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Intelligence, Wealth, and Acceptance of Euthanasia and Suicide

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Intelligence and material wealth are two possible determinants of moral values for individuals and societies. To explore their roles we examine responses to two questions of the World Values Survey, asking about the acceptability of euthanasia and suicide respectively, in the broader context of moral values. We find that at the country level, both higher national average intelligence and higher per capita GDP lead to more liberal attitudes. The GDP effect is related to political freedom and globalization, while the effect of intelligence is mediated entirely by religiousness. We conclude that greater material wealth, by creating more options for people to choose how to live their lives (and how to die), strengthens the desire for freedom. Therefore, unnecessary restraints on free choice must be removed. Intelligence affects these moral judgments by a different mechanism. Rather than strengthening the desire for freedom of choice, higher intelligence undermines traditional religion and the moral value systems that traditional religion supports. Thereby it weakens negative controls imposed on questionable behaviors.

Key Words: National IQ, Intelligence, Euthanasia, Suicide, Liberal values, Religion, Ethics

Injunctions against the killing of human beings are one of the most consistent features of moral systems world-wide. There are, however, circumstances in which ending a human life is considered acceptable by many. Two forms that may or may not be considered justifiable are euthanasia and suicide. These issues are increasingly important in modern societies because advances in medicine have made it possible to greatly prolong the lives of seriously disabled or

terminally ill patients, in some cases despite abysmal quality of life. Also, the cultural context has changed. Prosperity has risen over the last two centuries in Western countries; and intellectual sophistication, conceptualized and measured as intelligence, has risen in lockstep with rising prosperity. The latter development is called the Flynn effect (Flynn, 1987; Pietschnig & Voracek, 2015). These two fundamental aspects of “modernization” have been accompanied by changes in human values, but the ways in which prosperity and intelligence can affect human values, and specifically judgments about moral issues, are not well known.

Euthanasia and suicide are two ways of ending a human life by active interference. They are contentious issues in bioethics, the medical profession, and the public (Battin, 2015; Emanuel et al., 2016). This raises the question about the determinants of attitudes to these two ways of actively ending human life. In this paper we examine the determinants of attitudes to euthanasia and suicide in the broader context of moral values. The guiding hypothesis is that higher intelligence leads to more liberal attitudes in the moral domain, in part by undermining traditional religious beliefs. Another factor that is postulated to favor more liberal values is material wealth, measured as personal or family income at the individual level or as per capita GDP at the country level. Earlier research, based on the World Values Survey, had shown that there are two broad dimensions of human beliefs and values that Inglehart & Baker (2000) called “traditional-versus rational-secular” and “survival-versus-self-expression”, respectively. Meisenberg (2004), using the terms “modern” and “postmodern” for these two value orientations, found that at the country level, the first of these dimensions aligns with the average intelligence of countries. The second is associated less with intelligence and more with per-capita GDP and its close correlates, especially freedom from corruption.

In the present study, we use data from the World Values Survey to examine how intelligence and material wealth can affect the acceptance of euthanasia and suicide. We address the question of possible mechanisms by which the hypothesized prime movers, intelligence and prosperity, can influence judgments about these moral issues.

Method

The data are from the combined data files of waves 1-6 of the World Values Survey and the European Values Survey (WVS, 2015). The dependent variables are two survey questions (F122 and F123) asking about the approval of euthanasia and suicide: “Please tell me for each of the following statements whether you think [suicide; or euthanasia: ending the life of the incurably sick] can always be justified, never be justified, or something in between” The answers

range from 1 = *Never* to 10 = *Always*. The World Values Survey contains several other questions in this format, all scored on the same scale. Therefore, a low score represents an endorsement of moral injunctions while a high score indicates permissiveness or rejection of traditional morality. In all, 104 countries or territories have data for euthanasia and 107 for suicide. The questions were asked between 1981 and 2014.

The World Values Survey has no cognitive measures, but it does have information about education. We use age at which respondent finished formal education as an independent variable (question X023). Another measure is a crude semi-quantitative estimate of family income estimated as income deciles for the country (question X047).

