

East Asia remains different

A comment on the index of “Self-expression values” by Inglehart and Welzel

Eduard J. Bomhoff

Mary Man Li Gu¹

¹ Professor and PhD candidate, Monash University Sunway campus. We are grateful to Christian Welzel for his extensive comments on an earlier draft. We also thank the Associate Editor, Ronald Fischer, and the referees for this Journal. Seminar participants at Monash provided useful comments. Correspondence to: Eduard.bomhoff@buseco.monash.edu.my; Tel: +603-5514-6564.

Abstract

Ronald Inglehart and Christian Welzel have made two strong claims for the index of “self-expression values” introduced in 1997 by Inglehart using responses from the World Values Survey (WVS): first that these values are getting stronger worldwide and second that this is a necessary condition for a flourishing democracy. In this research note we document that the shift to more emphasis on tolerance, trust and post-materialism – principal components of the self-expression index – is indeed visible in many countries, but not in East Asia. Also, the combination of these components into one index is fine on average, but makes little sense for the East Asian region. Many East Asians maintain some different attitudes towards work, family and social issues that would appear traditional and conservative by today’s Western standard where such conservative values today are held typically by people who are less trusting and more suspicious of democracy. By contrast, trust, measured in six different ways, as well as post-materialism, appears compatible with these conservative work and family values in East Asia. The claim that self-expression values as defined by Inglehart are a necessary condition for a healthy democracy makes sense in many parts of the world, but not in East Asia.

Where East Asia is still different from the West

There are 68 countries that participated in more than one round of the World Values Survey (WVS), a series of worldwide surveys of attitudes and values that use identical questions in many countries. For these countries we can test for interesting changes in values over time. In this paper we look at one of the most popular outputs of the WVS, an index of “self-expression values” first constructed by Ronald Inglehart in 1997 which uses a number of answers in the survey to measure whether and to what extent respondents are shifting towards a culture of tolerance and political openness.

Inglehart’s measure of self-expression values has much in common with indices developed earlier by Hofstede for IBM staff and Schwartz for teachers.² With three scholars independently developing quite similar indices, it is indeed likely that the Inglehart index is a good way to express in a single number how values change as employment shifts from industry to services and citizens adapt to a society where most live in high-density urban settings.

More recently, Inglehart, Welzel and others have shown how in many countries the shift to self-expression values has been helpful in nurturing democracy. Welzel sees two channels: self-expressive young people are more likely to become reformers in countries that are not yet democratic. In existing democracies, these values will promote social movements that enrich liberty and democracy.³

But, Inglehart and Welzel have made claims that go further:

² See, for instance R. Inglehart. (2007). Mapping global values, in Esmer, Y. and Pettersson, T. (Eds.) Measuring and Mapping Cultures: 25 years of comparative value surveys. p 21.

³ Ibid, p 184.

- (1) self-expression values are becoming stronger worldwide: “ It has been demonstrated that Survival/Self-expression values are becoming more widespread through intergenerational changes that emerge at high levels of economic development”⁴; recently in this Journal: “self-expression values are becoming stronger in every country in the world for which we have longitudinal data”⁵ and : worldwide economic development seems to push societies in a “predictable common direction, regardless of their cultural heritage”⁶
- (2) emancipative self-expression values are not just helpful, but necessary conditions for more democracy: “self-expression values are causally prior to sustainable and effective democratic institutions”⁷ and “variations in self-expression values also help to explain why some countries moved closer to full-fledged democracies than others and why some countries became much more effective democracies than others”⁸

In this note, we analyze WVS data to show that both these claims are incorrect for the East Asian region. First, in the East Asian countries for which we have the relevant WVS data, the generational shift towards self-expression values is absent or much weaker than in the West: both young and old seem to maintain some values that are quite conservative by Western norms. Taiwan and South-Korea are more conservative than the average for the Islamic nations; Japan is now less self-expressive than, for example, Chile or Argentina. Japan, Taiwan and South Korea are the only rich countries appearing in the lower half of the worldwide distribution of for self-expression values.

⁴ See Inglehart, R. and Oysermanto, D. (2004). Individualism, autonomy and self-expression: the human development syndrome. In H. Vinken, J. Soeters, and P. Ester (Eds.), *Comparing Cultures, Dimensions of Culture in a Comparative Perspective*. Leiden, The Netherlands: Brill.

⁵ See Welzel, C. (2010).

⁶ Inglehart, R. et al, *Human Beliefs and Values, Mexico, Siglo XXI Editores*, 2004, p. 13.

⁷ Inglehart and Welzel (2005) *Modernization, Cultural Change and Democracy*, p 288.

⁸ *Ibid*, p134.

