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## Public Attitudes towards Homosexuality and Gay Rights across Time and Countries

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### Introduction

Available evidence indicates that the position of gays and lesbians in societies and the legal status of homosexuality have undergone notable changes in recent decades. In some countries, attitudes have become much more supportive of gay and lesbians rights and more accepting of homosexual behavior. For example, in Great Britain the percent saying that sexual relations between two adults of the same gender was “always wrong” fell from 64% in 1987 to 22% in 2012 (Park & Rhead 2013) and in the United States approval of gay marriage climbed from 11% in 1988 to 48% in 2012 (Smith & Son 2013).<sup>1</sup> Collective behaviors have also changes. For example, the first gay-pride parades were held in the United States in June, 1970. These have expanded into mass, annual events that attract over a million attendees in a number of countries (Encarnacion 2011; Johnston 2005, 2007). The legal status and rights of gays and lesbians have also expanded. For example, in 2000, the Netherlands became the first country to recognize gay marriage and by 2013, 15 countries plus sections of two other countries had done so (Itaborahy & Zhu 2013, Masci, Sciupac & Lipka 2013).

This research examines changes in public acceptance of homosexuality and gay rights across time and countries. It considers 1) what the trends have been and how changes vary across countries, 2) cross-national differences in support of homosexuality and gay rights and what country-level factors explain the cross-national variation, 3) demographic correlates of support for homosexuality/gay rights, 4) the connection of cohort differences to trends, and 5) the combined role of individual and country-level variables on shaping attitudes towards homosexuality and gay rights.

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<sup>1</sup>On trends in the US also see Brewer (2003 & 2008), Loftus (2001), and Smith (2011)

## Data

2,000 data points<sup>2</sup> from cross-national surveys were identified, collected, and analyzed in this report. Global surveys included the International Social Survey Program (ISSP), Ipsos, Pew Global Attitudes Surveys (Pew), and the World Values Survey (WVS). Regional surveys include the LatinoBarometer (LB), Eurobarometer (EB), European Social Survey (ESS), European Values Survey (EVS), and a Euro-centric subset of the Gallup World Poll (GWP).

The measures cover a wide range of items: 1) accepting gay rights/equality regarding marriage, cohabitation, adoption, inheritance, and parenting, 2) approval of same-gender sexual behavior and the morality of “homosexual acts;” 3) general acceptability of homosexuality/gays and whether society should accept, 4) personal acceptance/liking of gays (e.g., as neighbors; rating as least liked group), 5) acceptance of gays in the “highest elected political position” in one’s country, 6) the prevalence of discrimination against gays in the workplace, outside of work, and in general, 7) having gay friends, and 8) beliefs about whether homosexuality is inherited/genetically based.

The question wordings and full data for all countries, time points, and measures are presented in Smith, Son & Kim (2014). The questions use a variety of terms to refer to people with a same-gender sexual orientation: homosexuals, variants of “gays and lesbians,” and variants of “gays, lesbians, and bisexual.”

## Trends

Available research on the experience of a broad global trend towards greater acceptance of gay rights and homosexuality is limited. In terms of global trends, Inglehart & Welzel (2005) looking at the World Values Survey (WVS) found that judgments that homosexuality was “never justified” declined in 42 of 51 countries<sup>3</sup> and using the International Social Survey Program (ISSP) Smith (2011) noted that “The global trend is towards greater approval of homosexual behavior with 87% of countries moving in that direction and with the gains in approval also being larger than the declines.” Regionally, similar changes have been observed in Europe. The European Social Survey (ESS) found gains between 2004–05 and 2010–11 in 17 of 21 countries (ESS 2013).<sup>4</sup>

This research expands on these existing studies by including more cross-national studies, adding more measures, and updating the time series previously utilized. Table 1 lists 14 trends including four measures from intercontinental studies, ISSP, WVS, and Pew, each covering 31–52 countries and 10 measures from five regional studies, the Latinobarometer

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<sup>2</sup>A question asked in a survey in a country is a data point.

<sup>3</sup>Other WVS studies showing similar trends are Anderson and Fetner (2008a & 2008b).

<sup>4</sup>Other ESS studies with similar results are Hooghe & Meeusen (2013) and Takacs & Szalma (2011).

(LB), EB, ESS, EVS, and Gallup World Poll (GWP)<sup>5</sup> which cover between 10–30 countries.<sup>6</sup>

As Table 1 shows, all four intercontinental studies indicate a general shift towards greater acceptance in a majority of countries. But the size of the majorities and the annual rates of change differ notably. The ISSP find 90% of countries becoming more accepting of same-gender sex and the average change per annum across countries was +0.86 percentage points. The WVS measure of not objecting to gay neighbors increased in 82% of countries and averaged +0.73 points per annum. The WVS also found that saying homosexuality was always justifiable rose in about 67% of countries and averaged +0.31 per annum. Showing the smallest shift (in part because it covered the shortest period), Pew indicates greater support for society accepting homosexuality in 55% of countries with an average of +0.15 points per annum.

Regionally, the pattern is even more mixed. LB finds 67% of Latin American countries being more likely to say that homosexuality is always justified with an average of +0.8 point per annum. These figures are very similar to the equivalent item asked on the WVS. The other regional trends are all from Europe. The ESS for 2002–10 shows 67% of countries increasingly agreeing that gays should be free to live their own lives and the average change was +0.45 points per annum. EVS shows increases in accepting gay neighbors in 91% of countries with an average per annum increase of +0.93 points and that those saying homosexuality was always justified rose in 74% of countries by 0.41 points per annum. GWP however finds that there was more acceptance of the morality of homosexual acts in only 40% of the countries with an average change of -0.76 points per annum. However, it only covered 10 countries with 7 being ex-Socialist states (i.e., former communist/Eastern bloc nations) in the Balkans and the time trends were all based on just two-year intervals so the generalizability of its results is limited.

EB has a mixed and even contradictory pattern about views on homosexuality and gay rights. An EB measure about being comfortable with a gay holding “the highest elected political position” in their country grew in only 18% of the countries with an average increase of +1.38 points per annum.

