

Towards New Maps of Global Human Values, Based on World Values Survey (6) Data

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Abstract

This article provides a new approach to the study of global values, based on a statistical analysis of the freely available data from the World Values Survey, the 6th wave of global opinion surveys which has now been made public. In accordance with economic approaches, we contradict the mainstream of the hitherto published global value analyses in sociology (Inglehart and Norris 2003) and we think that family values (Schumpeter 1950) and religious values (Barro and McCleary 2003) can be an important positive asset for society. Too many negative phenomena, which cannot be overlooked anymore by contemporary social science, are clearly to be associated with the loss of religion (irrespective of the predominant denomination in a country): the distrust in the state of law; the shadow economy; the distance from altruistic values; a growing fatigue of democracy; the lack of entrepreneurial spirit; etc.

Keywords: *global values, World Values Survey, mathematical sociology, factor analysis.*

This article provides global maps for the new 22 value factors, which result from our promax factor analysis of the used 78 variables from 45 countries with complete data. We present an Overall Open Personality Index, based on twelve factors of the model. But while some countries, like Libya, Tunisia, Algeria, Yemen and Peru had a very poor performance on both the Overall Open Personality Index and the University of Maryland Polity IV Democracy Measure at the same time, and Trinidad and Tobago, Sweden, Australia, Netherlands, United States, and Japan had a very high performance on the Overall Open Personality Index and on the Democracy Measure. It is clear that in a Hayekian perspective Economic Freedom explains 46 % of the variance of the mismatch between the Overall Open Personality Index and the Democracy Measure. The democracy measure for Slovenia, Poland, Uruguay, Ukraine, and Cyprus was much higher than what we would have expected from the Overall Open Personality Index of their civil societies, suggesting that under certain condi-

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tions the structures of a 'Constitution of Liberty' (economic freedom) can further propel the development of democracy even under very adverse conditions. The civil societies in Uzbekistan, China, Zimbabwe, Azerbaijan, and Rwanda already had a positive performance on the twelve components of our Indicator of an Overall Open Personality, combining

- trust in the state of law;
- no shadow economy and violence;
- post-material activism;
- support for democracy;
- non-violent society;
- no xenophobia and racism;
- trust in transnational capital and Universities;
- Hayek/Max Weber;
- supporting gender justice;
- not staying away from environmental activism;
- caring for democracy;
- supporting the Army and sports

in excess of the democracy available to its population. We also calculate performance indices for the countries and the nine main global religious denominations, answering an old query raised by Huntington (2000). On this account, the 5775 year old religion of Judaism and Protestantism emerge as the role models for other religions how to combine religion and the traditions of the Enlightenment. Interestingly enough, also Hinduism, Buddhism, Taoism and Roman Catholicism are assigned a positive value on our combined twelve factor indicator. Religiously committed Protestants and Roman Catholics rank higher on the scale than do the overall global Protestant and Roman Catholic populations.

1. Background

Social science studied cross-national survey data with statistical methods to gain insights about global value patterns for a number of years now. Our survey of the theories and hitherto carried out empirical studies will be rather brief, and because of sparse available journal printing space, we would rather like to concentrate here on the new results which we will present. For this reason, the article departs substantially from the usual presentation style in the social science journals and rather adheres to the style in the medical profession as a model to follow.

The discipline of global value research made enormous methodological developments over the last decades and is now an integral part of global sociology (Davidov, Schmidt, and Billiet 2011; Davidov, Schmidt, and Schwarz 2008). Inglehart initiated the repeated and constant standard surveys over time

in the *Eurobarometer*¹ project and later in the *World Values Survey*.² Regional coverage of the *World Values Survey* project quickly transcended developed Western democracies to include in wave 1, 1981–1984 already South Korea and Mexico; and in wave 2, 1990–1994 already a number of former communist and also developing countries. *World Values Survey* data are now available from some 100 countries which contain some 90 % of the world's population, still using a largely common and stable questionnaire with almost 400,000 representative respondents.³ There was also a growing inclusion of representative Muslim publics in these surveys (Tausch and Moaddel 2009; Tausch, Heshmati, and Karoui 2014; Yesilada and Noordijk 2010). Never before in human history have we known as much about the different values and cultures across the globe, and never before have we known as much about the changes of values and cultures over time. It should be stressed at the outset that here we are dealing only with the subjective views of representative populations around the globe regarding core values of an 'Open Society'. We are not saying that, say, country x or y are more 'open societies' than, say, country z. But what we are saying is that the *World Values Survey* data suggest that according to the *combined results for the values under scrutiny here*

- trust in the state of law;
- no shadow economy and violence;
- post-material activism;
- support for democracy;
- non-violent society;
- no xenophobia and racism;
- trust in transnational capital and Universities;
- Hayek/Max Weber;
- supporting gender justice;
- not staying away from environmental activism;
- caring for democracy;
- supporting the Army and sports.

The populations in several transition countries and developing countries today are already more characterized by a higher 'Overall Open Personality Index' than the leading Western countries and the undisputed successful cases of transition and democratization in Eastern Europe, South and East Asia and Latin America.

Thus, the rankings, presented in this article, surely are based on legitimate factor analytical procedures, applied to the *World Values Survey* data, reflecting opinions of the respective populations. We are well aware that some of the results, presented here, could be regarded by many as paradoxical, counter-intuitive or even misleading.

¹ URL: http://ec.europa.eu/public_opinion/index_en.htm.

² URL: <http://lcsr.hse.ru/en/inglehart>.

³ URL: <http://www.worldvaluessurvey.org/WVSCContents.jsp?CMSID=WhatWeDo>.

But apart from the fact that any analyst with access to the statistical software used here – or in fact to any version of alternative advanced statistical software programmes – will come to the same or very similar conclusions: that the openly accessible *World Values Survey* data, reflecting opinions of the respective populations, suggest exactly or something very similar to the results structure, achieved by applying promax factor analysis procedures to the *World Values Survey* data.

The often existing discrepancy between the facts of an ‘*open society*’ defined by any current and standard democracy measure of contemporary social science (in our case: the Polity IV project of the University of Maryland)⁴ and the mass opinion structures, analyzed in our work, lead us to a very central issue of the future of the global democratization processes. Our results could suggest that economic institutions and markets could be the key to understand how these countries became successful cases of democratic stability and democratic transition, even when their ‘Open Personality Index’ was rather low. For countries like Russia, which ranks unfortunately very low on the index, this issue is not trivial at all.

We develop a Hayekian perspective, based on the *Economic Freedom Index*. Contemporary decision makers in Russia explicitly seem to be aware of the intricate dilemmas involved in the tradeoff between mass opinions and democratic institutions, and in one statement to be found at the official Kremlin website, an explicit reference is made to debates about the contribution of Karl Popper on this issue.⁵ So, the current Russian Prime Minister Dmitry Medvedev himself seems to suggest that education and the overcoming of paternalistic attitudes are the priority in improving democratic institutions, quoting Karl Popper, thus suggesting a causation from mass opinions to democratization, and not, as we suggest in a Hayekian fashion, a causation via the variable economic freedom, explaining the residuals between democratic mass opinions and democratization. To recapitulate this interesting political statement:

I think that the fourth distinctive feature of democracy is its high levels of culture, education, communication and information exchange. [...] A free democratic society remains a society of well-trained, educated people, people with a high level of culture. [...] We have had centuries, in fact a millennium of undemocratic development. And our democracy is only 20 years old. This is the reason for some of its problems, quite significant ones, and hence its significance for our country and the world. [...] And finally, the fifth standard of democracy is citizens' conviction that they live in a democratic state. [...] Liberty and justice are not just political slogans, they are also philosophical and social catego-

⁴ As to data sources and data definitions, see our data sets at URL: <http://www.hichemkaroui.com/?p=2383>.

⁵ URL: <http://en.kremlin.ru/events/president/transcripts/8887>.

ries. Fundamentally, they are also human feelings. [...] In this regard I want to cite the very accurate words of Karl Popper, who may be more important than ever for Russia today. He said that the problem of improving democratic institutions is always a challenge for individuals, not for institutions. Democratic institutions cannot improve themselves, their improvement depends on us (Medvedev 2010).

But while some countries had a very poor performance on our Overall Open Personality Index and the Democracy Measure of the Polity IV Project of the University of Maryland *at the same time*, and several stable democracies in the West and in the developing countries, most notably the *Commonwealth*, had a very high performance on the Overall Open Personality Index and on the Democracy Measure, it is clear for us that in a Hayekian perspective Economic Freedom explains a large percentage of the mismatch between democratic mass attitudes, measured by our Overall Open Personality Index and the existence of democracy, measured by the Democracy Measure.

In the West, three social scientific traditions gained an overwhelming prominence in the interpretation of global values: G. Hofstede, S. Schwartz, and R. Inglehart. Hofstede, who pioneered value research in international business studies (Hofstede 2001; Hofstede and Minkov 2010; Hofstede G., Hofstede G. J., and Minkov 2010; Minkov and Hofstede 2011, 2013) underlines the fundamental insight that transferring global production and doing international business needs a thorough study of the differences in international values of employees and customers alike. According to Hofstede, there are four to six basic clusters of international value systems, and they are all defined along the scales of how different national societies handle ways of coping with inequality, ways of coping with uncertainty, the relationship of the individual with her or his primary group, and the emotional implications of having been born as a girl or as a boy. Among Hofstede's factors, power distance (the lowest in Scandinavian and the Anglo-Saxon democracies), uncertainty avoidance (generally highest in Roman Catholic and Orthodox cultures), and long-term orientation (LTO) (the highest in South Korea, Japan, and China) are especially often mentioned in the literature.

Schwartz (2006a, 2006b) highlights a famous map of global values. He identifies seven basic cultural orientations and the structure of interrelations among them: West European, English-speaking, Latin American, East European, and South Asian, Confucian influenced, and African and Middle Eastern.

His seven country-level cultural dimensions are:

1. Embeddedness;
2. Hierarchy;
3. Mastery;
4. Affective Autonomy;

5. Intellectual Autonomy;
6. Egalitarianism;
7. Harmony.

Muslim societies rank very high on values of embeddedness. Embeddedness combines such values as social order, respect for tradition, forgiving, moderateness, obedience, politeness, cleanness, national security, devoutness, wisdom, self-discipline, family security, honoring elders, reciprocation of favors, protecting the public image.

Inglehart predicted a more or less generalized global increase in human security in parallel with the gradual waning of the religious phenomenon in the majority of countries across the globe. Inglehart spells out what tendencies are brought about by the waning of the religious element in advanced western democracies: higher levels of tolerance for abortion, divorce, homosexuality; the erosion of parental authority, the decrease of the importance of family life, *etc.* (Inglehart and Baker 2000; Inglehart and Norris 2003).

Inglehart developed an interpretation of global value change which rests – like our present article – on the statistical technique of factor analysis. He used up to some twenty key *World Values Survey* variables, mostly from the waves (1) to (4) of the project. As it is all too well-known, the two Inglehart dimensions are: (1) the Traditional/Secular-Rational dimension and (2) the Survival/Self-expression dimension. These two dimensions also explain more than 70 % of the cross-national variance in another Inglehart's factor analysis of ten indicators, and each of these dimensions is strongly correlated with scores of other important variables. For Inglehart and Baker (2000: 24) all of the preindustrial societies show relatively low levels of tolerance for abortion, divorce, and homosexuality; tend to emphasize male dominance in economic and political life, deference to parental authority, and the importance of family life, and are relatively authoritarian; most of them place strong emphasis on religion. Advanced industrial societies tend to have the opposite characteristics.

When survival is uncertain, cultural diversity seems threatening. When there is no '*enough to go around*', foreigners are seen as dangerous outsiders who may take away one's sustenance. People cling to traditional gender roles and sexual norms, and emphasize absolute rules and familiar norms in an attempt to maximize predictability in an uncertain world. Conversely, when survival begins to be taken for granted, ethnic and cultural diversity become increasingly acceptable – indeed, beyond a certain point, diversity is not only tolerated, it may be even positively valued because it is considered as interesting and stimulating. In advanced industrial societies, people seek out foreign restaurants to taste new cuisine; they pay large sums of money and travel long distances to experience exotic cultures. Changing gender roles and sexual norms no longer seem threatening.

In this article we will analyse the weight of such factors as the loss of religion and the rise of the shadow economy, including in leading Western countries, and we start out from a frame of reference which was provided by the American economist Robert Barro. He believes that the networks and interactions fostered by churches and religious denominations are important elements of social capital (Barro and McCleary 2003).

For Inglehart, such phenomena as bribery, corruption, tax evasion, cheating the state to get government benefits for which one would not be entitled, but also the healthy activism of citizens in volunteer organizations, already described by Amitai Etzioni (1968), hardly exist, while the rich data base of the *World Values Survey* provides ample evidence about these phenomena and their occurrence in world society. Our statistics and choropleth maps of global value adherence underline a preoccupation about the loss of spiritual values, which also unites leaders of the major world religious denominations.⁶ As Rabbi Lord Jonathan Sacks in his address at the Pontifical Gregorian University on December 12, 2012 in Rome correctly highlighted, the religious roots of the market economy and democratic capitalism can never be forgotten:

They were produced by a culture saturated in the values of the Judaeo-Christian heritage, and market economics was originally intended to advance those values (Sacks 2012).⁷

And Rabbi Lord Sacks went on to underline the following aspect, which achieves highest significance in our own empirical results:

But trust is not a dispensable luxury. It is the very basis of our social life. Many scholars believe that capitalism had religious roots because people could trust other people who, feeling that they were answerable to God, could be relied on to be honest in business. A world without trust is a lonely and dangerous place. [...] In the end we do not put our faith in systems but in the people responsible for those systems, and without morality, responsibility, transparency, accountability, honesty and integrity, the system will fail (*Ibid.*).

Lord Sacks argues also that affluence makes you complacent. You no longer have the moral and mental energy to make the sacrifices necessary for the defense of freedom. Inequalities grow. The rich become self-indulgent. The poor feel excluded. There are social divisions, resentments, injustices. Society no longer coheres. People do not feel bound to one another by a bond of collective responsibility. Individualism prevails. Trust declines. Social capital wanes.

Those who believe that liberal democracy and the free market can be defended by the force of law and regulation alone, without an internalised sense of duty and morality, are tragically mistaken (*Ibid.*).

⁶ URL: <http://www.peace.ca/concludingstatement.htm> and <http://www.catholiceducation.org/en/religion-and-philosophy/social-justice/has-europe-lost-its-soul.html> Invalid reference.

⁷ URL: <http://www.catholiceducation.org/en/religion-and-philosophy/social-justice/has-europe-lost-its-soul.html>.

Secularization is part and parcel of the decay of family values and economic values, which threatens to affect negatively the very existence of the capitalist market economy. This simple and compelling message from one of the greatest economists of all times, Joseph Alois Schumpeter was already published in 1950. For Schumpeter, the loss of family values destroys the fabric of capitalist family owned businesses. Today we can add: if overall values decline, then, also tax morale and the human work ethic, considered to be so vital for economic progress since the days of the German sociologist Max Weber, will decline as well.

The economics profession, that is, mathematical, quantitative economics, already began to make large-scale use of the *World Values Survey* data, integrating the *World Values Survey* country level results into international economic growth accounting.

Following Hayek and Bartley (1988) and Hayek (1960), we think that values like hard work which brings success, competition, and private ownership of business play an overwhelming role in the 21st-century capitalism, and simply cannot be overlooked in empirical global value research.

Starting with the usual World Bank economic growth data (as of March 2015), we immediately see that the centers of economic growth since the crisis of 2008 shift inexorably towards the countries of the Pacific and the Indian Ocean arena, and away from the secularized West. Even in their wildest anti-Western dreams, the opponents of the West would not have been able to imagine what has come true today – the tremendous reduction of Western economic power. What radical Islamist movements could hitherto not achieve – the undermining of Western military power – the economic crisis and the rise of new economic global players accomplished within the timespan of a few years. Not the bombs of Mr. Osama Ben Laden, but the relentless economic crisis starting in 2007 achieved this decline.

Barro speaks decidedly in favor of the importance of religion for sound economic growth and long-run economic well-being. Barro and McCleary instead of viewing ‘religious beliefs’ as an ‘impediment’ of economic growth, tend to see them as requirements of a resilient society today:

Our central perspective is that religion affects economic outcomes mainly by fostering religious beliefs that influence individual traits such as thrift, work ethic, honesty, and openness to strangers. For example, beliefs in heaven and hell might affect these traits by creating perceived rewards and punishments that relate to ‘good’ and ‘bad’ lifetime behavior (Barro and McCleary 2003: 779).

Religious beliefs stimulate growth because they help to sustain aspects of individual behavior that enhance productivity. Respect of parents is related in a clear-cut positive manner to economic growth, as well as the belief in hell. Our

Appendix Map 1 projects the World Bank average economic growth rates since the world economic crisis began in 2008. Poor countries grow faster than richer countries, but we also show how even under consideration of prior economic development levels, economic growth inexorably shifts towards the Pacific and Indian Ocean region.

The decline of 'economic morality' has many visible results – the shadow economy, bribery, corruption, etc. The economic profession already invested lots of energy over recent years to investigate these phenomena (Tanzi and Schuknecht 1997; Tanzi 1999; Schneider 2005). Hofstede, Schwartz, Davidov and Inglehart, the three major existing sociological and psychological theories about global values do not talk about the shadow economy at all.

The author of the present article, of course, is well aware of the vast debate on religion and globalization in the context of the theories, debated above (Beyer and Beaman 2007; Sen 2006). Eisenstadt (1968) already underlined the pivotal role of Protestantism in the rise of the Enlightenment traditions in the West. In accordance with Guiso *et al.* (2003), we think that Eisenstadt's theory deserves a more than passing mentioning here, because he moved away from an analysis of a direct causal link between Protestantism and capitalism to focus on the 'transformative potential' of religions.

The transformative potential is defined by Eisenstadt as the 'capacity to legitimize, in religious or ideological terms, the development of new motivations, activities, and institutions which were not encompassed by their original impulses and views' (Eisenstadt 1968). As Guiso *et al.* correctly emphasized, Eisenstadt's main contribution in the context of the debate was to show that Protestantism redefined political and social institutions, and had influence on the reformulation of roles within the economic sphere.

In view of the global quest for an ethics of tolerance and understanding (Küng 1997), one might also argue that starting from Montesquieu (1989) in the Western Christian tradition, the Enlightenment would be indeed inseparable from the development of a culture of tolerance and the market economy (Allen 2008; Holmes 2006; just to mention a few). Important traditions of Enlightenment in other world religions – to name here only Judaism and Islam, without neglecting the other global religions – must also be named in this context (Feiner and Naor 2011; Lawson 2005; Morgan 2007; Sacks 1998, 2003, 2005, 2014). Europe's dominant denomination, Roman Catholicism, only joined the traditions of Enlightenment in the Second Vatican Council (Lehner and O'Neill Printy 2010). And while the Roman Catholic Church now forcefully condemns Anti-Semitism, it is still ambivalent at best on the 'second pillar' of the Anti-Enlightenment prejudice,⁸ which targeted Free Masonry (Lenoir and Etchegoin 2009).

⁸ URL: http://www.jewishvirtuallibrary.org/jsource/judaica/ejud_0002_0007_0_06772.html.