Second, Japan, South Korea and Taiwan are quite different from the rich West in their low degree of “self-expression” but nonetheless democratic. Indeed, they have much higher levels of democracy than their ‘self-expression’ values would predict: Japan and Taiwan have the maximum score of 10 out of 10 in the Polity database; South Korea is at 8. In the Economist 2010 index of democracy, Japan and Korea are at the level of the UK and France; Taiwan at the level of Slovakia and Israel. In the Freedom House ratings, the three join the established Western democracies in the ranks of ‘Free countries’ qualifying as both electoral and liberal democracies.

No uniform march to more self-expression values

The first claim to evaluate is that the move towards stronger self expression values is universal. For the 22 rich Western countries for which we have more than one Survey, 21 countries indeed show a change over time towards more self-expression values, East Germany being the only exception (and for Germany as a whole, the trend is strongly towards more self-expression as well). In Latin America, all nine countries for which there is a panel with more than one annual survey show the same shift towards self-expression values.

In the rest of the world, however, only 19 out of 37 countries move over time in the direction of more self-expression, a pattern that is very different from the assertion that the movement is uniform.⁹ For East Asia, the Survey has been conducted more than once in seven countries: two countries show increasing values for self-expression, but five a decrease.¹⁰ There has been more than one Survey in 22 ex-communist

⁹ In his article in this Journal, Welzel subsequently proposes a new measure that uses some of the same items as in his previous work with Inglehart, He states that for his new index there are 41 countries for which it goes up a lot and not a single country where it shows a significant decrease.

¹⁰ China, Indonesia, Korea, Taiwan, Vietnam down; Japan, Philippines up. Even with a small sample, a statistically significant result. Country-level scores on the index as reported by Inglehart and Welzel are available at http://www.worldvaluessurvey.org/wvs/articles/folder_published/article_base_111

countries and we find that 11 go towards self-expression values, but 11 other ex-communist countries go backwards.¹¹ The same 50-50 split also applies to the remaining countries in Africa and Asia. No general march towards self-expression values is visible outside of the rich West and Latin America.

No uniform pattern over time, therefore. We can also consider the most recent outcomes for the level of self-expression values in different countries. Inglehart and Welzel's current "cultural map of the world" depicts the 2005-6 Survey.¹² In this two-dimensional figure, the strength of self-expression values on the horizontal axis has been combined with national outcomes for another index (not discussed here) showing a shift from so-called "traditional" to "secular-rational" values. The East Asian nations, including Japan, all have a negative score in the 2005-6 Survey, apart from Malaysia which scores 0.09 and Thailand with 0.01.¹³ Newly rich Hong Kong, Taiwan and South Korea remain quite isolated on Inglehart's latest map, with scores more than two standard deviations lower than the average for the rich West. East Asia on average scores 0.8 lower on the self-expression index than the rich West.¹⁴ This is a significant gap given that worldwide the complete range on the index as computed by Inglehart and Welzel is from -2 to +2.

In a similar picture, based on the 2000 Survey, Inglehart and Welzel (2005) showed how GDP generally increases from bottom left (low values on both their indices) to the Scandinavian countries in the top-right corner with very high values on both indices. A regression – available on request - of individual self-expression values in the most recent 2005-6 survey on (logs of) country GDP per capita, GDP squared, a regional dummy for East Asia, and an individual control for education level, confirms the strong correlation with the level of economic development as

¹¹ None of the ex-communist countries participated in the first Wave of the WVS; all data refer to changes after 1989.

¹² http://www.worldvaluessurvey.org/wvs/articles/folder_published/article_base_54

¹³ http://www.worldvaluessurvey.org/wvs/articles/folder_published/article_base_111

¹⁴ Own calculation, available upon request.

well as the significantly negative dummy variable for East Asia evidence that the general pattern noted by Inglehart and Welzel so far does not apply in East Asia (nor in the ex-communist nations).

The claim that young people are more into self-expression as defined here than their parent also needs qualification. In the rich West and in Latin America younger people express themselves significantly more towards self-expression values than do older respondents. By contrast, in East Asia young people so far are stuck left-of-centre on the scale for survival- self-expression and that is the same location as their parents. Japan, a high-income country is no exception according to the latest WVS.

Components of the self-expression index

In Japan, Korea and Taiwan, a deficiency in self-expression values, as defined by Inglehart, has not been detrimental to democracy. To understand that better and also to consider whether differences in values in East Asia could hinder democracy in not-yet fully democratic countries in the region, we must disintegrate the index and consider the components. Inglehart and Welzel employ a factor analysis to distil one index number out of the individual positions on the following issues¹⁵:

- Respondent gives priority to economic and physical security over self-expression and quality of life (measured by the Materialist/ Post-Materialist Values index).
- Respondent describes self as not very happy
- Homosexuality is never justifiable

¹⁵ The same survey items are used in factor analysis at both national and individual levels. See Inglehart and Welzel (2005), pp. 49-51.