The remaining trends from the EB deal with perceptions and observations about discrimination against gays. The broadest measure asks about the overall level of anti-gay discrimination against and it shows gains in those saying it is not widespread in 61% of countries for an average of +0.65 points per annum. A second measure asking about gay job candidates found that in 54% of countries more people believed that a gay applicant is not disadvantaged, but the negative shifts are larger than the slightly more common positive changes so the average change is -0.26 points per annum.

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<sup>5</sup>The GWP is a global survey, but except for a single data point from India all of the information on this measure is from Europe.

<sup>6</sup>There are 15 trends if both the ESS 2002–10 and 2002–12 series are counted. The 2002–12 series is incomplete because all countries have not yet reported. Once they have, the 2002–12 trend will replace the 2002–10 trend.

Table 1: Summary of Attitude Trends towards Homosexuality and Gay Rights

Source	Measure	Years	Countries Asked In	Number of Surveys	% of Trends More Tolerant/Approving	Mean Change per annum
A. Intercontinental						
WVS	% Homosexuality Always Justified	1981–2008	52	173	67.3	+0.31
WVS	% Not Objecting of Gay Neighbors	1990–2008	48	60	82.3	+0.73
ISSP	% Homosexuality Not Wrong	1991–2008	31	95	90.3	+0.86
Pew	% Society Should Accept Homosexuality	2002–2013	31	101	54.8	+0.15
B. Regional						
LB	% Homosexuality Always Justified	2002–2009	18	71	66.7	+0.38
EVS	% Homosexuality Always Justified	1981–2009	34	120	73.5	+0.41
EVS	% Not Objecting to Gay Neighbors	1990–2009	33	107	90.9	+0.93
ESS	% Agree Gays should be Free Live Own Lives	2002–2010	30	123	66.7	+0.45
ESS	% Agree Gays should be Free Live Own Lives	2002–2012	30	23	66.7	+0.39 <sup>a</sup>
GWP	% Homosexual Acts Morally Acceptable	2006–2012	10	28	40.0	-0.76
EB	% Having Gay Friends	2006–2012	28	114	89.3	+1.38
EB	% Anti-Gay Discrimination Not Widespread	2006–2012	28	112	60.7	+0.65
EB	% Gays Job Candidate Not Disadvantaged	2006–2012	28	84	53.6	-0.26
EB	% Saw Gay Discrimination in Last 12 Months	2008–2012	28	56	14.3	-0.82
EB	% Comfortable (8–10) with Gay Political Leader	2008–2012	28	86	17.9	-1.59

<sup>a</sup>Preliminary, not all 2012 ESS countries have reported figures so far.

EB=Eurobarometer; LB=Latinobarometer; ESS=European Social Survey; Pew=Pew Research Center, Global Attitudes Survey  
GWP=Gallup World Poll; WVS=World Values Survey; ISSP=International Social Survey Program

The final discrimination measure asks if people had observed someone being discriminated against or harassed for being gay during the last 12 months. It recorded less discrimination/harassment in only 14% of countries for an average change of -0.82 points per annum. In sum, the very mixed pattern on discrimination shows a drop in the perceived level of anti-gay discrimination, an even greater rise in the recent observations of anti-gay discrimination/harassment, and intermediate or split trends on changes in the level of disadvantage for gay job applicants.

The discrimination items have a low association with items measuring personal attitudes towards homosexuality and gay rights. Moreover, countries rating discrimination as greater tend to express more acceptance/approval than countries reporting less discrimination. Those in high acceptance countries may 1) be more likely to notice mistreatment, 2) have more organized gay rights groups that publicize mistreatment, 3) have more general media coverage of gay rights and of anti-gay actions, 4) have more gays “out of the closet” and thus mistreatment may be more noticeable, and 5) be more likely to deem various actions as mistreatment than those in low acceptance countries who may think of the same actions as appropriate rather than discriminatory. Likewise, the rising level on the two job-related measures (but not the overall measure) may reflect greater sensitivity to and awareness of such mistreatment rather than rising discrimination.

A notable portion of the intercontinental and regional variation in trends comes from the distinctive trends shown by ex-Socialist states.<sup>7</sup> While on average showing change in the same direction as the rest of the world or region, ex-Socialist states consistently had weaker trends. On the ISSP item on whether homosexual behavior was not wrong at all, ex-Communist states had an average per annum gain of +0.42 points vs. +0.86 points for the global average. Likewise, for the WVS item on not objecting to neighbors, the ex-Communist and global per annum averages were respectively +0.48 and +0.73 points and for homosexuality being always justifiable respectively +0.23 points and +0.31 points. Regionally, the pattern was similar. The ESS item on allowing gays to live their own lives had an average per annum change of +0.14 points for ex-Communist states and +0.45 points for all of Europe. Similarly, the EB item on having gay friends/ acquaintances rose by +0.60 points per annum among the ex-Communist states and by +1.38 points per annum for the whole of Europe. Furthermore, focusing on the contrarian anti-homosexual trends in intercontinental studies shows that 54% were from Communist or ex-Communist states. In Europe 43% of the negative shifts were in ex-Communist states.

A notable limitation of the available cross-national trend data is that there is no reliable, over time trends on gay marriage and other gay rights issues such as gay adoptions or equal inheritance rights. The ISSP did ask a question on gay marriage in 8 countries in 1988 and the EB covered 13 European countries in 1993, but neither has repeated the same

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<sup>7</sup>Successor states to the USSR and former communist states of Eastern Europe Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, Hungary, Kosovo, Macedonia, Montenegro, Poland, Romania, Serbia, Slovakia, and Slovenia.

question since. A qualitative comparison of these early readings and topically similar, but not matching, questions on gay marriage do suggest a shift towards supporting gay marriage. For example, in 1993, people in 13 European countries were asked if homosexual couples should have the right to marry each other. In 2006, they were asked if they agreed that homosexual marriages should be allowed throughout Europe. If the latter can be considered a more demanding question to respond favorably to, the average increase of 17.6 points across countries from 1993 to 2006 would be an underestimate of the full increase in support for gay marriage (Smith, Son & Kim 2014). Likewise, the trend in the US using the 1988 ISSP item shows a notable pro-gay marriage shift with approval of gay marriage climbing from 11% in 1988 to 48% in 2012 (Smith & Son 2013). However, replication of the ISSP and/or EB baseline items across countries is needed to establish reliable, cross-national trends on gay rights.