But for empirical economists, who are not primarily in sacred scriptures but in economic behavior of human beings, the evidence published on the relationship between religion, denominations, societal ethics and economic growth is far from clear and conclusive. There are, if one wishes to say so, different shades of very contradicting evidence, and among the dozens of articles and books published on the subject, we should just mention the influential articles by Berggren and Bjørnskov (2011), who found a negative relationship between religiosity and trust; Porta *et al.* (1996), who distinguished between the effects of what they term hierarchical religions (a debate started by Putnam [1993] and Fukuyama [1995]); defined in the article by Porta *et al.* (1996) as Catholicism, Eastern Orthodox Christianity, and Islam and Guiso *et al.* (2003); Knack and Keefer (1997); Sapienza *et al.* (2006); and Zak and Knack (2001); who all arrived at a more complex picture of realities. Guiso *et al.* (2003) is an especially noteworthy source in this context, because the article is based on a very comprehensive analysis of the *World Values Survey* data, which were available to the authors at the time of the writing of their article. Only a very limited number of conclusions of that article can be debated here: Guiso *et al.* (2003) found that on average religion is good for the development of stronger institutions. *Religious people trust others more, trust the government more, are less willing to break the law, and believe more in the fairness of the market. Active churchgoers are not more intolerant toward immigrants than the rest of the population.* Finally, both a religious upbringing and active religious participation increase trust toward government institutions. Religious upbringing and affiliation are associated with a reduced willingness to break any sort of legal rule. People attending religious services on a more regular basis are more willing to trade off equality for incentives and in particular, they favor more private ownership. *Catholicism breeds trust more than any other non-Christian religion.*

The main theoretical connections of the present new approach to global value studies could then be summarized as follows:

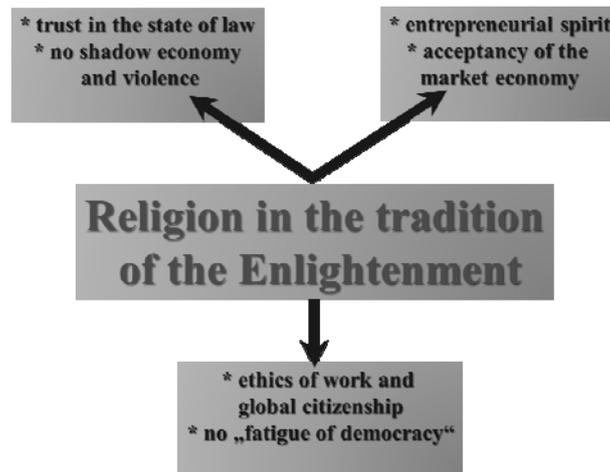


Fig. 1. Religions in the tradition of the Enlightenment and global values – the causal connections

2. Data and Methodology

Human value data collections now include data from much of the Americas, Europe and the former USSR, East and South-East Asia and several countries in Sub-Saharan Africa, and also from twenty majority Muslim countries of our globe, now participating in the last wave of the *World Values Survey* project.

Our present attempt to map anew the structure of global values is based on an extensive and exhaustive approach of the 78 best documented variables in the *World Values Survey* (6), based on 41,178 global representative citizens with complete data who reside in more than 45 countries. Thus, our multivariate analysis covers roughly some 47 % of the total current global population of 7,303 billion people and it also comprises some 580 Muslim inhabitants of our globe, *i.e.*, around 36 % of the global Muslim population of more than 1.6 billion people.⁹ The fifteen member countries of the Organization of Islamic Cooperation,¹⁰ covered by our final multivariate analysis are: Algeria, Azerbaijan, Iraq, Jordan, Kazakhstan, Kyrgyzstan, Lebanon, Libya, Malaysia, Nigeria, Pakistan, Tunisia, Turkey, Uzbekistan, and Yemen. The full list of countries, included into the final analysis, emerges from Table 3.

Our variables include a wider array of values than in any previous encompassing analysis on the subject. We also include necessary background data such as age, education, gender, and income of the respondents. The 15 categories of values and activities measured now include:

⁹ URL: <http://www.worldometers.info/world-population/>.

¹⁰ URL: <http://www.oic-oci.org/oicv2/home/?lan=en>.

- Active/Inactive membership in seven types of *voluntary organizations*;
- Attitudes on *gender issues*;
- Basic attitudes on the *market economy, inequality and wealth*;
- *Confidence* in key national and international institutions (nine indicators);
- Eleven indicators of the *values* which are *important in the education of a child*;
- Feeling of *happiness*;
- *Identification with democracy* (several indicators);
- Indicators of positions on *environmental protection*;
- Indicators of *trust*;
- Indicators of *work ethics*;
- Nine *indicators of what is justifiable* and what is not in a society, including the shadow economy;
- Seven indicators measuring the *scales* proposed by *Shalom Schwartz*;
- Several indicators of *religiosity*;
- Three indicators of *xenophobia and racism*;
- *What democracy should be all about* (seven indicators).

The IBM-SPSS version of the *World Values Survey* data were downloaded from the official website of the research project.¹¹ The countries and territories originally included into the final analysis were: Algeria, Argentina, Armenia, Australia, Azerbaijan, Bahrain, Belarus, Brazil, Chile, China, Colombia, Cyprus, Ecuador, Egypt, Estonia, Germany, Ghana, Hong Kong (China), India, Iraq, Japan, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Lebanon, Libya, Malaysia, Mexico, Morocco, Netherlands, New Zealand, Nigeria, Pakistan, Palestine (Occupied Territories),¹² Peru, Philippines, Poland, Qatar, Romania, Russia, Rwanda, Singapore, Slovenia, South Africa, South Korea, Spain, Sweden, Taiwan (China), Thailand, Trinidad and Tobago, Tunisia, Turkey, Ukraine, United States, Uruguay, Uzbekistan, Yemen, and Zimbabwe. *We worked with listwise deletion of missing values.*

We used the statistical program IBM-SPSS XXIV. All used algorithms are fully available to the international public (IBM 2011). As to the analysis of principal components and factor analysis, we generally refer our readers to Blalock 1972; Dziuban and Shirkey 1974; Harman 1976; and Rummel 1970. The choice of the factor analytical method used to reduce the number of variables of the *World Values Survey* to its underlying dimensions is not just a matter for the specialist but it also has many different practical consequences. In-

¹¹ URL: <http://www.worldvaluessurvey.org/WVSONline.jsp>

¹² The *World Values Survey* data list the Occupied Palestinian territories (Gaza and the West Bank) as 'Palestine'.

glehart relied on standard principal components, which is basically a statistical methodology already developed before the Second World War. We think that the time has come to use more modern techniques which properly allow for stronger relations between the ‘factors’ which are underlying the correlations between the variables. We think that *promax factor analysis* is the ideal analytical technique, and we use it throughout this article.¹³

Factor analysis also allows the researcher to construct combined indices, in our case a combined Open Personality Index (trust in the state of law; no shadow economy and violence; post-material activism; support for democracy; non-violent society; no xenophobia and racism; trust in transnational capital and Universities; support for the market economy, described in the works of Hayek and Weber; supporting gender justice; not staying away from environmental activism; caring for democracy; supporting the army and sports [weighted by the *Eigenvalues* of the Promax factor analytical model]).

3. Results

In all brevity, we would like to present now the results of our research endeavor. Interested readers are being referred to our website¹⁴ where they will find not only the factor loadings of the promax factors, but also the full correlation matrix between the factors and also a second order factor analysis, based on the factor scores between the 22 oblique factors, which again corresponds the main findings of this analysis. The presentation of all these new materials in this article, all substantially qualifying hitherto established *World Values Survey* research, would by far beyond any word limit for scientific journals nowadays, including the present one.

In our re-analysis of the latest *World Values Survey* data, we show that the contemporary landscape of global values is indeed very different from the logic, described by Inglehart and his so-called self-expression values, associated by Inglehart with high levels of subjective well-being, good health, and high interpersonal trust, as well as tolerance of outgroups, support for gender equality, post-materialist values, and environmental activism.

We show by contrast that a very large array of negative phenomena, which cannot be overlooked anymore by contemporary social science, are clearly associated with the loss of religion. This holds for the majority of nations

¹³ The author is indebted on this point to his colleague Prof. Almas Heshmati; see also Tausch, Heshmati, and Karoui 2014. Principal Component analysis was originally developed by Pearson 1901 and further improved by Hotelling 1933. As to the literature on factor analysis, see, among others Agénor 2003; Andersen and Herbertsson 2003; DeVellis 2003; Dien *et al.* 2005; Finch 2006; Hambleton *et al.* 1991; Heshmati and Oh 2006; Heshmati *et al.* 2008; Heshmati 2006; Kang 2002; Kieffer 1998; McDonald 1997; McLeod *et al.* 2001. Promax factor analysis appears to be the most suitable method.

¹⁴ URL: <https://uibk.academia.edu/ArnoTausch/Documentation-for-books-and-articles>.

around the world, irrespective of the predominant religious denominations. *Negative phenomena are on the rise especially in Western countries and the former communist countries of Eastern Europe, where they spread most rapidly, and where they endanger, in the end, the very existence of the Open Society, such as the growth of distrust in the state of law; the shadow economy and violence; the distance to altruistic values; the growing fatigue of democracy, the lack of entrepreneurial spirit, the careless rejecting of work and global citizenship, and the dislike of sports and also the armed forces* which are there to protect our societies against external threats. Our empirical analysis shows that while contemporary parents in the early 21st century hold dear such educational values as independence and imagination, *ecological responsibility and acceptancy of societal rules are on the retreat as the loss of religion progresses.*

In the tradition of Hayek and Barley (1988) and Hayek (1960), one can find evidence in our results that the values of *hard work* which brings success, *competition*, and *private ownership of business* (see Appendix Map 15) today are most present in the following ten nations: Yemen, Uzbekistan, Libya, Tunisia, Trinidad and Tobago, Iraq, United States, Romania, Mexico, and Rwanda. The most anti-market attitudes can be found today not only in some former communist nations, but also in core countries of the European Union, like the Netherlands. The ten nations, whose populations most profoundly reject the market as understood by Hayek, nowadays, are: Azerbaijan, Poland, Kazakhstan, Ukraine, Uruguay, Russia, Netherlands, Estonia, Singapore, and Chile.

We should emphasize at this point that there is nothing arbitrary in our results based on the investigation of the relationships between the 78 variables. *Factor analysis does nothing but brings the structure, which is underlying the correlation matrix between the variables, to the surface.* There were 22 promax factors, whose statistical benchmark, the so-called *Eigenvalue*, was above 1, as required by the statistical analysis textbooks.

Table 1. The factors of the model

	Eigenvalue	% of total variance explained	Cumulated percentage of total variance explained
1	2	3	4
no trust in the state of law	4.729	6.063	6.063
shadow economy and violence	4.652	5.964	12.026
post-material activism	3.761	4.822	16.849
secularism	3.289	4.217	21.065
distance to altruistic values & G'd	2.656	3.405	24.470
social democratic orientation	2.147	2.753	27.222

1	2	3	4
support for democracy	2.034	2.607	29.830
the violent society	1.898	2.433	32.263
xenophobia and racism	1.612	2.067	34.329
happiness and economic well-being	1.573	2.016	36.345
lack of entrepreneurial spirit	1.444	1.851	38.197
older generation with low education and high fertility	1.316	1.687	39.884
distrust in transnational capital and Universities	1.227	1.573	41.456
anti-Hayek/anti-Max Weber	1.219	1.563	43.020
rejecting work, global citizenship; but social trust	1.193	1.530	44.550
supporting gender justice	1.163	1.491	46.041
educational value: independence not obedience	1.113	1.427	47.468
staying away from environmental activism	1.096	1.406	48.873
'fatigue of democracy'	1.086	1.392	50.266
egoism of the rich	1.054	1.351	51.617
imagination versus ecological responsibility	1.035	1.327	52.944
hating the Army and sports	1.013	1.299	54.242

Following the conventions of factor analysis, we performed the so-called scree test in Fig. 2. That is to say, the factors mentioned by the size of their *Eigenvalues* are on the x-axis, while the *Eigenvalues* are on the y-axis. Popularly formulated, the scree test looks at the shape of the line of the *Eigenvalues*. There should be a discernable upward bounce in the *Eigenvalues* to make those on the left hand of the Graph relevant beyond doubt. While the *Eigenvalues* for factors 12–22 correspond to a rather unspectacular straight line starting from factor 22 on the right to factor 12 on the left, whose *Eigenvalue* is just above 1.0, the *Eigenvalues* for factors 1–5 are really way above all trends, and the *Eigenvalues* for factors 6–8 are still relatively markedly above the linear trend from factor 12 to factor 22. Factors 9 to 11 are still above the trend line, although the visual diagnosis leaves other interpretations open as well.

Thus, the factors

- no trust in the state of law;
- shadow economy and violence;
- post material activism;
- secularism;
- distance to altruistic values & G'd

should be considered under any circumstances as the main factors of our model. Together, they already explain 24.47 % of the total variance of the model, ba-

sed on the 41,178 global representative citizens and 78 variables from 45 countries. The following factors:

- social democratic orientation;
- support for democracy;
- the violent society

still achieved some salience while

- xenophobia and racism;
- happiness and economic well-being;
- lack of entrepreneurial spirit

should be considered as ‘borderline cases’ of the scree test.

The other factors, that is to say:

- older generation with low education and high fertility;
- distrust in transnational capital and Universities;
- anti-Hayek/anti-Max Weber;
- rejecting work, global citizenship; but social trust;
- supporting gender justice;
- educational value: independence not obedience;
- staying away from environmental activism;
- ‘fatigue of democracy’;
- egoism of the rich;
- imagination versus ecological responsibility;
- hating the Army and sports

should be interpreted with caution: while their *Eigenvalue* is still above 1.0, their *Eigenvalues* correspond rather to a straight line starting from factor 22.

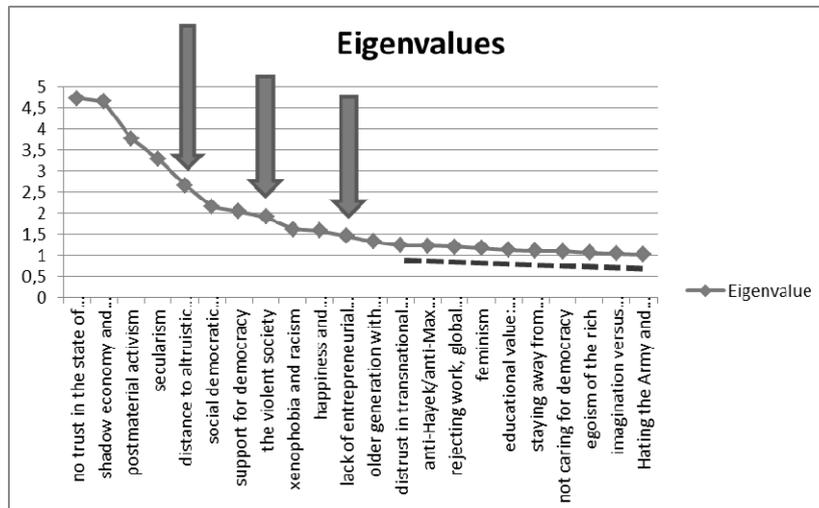


Fig. 2. The scree test for the factor analytical model

In the following, we will make some comments on the promax rotated factors, and refer our readers also to the following choropleth maps (see Appendix Maps 2–23), which contain a detailed description of the most important factor loadings as well as the countries corresponding most and corresponding least to the following factors.

No trust in the state of law combines low trust in the state apparatus, especially the organs of state security with distrust in the press, the universities, the banks and transnational corporations. The worst performers are located in Eastern Europe and Latin America; while some Muslim societies and China are outstanding performers on this scale.

Shadow economy and violence: acceptancy of cheating on taxes, stealing property, taking bribes, avoiding fares on public transport, cheating on government social benefits, combined with acceptancy of violence against other people and violence against women. The worst performers: Philippines, Algeria, Lebanon, Mexico, Russia, the best performers: Azerbaijan, Trinidad and Tobago, Ghana, Japan and Turkey. These two factors combined already explain 12.026 % of total variance, and the scree-plot suggests that in statistical terms, they are the most reliable measurement scales in our present work. Both factors are at the center of economic theory formation and were hitherto neglected by empirical sociological value research.

Post-material activism: volunteer activities for humanitarian and ecological organizations, labor unions, Church organizations and other volunteer activities. The worst performers: Tunisia, Azerbaijan, Armenia, Turkey; the best performers: Taiwan (China), Sweden, Rwanda, Australia, Nigeria and the Philippines. This ‘Etzioni’ factor of an active society also could present many perspectives in the context of future democratic stability.

Secularism: no importance assigned to G'd in one's life and to religious education; no attendance of religious services, no activity in Church organizations, rejection of tradition, acceptancy of divorce, rejection of the interpretation of laws by religious authorities. The lowest values – in Sub-Saharan African developing countries, the highest occurrence – in Sweden, China, the Netherlands, Estonia, Slovenia, Japan and Australia.

Distance to altruistic values & G'd combines the Shalom Schwartz scale about not looking after the environment with the Schwartz scale of not accepting tradition, proper behavior, and altruism. The factor is combined with a low importance assigned to God in one's life. The least occurring in some Eastern European and former Soviet countries, Columbia and some Arab countries, highest occurrence in Japan, the Netherlands, Rwanda and South Korea.

Social democratic orientation combines demands for redistribution by the state in favor of the poor and unemployed with a strong belief in civil rights, in free elections, and – surprisingly enough – with the interpretation of laws by the religious authorities. This ‘socialism’ of the 21st century, which in several

countries also has a religious aspect, is the weakest in the United States, Trinidad and Tobago, Japan, and Sweden, and the strongest is in Pakistan, Turkey, Uzbekistan, Ukraine and China.

Support for democracy combines support for democracy on various scales with a rejection of the interpretation of laws by the religious authorities and support for gender justice (University equally important for a boy or for a girl). Support for secular democracy and supporting gender justice is the weakest in Kyrgyzstan, Pakistan, the Philippines, and Azerbaijan, and the strongest is in Sweden, the Netherlands, Australia, Cyprus, Japan and the United States.

The violent society combines the acceptancy of domestic violence against women and children with the acceptancy of violence against other people, acceptancy of taking bribes, stealing property and cheating on taxes. The worst performers on this scale are Rwanda, the Philippines, Zimbabwe, Nigeria, and Singapore, while Chile, Romania, Japan, South Korea and Poland are the best performers.

In the following, we can only present – where necessary – some general further comments on the remaining factor of lesser statistical importance:

- xenophobia and racism;
- happiness and economic well-being;
- lack of entrepreneurial spirit;
- older generation with low education and high fertility;
- distrust in transnational capital and Universities;
- anti-Hayek/anti-Max Weber;
- rejecting work, global citizenship, but social trust;
- supporting gender justice;
- educational value independence not obedience;
- staying away from environmental activism;
- ‘fatigue of democracy’;
- egoism of the rich;
- imagination versus ecological responsibility;
- hating the Army and sports.