- Respondent has not and would not sign a petition
- You have to be very careful about trusting people

The score on the index is higher if people disagree more with these five statements. We disregard the question about the petitions here, since in five of our eight East Asian countries (China, Malaysia, Indonesia, Thailand and Vietnam) less than ten percent of the respondents answer positively to the related question whether they have in fact ever signed a petition, which means that for over 90 percent of respondents the issue is very abstract. People in Socialist countries like China and Vietnam, may be fearful to do such a thing.¹⁶

We test for the validity of the index as follows. We first note that on matters of happiness, trust and post-materialism, the views of East Asians do not appear to differ much from the rest of the world.¹⁷ East Asians rate themselves 1.86 on the happiness scale ranging from 1 ‘very happy’ to 4 ‘not at all happy’, compared to 1.94 by Non-East Asians. On interpersonal trust where lower values mean greater trust, East Asians score slightly better (1.62) than other participants (1.76). They also tend towards a somewhat more materialist orientation (1.66) than people from the rest of the world (1.81), but the differences so far are marginal. With regard to the issue of tolerance, however, East Asians are much more conservative: the average on the question about acceptance of homosexuality is 2.62 for East Asia on a scale from 1 “never justifiable” to 10 “always justifiable” and 3.91 for the rest of the world.

We now perform a cluster analysis to see whether the individual scores on happiness, trust and post-materialism have a sufficiently positive association with the answer on the tolerance question, so that a combined index for “self-expression” makes sense. A cluster analysis, using maximum likelihood methods for discrete variables to classify the respondents, is preferable to factor analysis or similar methods, first because

¹⁶ The other three East Asian countries in our sample are South Korea, Japan and Taiwan.

¹⁷ A total of 47 countries outside of East Asia participated in the latest wave of WVS.

of the discrete nature of the variables and more fundamentally because relationships do not have to be in a uniform direction¹⁸. Thus, if a cluster analysis fails to show a significant association between a number of variables, we have even stronger evidence against a pattern of association, than if we apply factor analysis or another method that tests for a uniform relationship.

We check whether survey results for the questions about homosexuality have predictive power for the responses by the same individual on the questions about happiness, trust and post-materialism. Inglehart and Welzel (2005) have shown that these variables on average are tightly associated worldwide and we confirm that for the non-East Asian countries. The optimal number (LL-BIC criterion) of clusters for the non-East Asian countries is four and in that four-cluster model all parameters on the three covariates have p-values smaller than $10 \exp 20$ and the cluster with the 26 percent of the respondents who are most tolerant of homosexuality are also the happiest, the most trustful and the most post-materialist group, exactly as found earlier by Inglehart and Welzel. In the East Asian region, however, in a 2-cluster model, the intolerant people are significantly more trusting than the tolerant respondents, and in 3 or 4-cluster models, the log-likelihood does not improve enough and there is not a single significant coefficient on the three covariates.

¹⁸ See Magdison, J. and Vermunt, J. K. (2004). Latent class models.

Multi-level regression analysis

We move from country averages to the individual data sets, omit Africa, Latin America and the ex-communist countries and contrast East Asia and the rich West. The set of Western countries for which the latest survey data is available includes Australia, Canada, Finland, France, Germany, Great Britain, Netherlands, Norway, Spain, Sweden, and the United States.

All regression equations control for the logarithm of GDP per capita (corrected for ppp) and for log GDP squared in the country of the respondent. We work with a combined data set of Westerners and East Asians, estimating a multi-level model with a stochastic factor at the country level. We add one shift dummy to test whether the level of the dependent variable differs between the regions (controlling already for GDP), as well as interaction dummies for all our explanatory variables, so that we can also test whether the strength of an effect differs between the regions.

This multi-level model for individuals and countries is more demanding than analyses of simple correlations of national averages. In rich countries, respondents may, for example, be both more trusting and tolerant than in middle income countries, but such a country-level association could exist without the same positive correlation between trust and tolerance in the individual responses.

The first table considers the relationship between trust and tolerance. The trust variable we prefer to emphasize here is a standard instrument commonly used in the literature on social capital and value studies (Slemrod and Katuscak, 2005; Guiso et al, 2008; Tabellini, 2007). A referee for this Journal suggested to check the robustness of the results by also trying out more specific trust variables newly introduced in the 2005-6 Survey (they are robust – see below). Three new measures focus on the degree of nearby trust in one's family, the neighbourhood, and in

people known personally; the other three new measures of more abstract trust ask for the degree of confidence in people one meets for the first time, and in people belonging to another religion or to another nationality. We show all equations for the standard measure of trust as well as the six more specific measures from the 2005-06 Survey.

