | \(-0.82\)          | \(-0.90\)          | 3.99                   | 0.00                   |
| Cyprus         | 6.19              | 2.10                 | 1.06               | 0.80               | 5.17                   | 48.3                   |
| Czech R.       | 6.42              | 2.03                 | 0.79               | 0.92               | 2.73                   | 36.8                   |
| Denmark        | 8.00              | 1.35                 | 2.13               | 1.23               | 1.63                   | 9.3                    |
| Dom. R.        | 5.13              | 3.02                 | \(-0.43\)          | 0.14               | 9.45                   | 90.1                   |
| Ecuador        | 5.10              | 2.31                 | \(-0.99\)          | \(-0.62\)          | 7.52                   | 84.5                   |
| Egypt          | 5.23              | 2.63                 | \(-0.40\)          | \(-1.10\)          | 7.41                   | 72.1                   |
| El Salvador    | 5.60              | 2.23                 | \(-0.22\)          | \(-0.04\)          | 9.05                   | 92.2                   |
| Estonia        | 5.36              | 1.69                 | 1.12               | 0.92               | 4.64                   | 57.4                   |
| Ethiopia       | 3.83              | 1.75                 | \(-0.68\)          | \(-1.45\)          | 7.93                   | 61.3                   |
| Finland        | 7.61              | 1.44                 | 2.10               | 1.51               | 3.04                   | 24.4                   |
| France         | 7.01              | 1.66                 | 1.31               | 0.91               | 3.11                   | 11.2                   |
| Georgia        | 3.62              | 1.95                 | \(-0.33\)          | \(-0.53\)          | 6.97                   | 90.8                   |
| Germany        | 6.58              | 1.80                 | 1.69               | 1.16               | 4.72                   | 31.7                   |
| Ghana          | 4.86              | 1.87                 | \(-0.06\)          | 0.36               | 7.55                   | 74.8                   |
| Country        | Average happiness | Inequality happiness | Technical quality | Democratic quality | Government consumption | Government expenditures |
|----------------|-------------------|----------------------|-------------------|--------------------|-----------------------|------------------------|
| Greece         | 6.35              | 2.27                 | 0.61              | 0.75               | 6.69                  | 53.9                   |
| Guatemala      | 6.01              | 2.08                 | -0.66             | -0.5               | 9.82                  | 94.6                   |
| Haiti          | 3.76              | 1.84                 | -1.30             | -1.16              | 9.13                  | 93.2                   |
| Honduras       | 5.34              | 2.71                 | -0.67             | -0.37              | 7.34                  | 78.5                   |
| Hong Kong      | 5.67              | 1.82                 | 1.73              | 0.89               | 8.10                  | 87.9                   |
| Hungary        | 5.23              | 2.04                 | 0.82              | 0.96               | 7.83                  | 27.1                   |
| India          | 5.97              | 2.05                 | -0.09             | -0.27              | 6.84                  | 74.6                   |
| Indonesia      | 4.98              | 1.70                 | -0.58             | -0.73              | 8.21                  | 85.0                   |
| Iran           | 5.29              | 1.98                 | -0.90             | -1.43              | 5.51                  | 81.5                   |
| Ireland        | 7.24              | 1.83                 | 1.72              | 1.24               | 4.00                  | 64.7                   |
| Israel         | 7.16              | 1.85                 | 0.99              | -0.23              | 2.09                  | 28.3                   |
| Italy          | 6.97              | 1.73                 | 0.51              | 0.75               | 4.26                  | 29.1                   |
| Jamaica        | 6.21              | 1.91                 | -0.14             | 0.18               | 6.13                  | 54.4                   |
| Japan          | 6.49              | 1.79                 | 1.36              | 0.99               | 4.82                  | 58.3                   |
| Jordan         | 6.30              | 2.01                 | 0.33              | -0.63              | 5.94                  | 58.3                   |
| Kazakhstan     | 5.49              | 1.80                 | -0.70             | -0.49              | 6.38                  | 83.9                   |
| Kenya          | 4.36              | 1.70                 | -0.69             | -0.57              | 6.48                  | 82.6                   |
| Korea, R.      | 5.68              | 2.17                 | 0.71              | 0.50               | 57.6                  | 77.6                   |