For country-level analyses, the most important independent variable is the tabulation of average country-level IQs given in Lynn and Becker (2019) and Becker (2019). In this “national IQ” dataset, intelligence is scaled as IQ according to British norms, estimated from multiple studies using IQ tests on more-or-less representative samples, and from large-scale international assessments of scholastic achievement such as the OECD’s PISA program. In the case of countries for which neither results from IQ testing nor scores on international school assessments are available, the IQ was estimated from the IQs of neighboring countries. The other key variable is log-transformed per capita GDP, 1995-2011 average, from Penn World Tables version 8.0 (<https://www.rug.nl/ggdc/productivity/pwt/pwt-releases/pwt8.0>). Other country-level variables:

Communism is a binary variable designating a history of Communist rule. Most countries with this label are ex-Communist countries of Eastern Europe and the former Soviet Union.

Gini is the Gini index of inequality in income or consumption, published by the World Bank (<https://data.worldbank.org/indicator/si.pov.gini>), 1979-2017 average.

Freedom describes the extent to which a society is liberal and democratic. It is formed as a composite of the Voice and Accountability dimension of the World Bank’s Governance Indicators (1996-2012 average; <https://databank.worldbank.org/source/worldwide-governance-indicators#>) and the political freedom index from Freedom House (1995-2013 average; <https://freedomhouse.org/content/freedom-world-data-and-resources>).

Globalization is the KOF Globalization Index, which combines economic, social and political globalization. It is used as a measure for the “openness” of the society (<https://www.kof.ethz.ch/en/forecasts-and-indicators/indicators/kof->

[globalisation-index.html](#)).

Trust is the answer to question A165 of the World Values Survey, which asks: “Generally speaking, would you say that most people can be trusted, or that you need to be very careful in dealing with people?” It is used to measure the functionality or dysfunctionality of a society.

Religion is religiousness assessed with question F063: “How important is God in your life?” scaled between 1 = not at all important and 10 = very important.

Some analyses were done separately for different world regions, which were defined mainly on the basis of cultural affinity following Inglehart and Baker (2000). These are: Protestant Europe, Catholic Europe, English-speaking countries, ex-Communist countries, Latin America, Muslim Middle East, South and Southeast Asia, East Asia, and sub-Saharan Africa.

Individual-level analyses

Structure of moral values

First, we examined whether attitudes about the justifiability of euthanasia and suicide are related to each other and to other moral attitudes. Table 1 shows the correlation matrix for the world-wide sample (N = 327,904 respondents), for those 10 items that had been asked in a large majority of countries. The correlation between suicide approval and euthanasia approval is .440, and some of the other correlations are similarly robust. We notice that all correlations are positive, indicating that there is a rather general “liberalism” factor that takes the form of approval of a large variety of contentious behaviors.

Table 2 shows the results of a principal components analysis with varimax rotation for the same 10 items. The scree plot (not shown) had demonstrated clear evidence of two factors, and these can be seen in the factor loadings. Euthanasia and suicide load unambiguously on the first factor, which is termed *(Im-)morality*. Those who approve of euthanasia and suicide are likely to also approve of homosexuality, prostitution, abortion and divorce. About 50% of the variance in euthanasia approval and similar proportions of variance in the other attitudes are explained by this common factor. The second principal component, which we call *Permissiveness*, describes the correlations among approval of claiming government benefits one is not entitled to, avoiding fare on public transportation, cheating on taxes, and bribe taking.