Our table shows that the underpinnings of trust do differ in East Asia. In the West, the trust that is helpful in sustaining a democratic culture has come to be based on great tolerance, a critical value for the functioning and survival of Western liberal democracy. Consider Inglehart's preferred variable to measure tolerance in this context of self-expression values, the acceptance of homosexuality¹⁹. Table 1 shows that in the West, people who are completely accepting of homosexuality tend to be those who also are more trusting than the average. Trust and tolerance go together and conservative people with traditional values tend to be more suspicious of their fellow-citizens. That pattern is much less present in East Asia. The coefficient on the relationship between this measure of tolerance and the level of trust is significantly different from the West at the 0.05 or 0.001 level in six of seven specifications. With the usual variable to measure trust, the coefficient in the East is less than half of that in the rich West; for half of the more specific trust variables it even changes sign, so that people who are stricter on homosexuality are at the same time more trusting – completely at variance with the construction of the Inglehart-Welzel index. The strong positive Western association between social tolerance and trust is never found.²⁰

[Insert Table 1 about here]

¹⁹ Inglehart considers attitudes towards homosexuality an effective test of social tolerance. See Inglehart, 1997.

²⁰ Inglehart and Welzel have the attitude towards homosexuality as a component of their self-expression index, so we focus on that here. Results for the attitude towards abortion, for example, are quite similar: in the West those who are tolerant of abortion tend to be more trusting; in East Asia the opposite applies (results are available upon request).

Similarly, in the West, people whose priorities are more towards quality of life issues than towards material survival, tend to be more trusting than average; in the East, there is no connection, or even the opposite pattern, depending on how we measure trust. In four out of seven specifications, the effect in East Asia is very significantly different from that in the West (0.001 level), and always in the opposite direction.

Tables 2 and 3 show more attitudinal differences between East and West, now in the areas of work and family. We take work first, looking at the statement “work should come first, even if it means less spare time”. As countries get richer, it is natural that fewer people will agree with such a statement, so the stronger agreement with work-first in East Asia is in part a function of lower levels of GDP in many countries in the region. But if we look at our regressions of trust on these individual responses we find that it is only in the West that people who agree with work-first are at the same time significantly less trusting of their fellow citizens. That is not at all the case in East Asia where there is no connection for the standard measure of trust. In six out of seven regressions, the coefficient for the East Asians is very significantly higher than in the West, even changing sign in five cases out of seven, so that on some measures of trust, East Asians who put work first are on average more trusting.

[Insert Tables 2 and 3 about here]

There is a similar absence of a Western pattern in the family area. East Asians are much keener than Westerners to educate their children in the values of hard work and thrift. Most Western parents do not list these two values as priorities for the education of their children; most East Asians do, and the difference remains extremely significant even if we control for the level of economic development. Table 3 shows that in the West people with such attitudes towards their children are rather less trusting of their fellow-citizens; no such pattern exists in East Asia when we measure trust with the general variable. For the six specific measures of trust, half of those measures show the opposite sign (significant at 0.001 level), suggesting East Asian parents who like conservative values in bringing up their children are no less trusting than average.

Tables 4 and 5 revisit the attitudes about homosexuality that are so crucial in explaining why East Asians are not that keen on self-expression values as defined by Inglehart and Welzel. We find that everywhere, people who are more trusting are also keener on democracy, so that part of Inglehart's index of self-expression values is validated. The coefficients are smaller in East Asia, but remain negative throughout, meaning that also in East Asia, those who are more trusting in any of the 7 different specifications are also keener on democracy²¹. In the West, those who are fully comfortable with homosexuality are also those most convinced of the importance of democracy, in agreement with the Inglehart-Welzel thesis about tolerance as an important value supporting democracy. In the East, however, that is never the case. In each of our seven specifications, East Asians who are not tolerant of homosexuals are at the same time keener on democracy.²² This shows again that the Inglehart-Welzel construct of self-expression values does not work so well in the East Asian region, since one component of the index has the "wrong" partial effect on democratic sentiment.

[Insert Tables 4 and 5 about here]

Table 5 looks at an additional indicator of interest in democracy, confidence in the United Nations. Again, the pattern in East Asia is different from the West. In the West, people who are very liberal about homosexuality are again found among the champions of democracy - with most confidence in the UN. Such a pattern however, does not carry over to East Asia, where the coefficient is always very significantly lower, with the result that there is no connection between trust in the UN and tolerance of homosexuality in six of the seven regressions²³. Only the first regression with the general trust variable has a meaningful negative coefficient as in the West, but it is much smaller with a lower significance

²¹ For East Asia, the general trust variable and 5 of the specific trust variables are negative at the 0.001 confidence level.

²² In a comparative study of the views of Catholic and Muslim publics on democracy using WVS data, Bomhoff and Gu (forthcoming 2012) showed that similarly, Western Catholics who strongly support democracy are also more open with homosexuality; the reverse is found in Muslim societies, where democracy lovers are more averse to homosexuality as well as stricter on other moral issues like abortion and divorce.