| Kosovo         | 4.97              | 1.94                 |                  |                    |                       |                        |
| Kuwait         | 6.03              | 1.63                 | 0.55              | -0.02              | 1.98                  | 57.1                   |
| Kyrgyzstan     | 4.58              | 1.75                 | -0.93             | -1.00              | 6.96                  | 81.3                   |
| Laos           | 5.11              | 0.85                 | -1.01             | -0.82              |                       | 89.4                   |
| Latvia         | 4.73              | 1.65                 | 0.67              | 0.86               | 5.71                  | 51.0                   |
| Lebanon        | 5.51              | 2.26                 | -0.50             | -1.18              |                       | 54.6                   |
| Lithuania      | 5.93              | 1.83                 | 0.62              | 0.91               | 5.40                  | 63.9                   |
| Macedonia      | 4.51              | 2.17                 | -0.26             | -0.26              | 6.14                  | 65.1                   |
| Madagascar     | 4.01              | 1.41                 | -0.30             | 0.00               | 8.77                  | 88.6                   |
| Malawi         | 4.13              | 2.12                 | -0.67             | -0.15              | 7.24                  | 60.0                   |
| Malaysia       | 6.08              | 1.59                 | 0.59              | -0.11              | 5.59                  | 75.1                   |
| Mali           | 4.01              | 1.61                 | -0.44             | 0.14               | 7.99                  | 84.8                   |
| Mauritania     | 5.20              | 1.93                 | -0.56             | -0.44              | 4.56                  | 70.0                   |
| Mexico         | 6.74              | 2.16                 | -0.09             | -0.22              | 7.42                  | 82.1                   |
| Moldova, R.    | 4.93              | 1.89                 | -0.62             | -0.48              | 6.95                  | 66.1                   |
| Montenegro     | 5.22              | 2.33                 | -0.46             | -0.13              | 6.02                  |                       |
| Morocco        | 4.59              | 1.96                 | -0.15             | -0.47              | 4.47                  | 72.8                   |
| Mozambique     | 4.61              | 1.78                 | -0.49             | 0.23               | 8.00                  | 73.4                   |
| Nepal          | 4.55              | 1.55                 | -0.68             | -1.61              | 8.52                  | 92.3                   |
| The Netherlands| 7.56              | 1.15                 | 1.85              | 1.17               | 1.49                  | 29.1                   |
| New Zealand    | 7.44              | 1.68                 | 1.96              | 1.40               | 4.69                  | 54.8                   |
| Nicaragua      | 4.80              | 2.70                 | -0.74             | -0.28              | 8.29                  | 78.1                   |
| Niger          | 3.80              | 1.61                 | -0.81             | -0.33              | 6.08                  | 90.9                   |
| Nigeria        | 4.73              | 1.78                 | -1.05             | -1.27              | 0.91                  | 56.9                   |
| Norway         | 7.46              | 1.60                 | 1.90              | 1.36               | 2.29                  | 34.9                   |
| Pakistan       | 6.12              | 2.38                 | -0.66             | -1.50              | 8.07                  | 89.5                   |
| Country        | Average happiness | Inequality happiness | Technical quality | Democratic quality | Government consumption | Government expenditures |
|---------------|-------------------|----------------------|-------------------|--------------------|-----------------------|------------------------|
| Palestina     | 4.78              | 2.32                 |                   |                    |                       |                        |
| Panama        | 6.20              | 2.33                 | -0.01             | 0.31               | 7.42                  | 88.0                   |
| Paraguay      | 4.86              | 1.95                 | -0.90             | -0.50              | 8.26                  | 90.8                   |
| Peru          | 4.93              | 2.21                 | -0.38             | -0.46              | 7.81                  | 75.6                   |
| Philippines   | 4.73              | 2.26                 | -0.36             | -0.72              | 8.18                  | 88.9                   |
| Poland        | 5.85              | 2.08                 | 0.40              | 0.56               | 4.89                  | 39.5                   |
| Portugal      | 5.43              | 2.18                 | 0.98              | 1.08               | 4.70                  | 29.7                   |