Table 1. *Correlations (Pearson's r) among approval of several kinds of questionable behavior.*

	1	2	3	4	5	6	7	8	9
1. Euthanasia OK	1								
2. Suicide OK	.440	1							
3. Homosexuality OK	.419	.435	1						
4. Prostitution OK	.393	.460	.580	1					
5. Abortion OK	.499	.435	.503	.472	1				
6. Divorce OK	.470	.381	.509	.438	.630	1			
7. Claiming govt. benefits OK	.096	.167	.095	.167	.078	.073	1		
8. Payless transport OK	.180	.232	.177	.254	.172	.171	.427	1	
9. Avoiding taxes OK	.201	.249	.163	.279	.203	.169	.389	.475	1
10. Bribe taking OK	.160	.279	.172	.297	.184	.132	.356	.397	.471

Table 2. *Loadings of Morality and Permissiveness items on the varimax-rotated first two principal components.*

	Morality	Permissiveness
Euthanasia OK	.708	.095
Suicide OK	.646	.253
Homosexuality OK	.770	.078
Prostitution OK	.703	.260
Abortion OK	.803	.065
Divorce OK	.786	.026
Claiming govt. benefits OK	.006	.729
Payless transport OK	.144	.748
Avoiding taxes OK	.164	.759
Bribe taking OK	.161	.719

Individual-level relationships with income and education

Income and education are two measures of socio-economic status that are frequently related to attitudes. Although the two tend to co-vary in the population, there is no theoretical reason why attitudes that are favored by higher material well-being, measured as income or wealth, should be the same as those that are favored by higher cognitive development. The World Values Survey has no measures of cognitive ability, therefore we only have education as a proxy measure. We looked at how approval of euthanasia and suicide are related to

education and household income. The r values above the diagonal in Table 3 are the correlations in the world-wide sample of 219,797 respondents having data for all variables. Because the income values are estimated income relative to the income of each country, and the quality of education and average level of intelligence can vary widely in different countries and world regions, the correlations were also done separately for the 9 world regions and the r values were averaged. These are shown below the diagonal.

We see that the results are inconclusive. With both methods, both income and education are weakly related to approval of euthanasia and suicide. Education appears to be more important than income for euthanasia, suggesting that cognitive development tends to be more important than aspects of material wealth. The two appear to be about equally important for acceptance of suicide.

Table 3. *Correlations of euthanasia approval and suicide approval with household income and with education measured as highest educational degree. Correlations for total sample above the diagonal, and unweighted averages of the world regions below the diagonal. Total N = 219,797 respondents.*

	Euthanasia OK	Suicide OK	Income	Education
Euthanasia OK	1	.448	.114	.132
Suicide OK	.425	1	.091	.080
Income	.089	.071	1	.317
Education	.110	.087	.323	1

Country-level relationships

Correlations among outcomes

Table 4 shows that like at the individual level, there is a clear distinction between the *Morality* and *Permissiveness* items at the country level. Correlations are higher than those in the individual-level analysis shown in Table 1, as is seen frequently when national averages are used. When the constructs of (im-)morality and permissiveness were operationalized as the unrotated first principal component from a factor analysis of the constituent items, the country-level *Morality* factor explained 83.3% of the covariance among its 6 components, and the *Permissiveness* factor explained 70.2% of the covariance among its 4 components. The correlation between these two factors was $r = .184$.

Table 4. Correlations among indicator variables for Morality and Permissiveness at the country level. Correlations higher than .200 are statistically significant at $p < .05$. Without weighting below the diagonal, weighted by square root of population size above the diagonal. $N = 94$ countries.

	1	2	3	4	5	6	7	8	9	10
1. Euthanasia OK	1	.817	.756	.712	.872	.772	.046	.217	.302	.085
2. Suicide OK	.828	1	.824	.808	.801	.680	.120	.202	.368	.311
3. Homosexuality OK	.779	.822	1	.887	.748	.802	-.014	.143	.255	.056
4. Prostitution OK	.772	.827	.870	1	.669	.709	.088	.315	.415	.267
5. Abortion OK	.877	.793	.749	.686	1	.831	-.088	.136	.340	.057
6. Divorce OK	.819	.727	.814	.750	.868	1	-.015	.255	.338	-.038
7. Claiming benefits OK	.051	.134	-.043	.091	-.056	.012	1	.624	.437	.587
8. Payless transport OK	.230	.212	.079	.249	.143	.227	.629	1	.747	.639
9. Avoiding taxes OK	.319	.353	.174	.317	.323	.286	.415	.713	1	.669
10. Bribe taking OK	.021	.227	-.078	.145	-.008	-.100	.585	.622	.632	1