²³ Significance levels greater than 0.2 in all six cases, and often much greater.

level (0.05). The table further shows that the coefficient on the trust variable is always lower in East Asia, very significantly so in almost all cases, but tests of its sign for East Asia show that it remains positive at the 0.001 level in four out of seven specifications, indicating that trust and confidence in the UN go hand in hand in East Asia as in the West.

A referee for this Journal suggested to test whether the natural inclination to trust nearby people more than distant strangers is perhaps more pronounced in East Asia. We noted above that the East Asians are a little less trusting than the Westerners on average. That is indeed most visible in the measures for trust in people one meets for the first time, people of another religion and people of another nationality. Forty to sixty percent of the gap with the West disappears, however, if we control for logs of GDP and GDP squared.

For trust in one's family, however, we find that East Asians are slightly more trusting, with and without controlling for GDP. Regarding trust in one's neighbours or trust in people one knows personally, the East Asians remain a little more cautious than Westerners, but the gaps are smaller than in the three cases of trust in strangers (both the raw averages and after correction for GDP).

In five tables we have a total of 63 interaction variables that test whether some coefficient is different between East Asia and the West. Nine coefficients are insignificant, six for a variable that measures nearby trust and three for a variable that relates to trust in more distant people; 49 of the 54 remaining coefficients are significant at the 0.001 level. There are no great differences between the standard measure of trust from the WVS and the six specific variables that were added in the most recent Survey. Asians are more trusting of family, Westerners find it easier to also express trust in strangers, but the differences do not seem relevant for whether the Inglehart-Welzel index of self-expression is a

good summary of attitudes in East Asia. The answer to that question is negative not only for the standard variable that measures trust but for all six specific alternatives²⁴.

Conclusion

Inglehart emphasizes the shift in employment from industry to services as a main driver of changes in values. His map already shows that East Asia is different, but we should be careful in not labelling East Asia as less modern. To take but one quantitative illustration related to the modern services sector: Loughborough University's listing of media cities worldwide has four cities from the rich West and six from East Asia in the top ten, but none from any other part of the world.²⁵ In the West, tolerance is often seen as helpful for the creative environment in which an advanced service economy can prosper (Guiso, Sapienza, and Zingales, 2008; Tabellini, 2010). But Seoul, Taipei and Tokyo – all in the Loughborough top ten - are creative cities in Richard Florida's definition and Shanghai has become a creative city again, even though most Koreans, Chinese, Taiwanese and Japanese so far maintain some social and work values that are quite different from the rich West.

²⁴ We have also re-run all our models with a simple average of the six specific trust variables; results for that case remain very similar to those in our tables.

²⁵ See Taylor (2010), table accessed on <http://www.lboro.ac.uk/gawc/rb/rb358.html>

We conclude that Inglehart's index from 1997 has been remarkably prescient for Western culture, where we observe a uniform march towards greater tolerance and more self-expression. Westerners who stay behind tend to be conservative people who are more suspicious of their fellow citizens, less comfortable with the UN and more sceptical about democracy in their country. In East Asia, by contrast, many citizens have a trusting attitude and are keen on democracy, but the suggested link with greater emphasis on what Inglehart and Welzel call self-expression values breaks down. Modern and pro-democratic East Asians continue to hold quite conservative attitudes towards homosexuality, feel that work should come first and are keen to inculcate thrift and hard work in their children, even though a majority of our respondents live in countries that already are advanced service economies (Japan, Korea, and Taiwan), or getting closer (Malaysia and Thailand).

The UK in the year 1950 would be an example of a healthy democracy with severe ostracism (and punishment) of homosexuals. In many more Western countries, one can recall a democratic past when parents would agree with the East Asian emphasis on hard work and thrift. So there is no logical impossibility of being democratic but less socially tolerant and more conservative in bringing up children than currently in the West. The future will tell whether further shifts in the labour market towards creative industries will bring more Western-type tolerance to the Far East; until now the more conservative attitudes in Seoul and Tokyo have not been an obvious handicap for their global aspirations to creative and design excellence.

"Trust" has a different pattern of correlations with some conservative values in East Asia, and that is true for young and old, and for people in rich and in middle-income countries. Given the way in which Inglehart and Welzel compute their self-expression index, it follows automatically that East Asians will score lower on that index, but our analysis of the components of the index suggests that lower scores in East Asia should not imply that chances for a healthy democracy are less in the East Asian region. One can think of the history of Japan, to see that

democratization does not have to follow precisely the same route or pattern as in the West. Sixty years ago, many people dismissed the possibility that democracy would work in Japan, arguing that its hierarchical society, authoritarian political system and conformist culture made it inimical to a democratic transformation. Yet democracy has gained a solid foothold in today's Japan. The country has taken significant steps towards modernization and democratic governance since the end of World War II but has, and at the same time, preserved its unique tradition and culture.²⁶ With growing prosperity, East Asians are likely to become increasingly articulate and sophisticated and will press for greater social and political reforms, but not necessarily in conjunction with the wholesale adoption of Western values and ideas. Democratization in China and the other not-yet democratic countries in the region may indeed take a cultural form that is different from the liberal model in the West, one that integrates more traditional family, work and moral values with democratic thinking and commitment.