| Puerto Rico   | 6.62              | 2.71                 | 0.73              | 1.01               |                       |                        |
| Romania       | 5.28              | 2.29                 | -0.01             | 0.33               | 7.15                  | 68.9                   |
| Russian F.    | 5.00              | 2.03                 | -0.70             | -0.89              | 3.98                  | 63.5                   |
| Rwanda        | 4.34              | 1.55                 | -0.42             | -0.89              | 7.73                  | 82.6                   |
| Saudi Arabia  | 7.06              | 1.83                 | -0.06             | -1.16              |                       | 69.3                   |
| Senegal       | 4.58              | 1.49                 | -0.33             | -0.10              | 8.57                  | 84.4                   |
| Serbia        | 4.62              | 2.03                 | -0.39             | -0.28              | 5.52                  |                        |
| Sierra L.     | 3.88              | 1.78                 | -1.10             | -0.45              | 7.86                  | 68.9                   |
| Singapore     | 6.56              | 1.27                 | 1.99              | 0.46               | 5.29                  | 89.6                   |
| Slovak R.     | 5.16              | 1.96                 | 0.70              | 0.89               | 4.36                  | 52.5                   |
| Slovenia      | 5.93              | 1.95                 | 0.91              | 1.08               | 4.03                  | 44.3                   |
| South Africa  | 5.37              | 2.10                 | 0.51              | 0.41               | 4.79                  | 78.6                   |
| Spain         | 7.13              | 1.75                 | 1.09              | 0.59               | 4.79                  | 50.5                   |
| Sri Lanka     | 4.34              | 1.77                 | -0.12             | -0.95              | 8.56                  | 83.1                   |
| Sweden        | 7.38              | 1.63                 | 1.92              | 1.30               | 1.12                  | 2.2                    |
| Switzerland   | 7.45              | 1.70                 | 1.94              | 1.50               | 7.13                  | 61.1                   |
| Taiwan        | 6.30              | 1.84                 | 0.83              | 0.64               | 6.67                  | 84.0                   |
| Tajikistan    | 4.57              | 1.56                 | -1.02             | -1.34              |                       | 89.1                   |
| Tanzania      | 4.04              | 1.66                 | -0.44             | -0.15              | 6.11                  | 88.1                   |
| Thailand      | 5.96              | 1.67                 | 0.05              | -0.77              | 6.72                  | 92.1                   |
| Togo          | 3.24              | 1.73                 | -1.17             | -1.01              | 9.09                  | 94.4                   |
| Trinidad Tob. | 5.78              | 2.41                 | 0.14              | 0.22               | 5.75                  | 81.1                   |
| Turkey        | 4.67              | 2.34                 | 0.08              | -0.39              | 6.91                  | 68.1                   |
| Uganda        | 4.04              | 1.72                 | -0.46             | -0.88              | 7.09                  | 83.7                   |
| Ukraine       | 4.88              | 1.96                 | -0.60             | -0.12              | 4.70                  | 75.8                   |
| United Arab Emirates | 6.72       | 1.87                 | 0.77              | -0.10              | 6.62                  | 76.1                   |
| United Kingdom| 6.97              | 1.63                 | 1.85              | 1.00               | 4.17                  | 43.5                   |
| United States | 7.26              | 1.89                 | 1.53              | 0.75               | 6.32                  | 61.1                   |
| Uruguay       | 5.60              | 2.30                 | 0.49              | 0.88               | 7.91                  | 45.8                   |
| Uzbekistan    | 5.22              | 1.94                 | -1.29             | -1.81              |                       | 52.2                   |
| Venezuela     | 7.17              | 2.55                 | -1.08             | -0.83              | 6.17                  | 76.8                   |
| Vietnam       | 5.33              | 1.36                 | -0.56             | -0.58              | 9.25                  | 74.8                   |
| Yemen         | 4.55              | 1.93                 | -0.86             | -1.19              |                       | 56.2                   |
| Zambia        | 4.92              | 1.84                 | -0.67             | -0.01              | 7.44                  | 71.0                   |
| Zimbabwe      | 3.76              | 1.97                 | -1.59             | -1.28              | 2.98                  | 82.7                   |
References