Overall, the intercontinental studies show a consistent shift towards greater acceptance of homosexuality and gay rights, but the magnitude of the shifts and how widespread they are varies considerably across measures. Regionally, the matter is even more complex. Latin America shows a general, but far from universal, rise in acceptance of homosexuality. In Europe the pattern is quite mixed. Feeling comfortable about gay political leaders has declined and the limited Balkan-centric GWP study shows drops in finding homosexual acts morally approved. But people report more gay friends and more agreement that gays should be free to live their own lives. On perceptions and observations of anti-gay discrimination, the measures show opposite and somewhat contradictory trends.

## Cross-National Differences

There are enormous cross-national differences in public attitudes towards homosexuality and gay rights. Using the latest readings from intercontinental and regional studies show large ranges:

Study/Measure	Highest		Lowest	
<b>Intercontinental:</b>				
<b>WVS(2005–2008)</b>				
Homosexuality always justifiable	Andorra	60.0%	Georgia	0.1%
Not object to gay neighbors	Sweden	96.4%	Jordan	4.9%
<b>ISSP(2008)</b>				
Same-gender sex not wrong at all	Netherlands	69.6%	Turkey	2.1%
<b>Pew (2013)</b>				
Society should accept homosexuality	Spain	88.0%	Nigeria	1.0%
<b>Ipsos (2013)</b>				
For gay marriage	Sweden	81%	Poland	21%
<b>Regional:</b>				
<b>LB(2009/2010)</b>				
Homosexuality always justifiable	Uruguay	33.6%	Ecuador	1.6%
Supports Gay Marriage	Uruguay	57.3%	Guatemala	12.0%
<b>EB (2006/2012)</b>				
Has gay friends/acquaintances	Netherlands	78.9%	Romania	2.1%
Comfortable with gay govt. leader	Denmark	80.8%	Slovakia	6.8%
For gay marriage in Europe (2006)	Netherlands	81.5%	Romania	10.7%
For gay adoption in Europe (2006)	Netherlands	68.7%	Malta	6.8%
<b>ESS (2010)</b>				
Gays free to live own lives	Netherlands	92.6%	Russia	25.4%
<b>EVS (2008/2010)</b>				
Homosexuality always justifiable	Iceland	60.5%	Armenia	0.1%
Not object to gay neighbors	Iceland	86.6%	Azerbaijan	8.8%

There are comparisons across countries on 37 measures; 14 globally, 23 regionally (2 in Latin America and 21 in Europe). Since some of these items were repeated at different time points, there is a total of 75 cross-national comparisons (26 globally; 44 in Europe, and 5 in Latin America). The general geographic dispersion of attitudes toward homosexuality shows that support is highest in the developed world in general and in northwestern Europe in particular. Taking the four intercontinental series and classifying ranks as top, middle, and bottom thirds shows that northwestern European countries are in the top 89% of the time

and in the middle the remaining 11%. They are followed by the Euro-Anglo former colonies (Australia, Canada, New Zealand, and the United States) which are in the top 75% of the time and in the middle 25%. Next, Southern European countries are in the top 50% of the time and in the middle 50%. Then, Latin American countries are in the top 32.1% of the time, in the middle 50.0%, and in the bottom 17.9%. Two groups then essentially tie for 5-6th position. Ex-Communist states (all European except for Georgia) are in the top rank 10.7% of the time, in the middle 46.4%, and in the bottom 42.9%. Asian countries are in the top 4.3% of the time, in the middle 56.5%, and in the bottom 39.1%. Next, there are African countries, which are in the middle 20% of the time and in the bottom 80%. Finally, there are Moslem countries which are in the middle 12.0% of the time and in the bottom 88%.

Regionally, Table 2 synthesizes the rankings of European countries across eight studies. Because all countries did not appear in all studies, the rank comparisons are only approximate and reflect the average for each country for those studies in which it appeared. Countries appeared in from 4 to 8 studies. The top positions are dominated by nations from northwest Europe, especially the Low and Scandinavian countries (with the exception of Finland which falls in the middle rather than in the top). Spain is the one southern European country that appears in the top third. The middle third consists of other northwest European countries, several southern European countries, and three ex-Communist states (the Czech Republic, Slovenia, and Estonia). The bottom third contains most of the ex-Communist states and Greece. Similar to the results of the intercontinental geopolitical/cultural series presented above, 76.9% of northwest European countries are in the top third with 23.1% in the middle. For Southern European countries, 16.7% were in the top third, 66.7% in the middle and 16.7% in the bottom. For ex-Communists states 23.1% were in the middle third and 76.9% in the bottom.<sup>8</sup>

While these ad hoc geopolitical and geocultural categories explain much of the cross-national variation and make substantial intuitive sense, ones needs to explore what characteristics of countries explain the cross-national variation that yields this clustering of results.

A number of studies have examined the society-level attributes. Using the ESS Hooghe & Meeusen (2013) found that agreeing that gays should be allowed to live their own lives was higher in countries with higher per capita income, longer histories of democratic stability, and from certain religious traditions than others. Takacs & Szalma (2011) examined a number of country-level variables, but included only satisfaction with democracy and having legislation recognizing same-gender partnerships in their multivariate models and both were related to more acceptance of homosexuality. Van den Akker, van der Ploeg & Scheepers (2012) found that pro-gay legislation (i.e. gay marriage or adoptions, anti-discrimination laws, and the decriminalization of homosexuality) and the aggregate level of religiousness were related to

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<sup>8</sup>Similar results appear for other series in Smith, Son & Kim (2014) such as for Ipsos, the older ISSP and EB data on gay marriage, the older EB data on adoption, cohabitation, and inheritances, and the older EB item on the genetic or non-genetic origin of homosexuality.