²⁶ See Sharansky, N. and Dermer, R. (2004), pp. 29-31.

Appendix 1: WVS questionnaire items used in the regressions

A008 Feeling of happiness

Taking all things together, would you say you are:

- 1 Very happy
- 2 Rather happy
- 3 Not very happy
- 4 Not at all happy

F118 Homosexuality/ F120 Abortion

Please tell me for each of the following actions whether you think it can always be justified, never be justified, or something in between, using this card

1. Never justifiable

...

10. Always justifiable

Y002 Post-materialist index

1. Materialist
2. Mixed
3. Post-materialist

A165 Mutual Trust

1. Most people can be trusted
2. You cannot be too careful

D001 Trust in family/ G007 18 trust in neighbours/ G007 33 trust in people known personally/ G007 34 trust in people met for the first time/ G007 35 trust in people of another religion/ G007 36 trust in people of another nationality

1. Trust completely
2. Trust somewhat
3. Neither trust nor distrust
4. Do not trust very much
5. Do not trust at all

C041 Work ethics

Work should come first even if it means less spare time

1. Strongly agree
2. Agree
3. Neither agree or disagree
4. Disagree
5. Strongly disagree

Important child qualities

Here is a list of qualities that children can be encouraged to learn at home. Which, if any, do you consider to be especially important? Please choose up to five.

A038 Thrift, saving money and things;
A030 Hard work

- 0. Not mentioned
- 1. Important

E235 Importance of democracy

How important is it for you to live in a country that is governed democratically?

1: Not at all important

...

10: Absolutely important

E069 20 Confidence in the United Nations

- 1. A great deal
- 2. Quite a lot
- 3. Not very much
- 4. None at all

Table 1: Trust and tolerance (acceptance of homosexuality)

Independent variables	Dependent variable: trust (low values mean greater trust)						
	People In general	(1) Family	(2) Neighbours	(3) People known personally	(4) People met first time	(5) People of another religion	(6) People of another nationality
Justifiable: Homosexuality (1=never, 10=always)	-0.0203 (0.001)***	-0.003 (0.001)*	-0.005 (0.003)	-0.016 (0.002)***	-0.031 (0.003)***	-0.047 (0.003)***	-0.051 (0.003)***
EA*homosexuality	0.012 (0.003)***	0.007 (0.003)*	0.047 (0.006)***	0.023 (0.005)***	0.016 (0.006)*	0.022 (0.007)***	0.010 (0.006)
Post-Materialism index (1=materialist, 3=post- materialist)	-0.080 (0.007)***	0.013 (0.007)	-0.006 (0.015)	-0.026 (0.012)*	-0.138 (0.016)***	-0.1374 (0.016)***	-0.181 (0.016)***
EA*post-materialism index	0.095 (0.011)***	0.004 (0.012)	0.082 (0.024)***	0.066 (0.020)***	0.181 (0.026)***	0.091 (0.026)***	0.132 (0.026)***
N	22956	22712	22564	22674	22401	21374	21325

Note: * significant at .05 level, ** at .01 level, *** at .001 level.

Standard errors in parentheses. All model estimations are controlled for ln GDP (corrected for PPP) and GDP squared. All equations also have a stochastic intercept and an East Asia dummy variable (1=East Asia) for all respondents in the region. The two interaction variables multiply the East Asia dummy with the variable immediately above, thus allowing for a different strength of the effect for the East Asia region only.

See Appendix 1 for detailed survey questions and answers.

Source: World Values Survey, 2005-6.

Table2: Trust and work ethics

Independent variables	Dependent variable: trust (low values mean greater trust)						
	People in general	(1) Family	(2) Neighbours	(3) People known personally	(4) People met first time	(5) People of another religion	(6) People of another nationality
Work should come first (1=strongly agree, 5=strongly disagree)	-0.036 (0.004)***	-0.003 (-0.004)	0.037 (0.008)*	-0.006 (0.007)	-0.037 (0.009)***	-0.039 (0.009)***	-0.055 (0.009)***
EA*work should come first	0.038 (0.006)***	0.014 (0.007)**	0.033 (0.014)**	0.054 (0.012)***	0.088 (0.015)***	0.077 (0.016)***	0.083 (0.016)***
N	20352	19900	19788	19830	19600	18518	18428

Note: * significant at .05 level, ** at .01 level, *** at .001 level.