From the viewpoint of previous research on the subject, the following factors deserve some further verbal comments, while all the necessary basic information about our research results is presented in Appendix Maps 2–23 and in the Appendix, which we made electronically freely available.¹⁵

The rejection of the Schwartz scales ‘get rich’, ‘adventure and risk’, and ‘new ideas’ combines with a very negative attitude towards elderly people, which are seen as a burden on society, and with a rejection of global citizenship. This attitude, which we call *lack of entrepreneurial spirit* is especially to

¹⁵ URL: <https://uibk.academia.edu/ArnoTausch/Documentation-for-books-and-articles>.

be found in former communist countries – especially in the former USSR – and in Japan and Taiwan, while this attitude is least to be found in four countries in Sub-Saharan Africa.

Contemporary strong anti-globalization attitudes, directed against major companies and banks, combine with a negative attitude against (global) Universities, the national civil service and the national press. This factor of *distrust in transnational capital and the Universities* is the strongest in the five majority Muslim countries Jordan, Tunisia, Yemen, the Occupied Palestinian Territories and Iraq, while three Sub-Saharan African developing countries, Taiwan and Estonia are the least anti-globalization countries in the WVS sample.

Appendix Map 15 shows the factor *anti-Hayek/anti-Max Weber*, combining the attitude that hard work does *not* bring success, with the rejection of competition and the longing for state ownership of enterprises. This factor is especially present in some former communist countries, while some majority Muslim countries (Yemen, Uzbekistan, Libya, and Tunisia) and the Caribbean nation of Trinidad and Tobago best correspond to the lessons of Hayek and Weber.

Rejecting work, global citizenship, but a higher social trust is a factor least frequently to be encountered in several poor countries, among them Latin America, while it is especially prominent in the post-industrial societies of the Netherlands, the United States, Sweden, Australia, Japan and interestingly also in Belarus. It combines the rejection of work, global citizenship, and the importance of G'd for one's life with a higher degree of social trust and an acceptance of divorce. It is a factor typical for the secular milieu in highly developed countries.

There is a certain polarization in the global educational values between a dimension, emphasizing independence and responsibility, and a dimension emphasizing obedience and unselfishness. *The independence, not obedience syndrome* is the strongest in highly industrialized capitalist and former communist countries, and the weakest in African and Latin American developing countries.

Staying away from environmental activism is the weakest in Sweden, the Netherlands and Australia, and the strongest in Muslim and non-Muslim developing countries.

Our analysis also clearly shows the existence of the phenomenon of the *fatigue of democracy* in several advanced western nations and also in developing countries in Latin America with a long tradition of democracy. In the countries of the former USSR, this phenomenon is still least present. It combines a rejection of the importance of democracy with the absence of activities in sports organizations, a low attendance of religious services or no attendance at all, and also these strata refrain from donating money to ecological organizations.

The *egoism of the rich* combines material satisfaction with a low trust of other people and a positive attitude towards divorce. While it is least present in

some developed old and new democracies, it is very common especially in five majority Muslim countries – Yemen, Pakistan, Libya, Jordan, and Malaysia. The relationship of this variable with indicators of societal inequality would have to be investigated in further research.

Above, we have stated that there is a certain polarization in the global educational values between a dimension, emphasizing independence and responsibility, and a dimension emphasizing obedience and unselfishness. The second global ‘clash’ between competing syndromes of education concerns the *dimension of imagination versus ecological responsibility*. It is very typical for the secular milieus in several majority Muslim developing countries like Pakistan, Turkey, Algeria, Lebanon, and also Nigeria and Rwanda, while it is least present in the Netherlands, in Yemen, in Poland and in Chile. Why are there such large differences between the majority Muslim countries Pakistan, Turkey, Algeria *etc.*, on the one hand, and Yemen, on the other hand, would have to be investigated in further research.

Finally, the last factor to be presented is *hating the Army and sports*, which is very typical for some non-Russian former parts of the USSR and also Zimbabwe, while it is least present in Sweden, Poland, and China, all countries, where sports and the armed forces of the country both are very popular.

Table 2 shows the main correlations between secularism, the distance to altruistic values and to G'd and values necessary for an Open Society in the 21st century. Table 2 also supports the argument, forwarded in Fig. 1. Enlightened religion positively contributes to the six factors as described in our Fig. The empirical evidence on the ‘transformative potential’ of religions shows that religions have the ‘capacity to legitimize, in religious or ideological terms, the development of new motivations, activities, and institutions which were not encompassed by their original impulses and views’, as was predicted by Eisenstadt (1968).

Table 2. The main correlations between the promax factors, contradicting the hitherto existing secularist consensus in sociology

	Secularism	Distance to altruistic values & G'd
no trust in the state of law	0.105	0.120
shadow economy and violence	0.038	0.151
lack of entrepreneurial spirit	0.212	-0.077
anti-Hayek/anti-Max Weber	0.096	0.149
rejecting work, global citizenship, but social trust	0.312	0.218
‘fatigue of democracy’	0.105	-0.018

We also present an Open Personality Index. Originally, we were inclined to speak about a ‘*Global Value Development Index*’ or even an ‘Open Society

Index', but we are grateful to state here that the editors of the present Yearbook convinced us during the peer-review process of this article to speak instead, in a more value-free fashion, about an 'Open Personality Index'.

According to the standard statistical analysis textbook recommendations, we multiplied the original factor scores by the *Eigenvalues*. For factors, which originally present a socially negative phenomenon, like *no trust in the state of law*, we also multiplied the factor scores by the number -1 . So the final weights applied to our original factors scores to arrive at the results in Table 3 were:

no trust in the state of law	-4.729
shadow economy and violence	-4.652
post-material activism	+3.761
support for democracy	+2.034
the violent society	-1.898
xenophobia and racism	-1.612
distrust in transnational capital and Universities	-1.227
anti-Hayek/anti-Max Weber	-1.219
supporting gender justice	+1.163
staying away from environmental activism	-1.096
'fatigue of democracy'	-1.086
hating the Army and sports	-1.013

Fig. 3 shows the percentages which each factor contributes to the final Open Personality Index.

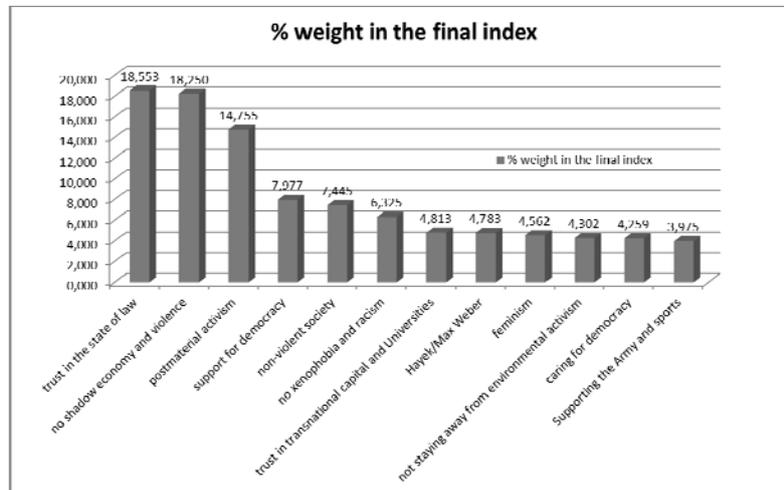


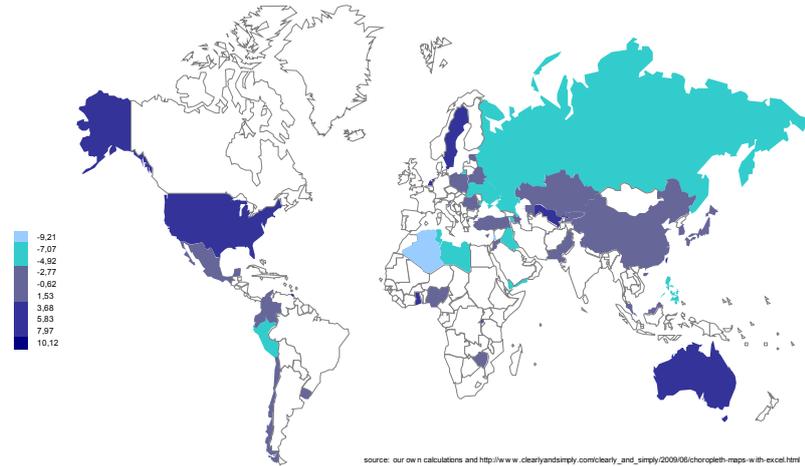
Fig. 3. The weights of the different components in the Open Personality Index

If we assume that the *World Values Survey* data are correct and that trust in the state of law; no shadow economy and violence; post material activism; support for democracy; non-violent society; no xenophobia and racism; trust in transnational capital and Universities; Hayek/Max Weber; supporting gender justice; not staying away from environmental activism; no democracy fatigue; and supporting the Army and sports are the twelve factors best representing the social values necessary for an Open Personality, which might be conducive to an Open Society, then we must recognize that today Sweden; Uzbekistan; Australia; the Netherlands; Ghana; Taiwan; Trinidad and Tobago; Rwanda; the United States; and China are the societies, whose populations most support these social values. On the other hand, it also emerges from the *World Values Survey* data that the populations in Lebanon; Algeria; Russia; Yemen; Ukraine; Iraq; Peru; Libya; Tunisia; and the Philippines least support these twelve core social values, deemed necessary for the good functioning of an Open Society in the long run.

Table 3. Open Personality Index

Country	trust in the state of law	no shadow economy and violence	post material activism	support for democracy	non-violent society	no xenophobia and racism	trust in transnational capital and Universities	Hayek/Max Weber	supporting gender justice	not staying away from environmental activism	caring for democracy	supporting the Army and sports	overall Open Personality Index
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Sweden	-0.078	-0.048	2.760	2.941	0.538	0.927	0.400	-0.160	0.729	0.809	-1.363	0.517	7.972
Uzbekistan	7.932	0.242	-1.339	-0.354	-0.059	0.358	0.250	0.651	-0.336	0.021	0.957	-0.783	7.540
Australia	-0.437	0.734	2.528	1.995	0.627	0.805	0.003	0.198	0.712	0.569	-0.876	-0.078	6.780
Netherlands	-1.556	1.824	1.358	2.024	0.543	0.590	0.035	-0.434	0.602	0.610	-0.688	0.398	5.306
Ghana	1.309	2.266	0.601	0.188	-0.616	0.132	1.024	0.298	0.041	-0.419	0.393	-0.128	5.089
Taiwan	-1.559	0.516	3.672	0.936	-0.337	0.574	0.732	0.216	0.071	0.005	-0.429	0.310	4.707
Trinidad and Tobago	-2.434	2.467	1.031	0.764	-0.124	0.989	0.284	0.574	0.554	0.164	-0.042	0.300	4.527
Rwanda	1.542	1.758	2.558	-0.920	-2.303	0.916	-0.104	0.300	0.029	-0.017	0.413	0.155	4.327
United States	-0.775	0.308	1.366	1.144	0.450	0.705	-0.189	0.349	0.573	0.312	-0.165	-0.028	4.050
China	3.743	-0.050	-1.211	-0.262	-0.502	0.627	0.273	0.201	-0.025	-0.221	0.432	0.422	3.427
Japan	0.100	2.046	-0.425	1.196	0.878	-0.341	0.109	-0.045	0.088	0.233	-0.641	-0.266	2.932
Cyprus	-0.116	1.224	-0.180	1.265	0.746	-0.369	-0.134	-0.184	0.364	0.279	-0.432	-0.218	2.245
Estonia	-0.109	-0.128	-0.684	0.925	0.733	-0.454	0.680	-0.342	0.540	-0.104	0.010	0.053	1.120
Zimbabwe	-0.051	0.094	0.588	0.558	-1.246	0.666	0.695	0.189	0.110	-0.427	0.242	-0.341	1.077
Turkey	2.059	2.017	-2.014	-0.242	0.814	-0.666	-0.544	-0.192	-0.294	-0.195	0.055	0.023	0.821
Nigeria	-0.570	0.541	2.170	-0.616	-1.039	-0.022	0.644	-0.220	-0.340	0.052	0.221	-0.134	0.687
Chile	-1.514	-0.036	0.050	0.698	1.039	0.737	-0.320	-0.310	0.514	0.484	-0.641	-0.099	0.602
Colombia	-1.800	0.019	0.877	-0.329	0.496	0.943	0.189	-0.106	0.435	0.494	-0.947	0.234	0.505
Uruguay	-1.433	1.179	-0.743	0.803	0.489	0.966	0.071	-0.545	0.431	0.159	-1.205	0.020	0.192
Malaysia	3.176	-1.027	-0.705	-0.578	-0.169	-1.061	0.131	0.150	-0.254	0.004	-0.004	0.297	-0.040
Romania	-2.423	1.516	-1.298	0.805	0.915	-0.136	-0.199	0.310	0.022	0.161	0.260	0.015	-0.052
Singapore	2.378	-1.152	-0.205	-0.640	-1.037	0.013	0.428	-0.313	0.173	0.097	0.109	0.097	-0.052
Korea, South	-1.199	0.419	-0.096	-0.061	0.849	-0.945	0.533	-0.306	0.156	0.085	0.277	-0.121	-0.409
Poland	-2.431	0.087	-0.558	0.657	0.847	0.667	0.161	-0.675	0.105	-0.104	-0.620	0.505	-1.359
Kyrgyzstan	0.834	-1.033	0.419	-1.378	0.336	-0.488	-0.253	0.001	-0.222	0.036	0.745	-0.361	-1.364
Slovenia	-4.346	0.392	0.673	0.672	0.468	0.489	0.078	-0.147	0.707	0.246	-0.668	0.046	-1.390
Jordan	3.224	1.769	-1.744	-0.882	0.321	-0.728	-1.242	0.060	-1.043	-0.595	-0.565	-0.079	-1.504
Kazakhstan	0.667	-1.010	-1.264	0.005	-0.002	0.133	-0.136	-0.604	-0.002	-0.293	0.750	-0.120	-1.876
Mexico	-2.475	-2.598	1.196	-0.370	0.638	0.534	0.004	0.304	0.488	0.512	-0.497	0.232	-2.032

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Belarus		-0.458	-1.315	-0.890	-0.076	0.477	-0.330	0.163	-0.208	0.002	-0.331	0.843	0.082	-2.041
Pakistan	-0.010	1.494	-1.988	-1.318	0.598	0.062	-0.360	0.273	-1.041	0.036	0.059	-0.062	-2.257	
Azerbaijan	1.931	2.533	-2.175	-1.023	0.373	-1.314	-0.397	-0.749	-0.929	-0.659	0.563	-0.442	-2.288	
Ecuador	-0.759	-0.311	-1.289	-0.500	0.711	-0.607	-0.378	0.201	0.377	0.083	-0.238	0.380	-2.330	
Armenia	-1.124	1.167	-2.136	0.125	0.628	-0.704	-0.625	0.146	-0.491	-0.213	0.550	-0.441	-3.118	
Philippines	2.131	-5.169	2.016	-1.229	-1.363	0.293	0.109	0.024	-0.322	0.196	0.187	-0.015	-3.142	
Tunisia	-0.581	1.348	-2.255	0.006	0.020	-0.048	-1.050	0.592	-0.823	-0.676	0.004	-0.156	-3.619	
Libya	0.049	0.720	-0.217	-0.590	-0.292	-1.933	-0.427	0.609	-0.806	-0.294	-0.487	0.000	-3.668	
Peru	-3.908	-0.826	-0.587	0.016	0.509	0.573	-0.220	0.172	0.315	0.516	-0.630	0.069	-4.001	
Iraq	0.875	-0.199	-1.964	-0.777	-0.683	-0.487	-0.732	0.532	-0.821	-0.486	-0.104	0.031	-4.815	
Ukraine	-2.915	-0.872	-1.546	0.051	0.426	0.089	-0.244	-0.567	0.122	-0.229	0.697	-0.036	-5.024	
Yemen	-2.379	1.428	-1.587	-0.215	-0.675	-0.450	-1.014	1.213	-0.900	-0.413	-0.313	0.112	-5.193	
Russia	-1.830	-2.266	-1.451	-0.293	0.244	-0.228	-0.342	-0.545	0.129	-0.175	0.616	-0.132	-6.273	
Algeria	0.487	-3.385	-1.903	-0.224	-0.688	-0.585	-0.461	-0.040	-0.635	-0.396	-0.089	-0.011	-7.930	
Lebanon	-2.377	-2.635	-0.300	-0.882	-0.479	-1.148	-0.560	-0.272	-0.288	0.081	-0.152	-0.201	-9.213	



source: our own calculations and http://www.clearlyandsimply.com/clearly_and_simply/2009/06/choropleth-maps-with-excel.html

Map 1. Overall Open Personality Index.

Source: author's calculations

For many decades, comparing religions for their doctrinal aspects has been the domain of the comparative study of religions, and several outstanding works were published in the literature which investigated the 'who' said 'what' 'to whom' and 'when' (Lasswell 1948) in these major denominations along their historical trajectory (Bowker 2000; Küng 1997, 2002; Lenoir and Tardan-Masquelier 1997). Social scientists, however, are primarily interested in the 'what effects' and 'why' of these religious activities ever since the beginnings of the sociology of religion (Durkheim 1965[1915]; Morel 1972, 1977, 1986, 1997, 1998, 2003).

Valuable, as interfaith research and dialogue, comparisons and a mutual better understanding between the different global denominations may be, such

activities as yet do not tell us which values, say, guide inhabitants in the rural regions of the Philippines in comparison to the people in Bihar, India, or in the Punjab in Pakistan just across the Indian border, or for that matter in the Nigerian city of Lagos or in Brooklyn, New York or in Amsterdam in the Netherlands. For that reason, it is a welcome development that nowadays empirically oriented political scientists and sociologists have begun to publish comparative studies on their own on comparing religions (Juergensmeyer *et al.* 2013; Röhrich 2004, 2010). This research effort, just to mention a few, produced already important comparative studies on the relationship of the globalized denominations to the state apparatus in 175 countries (Fox 2000), or on the relationship of religions to violence and terrorism (Juergensmeyer 2000, 2011). Even more, the use of massive comparative evidence based on global opinion surveys to compare the actual different cultural systems of the world *on the ground*, is relatively new, and outstanding attempts to arrive at such empirically well-founded comparisons already include Barro (2004); Guiso *et al.* (2003); and Inglehart and Norris (2003).

In the following, we apply the logic of our new Overall Open Personality Index to the data contained in the *World Values Survey* about the major global religious denominations. Such an attempt is but a continuation of the path-breaking analysis according to Guiso *et al.* (2003). Our comparisons show again the importance of the factor of the Enlightenment for the different denominations to come to terms with the realities of the 21st century (starting with Montesquieu 1989, we refer here to Eisenstadt 1968; Feiner and Naor 2011; Lawson 2005; Lehner and O'Neill Printy 2010; Sacks 1998, 2005). Due to lack of space we can only mention some preliminary results and must leave other aspects for further research. In that context, we could also mention the hypothesis by Lenoir, who maintained that equality, individual freedom, emancipation of women, social justice, the separation of powers, non-violence and pardoning of sins, and love of your neighbor as the seven major points of the message of Jesus of Nazareth only came to blossom in the movement of the Enlightenment (Lenoir 2008).