Table 2: Mean Rank Position of European Countries<sup>a</sup>

Country	Rank	Mean Rank Percentage	Country	Rank	Mean Rank Percentage
The Netherlands	1	97.8	Czech Republic	17	44.6
Sweden	2	94.4	Portugal	18	42.3
Denmark	3	93.1	Malta	19	41.7
Norway	4	91.1	Cyprus	20	34.0
Switzerland	5	86.0	Estonia	21	32.5
Belgium	6	84.2	Poland	22	29.0
Luxembourg	7	83.6	Bulgaria	23	26.3
Spain	8	80.2	Greece	24	24.5
Great Britain	9	74.7	Slovakia	25	24.2
France	10	74.2	Hungary	26	24.0
Germany	11	73.4	Russia	27	22.0
Ireland	12	67.5	Lithuania	28	21.8
Austria	13	64.8	Croatia	29	20.0
Finland	14	63.7	Ukraine	30	17.2
Italy	15	52.7	Romania	31	13.9
Slovenia	16	51.2	Latvia	32	12.5

<sup>a</sup>A country's rank was converted to a percentage so that the topped ranked country in a particular list had a score of 100% and the bottom ranked country a score of 0%. Intermediate countries were given the percentage corresponding to their rank. The mean rank scores were calculated across eight measures: 1) ESS – Live life (2010), 2) EB – gay friends (2012), 3) EB – gay marriage (2006), 4) EB – adoptions (2006), 5) EB – gay elected official (2012), 6) ISSP – same-gender sex (2008), 7) WVS – homosexuality justified (2004–08), and 8) WVS – not objecting to gay neighbor (2004–08). Countries were included if they were ranked on at least four measures.

approval of homosexuality, but that dominate religion of country and aggregate education level were not (perhaps because both variables were significant individual-level predictors in their models).

Andersen & Fetner (2008*b*), using the WVS item on how justifiable homosexuality is, also found greater support among wealthier countries and those from certain religious traditions than others and found greater support in countries with less income inequality and that were not ex-Communist states. Adamczyk & Pitt (2009) used the same WVS item and indicated more approval of homosexuality in countries that were not Moslem or Orthodox and statistically borderline relationships among countries that had enacted pro-gay legislation and were higher on post-materialist values. Likewise, Inglehart & Welzel (2005) showed the greatest approval on this measure for postindustrial democracies, intermediate approval for ex-Communist states and developing countries, and the least approval for low-income societies. They also find very low rates in Islamic countries. Stulhofer & Sandfort (2005) studied Europe using both the WVS justified and neighbors questions. They found more support for gay neighbors in non-Orthodox countries and in countries that had greater per capita income, more urbanization, and lower immigrant populations. Higher justified scores were shown in countries that were more urbanized and with greater per capita income (with no association for traditional religion or size of immigrant population).

Building on this research, a multivariate, country-level analysis of the predictors of the publics views on homosexuality and gay rights was carried out. The following variables were utilized. Geopolitically, Europe was divided into groups, ex-Communist states (the 21 European countries that were formerly communist) and the rest of European countries as non-Communist. Additionally, in the intercontinental datasets a third category, non-European, was added. Religiously, countries were classified by their predominate religion. This was based on a) their traditional religious orientation and b) the current majority of religious adherents based on CIA (2013), Verbakel & Jaspers (2010), the World Christian Database (2013), and the World Religion Database (2013). Two measures of level of development were examined. The Human Development Index combined measures of life expectancy, mean years of education, expected years of education, and gross national income per capita into a composite measure of level of development (United Nations 2012). Also, as an alternative measure of level of development, the gross-national product per capita variable was included. It is from the International Monetary Fund (2013). Finally, a variable on recognizing gay marriage was created from the International Lesbian, Gay, Bisexual, Trans, and Intersex Association report (Itaborahy & Zhu 2013).

Initial bivariate and multivariate country-level analysis indicated that the geopolitical, religion, level of development, and legal status variables all significantly related to acceptance of homosexuality and gay rights. It was of course not possible to include both HDI and GNP measures in the same multivariate model since HDI included as one of its three components a very similar income measure and across datasets these two indicators correlated at  $r=0.84$ . Since GNP produced on average slightly higher correlations and r-squares in multivariate test models, it was retained in the final models. Its results did however differ very little from

the models using HDI. The legal status variable was also dropped since it was difficult to accept it as clearly an independent predictor. It has been argued that gaining legal status can promote favorable attitudes and it is plausible that the legal establishment of gay rights such as same-gender marriage could help to cement and institutionalize public acceptance of homosexuality and gay rights. But it is at least equally likely that favorable attitudes lead to the legal recognition of gay rights (Kreitzer, Hamilton & Tolbert N.d.). While causality is uncertain, bivariate analysis did establish a very high association between the legal recognition of gay marriage and cohabitation and general acceptance of homosexuality and gay rights with the average country-level correlations across datasets being  $r = .718$ .

Table 3 presents the final country-level multivariate models for the four intercontinental and three regional (European) measures. In all of the intercontinental and regional models, level of development was always a strong and statistically significant predictor. Geopolitical divisions also notably affected peoples views. Being non-European compared to the reference category of non-Communist European countries was significantly related to more acceptance at least at the 0.1 level in two of four models. The two non-significant relationships were in the same direction as the others. Being an ex-Communist European state was significantly related to acceptance at least at the 0.1 level in five of seven models.

Religion showed more mixed results. Being a Roman Catholic country did not differ in six of seven models from the reference category (i.e. Protestant countries). The only significant result was from the Pew study and showed that Roman Catholic countries were more supportive than the reference category of Protestant and joint Protestant/Catholic countries. This probably results from Pew failing to include any of the highly accepting Protestant countries in the Low or Scandinavian countries in their sample. Eastern Orthodox countries were less supportive of homosexuality and gay rights in two of seven models. In the intercontinental models countries with other religions were less accepting in three of four models at least at the .05 level. Moslem countries were less supportive in two of three models at least at the .05 level.<sup>9</sup>

The multivariate models generally found that ex-Communist states had less favorable attitudes towards gay rights and homosexuality than many other European societies do. This was further supported by the low rankings shown by Ex-Communist states on the composite European rankings shown in Table 2. Of the 21 ex-Communist states (or 22 if East Germany is included), there is information on their rank position for 13 of them (among the 32 European countries with rankings). The highest ranked ex-Communist country, Slovenia, was in 16th place and the bottom eight were all ex-Communist states. Of these five are predominately and traditionally Eastern Orthodox, six Roman Catholic, and two Protestant or mixed Christian.