Also the independent variables were highly inter-correlated, as shown in Table 5. We can note a high correlation of *GDP* with *IQ*. This is hypothesized to be due to bidirectional causation, with high intelligence promoting economic development, and economic development favoring the development of higher intelligence (e.g., Meisenberg, 2014). Of the other variables, *Globalization* and *Freedom* are more closely related to *GDP* than to *IQ* while the reverse is true for *Gini*, *Trust*, and *Religion*. The strong negative relationship between *Religion* and *IQ* is especially prominent and confirms earlier studies that obtained the same result (Lynn, Harvey & Nyborg, 2009; Meisenberg, 2011). However, all seven indicators can be placed on a single dimension of “development” and can thus be described as positive or negative development indicators. A principal components analysis of them produces an unrotated first principal component that explains 63.8% of the total variance.

Table 6 shows that, as expected, the *Morality* items were related to the development indicators such that higher levels of economic and cognitive development were associated with more liberal and non-traditional views. Generally, moral attitudes related to sex (prostitution, homosexuality) were more related to *GDP* than to *IQ* while there was no clear difference between these predictors for euthanasia approval. We note in particular the strong relationships with religiousness, which indicates that all these aspects of traditional morality are part of a religious worldview.

Table 5. Correlations among variables used as predictors for euthanasia and suicide approval, unweighted below diagonal, weighted by square root of population size above diagonal. N = 95 countries.

	IQ	GDP	Globaliz.	Freedom	Gini	Trust	Religion
IQ	1	.781	.701	.427	-.445	.534	-.763
GDP	.799	1	.862	.691	-.247	.393	-.571
Globalization	.721	.855	1	.783	-.322	.363	-.654
Freedom	.522	.734	.799	1	-.160	.175	-.382
Gini	-.543	-.351	-.381	-.231	1	-.499	.456
Trust	.523	.452	.416	.290	-.515	1	-.640
Religion	-.755	-.623	-.698	-.507	.527	-.632	1

Table 6. Correlations of Morality items with hypothesized predictors.

	IQ	GDP	Gini	Freedom	Globaliz.	Trust	Religion	N
1. Euthanasia OK	.708	.715	-.350	.647	.736	.554	-.854	92
2. Suicide OK	.500	.601	-.298	.620	.619	.459	-.695	94
3. Homosexuality OK	.554	.748	-.228	.778	.695	.483	-.610	95
4. Prostitution OK	.382	.548	-.076	.641	.569	.334	-.487	89
5. Abortion OK	.672	.697	-.511	.648	.732	.531	-.847	95
6. Divorce OK	.594	.744	-.262	.711	.710	.383	-.667	95

These observations are further elaborated in Tables 7 and 8, which show linear regression models predicting approval of euthanasia and suicide, respectively. *GDP* and *IQ* are used as indicators for economic development and cognitive development, respectively, while the other variables are examined as possible mediators of the effects of these two fundamental dimensions. Model 1 in Table 7 shows that *IQ* and *GDP* both are significant predictors of euthanasia approval, with *IQ* being the stronger predictor. This seems at variance with Table 6 where the two are about equally strong correlates. However, Table 6 includes only the 92 countries that have data for all predictors while the regression model of Table 7 includes 104 countries.

Models 2 and 3 show that Communist history and the Gini index are ineffective as predictors, but *Freedom* and *Globalization* are positive predictors that eliminate the effect of *GDP* either partially or completely. The observations show that the relationship of economic development (measured as log-transformed *GDP*) with euthanasia approval is best explained as an indirect effect in which economic wealth leads to an open, liberal and democratic society, which

in turn provides the context in which people approve of euthanasia. *Freedom* is an excellent indicator of this liberal outlook that erases the *GDP* effect completely, and *Globalization* is a less precise indicator of it that eliminates the *GDP* effect only partially. The effect of *IQ* remains intact in either case. Table 6 shows that *Freedom* and *Globalization* are related more closely to *GDP* than to *IQ*. In regression models with *GDP* and *IQ* as the only predictors, *IQ* does not predict *Freedom* at all and is only a minor predictor of *Globalization* beside *GDP* (data not shown).