For each denomination (and for the people without any denomination), we empirically distinguish between those individuals who say that G'd has a great importance in their lives ¹⁶ and the respective entire population. Our results by and large confirm the findings, reported by Porta *et al.* (1996) about the *poor performance of what he terms to be hierarchical global religions in contrast to the other denominations* (Fukuyama 1995; Putnam 1993). Table 4 also con-

¹⁶ The WVS item about the importance of G'd is a 10-point scale. People choosing a value of 7 or more on the scale were classified as the population with stronger religious feelings. We are aware of the fact that such a distinction might be arbitrary. It should be emphasized however that also people *not* belonging formally to any religious denomination may be religious persons, and indeed they often are!

firms the pessimism regarding Confucianism, which already features prominently in Huntington (1996), and which on all accounts has the poorest performance of all the major denominations on our combined indicator. This performance, we have to add, does not necessarily reflect a doctrinal or sociological weakness of the community of Confucian believers *per se*, but does reflect the realities of contemporary China which still is a one-party communist state (McGregor 2010).

Table 4. The paths of Enlightenment: Open Personality Index for the different global denominations (religiously active population and total population)

	Overall Open Personality Index
Jewish global total population in the WVS sample	4.085
Jewish global population in the WVS sample saying G'd important/very important	3.620
Protestant global population in the WVS sample saying G'd important/very important	3.375
Protestant global total population in the WVS sample	3.193
Hindu global population in the WVS sample saying G'd important/very important	3.159
Hindu global total population in the WVS sample	2.793
Buddhist global population in the WVS sample saying G'd important/very important	1.566
Taoist global population in the WVS sample saying G'd important/very important	1.525
Buddhist global total population in the WVS sample	1.233
Taoist global total population in the WVS sample	0.601
No religious denomination global total population in the WVS sample	0.336
Roman Catholic global population in the WVS sample saying G'd important/very important	0.295
Roman Catholic global total population in the WVS sample	0.036
Muslim global population in the WVS sample saying G'd important/very important	-0.974
Muslim global total population in the WVS sample	-1.125
No religious denomination global population in the WVS sample saying G'd important/very important	-1.140
Orthodox global population in the WVS sample saying G'd important/very important	-1.192
Orthodox global total population in the WVS sample	-1.729
Confucian global total population in the WVS sample	-6.555
Confucian global population in the WVS sample saying G'd important/very important	-7.413

On this account, the 5775 year old religion of Judaism (Sacks 1998, 2003, 2005, 2014) emerges as the role model for other religions how to combine religion and the traditions of the Enlightenment (Feiner and Naor 2011; see also Bea 1966). It also should be noted that Eisenstadt's hypothesis about the transformative potential defined as the capacity to legitimize, in religious or ideological terms, the development of new motivations, activities, and institutions which were not encompassed by their original impulses and views is fully vindicated for the case of global Judaism and global Protestantism. Interestingly enough, also Hinduism, Buddhism, Taoism and Roman Catholicism are assigned a positive value on the indicator. It has to be noted as well that religiously committed Protestants and Roman Catholics rank better on our scale than does the overall global Protestant and Roman Catholic population, indicating how much already traditions of the Enlightenment took hold of the two major Western Christian denominations.

4. Conclusions and Prospects

In our essay, we evaluated the latest wave of *World Values Survey* data. Our article is based on a standard IBM-SPSS XXII analysis of these data. In view of the sometimes counter-intuitive results reported here, we should emphasize once again that we are dealing only with the subjective views of representative populations around the globe regarding core values of an *Open Society*. We are not saying that, say, Sweden and Uzbekistan are more 'open societies' than, say, Australia and the Netherlands. But what we are saying is that the *World Values Survey* data suggest that according to the values:

1. trust in the state of law;
2. no shadow economy and violence;
3. post-material activism;
4. support for democracy;
5. non-violent society;
6. no xenophobia and racism;
7. trust in transnational capital and Universities;
8. Hayek/Max Weber;
9. supporting gender justice;
10. not staying away from environmental activism;
11. caring for democracy;
12. supporting the Army and sports.

The populations in several transition countries and developing countries today already are characterized by a higher Overall Open Personality Index than in countries, generally regarded as successful cases of transition and democratization, such as Romania, Singapore, South Korea, and Poland. The rankings, presented in this article are based on legitimate factor analytical procedures, applied to the *World Values Survey* data. Combining the mentioned twelve core

values, the populations of Uzbekistan, Ghana, Taiwan, Trinidad and Tobago, Rwanda, China, Zimbabwe, Turkey, Nigeria, Colombia, Malaysia are already ahead of more successful democratization and transition cases. Now, two variables are important in understanding between the often existing mismatch between the development level of an Open Personality in a country and the level of democracy.

➤ **The 2000 Economic Freedom Score** is the key international indicator for economic liberalism and was published, among others, by the Heritage Foundation, the CATO Institute and other leading global liberal think-tanks. The basic assumption of the indicator is that economic freedom is the fundamental right of every human to control his or her own labor and property. In an economically free society, the assumption is that individuals are free to work, produce, consume, and invest in any way they please, with that freedom both protected by the state and unconstrained by the state. In economically free societies, the indicator assumption is that governments allow labor, capital and goods to move freely, and refrain from coercion or constraint of liberty beyond the extent necessary to protect and maintain liberty itself. The index measures ten components of economic freedom, assigning a grade in each using a scale from 0 to 100, where 100 represents the maximum freedom. The ten component scores are then averaged to give an overall economic freedom score for each country. The ten components of economic freedom are: Business Freedom, Trade Freedom, Fiscal Freedom, Government Spending, Monetary Freedom, Investment Freedom, Financial Freedom, Property rights, Freedom from Corruption, and Labor Freedom. We time-lagged the index somewhat to allow the study of the more long-term effects.¹⁷

➤ **The Democracy measure** (quoted from the ESI Yale Columbia Index).¹⁸ The Index is based on the averages of 1993–2002 from the Polity IV Project of the University of Maryland. The Index is based on the trend-adjusted 10-year average score with high values corresponding to high levels of democratic institutions. Average of the Polity IV scores for 10 years between 1993 and 2002 were adjusted for trend: if the trend was positive, the average was increased by 1, if the trend was negative, the average was reduced by 1. The purpose of the adjustment was to reward improvements.

The intricate relationships between the Open Personality Index and the amount of democracy in a country are shown in Fig. 4, Table 5 and Map 2. After several tests, we came to the conclusion that the results for the analyses in

¹⁷ As to data sources and data definitions, see our data sets at URL: <http://www.hichemkaroui.com/?p=2383>.

¹⁸ As to data sources and data definitions, see our data sets at URL: <http://www.hichemkaroui.com/?p=2383>. Due to incompatibilities with our choropleth map system, the available data for Brunei Darussalam, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Sao Tome, and Hong Kong, China (SAR) could not be used.

Fig. 4, Table 5, Map 2, Fig. 5, Table 6, and Map 3 are much clearer without the single outlayer Singapore (high economic freedom, low Open Personality Index, relatively low democracy measure).

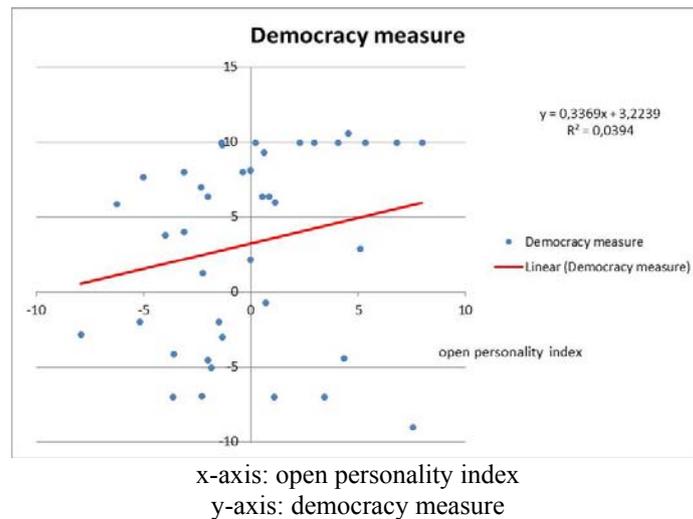
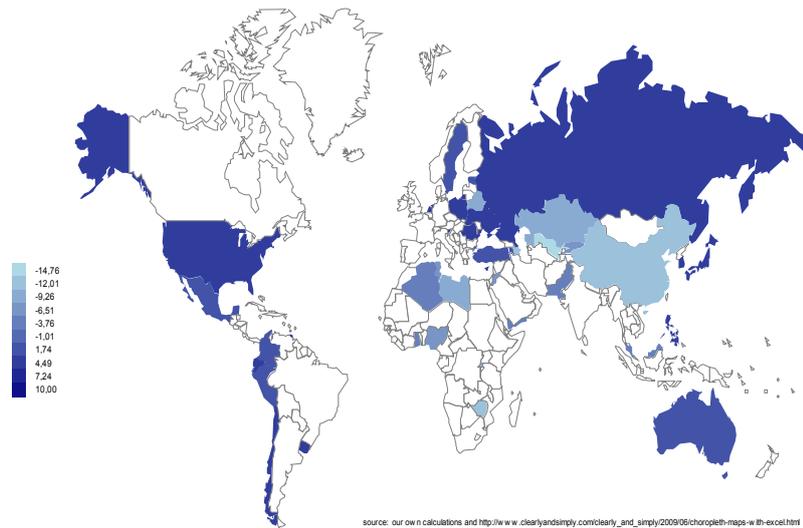


Fig. 4. Explaining some of the paradoxes of the Open Personality Index: why some countries with a fairly open-minded civil society as yet to not enjoy a fair amount of democracy (excluding the outlayer Singapore)

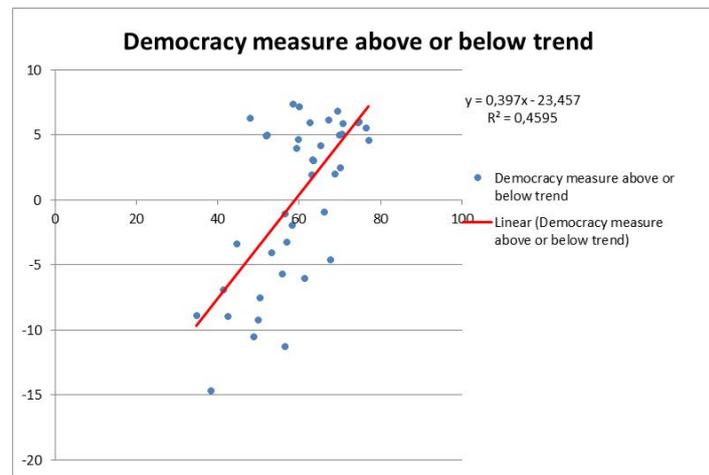
Table 5. Highlighting some of the countries with an exceptionally good or bad democracy performance in comparison with the open personality index performance of their civil societies (excluding the outlayer Singapore)

Country	Value Development Index	Democracy measure	Trend - democracy measure	Residual - democracy measure
Slovenia	-1.390	10.000	2.756	7.244
Poland	-1.359	9.800	2.766	7.034
Uruguay	0.192	10.000	3.288	6.712
Ukraine	-5.024	7.700	1.532	6.168
Cyprus	2.246	10.000	3.981	6.019
Rwanda	4.327	-4.400	4.681	-9.081
Azerbaijan	-2.289	-6.900	2.453	-9.353
Zimbabwe	1.076	-7.000	3.586	-10.586
China	3.425	-7.000	4.378	-11.378
Uzbekistan	7.539	-9.000	5.763	-14.763



Map 2. The positive and negative mismatch between the Open Personality Index and the democracy measure (excluding the outlier Singapore)

Fig. 5, Table 6, and Map 3 show how economic freedom explains almost 46 % of the positive or negative mismatch between the Open Personality Index and the democracy measure (again excluding the outlier Singapore), suggesting that the best strategy to strengthen democracy is to expand economic freedom, thus underlining the importance of the approach already described by Hayek (1960). The five highest remaining residuals from the tradeoff between economic freedom and the mismatch between the Open Personality Index are Ukraine, Romania, Russia, Slovenia and Poland on the positive side and China, Jordan, Tunisia, Zimbabwe and Uzbekistan on the negative side.



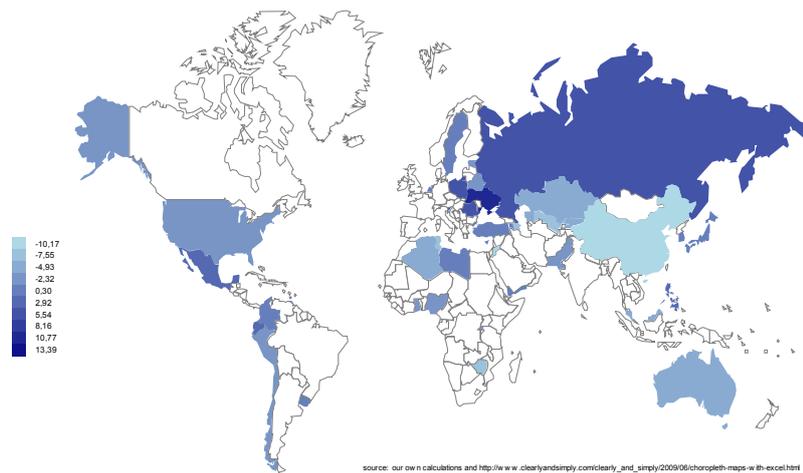
x-axis: economic freedom

y-axis: the positive or negative mismatch between the Open Personality Index and the democracy measure

Fig. 5. Economic Freedom explains almost 46 % of the positive or negative mismatch between the Open Personality Index and the democracy measure (excluding the outlayer Singapore)

Table 6. The five highest and lowest remaining residuals from the tradeoff between economic freedom and the positive or negative mismatch between the Open Personality Index and the democracy measure (excluding the outlayer Singapore)

Country	Value Development Index	Democracy measure	Trend	Residual	2000 Economic Freedom Score	Trend	Residual
Ukraine	-5.024	7.700	1.532	6.168	47.807	-4.605	10.774
Romania	-0.051	8.100	3.207	4.893	52.075	-2.911	7.804
Russia	-6.272	5.900	1.111	4.789	51.838	-3.005	7.794
Slovenia	-1.390	10.000	2.756	7.244	58.323	-0.430	7.674
Poland	-1.359	9.800	2.766	7.034	59.951	0.216	6.818
Uzbekistan	7.539	-9.000	5.763	-14.763	38.135	-8.445	-6.318
Zimbabwe	1.076	-7.000	3.586	-10.586	48.668	-4.263	-6.323
Tunisia	-3.616	-4.100	2.006	-6.106	61.347	0.770	-6.876
Jordan	-1.504	-2.000	2.717	-4.717	67.500	3.213	-7.930
China	3.425	-7.000	4.378	-11.378	56.368	-1.207	-10.171



Map 3. Still remaining residuals from the tradeoff between economic freedom and the positive or negative mismatch between the Open Personality Index and the democracy measure (excluding the outlier Singapore)

Coming back on the point raised by the dilemmas involved in the tradeoff between mass opinions and democratic institutions,¹⁹ we suggest a causation via the variable economic freedom, explaining the residuals between democratic mass opinions and democratization. Raising the economic freedom rate by 10 percentage points, would increase the level of democracy in a country on the -10 to +10 scale by a full advancement of 3.47 points. Fig. 6 shows this simple and straightforward Hayekian interpretation of the facts (excluding the statistical outliers of the countries of the Arab Peninsula).

¹⁹ URL: <http://en.kremlin.ru/events/president/transcripts/8887>.

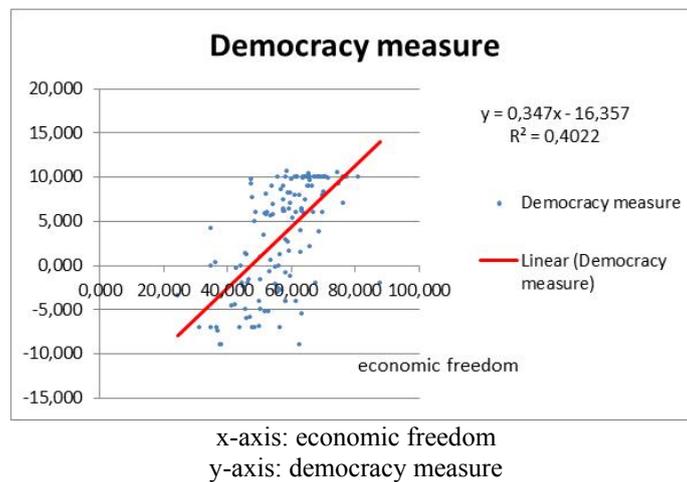


Fig. 6. The trade-off between Economic Freedom and Democracy with all countries with complete data (excluding the outliers in the Arab Peninsula)

Very large arrays of negative phenomena, which cannot be overlooked anymore by contemporary social science, are clearly associated with the loss of religion. This holds for the majority of nations around the world, irrespective of the predominant religious denominations. Negative phenomena are on the rise especially in Western countries and in the former communist countries of Eastern Europe, where they spread most rapidly, and where they endanger, in the end, the very existence of the Open Society. Our results, based on the factor analysis of the opinions of 41,178 global representative citizens from 45 countries, for whom data for all our 78 variables were available, also show the following to hold

Inglehart's optimism mostly vindicated (minor development crises only at very early stages of secularization):

- Support for democracy.

Inglehart's optimism vindicated, but reversals at highest stages of secularization:

- Violent society.

Severe development crises at middle stages of secularization:

- No trust in the state of law;
- Shadow economy and violence;
- Post-material activism;
- Xenophobia and racism;
- Distrust in transnational capital and Universities;

- Fatigue of democracy.

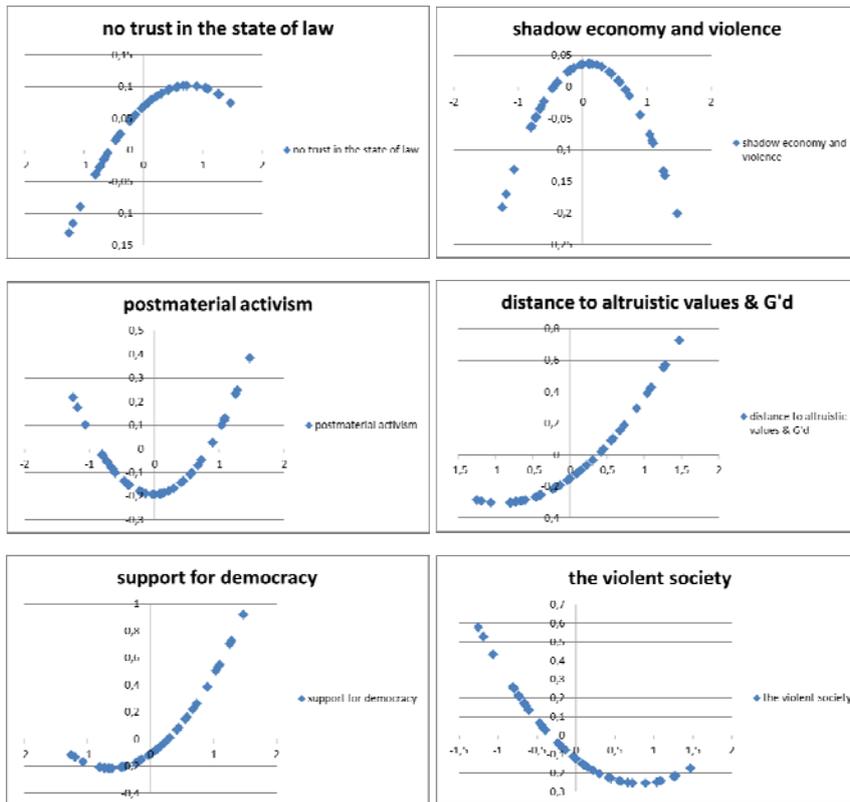
Outright secularization pessimism vindicated for most stages of the secularization process and positive turns only at very high stages of secularization

- Lack of entrepreneurial spirit.