Standard errors in parentheses. All model estimations are controlled for ln GDP (corrected for PPP) and GDP squared. All equations also have a stochastic intercept and an East Asia dummy variable (1=East Asia) for all respondents in the region. The interaction variable multiplies the East Asia dummy with the variable immediately above, thus allowing for a different strength of the effect for the East Asia region only.

See Appendix 1 for detailed survey questions and answers.

Source: World Values Survey, 2005-6.

Table 3: Trust and family education

Independent variables	Dependent variable: trust (low values mean greater trust)						
	People in general	(1) Family	(2) Neighbours	(3) People known personally	(4) People met first time	(5) People of another religion	(6) People of another nationality
Important child qualities: hard work (1=mentioned, 0=N/M)	0.066 (0.009)***	0.012 (0.009)	0.049 (0.019)**	0.047 (0.016)***	0.110 (0.020)***	0.128 (0.021)***	0.151 (0.021)***
Important child qualities: thrift (1=mentioned, 0 = N/M)	0.097 (0.009)***	-0.003 (0.009)	-0.046 (0.019)*	0.047 (0.016)***	0.184 (0.020)***	0.158 (0.021)***	0.215 (0.020)***
EA*hard work	-0.074 (0.013)***	-0.009 (0.015)	-0.105 (0.029)***	-0.088 (0.025)***	-0.154 (0.032)***	-0.101 (0.033)***	-0.127 (0.032)***
EA*thrift	-0.093 (0.013)***	0.009 (0.014)	0.003 (0.028)	-0.067 (0.023)***	-0.175 (0.030)***	-0.121 (0.031)***	-0.191 (0.031)***
N	25097	24740	24550	24655	24275	22795	22737

Note: * significant at .05 level, ** at .01 level, *** at .001 level.

Standard errors in parentheses. All model estimations are controlled for ln GDP (corrected for PPP) and GDP squared. All equations also have a stochastic intercept and an East Asia dummy variable (1=East Asia) for all respondents in the region. The two interaction variables multiply the East Asia dummy with the variable immediately above, thus allowing for a different strength of the effect for the East Asia region only.

See Appendix 1 for detailed survey questions and answers.

Source: World Values Survey, 2005-6.

Table 4: Trust and support for democracy

Independent variables	Dependent variable: Importance of democracy (1=unimportant, 10=very important)						
	People in general	(1) Family	(2) Neighbours	(3) People known personally	(4) People met first time	(5) People of another religion	(6) People of another nationality
Justifiable: Homosexuality (1=never, 10=always)	0.054 (0.005)***	0.063 (0.004)***	0.063 (0.004)***	0.060 (0.004)***	0.061 (0.005)***	0.053 (0.005)***	0.050 (0.005)***
EA*homosexuality	-0.116 (0.009)***	-0.136 (0.009)***	-0.136 (0.009)***	-0.134 (0.009)***	-0.133 (0.010)***	-0.127 (0.010)***	-0.123 (0.010)***
Trust variable	-0.377 (0.031)***	-0.280 (0.025)***	-0.154 (0.014)***	-0.213 (0.019)***	-0.127 (0.012)***	-0.164 (0.014)***	-0.214 (0.014)***
EA*trust	0.195 (0.046)***	-0.014 (0.045)	0.125 (0.022)***	0.135 (0.026)***	0.092 (0.021)***	0.123 (0.020)***	0.181 (0.021)***
N	23294	23000	22852	22958	22679	21612	21572

Note: * significant at .05 level, ** at .01 level, *** at .001 level.

Standard errors in parentheses. All model estimations are controlled for ln GDP (corrected for PPP) and GDP squared. All equations also have a stochastic intercept and an East Asia dummy variable (1=East Asia) for all respondents in the region. The two interaction variables multiply the East Asia dummy with the variable immediately above, thus allowing for a different strength of the effect for the East Asia region only.

See Appendix 1 for detailed survey questions and answers.

Source: World Values Survey, 2005-6.

Table 5: Trust and confidence in the UN

Independent variables	Dependent variable: Confidence in the UN (1= a great deal, 4=Not at all)						
	People in general	(1) Family	(2) Neighbours	(3) People known personally	(4) People met first time	(5) People of another religion	(6) People of another nationality
Justifiable: Homosexuality (1=never, 10=always)	-0.024 (0.002)***	-0.027 (0.002)***	-0.027 (0.002)***	-0.026 (0.002)***	-0.026 (0.002)***	-0.024 (0.002)***	-0.023 (0.002)***
EA*homosexuality	0.010 (0.004)*	0.017 (0.005)***	0.016 (0.005)***	0.015 (0.005)***	0.018 (0.005)***	0.017 (0.005)***	0.019 (0.005)***
Trust variable	0.175 (0.015)***	0.092 (0.013)***	0.075 (0.007)***	0.110 (0.010)***	0.071 (0.006)***	0.091 (0.007)**	0.087 (0.007)***
EA*trust	-0.084 (0.023)***	-0.006 (0.022)	-0.047 (0.011)***	-0.060 (0.013)***	-0.009 (0.010)	-0.030 (0.010)***	0.016 (0.010)
N	21037	21515	21400	21512	21298	20555	20565

Note: * significant at .05 level, ** at .01 level, *** at .001 level.