Trust (Model 6), as an indicator for the functionality of the society, is a weak predictor. It is not a major mediator for the effects of either *IQ* or *GDP* on euthanasia approval, since it leaves the effects of these variables mostly intact. However, *Religion* completely abolishes the effect of *IQ* while leaving the *GDP* effect intact. This is in keeping with the strong inverse relationship between *IQ* and *Religion*, and it shows that religiousness, or a traditional value system that is closely allied with religion, is the important mediator of the *IQ* effect.

Table 7. Prediction of euthanasia approval at the country level, no weighting is applied. Standardized β coefficients are shown. * $p < .05$; ** $p < .01$; *** $p < .001$.

	1	2	3	4	5	6	7
IQ	.535***	.498***	.406**	.494***	.462***	.466***	-.108
GDP	.217*	.250*	.393**	-.023	.121	.191	.289***
Communism		.055					
Gini			.030				
Freedom				.420***			
Globalization					.211		
Trust						.176*	
Religion							-.765***
Adj. R²	.503	.500	.540	.602	.515	.521	.758
N		104	104	93	104	101	104

Table 8 shows the same analysis for suicide approval. Again we see that in the absence of other predictors, both *IQ* and *GDP* predict, but this time with a somewhat stronger effect for *GDP* than *IQ*. *Communism* and *Gini* are again ineffective while *Freedom* and *Globalization* are important predictors that erase the independent effect of *GDP* partially or completely. *Religion* is again the variable that eliminates the positive effect of *IQ*, even reversing it. The coefficients in Model 7 of Tables 7 and 8 need to be interpreted cautiously, however. Collinearity between *Religion* and *IQ* is so high (see Table 6) that the coefficients for these two variables, in particular, are likely to be inflated.

Table 8. Prediction of suicide approval at the country level, no weighting is applied. Standardized β coefficients are shown. * $p < .05$; ** $p < .01$; *** $p < .001$.

	1	2	3	4	5	6	7
IQ	.276*	.371**	.016	.207	.196	.196	-.364**
GDP	.318*	.233	.558***	.091	.164	.289*	.377***
Communism		-.147					
Gini			-.072				
Freedom				.458**			
Globalization					.305*		
Trust						.201*	
Religion							-.776***
Adj. R²	.295	.306	.339	.422	.338	.319	.555
N	107	107	95	107	104	107	106

Discussion

The first interesting finding of this study concerns the relationships among attitudes to several moral issues. There are two correlated but separate dimensions that we label *Morality* and *Permissiveness*. The likely reason why there are two separate factors is that the *Morality* items are related to fundamental kinds of human relations. This includes the permissibility of real or imagined harm inflicted on another person (euthanasia, abortion, divorce), and of non-standard sexual relationships (homosexuality, prostitution). In the case of euthanasia, suicide and abortion, it is an elaboration of the *Thou shalt not kill* commandment most famously expressed in Exodus 20:15. Thus *Morality* is concerned with the evolutionarily important domains of death and sex, which are hard-wired in the human brain because they have always been essential for survival and reproduction. It consists of inhibitions on behaviors that need to be suppressed because they are inappropriate within one's group.

Respondents who are high on *Morality*, conceptualized as an attitude rather than a personality trait, are hypothesized to "go with" the innate but culturally reinforced inhibitions on killing and non-standard sex. This is assumed to be independent of a cognitive assessment of consequences. Those low on this dimension have emancipated themselves from these inhibitions at the cognitive level, though not necessarily in actual behavior. We hypothesize that this involves higher cognitive functions, specifically a rational assessment of consequences. Indeed, less traditional moral values have been described as one of the correlates of a rational and analytic thinking style (Pennycook, Fugelsang & Koehler, 2015). Given a positive correlation between rationality and intelligence (Stanovich,

2011), this hypothesis predicts that higher intelligence and education predict lower “morality”, including acceptance of euthanasia and suicide.