Outright secularization pessimism vindicated

- Distance to altruistic values;
- Anti-Hayek/anti-Max Weber.

Fig. 7 shows the diagrams of the mean country factor scores (y-axis) as predicted by secularism and secularism squared (secularism: x-axis). Thus, it presents the new laws of global values and development, as they emerge from this article.



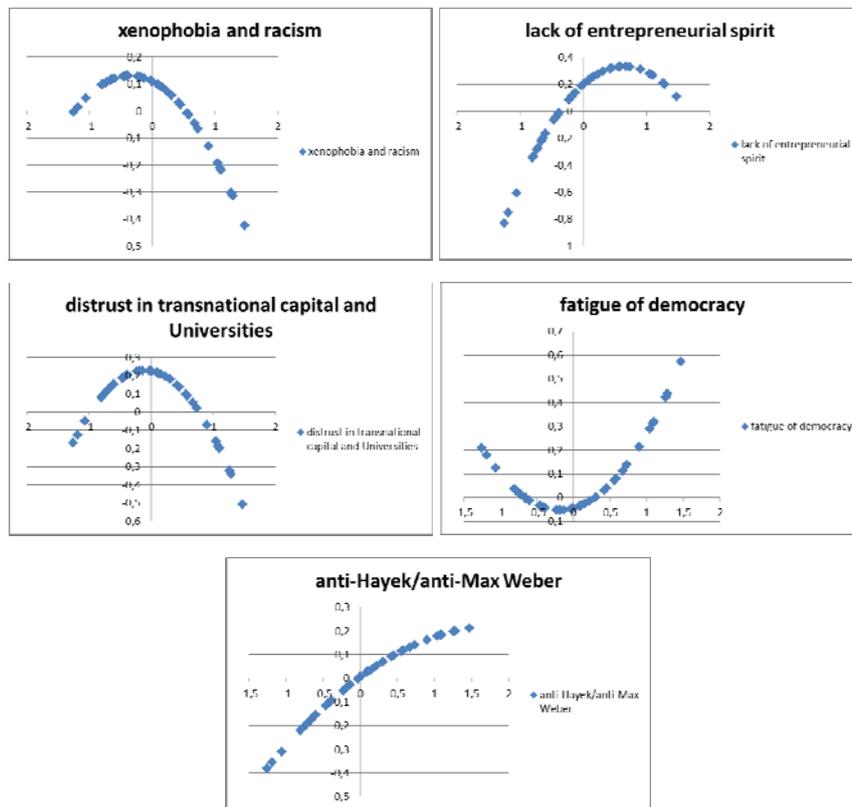


Fig. 7. The thorny paths of secularization. Mean country factor scores (y-axis) as predicted by secularism and secularism squared (secularism: x- axis)

An analysis of the emerging trends regarding the relationship of value structures to economic convergence also seems to suggest that in contrast to Inglehart's secularist interpretation, value change is becoming destructive indeed and undermines the very basis of economic growth in the West.²⁰ Trust and work ethics all have an influence on the economic growth rate of today: no trust in

²⁰ Poorer nations grow faster than richer countries. The well-known facts of economic convergence, analyzed by Barro, suggest to test the effects of social values on economic growth by correlating social values with economic convergence, measured here by the residuals from the non-linear function of average economic growth rates, predicted by the natural logarithm of GDP per capita and GDP per capita square in the initial phase of the growth process. Other procedures would bias the results in favor of poorer nations, whose economic growth 'automatically' tends to be higher (see also Barro 1991, 1998, 2012; Barro *et al.* 1991).

the state of law, distrust in transnational capital and Universities, and lack of entrepreneurial spirit are among the major growth bottlenecks, while our Open Personality Index is positively related to the economic convergence process between the nations since the global economic crisis of 2007/2008. International economic data²¹ also suggest that the shifting of global economic weights away from Europe and benefitting the world of Islam and the world of immigration is absolutely correct (see Tables 7–8).

Table 7. The bivariate correlations of economic convergence, 2008–2013 with value patterns

	Pearson correlation with convergence	R²
no trust in the state of law	–0.511	26.156
distrust in transnational capital and Universities	–0.299	8.923
lack of entrepreneurial spirit	–0.256	6.539
social democratic orientation	–0.141	1.976
careless rejecting of work, global citizenship, but trusting people	–0.138	1.911
post-material activism	0.163	2.669
happiness and economic well-being	0.224	5.019
Open Personality Index	0.251	6.321

Table 8. The bivariate correlations of economic convergence with global structure data

	Pearson correlation with convergence	R²
Years of membership in EMU, 2010	–0.157	2.477
Social security expenditure per GDP average 1990s (ILO)	–0.139	1.944
Years of membership in the EU, 2010	–0.132	1.738
Muslim population share per total population	0.146	2.143
Membership in the Islamic Conference	0.157	2.461
MNC outward investments (stock) per GDP	0.183	3.349
% world population	0.198	3.932
Immigration – Share of population 2005 (%)	0.253	6.392
Annual population growth rate, 1975–2005 (%)	0.310	9.620
Net international migration rate, 2005–2010	0.376	14.143

²¹ URL: <https://uibk.academia.edu/ArnoTausch/Documentation-for-books-and-articles>.

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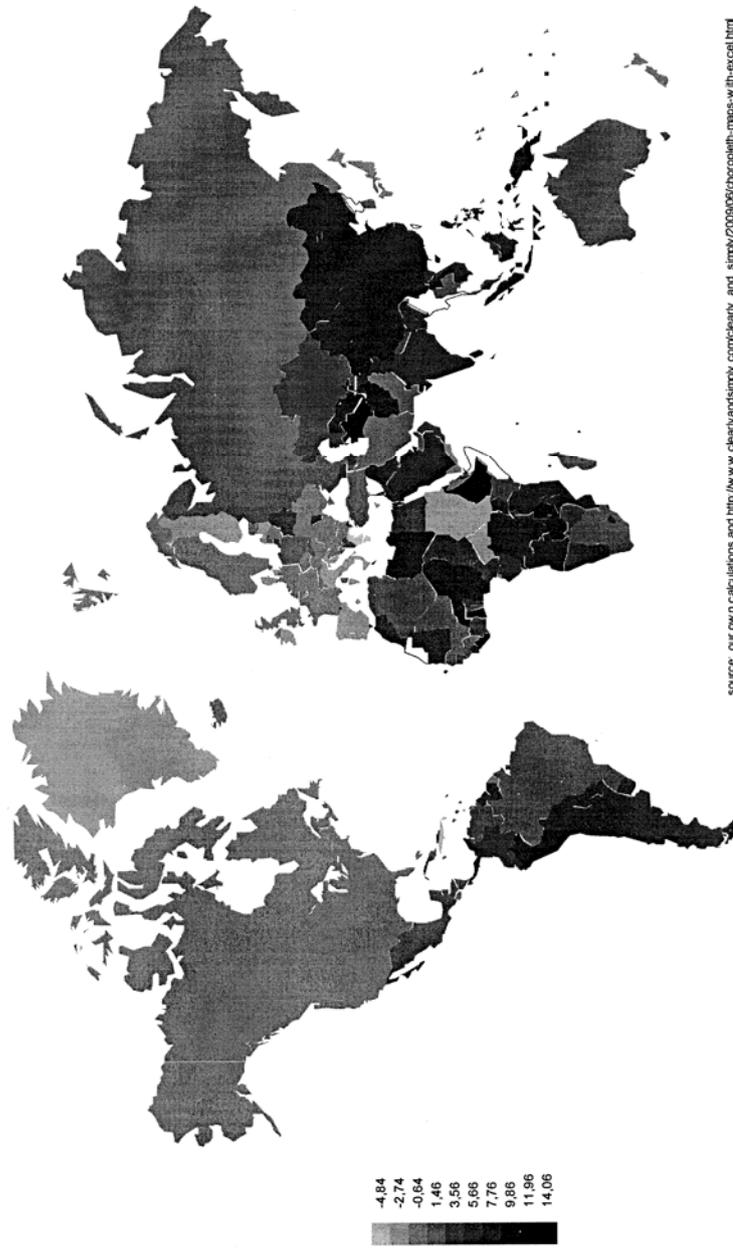
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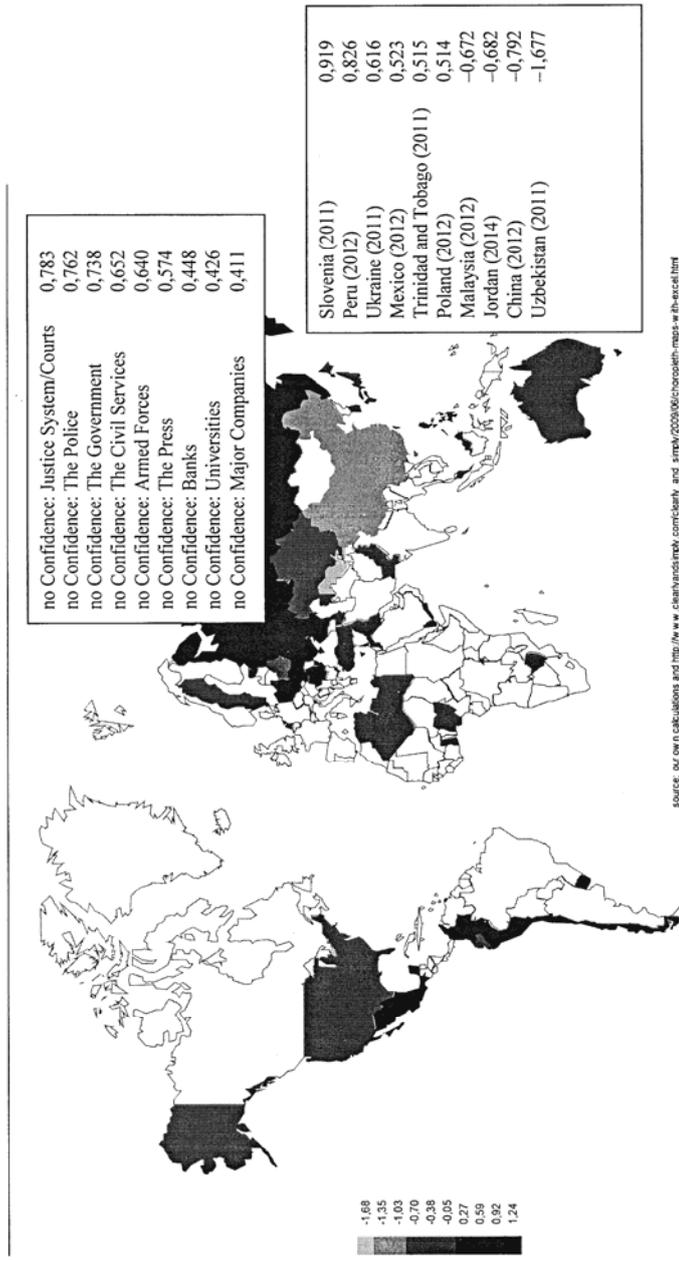
Appendix Map 1a. Average economic growth rates 2008–2013



Appendix Map 1b. Economic convergence, 2008–2013 (residuals from the regression natural log GDP per capita and natural log GDP per capita² by around 2005 on average economic growth (GDP per capita) 2008–2013)

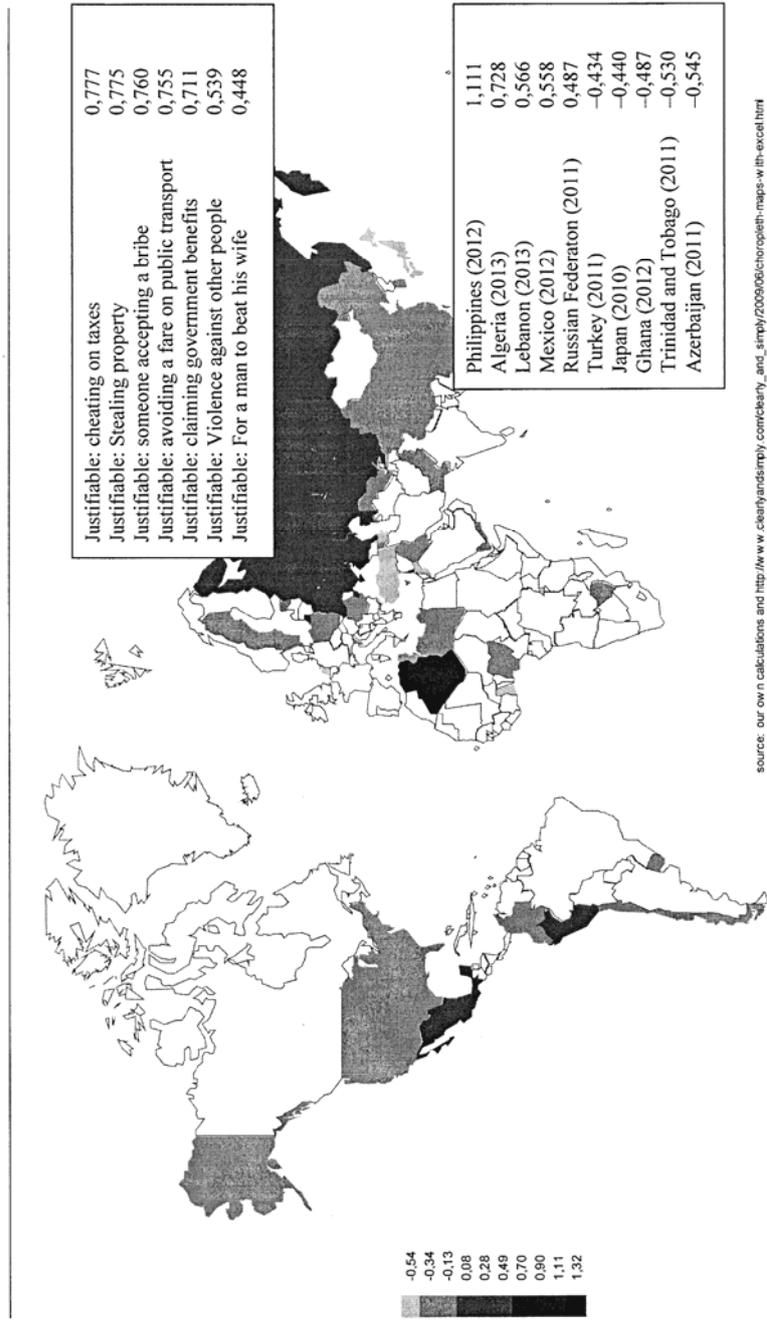


Appendix Map 2. No trust in the state of law



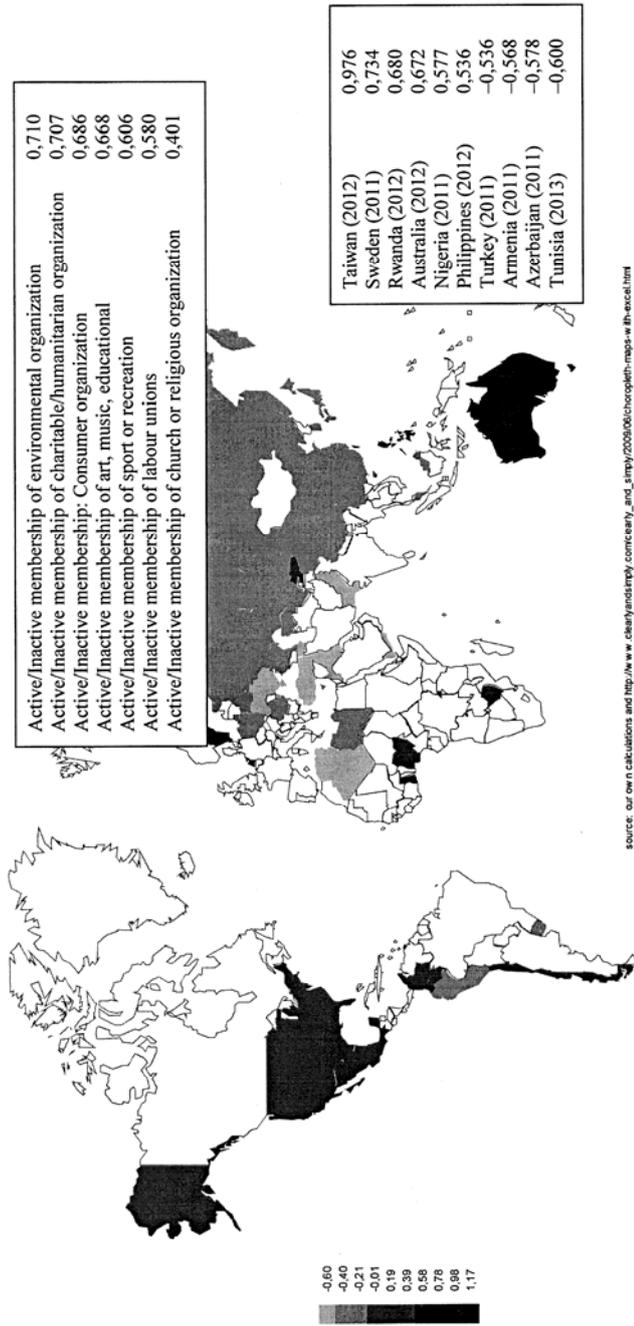
source: our own calculations and http://www.clearlyandamply.com/clearly_and_amply/2008/06/choropleth-maps-w-h-ecsf.htm