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<sup>9</sup>There was no Moslem variable for the ISSP because only one Moslem country, Turkey, was covered. It was placed in the other religion group for the ISSP model. The ISSP measure on whether same-gender sex was not wrong at all found 28.7% as the global average and 2.1% in the one Moslem country, Turkey. This further supports the conclusion that acceptance is lower in Moslem countries.

Table 3: Country-Level, Multivariate Analysis of Attitudes towards Homosexuality and Gay Rights  
(coefficients/probability level)

A. Intercontinental				
	ISSP Same-Gender Sex Not Wrong at All	Pew Homosexuality Should Accepted by Society	WVS Homosexuality Always Justifiable	WVS Not Object to Homosexual Neighbors
GNP per capita	+ .489/.002	+ .558/.000	+ .359/.004	+ .335/.007
Ex-Communist	-.312/.014	-.183/.080	NS	NS
Not Europe	-.281/.070	NS	-.434/.003	NS
Religion (Base=Protestant)				
Roman Catholic	NS	+ .473/.000	NS	NS
Orthodox	NS	NS	-.397/.011	-.324/.044
Moslem	–	-.253/.010	NS	-.397/.001
Other Religion	-.355/.004	NS	-.297/.011	-.251/.024
$R^2$	.735	.861	.631	.626
$N$	35	30	51	51
Europe				
	ESS, 2010 Gays Allowed to Live Own Life	EB, 2012 Accept Gay Political Leader	EB, 2012 Have Gay Friend/ Acquaintance	
GNP per capita	+ .558/.003	+ .472/.025	+ .394/.021	
Ex-Communist	-.396/.013	-.326/.097	-.480/.004	
Religion (Base=Protestant)				
Roman Catholic	NS	NS	NS	
Orthodox	NS	NS	NS	
$R^2$	.832	.437	.631	
$N$	25	28	28	

NS=not statistically significant

Ex-Communist Orthodox countries have an average rank position of 18.3% vs. 29.2% for non-Communist Orthodox countries, ex-Communist Roman Catholic countries have an average rank position of 31.8% while non-Communist Roman Catholic countries averaged 65.7%, and ex-Communist Protestant/Christian countries (only two countries) have an average rank position of 28.2% while non-Communist Protestant/Christian countries averaged 84.3%. This analysis indicates that Eastern Orthodox countries are less approving than either Roman Catholic, Protestant, or mixed Christian countries and that controlling for predominant religion, ex-Communist countries are less approving than other European countries are.

It is however unknown whether the low rankings of ex-Communist states are due to their communist background, to their disruptive transition from communism, or to other factors not closely related to communism such as their lower level of development, their pre-communist religious traditions, or to other factors such the vilification of gays as a scapegoat or as a target to fuel nationalistic sentiments (Baer 2005, Kon 2005, Stulhofer & Sandfort 2005). National case studies of contemporary and historical views and behaviors towards gays and homosexuality are needed to help sort this out.

## Demographic Correlates

Key demographic correlates of attitudes concerning homosexuality and gay rights were examined on select international and regional measures. As Table 4 illustrates with results from the ISSP (2008) and ESS (2010), positive attitudes towards homosexuality and gay rights are generally greater among younger adults, the better educated, those attending religious services less frequently, and women. Compared to those 65+, adults under 30 are more likely to say same-gender sex is not wrong at all in 98% of countries with the average generation gap of 23.4 points (% among those under 30 - % among those 65+). Likewise, in Europe, younger adults are more likely than older adults to say gays should be allowed to live their own lives in 100% of the countries and the generational difference is +20.1 points. Compared to those with incomplete or lower-level secondary education, the college-educated are more accepting of same-gender sex in 87% of countries with an average difference across educational levels of +14.0 points. Similarly, in Europe the college-educated are more likely than the less educated to accept gays in 100% of countries with an average educational difference of +16.3 points. Among those attending religious service at least weekly vs. less than annually, approval of same-gender sex is greater in 93% of countries and averages +23.3 points and in Europe acceptance of gays living their own lives is greater among the low attenders in 96% of countries with an average difference of +23.5 points. Women are more likely than men to approve of same-gender sex in 78% of countries with a modest average difference of +5.4 points and in Europe women are more likely to accept gays in 89% of countries with an average difference of +4.6 points. There is a great deal of consistency across countries on the direction of how age, education, attending religious services, and, to a somewhat lesser extent, gender relate to attitudes towards homosexuality and gay rights, but there are large

Table 4: Socio-Demographic Correlates of Attitudes towards Homosexuality and Gay Rights

Socio-Demographics	ISSP 2008 % Same-Gender Sex Not Wrong at All	ESS 2010 % Agree Gays Free to Live As They Wish
<b>Age (Under 30 to 65+)</b>		
Countries in which Young>Old	97.8% (46)	100% (27)
Mean Difference (> 30 – 65+)	+23.4 points	+20.1 points
<b>Attending Religious Services (Weekly+ to Less than Annual)</b>		
Countries in which Less Than Annual>Weekly+	93.2% (44)	96.3% (27)
Mean Difference (LT Annual–Weekly+)	+23.3 points	+23.5 points
<b>Education (Less than High School to College)</b>		
Countries in which College>Less than high School	86.7% (45)	100% (27)
Mean Difference (College–LT HS)	+14.0 points	+16.3 points
<b>Gender (Women and Men)</b>		
Countries in which Women>Men	77.8% (45)	88.9% (27)
Mean Difference (Women–Men)	+5.4 points	+4.6 points

differences in the strength of the associations across countries. This applies for both the intercontinental and European studies.

While Kenya is the only country to show a negative age relationship on approval of same-gender sex (-6.5 points), the positive age differences are quite small (+0.2 to +4.2 points) in countries with very low overall approval levels. Regarding gays being free to live their own lives, generation gaps in Europe run from +1.9 points in Israel to +40.2 points in Greece. Most countries with small generation gaps are countries with very high overall approval where ceiling effects for the most recent cohort limit differences (e.g. Belgium, Denmark, the Netherlands, Sweden, and Switzerland). For Israel there is very little variation across any of the age groups and approval of gays being free to live their own lives is slightly higher among the middle-aged than among the younger or older. However, Israeli age differences of same-gender sex do not show a similar pattern and are very close to the cross-national average.