The relationship of *Permissiveness* to hard-wired “instincts” is less direct. This set of attitudes is about adherence to somewhat arbitrary economic rules such as paying taxes and paying for public transport. The opposite of this kind of rule-following is the opportunistic pursuit of material gain. As such, *Permissiveness* indicates the extent to which the individual identifies with the society in which he lives, and with the rules it imposes on its members. There is nevertheless a link to hard-wired, evolved behavioral inhibitions because obeying customs, laws and social conventions is part of an evolved suite of behaviors that allow us to function in groups that are marked by the coexistence of dominance hierarchies and cooperation. Therefore we have to expect that the two dimensions correlate, and Tables 1 and 4 show that this is what they mostly do. Note that in these tables, all items are scored in the same direction. Therefore, the positive correlations indicate positive relationships of permissiveness with “immorality”, not with “morality”.

These relationships are cross-culturally universal. When analyses are done at the individual level one world region at a time, the same two dimensions are obtained in all nine regions, with each item loading predominantly on the same dimension in each case (data not shown). When unrotated first principal components are formed separately for the six morality items and the four permissiveness items, separately for each world region, we find positive correlations between these two dimensions in each of the 9 regions. These correlations are generally higher in less developed than in more developed countries, ranging from .226 in Protestant Europe to .654 in sub-Saharan Africa. However, these two dimensions are hardly at all correlated at the country level ($r = .184$, $N = 94$ countries).

The central hypothesis examined in this study is that two fundamental conditions are the “prime movers” of cultural variation and cultural change, including diversity in moral values: cognitive development or intelligence, here proxied by education at the individual level and by national IQ at the country level; and material wealth, proxied by family income and (log-transformed) per capita GDP, respectively. Attitudes to “induced” forms of death, in the form of euthanasia and suicide, were hypothesized to depend to a large extent on cognitive development because they involve rational decision making while overcoming innate inhibitions on killing.

The high correlations among the six *Morality items* (Tables 1 and 4) indicate that when looking for causal influences, we should look for effects acting at a very general level: not ways in which intelligence affects approval of euthanasia or

suicide specifically, but ways in which intelligence influences a whole set of moral judgements more generally. The presence of the same high correlations at both the individual and the country level suggests that in this domain, causal influences mainly work at the level of individual psychology rather than the level of entire societies. Country-level differences can be regarded as individual-level differences in the aggregate, although cultural amplification of country-level differences by social learning has to be expected as well.

The results of the individual-level analysis were ambiguous. For euthanasia approval, somewhat higher correlations with education than income suggested that cognition is more important; and for suicide approval, the two predictors seemed about equally important. The country-level analysis provided more clear-cut results: IQ (a bit) more important than GDP for euthanasia approval, and both about equally important for suicide approval. The results indicate that in the moral domain, both intelligence and wealth promote “liberal” attitudes although with different relative strength for different moral values. They also urge caution when interpreting results. Intelligence and per capita GDP are so highly correlated that their causal effects can easily be confounded. For example, (low) intelligence has been described as a correlate and potential causal factor for homosexuality non-acceptance (Souza & Cribari-Neto, 2015). Given the observation that log-transformed GDP is a far better predictor than IQ for this outcome at the country level (Table 6), it is well possible that it is actually GDP and not IQ that is related to this outcome.

With intelligence and wealth both hypothesized as ultimate causes, we must ask about the mechanisms through which they influence the outcomes. Several hypothesized mediators were examined in the country-level analysis, with clear-cut results. For both outcomes, the effects of *GDP* disappeared or were greatly attenuated when either *Freedom* or *Globalization* was included as a third predictor. Although technically, *Freedom* and *Globalization* ‘mediate the effect of *GDP*’, this should not be interpreted literally, as a causal relationship. It should rather be interpreted as meaning that material wealth (proxied as *GDP*) propels societies in a direction in which institutions and political habits become democratic, and an open, internationalist mindset develops that welcomes contact with foreign societies, co-operative political relationships with them, and economic and cultural exchange with them. Material wealth releases people from the constraints that limit poorer people’s choices of how to live their lives. This widening of options fosters a high value placed on freedom of choice, which manifests as consumerism in the economic domain and as democracy in politics. This liberal, freedom-loving mindset, for which *Freedom* and *Globalization* are only proxy measures or indicators, is what “mediates” the effects of income or

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per-capita GDP on moral values.