Appendix Map 3. Shadow economy and violence



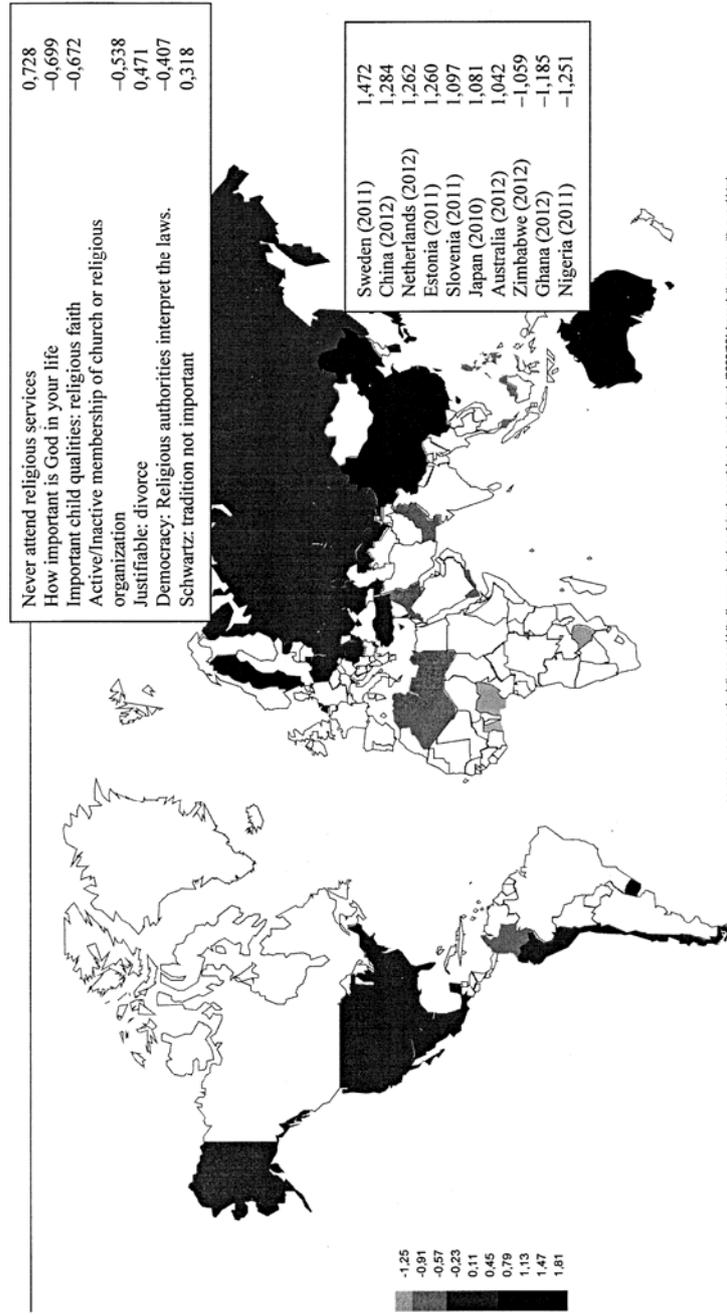
source: our own calculations and http://www.clearlyandsimply.com/clearly_and_simply/2009/06/choropleth-maps-with-excel.htm

Appendix Map 4. Post material activism

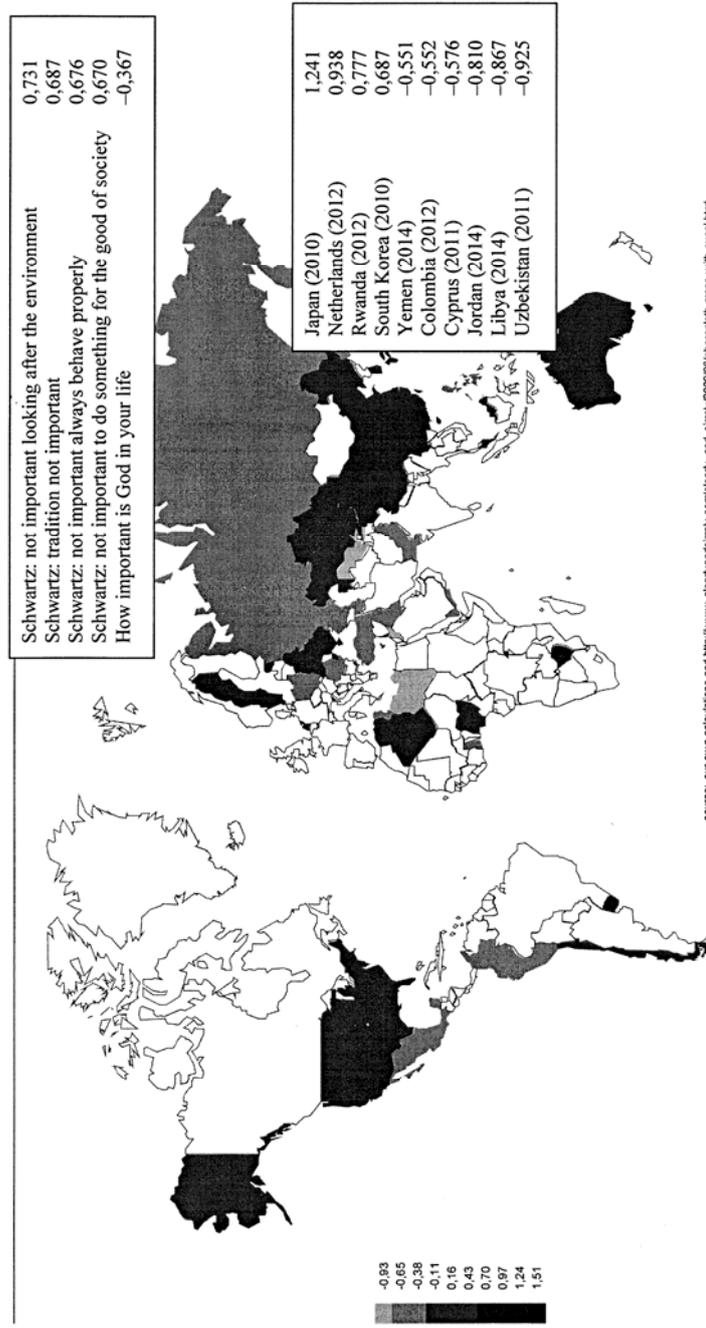


source: our own calculations and http://www.clearlyandamply.com/cearly_and_empt/2008/08/choropleth-maps-with-excel.html

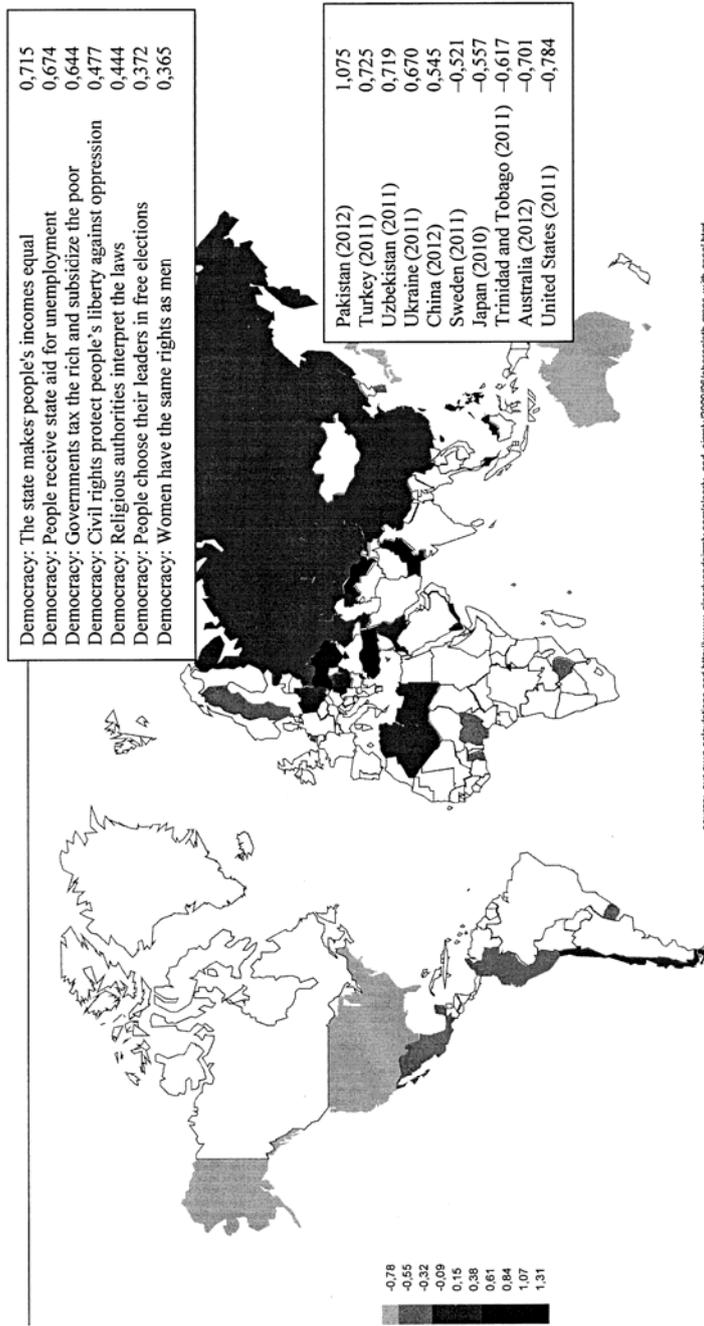
Appendix Map 5. Secularism



Appendix Map 6. Distance to altruistic values & G'd

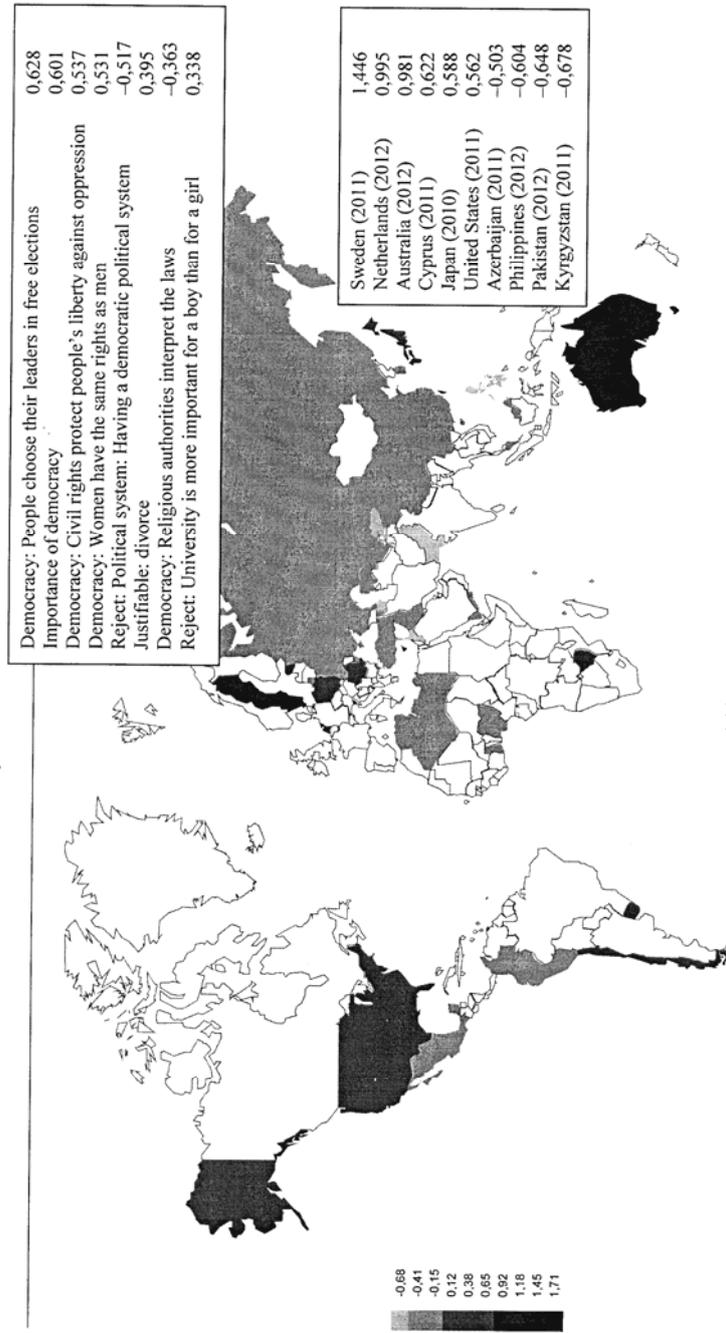


Appendix Map 7. Social democratic orientation

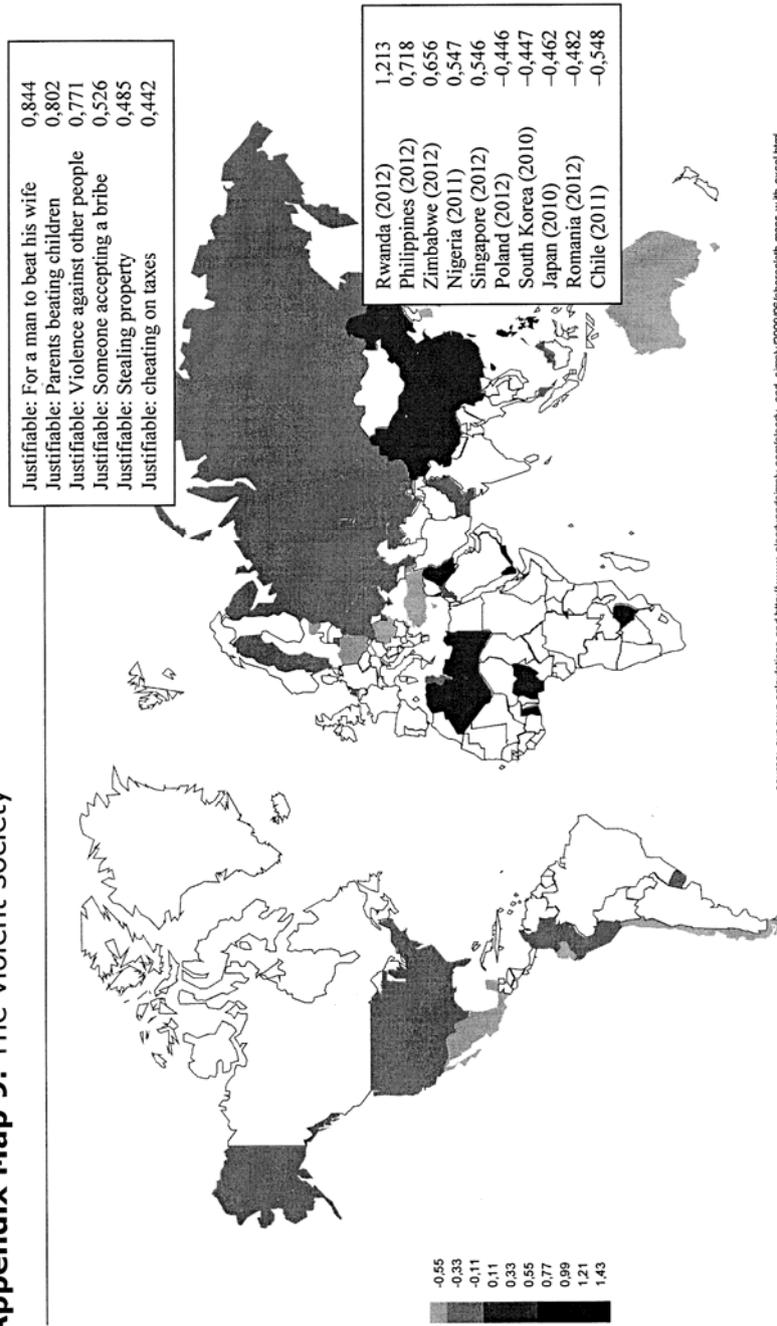


sources: our own calculations and http://www.clearlyandamply.com/clearly_and_amply/2009/06/choropleth-maps-with-excel.html