Overwhelmingly, negative and small positive (less than 6 points) educational differences come from countries with very low overall approval of same-gender sex. Thus higher education makes little differences in societies still highly against homosexuality. It does make a

substantial difference in countries more open to acceptance. Within Europe on agreeing that gays should be free to live their own lives, there is little clear pattern explaining educational differences, but some countries (Belgium, Denmark, Great Britain, and the Netherlands) have compressed differences due to ceiling effects.

On attending religious services, the differences are either negative or just weakly positive (+0.0 to +8.7 points) in countries with low overall acceptance of same-gender sex. In Europe Bulgaria is the only country to show a negative association and the largest differences appear among several countries with high overall acceptance (Belgium +29.1; Finland +35.8 points; the Netherlands +29.6 points; Norway +46.5 points; Switzerland +31.9 points) and Greece (+30.0 points).

Men and women differ only moderately on approving of same-gender sex. In countries with low overall acceptance the gender differences are almost always very small and as likely to be negative as positive. Larger than average differences (+12.0 points or more) generally occur in countries with the highest overall levels of acceptance (Belgium, Denmark, Finland, West Germany, the Netherlands, Norway, and Sweden). In three European countries (the Netherlands, Russia, and Ukraine) men are very slightly more supportive of gays being free to live their own lives (-0.1 to -0.5 points) and there was little difference across the countries in which women were more accepting (+0.8 to +9.3 points).

Overall, there is great consistency across countries in approval of homosexuality and gay rights being greater among younger adults, the better-educated, those attending religious services less often, and (to a somewhat lesser extent) women. However, the strength of these relationships varies notably across countries. Differences are often very small in countries with low levels of acceptance where little societal change of these attitudes has yet to occur and at the opposite end differences are sometimes reduced because of ceiling effects among the most approving groups in the most approving countries.

## Cohort

As seen in the previous section, younger adults are more accepting of homosexuality and gays rights in virtually all countries and the average generational gap between those under 30 and those 65+ is appreciable (+20.1 to +23.4 points). Age differences can result from two very different causes. First, there are aging effects which result from biological and physiological changes and related life-cycle changes. Second, there are cohort effects resulting from successive generations being raised at later points in time under differing societal and historical circumstances. Aging and cohort effects have profoundly different consequences regarding expectations of future and ongoing societal change. Aging effects generally neither create nor predict societal change. For example, the pattern of people in their early 20s tending to be in college and those in their 70s tending to be retired is an aging effect that repeats for each generation as it ages and does not change the overall labor-force composition. Cohort differences and the related experiences of cohort turnover is one of the strongest

engines of societal change. Older cohorts die out and their values, attitudes, etc. decline as they are replaced with the often different values/attitudes/etc. of younger cohorts. For example, support for racial equality and integration grew in the US from the 1950s onwards in large part due to the replacement of the more racist, pro-segregation older cohorts with younger generations more approving of pluralism and integration. While very different in their origin and impacts, aging and cohort effects are impossible or very hard to separate empirically. At a single point in time age and cohort are totally confounded (in a 2010 survey a person born in 1990 is both a 20 year old and a member of the 1990 cohort and those two designations are inseparable). Even with 2+ data points, distinguishing these two effects is difficult because then period effects emerge and age-period-cohort cannot be readily disentangled. However, one can track change within cohorts over time and see if the pattern that emerges is more consistent with age or cohort effects (Firebaugh 1997, Yang 2008, Yang & Land 2013).

Table 5: With-in Cohort Change

<b>ISSP 1991–2008 (% Same-gender Sex Not Wrong at All)</b>									
<b>Ages</b>									
	Germany, West		Germany, East		Great Britain		USA		
	1991	2008	1991	2008	1991	2008	1991	2008	
LT 35	44.1	57.0	40.0	67.4	30.1	56.8	17.1	43.6	
35–51	34.3	45.4	27.5	43.3	22.9	52.5	16.9	33.7	
52–68	18.3	33.2	18.2	36.5	7.5	31.9	7.4	25.4	
69–85	7.0	16.3	9.0	16.3	4.8	16.3	3.2	17.4	
	Hungary		The Netherlands		Italy		Ireland		
	1991	2008	1991	2008	1991	2008	1991	2008	
LT 35	7.8	22.4	69.1	77.6	14.7	35.3	19.7	49.0	
35–51	4.7	15.4	62.1	78.8	7.4	20.6	13.1	34.9	
52–68	4.9	14.4	40.1	70.1	3.3	19.2	5.7	21.1	
69–85	0.9	5.9	24.2	39.6	0.0	6.2	1.0	10.0	
	Norway		Austria		Slovenia		Poland <sup>10</sup>		
	1991	2008	1991	2008	1991	2008	1991	2008	
LT 35	37.4	66.9	24.1	48.9	12.2	31.9	16.7	25.5	
35–51	29.5	66.6	15.0	44.0	9.0	19.3	11.8	23.3	
52–68	11.8	46.0	8.0	32.1	8.2	14.8	4.8	15.5	
69–85	8.0	26.6	12.1	10.6	6.7	10.6	–	4.6	

<sup>10</sup>In 1991 no one in Poland over 65 years old was included in the sample.



Table 5: With-in Cohort Change (continued)

	Israel		The Philippines		New Zealand		Russia	
	1991	2008	1991	2008	1991	2008	1991	2008
LT 35	22.8	36.3	2.6	6.2	27.9	51.9	9.0	15.7
35–51	14.3	28.7	1.5	3.6	14.6	42.4	6.8	5.3
52–68	8.5	27.2	2.2	2.3	11.6	34.0	3.0	3.9
69–85	5.6	13.9	0.0	4.5	0.9	16.4	2.3	1.7

  

**ESS 2002–2012 (% Agreeing that Gays Should be Free to Live Their Own Lives)**

**Ages**

	Belgium		Switzerland		Czech Republic		Germany	
	2002	2012	2002	2012	2002	2012	2002	2012
LT 28	82.7	89.9	81.9	77.4	64.5	57.7	84.1	87.8
28–37	85.7	83.3	82.5	86.5	62.5	63.4	80.6	89.7
38–47	81.6	85.0	83.9	75.3	64.8	61.4	83.9	88.7
48–57	82.4	89.8	80.8	81.5	62.2	58.0	77.4	88.4
58–67	85.3	86.4	75.3	80.7	48.8	54.7	65.9	83.1
68–77	65.5	83.6	63.8	69.8	40.5	44.1	54.9	73.0
78+	52.7	71.1	48.0	53.3	32.8	32.1	44.7	61.9