Religion plays a similar role as a “mediator” of the IQ effect. Although intelligence is a rather weak negative predictor of religious belief at the individual level (Zuckerman, Silberman & Hall, 2013), it is a very strong negative predictor of IQ at the country level (Lynn, Harvey & Nyborg, 2009; Meisenberg, 2011). The theoretical explanations for this relationship are a matter of current debate (e.g., Dutton & van der Linden, 2017). Far from concluding that intelligence is unimportant for approval of euthanasia and suicide because religiosity is the real cause, the proper explanation for our results is that intelligence undermines a supernaturally sanctioned value system that prohibits actions with real, potential or symbolic damaging effects. Traditional moral value systems evolved over centuries under conditions of low intelligence, before the Flynn effect (Flynn, 1987, Pietschnig & Voracek, 2015) raised intelligence in lockstep with economic development, and so did the traditional religions that support these value systems. Under these low-IQ conditions, moral values had to take the simple form of injunctions on specific behaviors, such as *Thou shalt not kill*, which embodied the equally simple behavioral inhibitions that had evolved in our species as genetic predispositions.

When the Flynn effect raised people's intelligence and rational, analytical thinking became more prevalent, most likely in large part through the introduction and later massive expansion of a public school system (Schofer & Meyer, 2005), this traditional system of moral injunctions became destabilized in two ways. First, intelligence and rationality fostered a consequentialist over a deontological approach to moral issues. People increasingly inquired into the acceptability of prohibited behaviors on a case-by-case basis based on predicted consequences, rather than applying one-size-fits-all prohibitions. Perhaps, there are situations where euthanasia or suicide is the right thing to do, and other situations where it is not such a good idea. Secondly, higher intelligence undermined belief in the supernatural in its traditional, dogmatic forms, thereby weakening religious support for traditional morality.

There are differences between moral injunctions in the degree to which they are related to intelligence versus wealth. Table 6 shows that acceptance of homosexuality and prostitution, and also of divorce, is favored mainly by wealth rather than intelligence, while acceptance of the less lustful actions of euthanasia and abortion is favored equally by both. Suicide acceptance is in between. One interpretation is that for acceptance of homosexuality and prostitution, the desire for freedom is of primary importance, while cultural or innate inhibitions on these behaviors are not extremely strong. For euthanasia, and also for suicide and abortion, the strength of the inhibitory controls — *Thou shalt not kill* — is more

prominent in people's minds than the importance of being free to "do one's own thing". As the cultural reinforcements of these inhibitions get partially disabled by higher intelligence, these behaviors become more acceptable.

Lastly, the present study is concerned only with verbally expressed judgments, not actual behavior. Whether increased acceptability leads to changed behavior is a question that can only be examined in studies that look at the actual outcomes. There seem to be no reliable data about the frequency with which euthanasia is practiced in different countries, especially in less developed countries, so it is uncertain whether attitudes translate into behavior. In the case of suicide, there is a positive relationship with intelligence, but also with many other development indicators. According to one estimate, a 5-point increase of national IQ raises the suicide rate by about 50% (Voracek, 2006).

Conclusion

Based on our results we propose that both higher intelligence and greater material wealth can undermine traditional moral injunctions and lead to more "liberal" attitudes. However, they do so by different mechanisms. Greater material wealth provides people with more options to live their lives. It therefore leads to greater value placed on freedom to "do one's own thing". Therefore moral restraints that limit people's freedom of pursuing their desires and choosing their lifestyles are increasingly resented by individuals and entire nations as they get richer. Higher intelligence, by contrast, does not raise the desire for personal freedom. It rather weakens inhibitory controls on behaviors that are considered undesirable in most situations — killing, for example — by undermining their traditional religious support, and by making people look at situations in a more differentiated way.

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