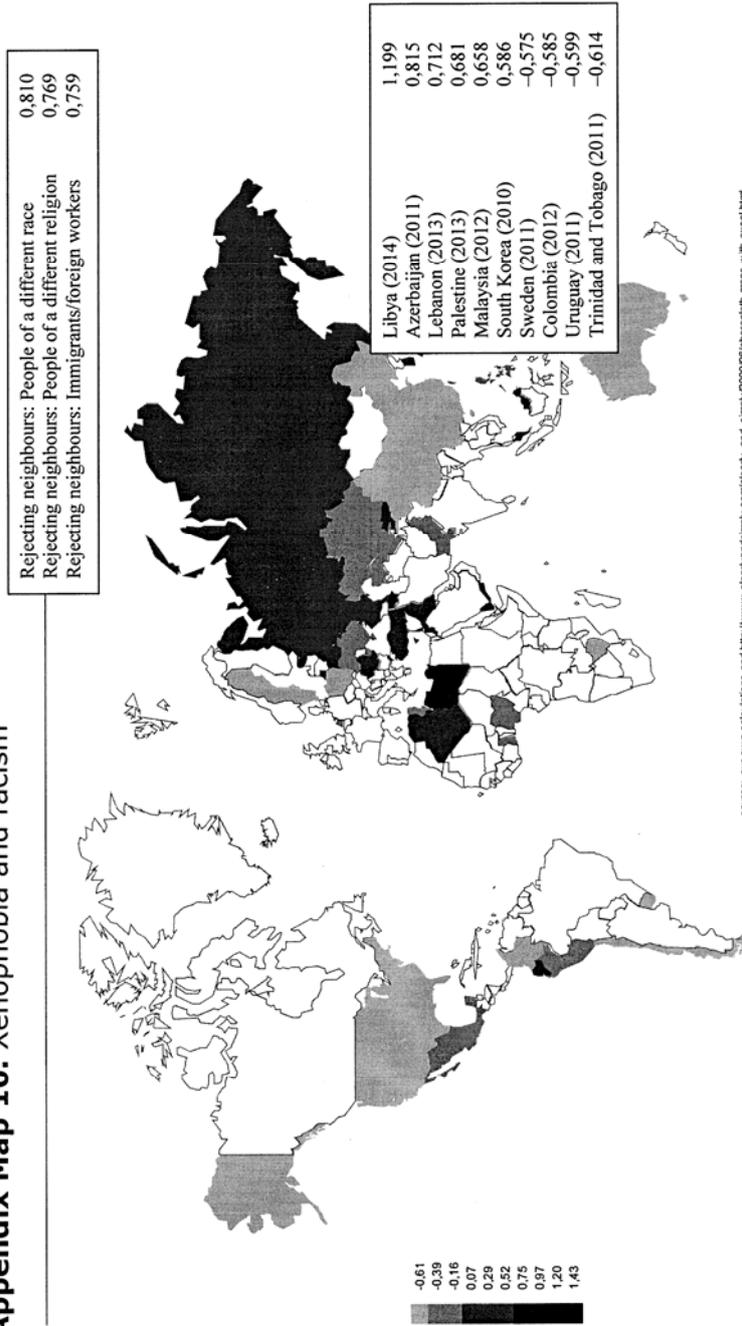
Appendix Map 8. Support for democracy



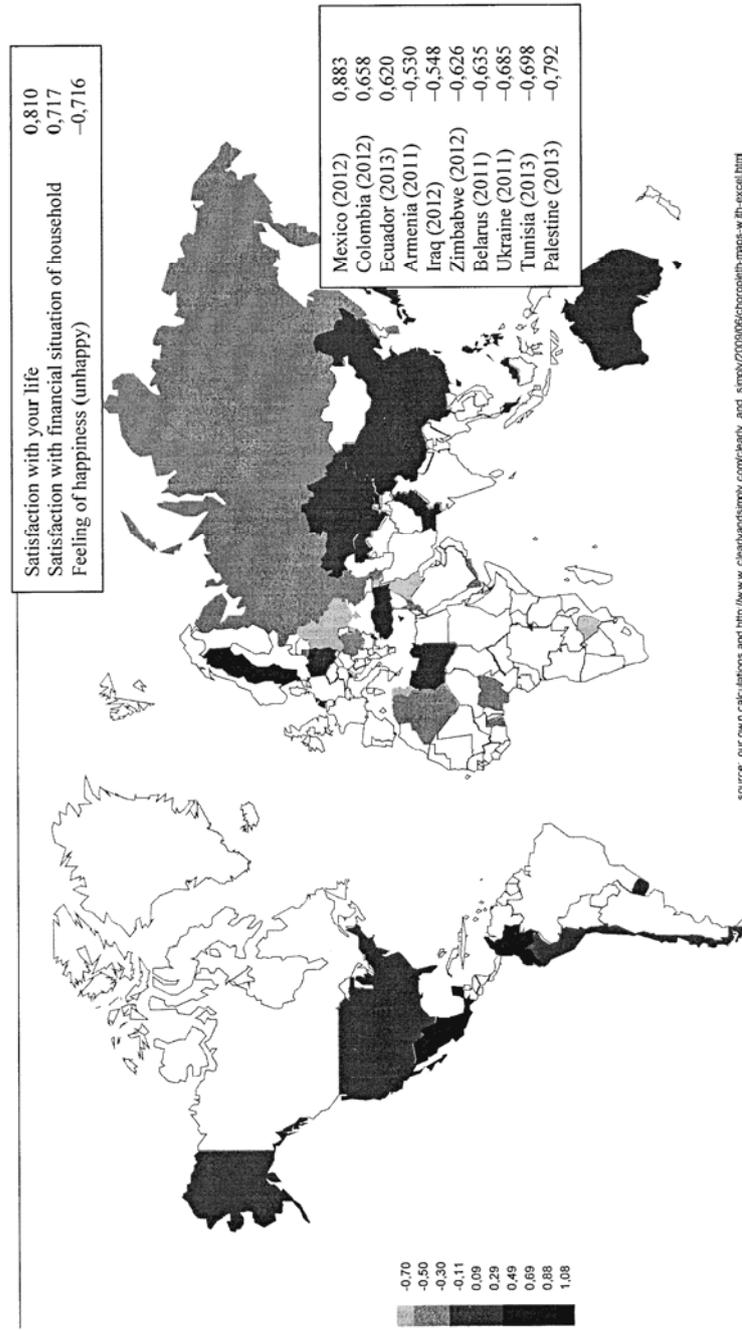
Appendix Map 9. The violent society



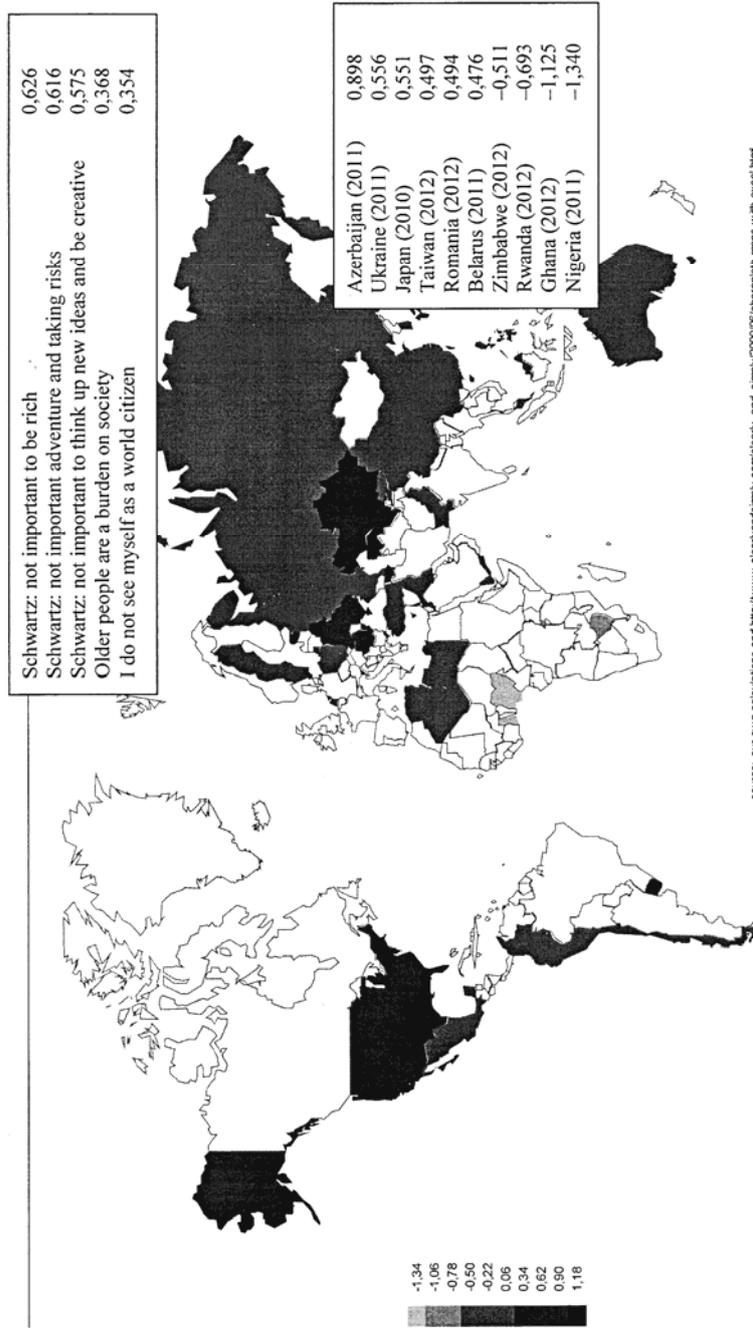
Appendix Map 10. Xenophobia and racism



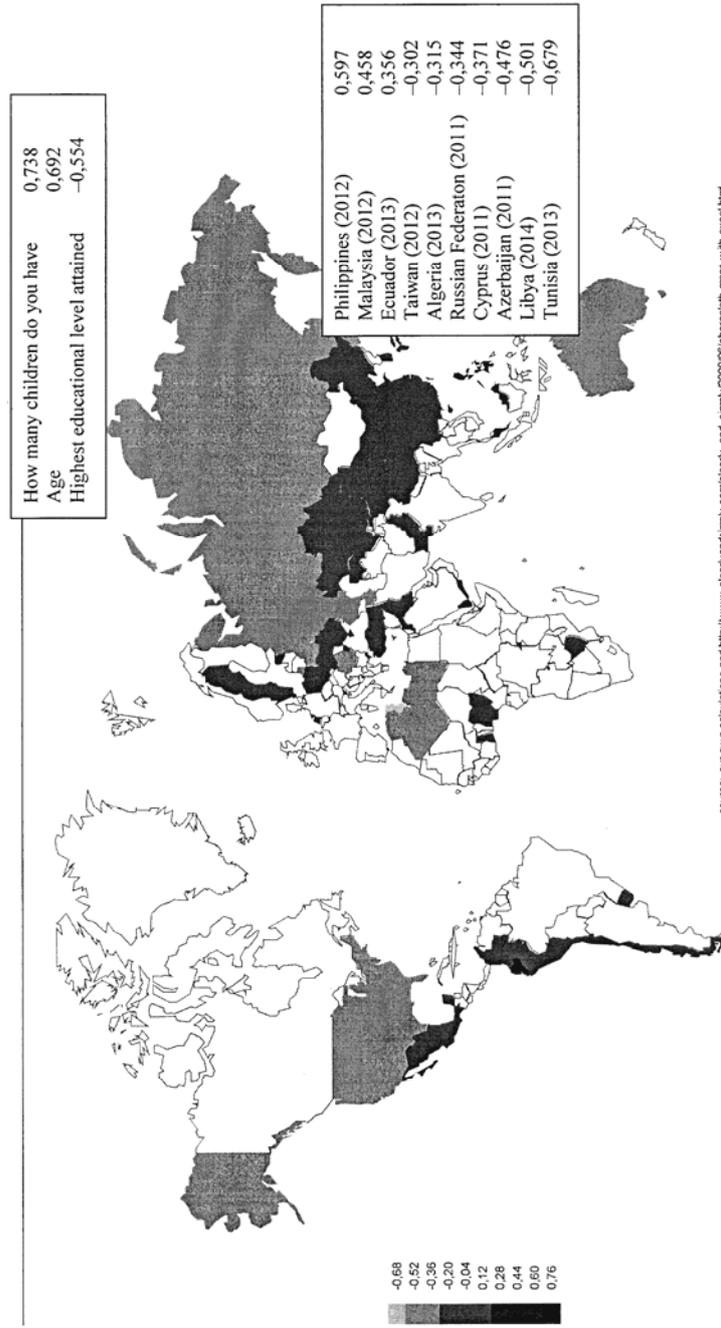
Appendix Map 11. Happiness and economic well-being



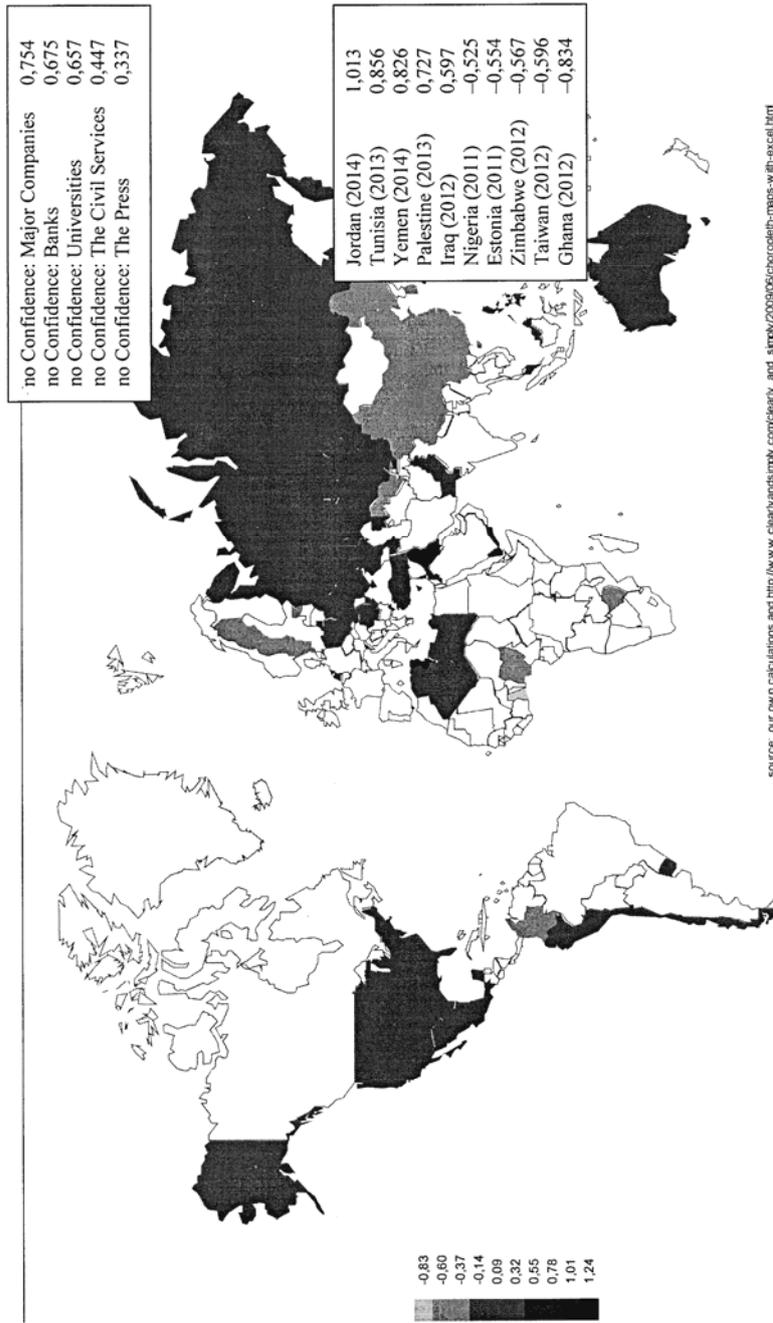
Appendix Map 12. Lack of entrepreneurial spirit



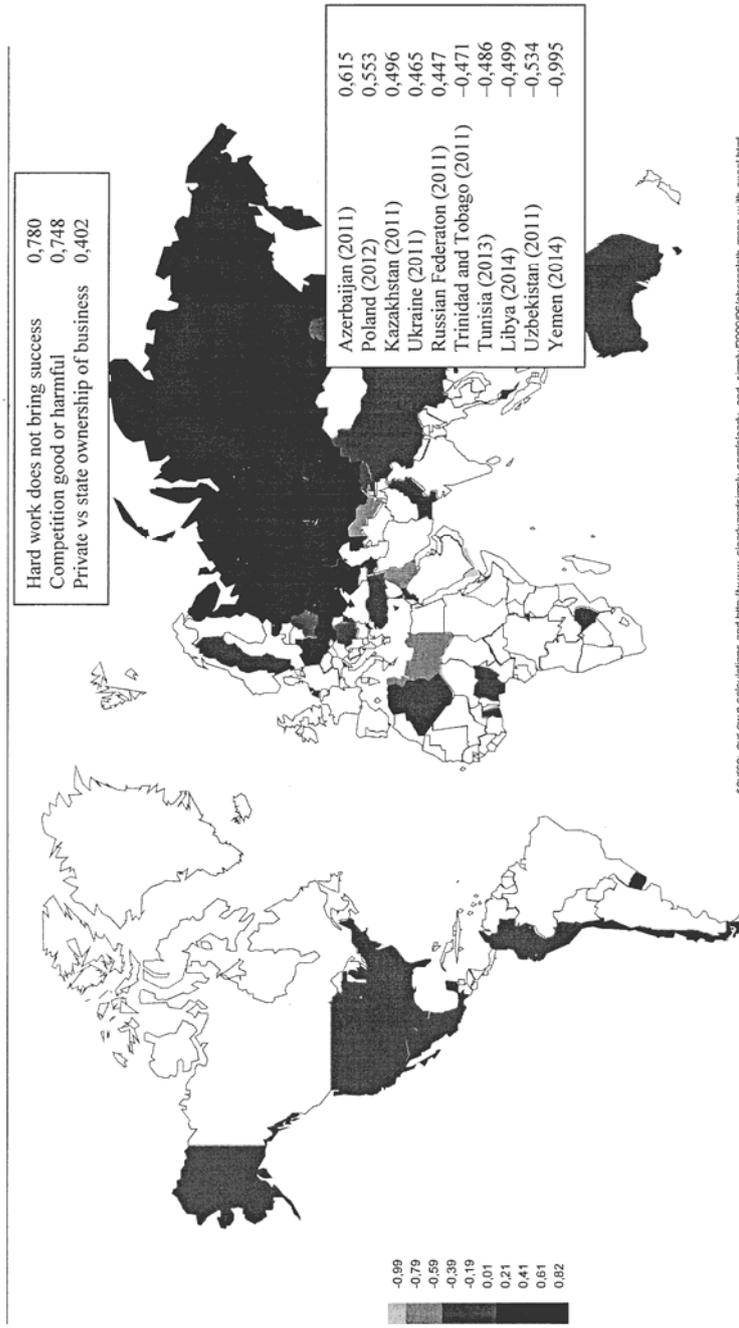
Appendix Map 13. Older generation with low education and high fertility



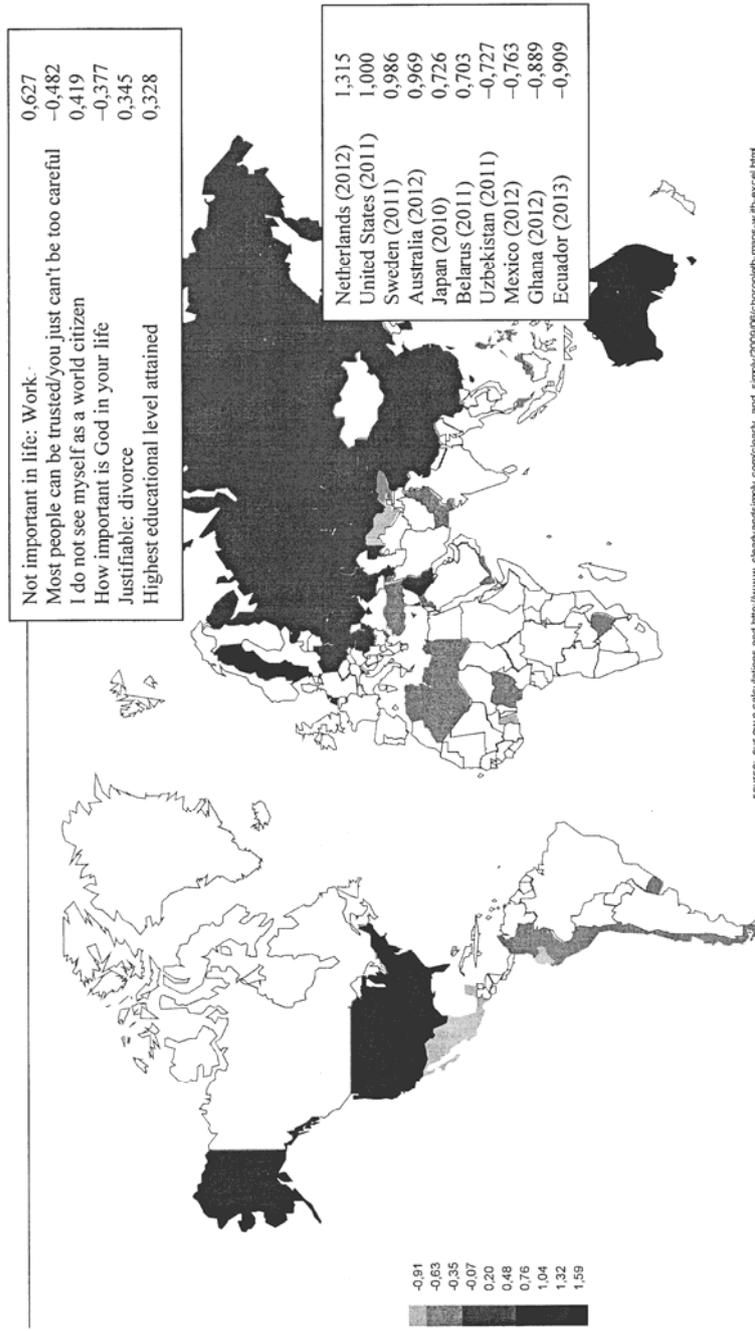
Appendix Map 14. Distrust in transnational capital and Universities