  

	Denmark		Spain		Finland		Great Britain	
	2002	2012	2002	2012	2002	2012	2002	2012
LT 28	93.1	95.1	77.9	86.6	70.4	80.7	84.1	88.6
28–37	90.8	94.5	79.3	86.7	70.3	78.8	81.0	84.1
38–47	90.2	93.6	73.0	86.9	66.4	75.2	75.5	86.3
48–57	91.0	93.1	70.0	84.2	59.0	78.5	76.4	85.0
58–67	86.5	93.4	51.7	81.9	51.4	73.2	70.3	80.8
68–77	74.2	82.9	36.6	63.6	42.9	66.4	60.4	76.4
78+	73.2	73.0	37.2	55.6	35.3	55.2	73.1	71.9

  

	Ireland		Israel		The Netherlands		Norway	
	2002	2012	2002	2012	2002	2012	2002	2012
LT 28	85.8	88.2	65.0	56.8	88.9	90.9	83.0	90.3
28–37	87.0	90.7	66.2	65.0	87.0	93.6	80.7	84.0
38–47	84.9	87.8	62.7	65.7	87.0	93.4	78.3	85.3
48–57	81.8	87.3	65.3	66.8	90.6	94.3	77.8	88.5
58–67	73.6	81.6	58.1	70.2	86.5	94.9	71.7	82.8
68–77	59.4	68.0	48.6	60.4	86.3	91.2	59.0	71.9
78+	50.6	58.1	36.7	53.7	74.0	86.8	55.4	57.6

Table 5: With-in Cohort Change (continued)

	Poland		Portugal		Sweden		Slovenia	
	2002	2012	2002	2012	2002	2012	2002	2012
LT 28	52.5	53.6	76.6	87.3	82.2	89.1	59.6	63.7
28–37	50.2	57.5	72.7	75.0	83.7	89.3	57.1	66.7
38–47	39.7	58.7	78.6	78.3	79.1	90.6	47.8	56.0
48–57	39.5	48.2	63.9	72.7	78.9	89.4	48.3	48.8
58–67	24.6	51.2	58.3	62.0	83.1	90.2	42.9	56.9
68–77	25.4	40.0	57.8	48.8	77.8	80.7	31.4	29.5
78+	17.9	25.0	47.6	36.7	68.9	78.3	43.4	22.2

Within cohort changes were examined from 1991 to 2008 on the ISSP for 16 countries and from 2002 to 2012 on the ESS for 16 countries. There were 47 within cohort changes on the ISSP and 96 on the ESS. The within-cohort changes are represented by the diagonal change across years such as those under 35 in 1991 become 35-51 in 2008, those 35-51 in 1991 become 52-68 in 2008 and those 52-68 in 1991 are 69-85 in 2008. For example, in West Germany the youngest (under 35) cohort in 1991 becomes 35-51 in 2008 and the percent saying that same-gender sex is not wrong at all rose from 41.1% to 45.4% for a positive gain of +4.3 points. For the ISSP 85.1% of the within cohort changes showed positive shifts and for the ESS 65.6% had positive changes and 2.1% did not change for 67.7% steady or rising (Table 5). Thus, most changes did not evidence the declining support that would have been expected if aging was the driving force for the age differentials. For the ISSP only Russia had declines within each cohort and for the ESS only the Czech Republic shows within cohort decreases across the board.

Overall, it appears that the differences between the younger and older adults in most countries are probably due to cohort rather than aging. First, there is no compelling theoretical reason for why approval of homosexuality and gay rights would decrease with biological aging. Rather it more closely resembles the Mannheimian model of successive “political generations” being raised in different times and having their attitudes altered when historical and societal changes affect each generation differently. It thus seems similar to cohort changes related to intergroup relations, gender roles, and civil liberties in the US or Inglehart’s shift from materialist to post-materialist values internationally (Baunach 2011, Baunach 2012, Brooks & Bolzendahl 2004, Danigelis, Hardy & Cutler 2007, Davis 2013, Inglehart & Welzel 2005, Pampel 2011, Schwadel 2011). Second, the empirical pattern discussed above shows very little sign of aging effects. Cohorts across countries tend to become more accepting as they aged 10–17 years, not less accepting as an aging effect would require. While it is possible that a very large within-cohort period effect is negating an aging effect

in the opposite direction, this is improbable. Thus, most countries show evidence of cohort effects and as a result over time cohort turnover should continue to increase acceptance of homosexuality and gay rights.

## Multivariate, Multi-level Analysis

Using the items on same-gender sex from the ISSP in 2008, multivariate, multi-level, logistic regression analysis was carried out using both individual- and country-level variables suggested by the research literature. Table 6 presents sample sizes by country for two different samples. The first sample includes all observations that had non-missing values for individual level characteristics used as covariates in the regression models, which includes a total of 35,761 observations. The second sample includes all observations that had non-missing values for individual-level characteristics *and* country-level characteristics included in the multi-level regression model. All observations from Austria and Slovakia were omitted from this sample since information on many country-level characters was not available for these countries. This sample includes a total of 34,428.

Table 6: Sample Size By Country (For Each Model)

	(1) Individual Level Variables Sample	(2) Country & Individual Level Variables Sample
at - Austria	529	0
fla - Flanders	1035	1035
cl - Chile	1330	1330
hr - Croatia	417	417
cz - Czech Republican	977	977
dk - Denmark	1491	1491
do - Dominican Republic	1621	1621
fi - Finland	716	716
fr - France	1390	1390
de-w Germany-West	729	729
de-e Germany-East	361	361
ie - Ireland	1352	1352
jp - Japan	941	941
kr - South Korea	1437	1437
lv - Latvia	846	846
mx - Mexico	1203	1203
nl - Netherlands	1713	1713
nz - New Zealand	667	667

Table 6: Sample Size By Country (continued)

	(1) Individual Level Variables Sample	(2) Country & Individual Level Variables Sample
no - Norway	821	821
ph - Philippines	986	986
pt - Portugal	822	822
ru - Russia	593	593
sk - Slovakia	804	0
za - South Africa	2340	2340
es - Spain	1653	1653
se - Sweden	998	998
ch - Switzerland	1078	1078
tr - Turkey	1346	1346
ua - Ukraine	1721	1721
gb - Great Britain	1042	1042
us - United States	1287	1287
uy - Uruguay	913	913
<b>Total</b>	<b>35761</b>	<b>34428</b>

Table 7 presents the means of covariates for the two different samples. Covariate means change very little between the two samples, suggesting that omitting Austria and Slovakia likely has little effect on regression estimates.