Standard errors in parentheses. All model estimations are controlled for ln GDP (corrected for PPP) and GDP squared. All equations also have a stochastic intercept and an East Asia dummy variable (1=East Asia) for all respondents in the region. The two interaction variables multiply the East Asia dummy with the variable immediately above, thus allowing for a different strength of the effect for the East Asia region only.

See Appendix 1 for detailed survey questions and answers.

Source: World Values Survey, 2005-6.

References

- Bomhoff, E. J. and Gu, M. L. Forthcoming 2012. Religion and Support for Democracy: A Comparative Study for Catholic and Muslim Countries, *Politics and Religion*.
- Guiso, L., Sapienza, P., and Zingales, L. (2008). Social capital as good culture, *Journal of the European Economic Association*, 6 (April-May), 295-320.
- Inglehart R. (1997). How Solid is Mass Support for Democracy: and How can we measure it? *Political Science and Politics*, 36 (January), 51-57.
- Inglehart, R. and Oysermanto, D. (2004). "Individualism, autonomy and self-expression: the human development syndrome." In H. Vinken, J. Soeters, and P. Ester (Eds.), *Comparing Cultures, Dimensions of Culture in a Comparative Perspective*. Leiden, The Netherlands: Brill.
- Inglehart R. et al (2004). Human Beliefs and Values. Mexico, Siglo XXI Editores.
- Inglehart R. and Welzel, C. (2005). *Modernization, Cultural Change and Democracy: The Human Development Sequence*. Cambridge University Press.
- Inglehart, R. (2007). "Mapping Global Values." In Esmer, Y. and Pettersson, T (Eds.) *Measuring and mapping cultures : 25 years of comparative value surveys*. Boston: Brill.
- Inglehart R., Basanez, M., Catterberg, G., Diez-Medrano, J., Moreno, A., Norries, P., Siemienska, R. and Zuasnabar, I. (2010). *Changing Human Beliefs and Values, 1981-2007, a Cross-cultural Sourcebook based on the World Values Surveys and European Values Studies*. Mexico, Siglo XXI Editores.
- Magdison, J. and Vermunt, J. K. (2004). "Latent Class Models." In *The Sage Handbook of Quantitative Methodology for the Social Sciences*. Thousand Oaks: Sage Publications, 175-198.

<http://www.statisticalinnovations.com/articles/sage11.pdf> (Accessed July 2, 2008).

Sharansky, N. and Dermer, R. (2004). *The Case for Democracy: the Power of Freedom to Overcome Tyranny and Terror*. New York: PublicAffairs.

Slemrod, J. and Katuscak, P. (2005). Do Trust and Trustworthiness Pay Off? *Journal of Human Resources*, 40 (Summer), 621-646.

Tabellini, G. (2010). Culture and Institutions: economic development in the regions of Europe, *Journal of the European Economic Association* 8, (June), 677-716.

Taylor, P. J. (2010). Advanced producer services in the world economy. In *Global urban analysis: A survey of cities in globalization*, ed. P. J. Taylor, P. Ni, B. Derudder, M. Hoyler, J. Huang, and F. Witlox. London : Earthscan.

Welzel, C. (2007). Individual Modernity. In R.J. Dalton & H.-D. Klingemann (eds.), *Oxford Handbook of Political Behavior*, New York (pp. 185-295). Oxford University Press.

Welzel, C. (2007). "Democratization in the Human Development Perspective." in Esmer, Y. and Pettersson, T. (Eds.) *Measuring and Mapping Cultures: 25 years of comparative value surveys*. Boston: Brill.

Welzel, C. (2010). How Selfish Are Self-Expression Values: A Civicness Test. *Journal of Cross Cultural Psychology*, 41 (March), 152-174.

World Values Survey. *National-Level mean scores on Traditional/ Secular-rational and Survival/ self-expression values dimensions, 1981-2007*. Retrieved October 5, 2010, from http://www.worldvaluessurvey.org/wvs/articles/folder_published/article_base_111

World Values Survey. *Inglehart-Welzel Cultural map of the world*. Retrieved September 12, 2010, from http://www.worldvaluessurvey.org/wvs/articles/folder_published/article_base_54