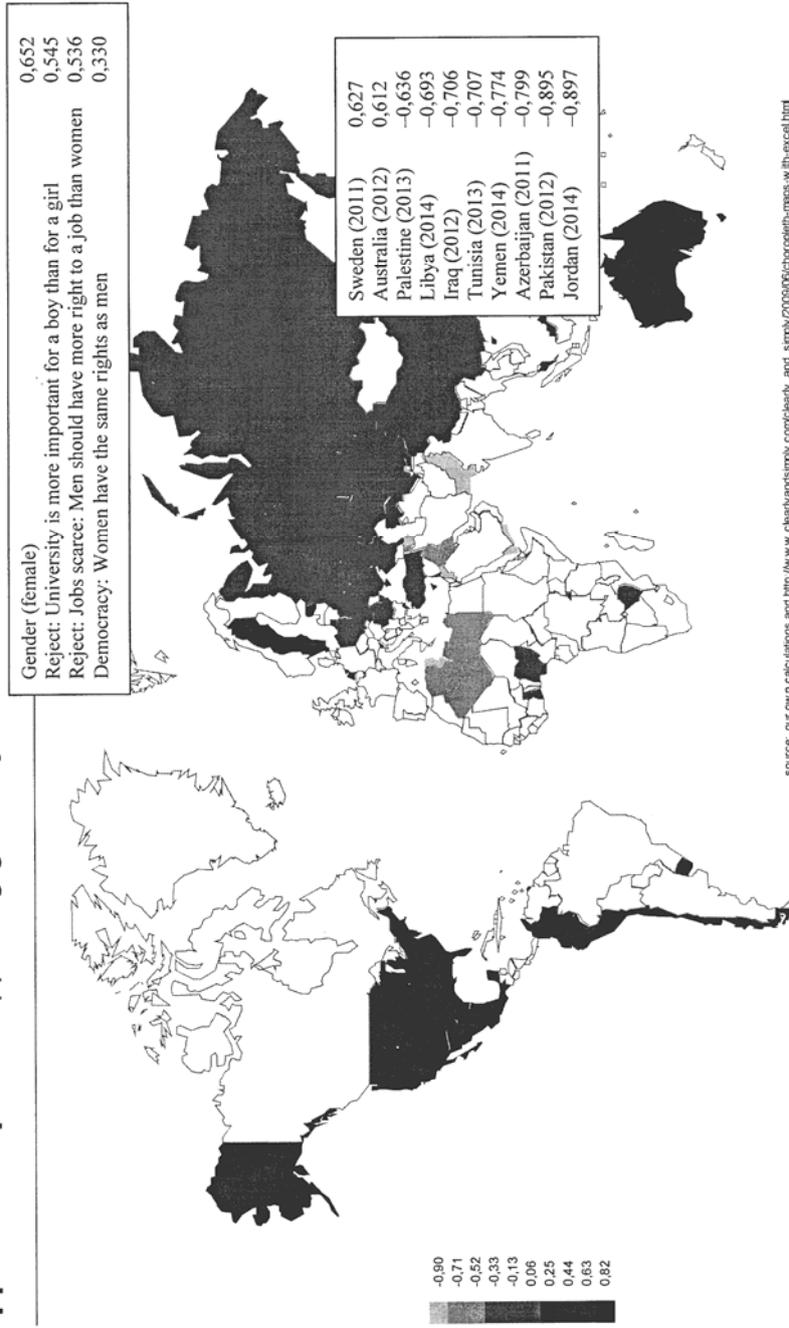
Appendix Map 15. Anti-Hayek/anti-Max Weber



Appendix Map 16. Rejecting work, global citizenship; but social trust

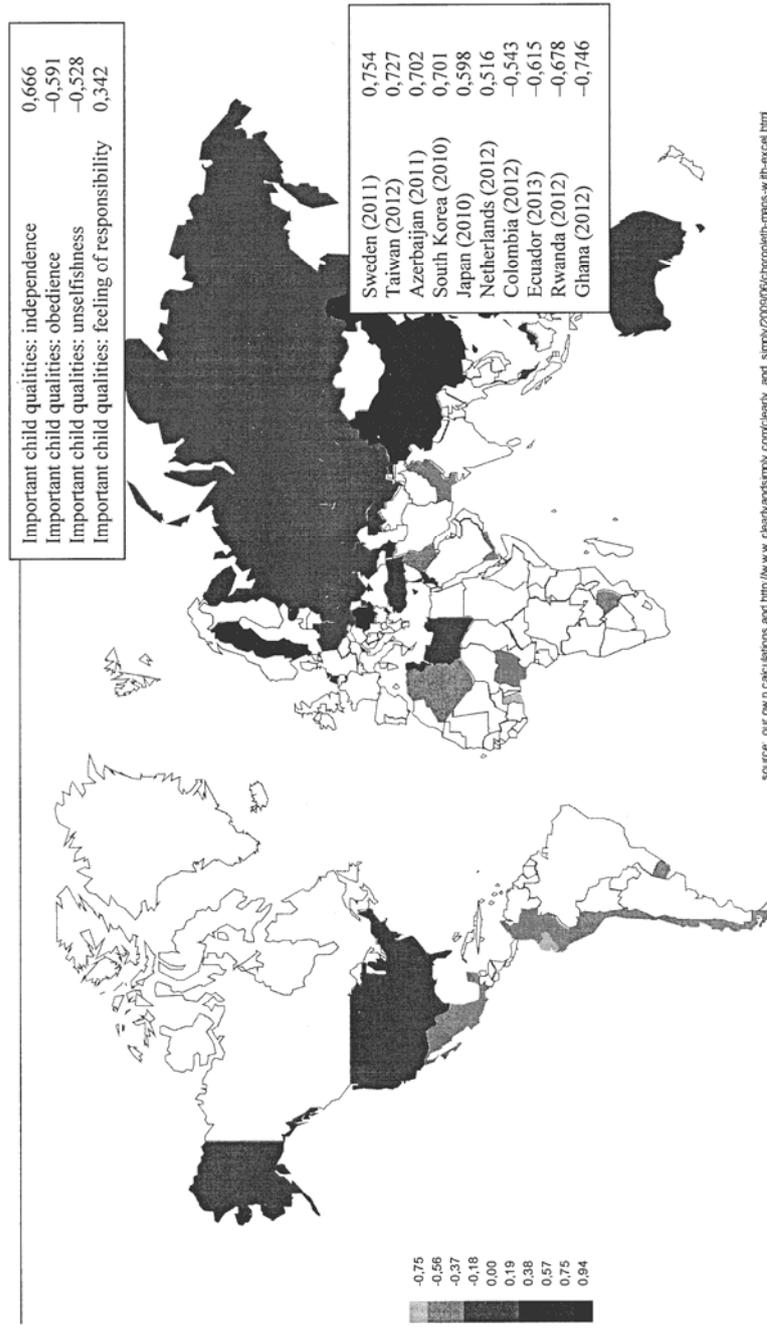


Appendix Map 17. Supporting gender justice

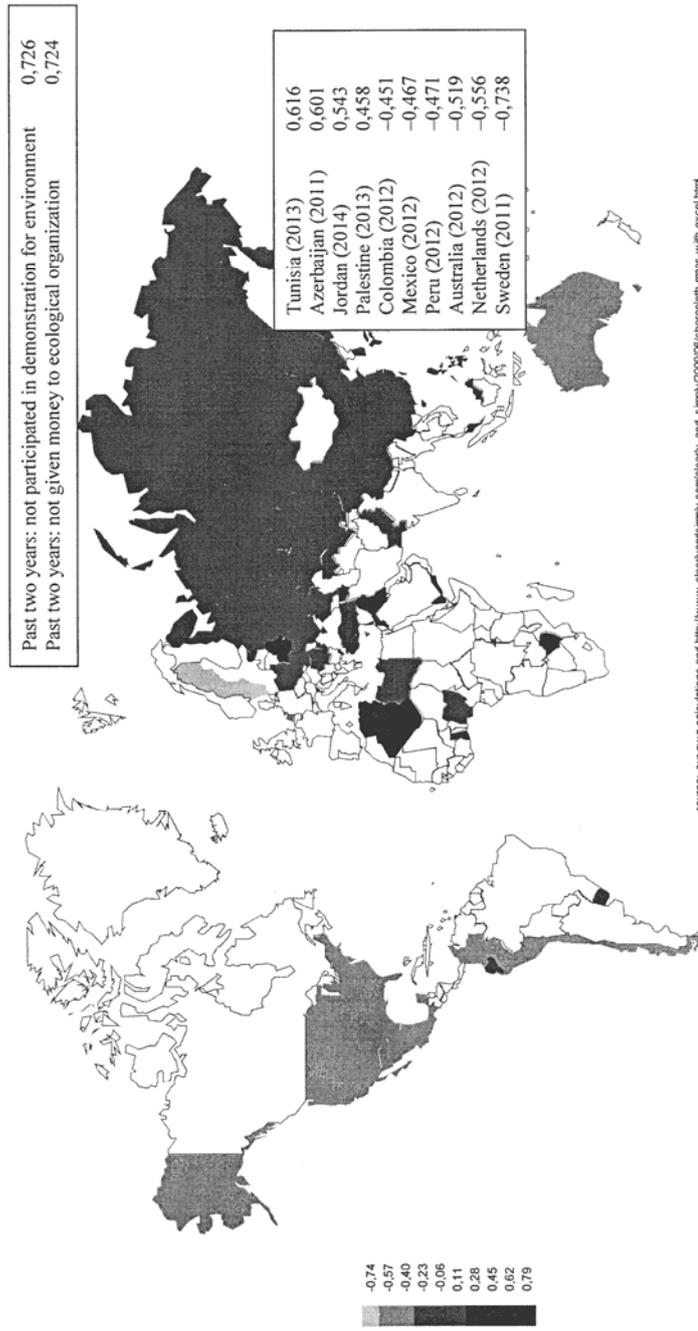


source: our own calculations and <http://www.clearlyandsimply.com/clarlyandsimply/choropleth-maps-with-excel.html>

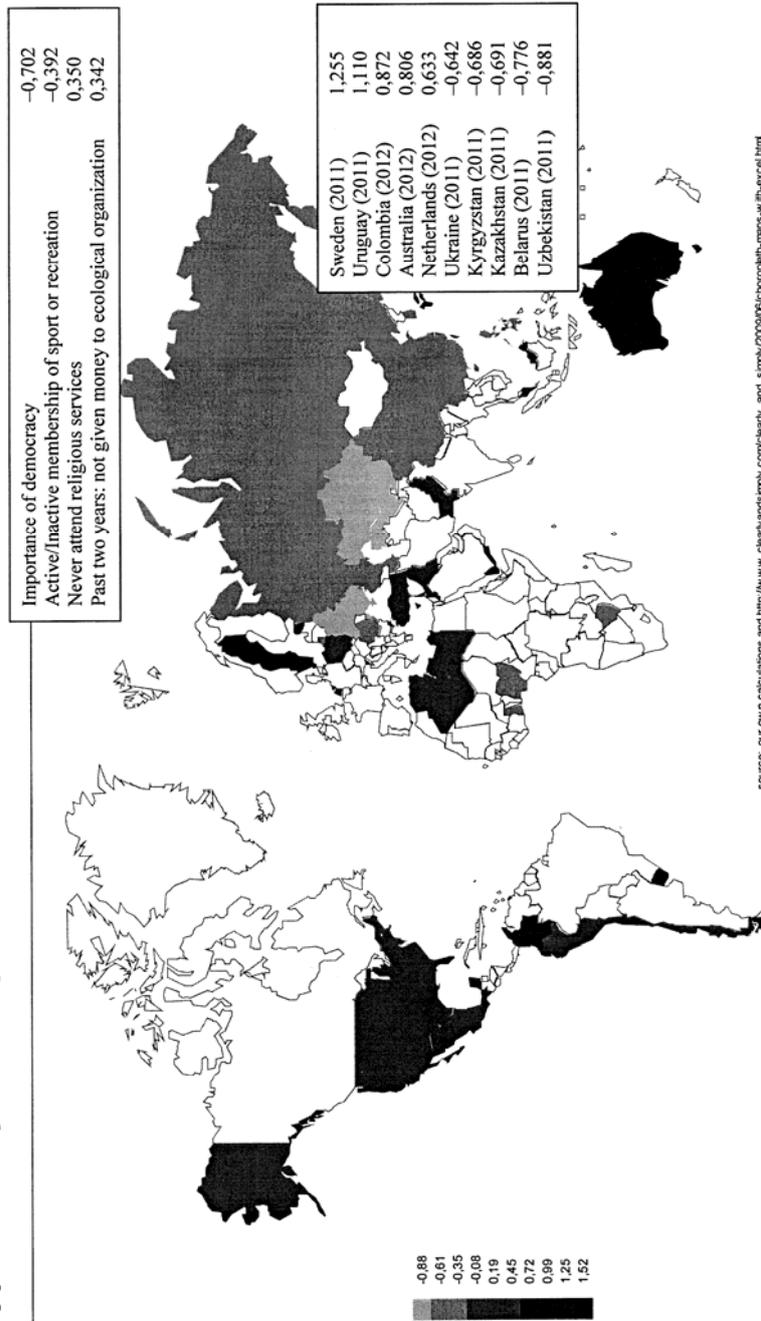
Appendix Map 18. Educational value: independence not obedience



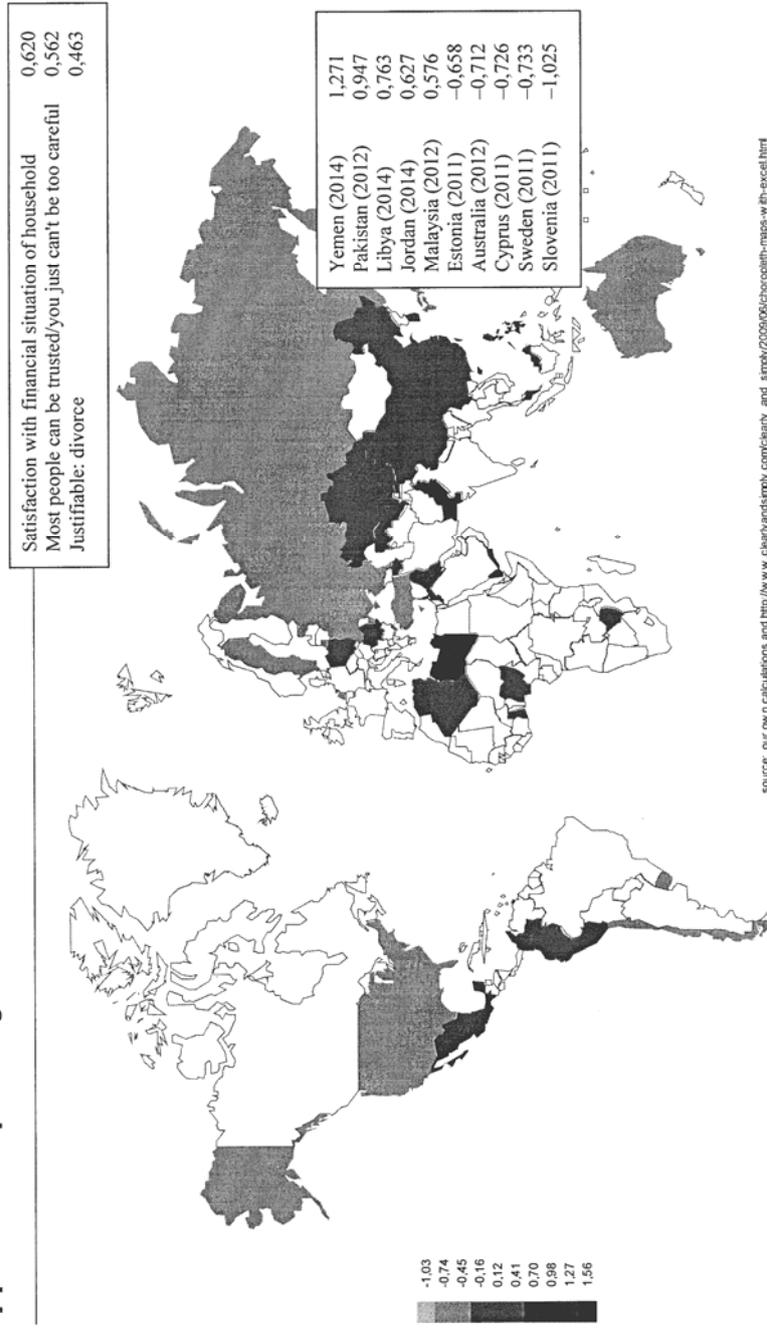
Appendix Map 19. Staying away from environmental activism



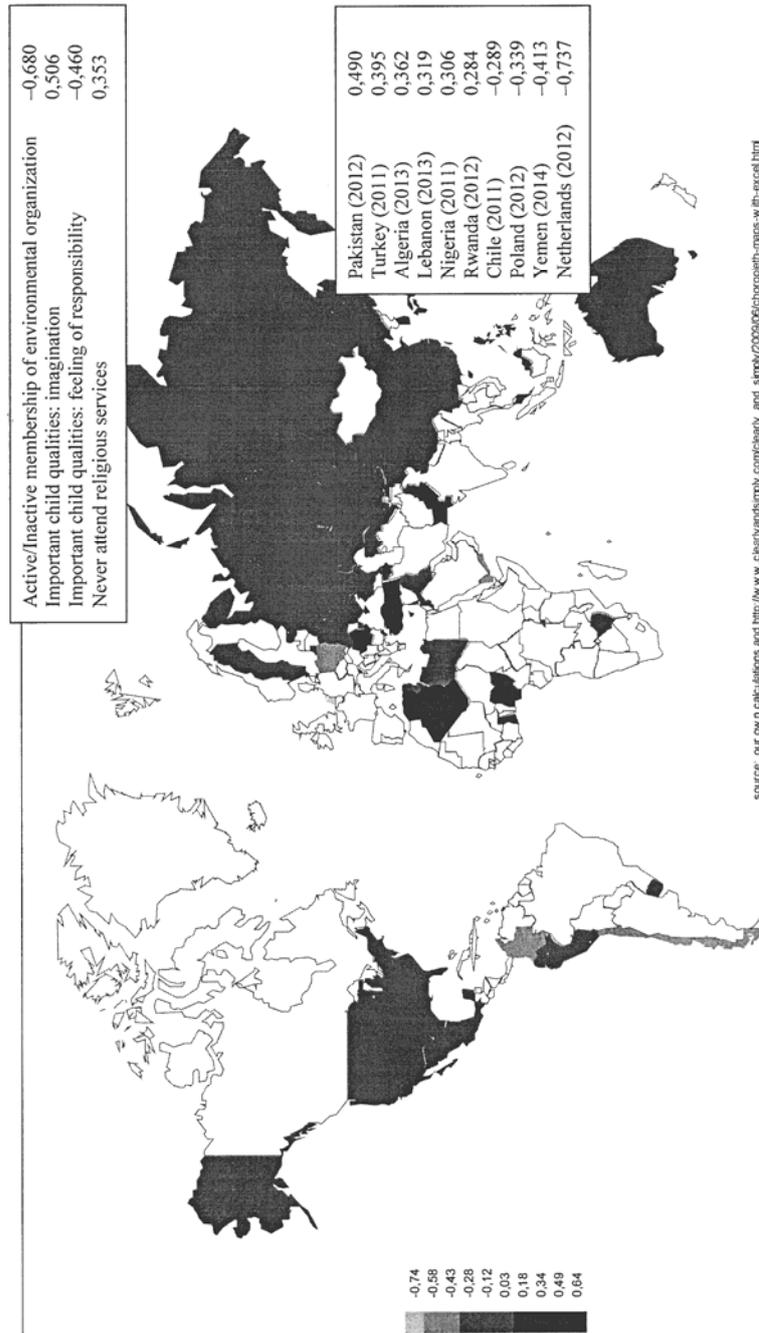
Appendix Map 20. 'Fatigue of democracy'



Appendix Map 21. Egoism of the rich



Appendix Map 22. Imagination versus ecological responsibility



Appendix Map 23. Hating the Army and sports