Cantril, H. (1965). *The pattern of human concerns*. New York, USA: New Brunswick.

De Soto, H. (2000). *The mystery of capital: Why capitalism triumphs in the west and fails everywhere else*. London, UK: Bantam Press.

Foreign Policy Magazine. (2007). *The failed state index*. Carnegie Endowment for International Peace, Washington D.C., USA. www.foreignpolicy.com.

Freedom House. (2007). Country ratings and status (Freedom in the World, 1973–2009). www.Info@freedomhouse.org.

Frey, B. S., & Stutzer, A. (2005). *Beyond outcomes: Measuring procedural utility*. Oxford, UK: Economic Papers.

Guven, C. (2009). *Are happier people better citizens?* Economics Series SWP 2009/04, Deakin University Australia.

Gwartney, J. D., & Lawson, R. A. (2006). Economic Freedom of the World. Annual report, Fraser Institute, 2006, Vancouver, Canada. Data available at: www.freetheworld.com/206/2006dataset.xls.

Headey, B., & Wearing, A. (1992). *Understanding happiness: A theory of subjective well-being*. Melbourne, Australia: Longman Cheshire Pty Limited.

Helliwell, J., & Huang, H. (2008). How’s your government? International evidence linking good government and well-being. *British Journal of Political Science, 38*, 595–619.

Heritage Foundation & Wall Street Journal Index of Economic Freedom. (2010). http://www.heritage.org/Index/.

Kalmijn, W. M., & Veenhoven, R. (2005). Measuring inequality in happiness in nations. In search of proper statistics. *Journal of Happiness Studies, 6*(4).

Kaufmann, D. (2005). Back to basics, 10 myths about governance and corruption. *Finance & Development, 42*(3).

Kaufmann, D., et al. (2008). *Governance matters VII: Aggregate and individual governance indicators, 1996–2007*. World Bank Policy Research Working Paper No. 4654. Available at SSRN: http://ssrn.com/abstract=1148386. Data available at: www.govindicators.org.

Kaufmann, D., & Kraay, A. (2008). *Governance indicators: Where are we, where should we be going?* World Bank Research Observer, January 2008.

Kuznets, S. (1955). Toward a theory of economic growth. In R. Lekachman (Ed.), *National policy for economic welfare at home and abroad*. Garden City, NY: Doubleday & Co.

Lyubomirsky, S., Diener, E., & King, L. (2005). The benefits of frequent positive affect: Does happiness lead to success? *Psychological Bulletin, 131*, 803–855.

Oswald, A. J., & Wu, S. (2010). Objective confirmation of subjective measures of human well-being: Evidence from the USA. *Science, 327*.

Ott, J. C. (2005). Level and equality of happiness in nations: Does greater happiness of a greater number imply greater inequality in happiness? *Journal of Happiness Studies, 6*(4).

Ott, J. C. (2010). Good governance and happiness in nations: Technical quality precedes democracy and quality beats size. *Journal of Happiness Studies, 11*(3).

Rothstein, B., & Uslaner, E. M. (2005). All for all: Equality, corruption, and social trust. *World Politics* 41–72.

Veenhoven, R. (1984). *Conditions of happiness*. Dordrecht, the Netherlands: Kluwer.

Veenhoven, R. (1999). Quality of life in individualistic society: A comparison of 43 nations in the early 1990’s. *Social Indicators Research, 48*, 157–186.

Veenhoven, R. (2005). Return of inequality in modern society? Test by dispersion of Life-satisfaction across time and nations. *Journal of Happiness Studies, 6*(4).

Veenhoven, R. (2010a). *World database of happiness, item bank*. Erasmus University Rotterdam. Assessed January 2010 from http://www.worlddatabaseofhappiness.eur.nl/hap_quer/hqi_fp.htm.

Veenhoven, R. (2010b). *World database of happiness, distributional findings in nations*. Erasmus University Rotterdam. Assessed January 2010 from http://www.worlddatabaseofhappiness.eur.nl/hap_nat/nat_fp.php.

Veenhoven, R. (2010c). *World database of happiness, time trends*. Erasmus University Rotterdam. Assessed January 2010 from http://www.worlddatabaseofhappiness.eur.nl/trendnat/framepage.htm.

Wessman, A. E., & Ricks, D. F. (1966). Winn: A case study of a happy man. *Journal of Humanistic Psychology, 6*(1), 2–16.