Table 8 presents regression results for the two different models, each assessing the determinants of positive attitudes (not wrong at all) towards same-gender sex. The first column presents odds ratios from a logistic regression model that includes only individual level covariates and the second column presents odds ratios from a multi-level logistic regression with random intercepts, which includes both individual- and country-level covariates. Overall, the multi-level model estimates were more precise with substantially smaller standard errors. However, as noted earlier, the causal connection of legislation towards homosexuality and gay rights is uncertain.

Table 7: Variable Means (For Each Different Model's Sample)

	(1)	(2)
	Individual Level Variables Sample	Country & Individual Level Variables Sample
Individual-Level Variables:		
Same-Gender Sex (Not Wrong at all)	0.32	0.32
Age	46.60	46.60
Female	0.55	0.54
Married	0.54	0.54
Less Than High School	0.44	0.44
High School Grad	0.25	0.24
More Than High School	0.31	0.32
Protestant	0.26	0.26
Catholic	0.38	0.36
Jewish	0.00	0.00
Other Religion	0.01	0.01
Eastern Religion	0.02	0.02
Moslem	0.05	0.05
Orthodox	0.06	0.06
Religious None	0.22	0.23
Far Left Party	0.06	0.06
Left Party	0.23	0.22
Center Party	0.22	0.23
Right Party	0.21	0.22
Far Right Party	0.05	0.05
Other Party	0.02	0.02
No Party	0.20	0.20
Country-Level Variables:		
Catholic Country	0.43	0.42
Orthodox Country	0.11	0.11
Christian Country	0.06	0.06
Buddhist Country	0.03	0.03
Mixed Country	0.04	0.04
Islam Country	0.04	0.04
GDP Per Capita in 2008 (000)	31.4	31.2
Former European Communist	0.17	0.15
Gay Marriage Law Country	0.19	0.20
Civil Union Country	0.08	0.08
Some Rights of Gay Couples Country	0.06	0.06
Partly Rights Protected Country	0.07	0.07

*Individual-level Determinants:* Both models found that respondent age is negatively associated with positive attitudes towards same-gender sex, with an odds ratio of .99 and .97, for models 1 and 2 respectively. This is for each year increase in age. Those under 25 have an odds-ratio about 4 times greater than those 65+. Females had more favorable opinions of same-gender sex with odds ratios of 1.4 and 1.7, respectively. Married respondents reported less favorable opinions of same-gender sex, a result that did not reach statistical significance in model 1, but was significant when country covariates were included in the multi-level model. More education was associated with more favorable opinions on same-gender sex. Both high school graduates and those with more than high school reported more favorable opinions of same-gender sex than respondents with less than a high school education. Moreover, the odds ratio increased in magnitude and significance as education increased. Religious affiliation was generally associated with less favorable beliefs about same-gender sex, with all religions except for Judaism showing an odds ratio far less than one. Belonging to a left-wing, political party was associated with more favorable beliefs about same-gender sex relative to belonging to a center party in both models. Belonging to a right-wing party was associated with less favorable beliefs about same-gender sex in the multi-level model (model 2), but this result was not statistically significant when country-level determinants were not included (model 1).

*Country-Level Determinants:* At the country level, the only religions associated with attitudes towards same-gender sex were Buddhism and mixed religion (the latter only includes South Korea). Both Buddhist countries (Japan and Taiwan) and South Korea had less favorable views of same-gender sex relative to Protestant countries with odds ratios of .09 and .17, respectively. Richer countries had more favorable opinions on same-gender sex with an odds ratio of 1.042.<sup>11</sup> Former Communist countries were less likely to have favorable views on same-gender sex, with an odds ratio of .3. Having laws recognizing gay marriage and other gay rights was associated with more favorable opinions, but having laws regarding gay, civil-unions and recognition of gay unions/marriages in parts of a country was not associated with approval of same-gender sex.<sup>12</sup>

## Conclusion

There has been a general shift in a majority of countries towards greater acceptance of homosexuality and gay rights. But the trends are far from universal and mostly moderate in magnitude. Change has been slower and more sporadic in ex-Communist states and the available evidence on trends from many geocultural regions such as Moslem countries

<sup>11</sup>This is the increase for every \$1000 in GDP. Countries in the top GDP quartile have an odds-ratio of about 12 times those in the lowest quartile.

<sup>12</sup>Itaborahy & Zhu (2013) classify countries into five categories: 1) recognizing gay marriage, 2) recognizing gay civil unions, 3) some marriage/union rights for gay couples, 4) some recognition in some parts of a country, and 5) no recognition. The last is the reference category in the analysis.

and Africa are too incomplete to establish certain patterns. Overall, on average there is still considerable room for support for homosexuality and gay rights to increase. Across countries, the median level of acceptance has increased on the ISSP only to 21% saying homosexual behavior is not wrong at all, on Pew to 40% indicating that homosexuality should be accepted by society, on the WVS to 45% not objecting to gay neighbors and 7% saying that homosexuality was always justified. Even in Europe the median acceptance level across countries is still limited with the ESS finding that 63% agree that gays should be “free to live their own life as they wish” and the EVS reporting no objection to gay neighbors at 30%.

Cross-national differences are enormous with measures showing top-to-bottom ranges of from 60–91 points on intercontinental studies and 32–78 points on regional studies. Northwest Europe, especially the Low and Scandinavian countries, shows the greatest acceptance of homosexuality and gay rights with lower acceptance in the rest of Europe, especially in ex-Communist states. Approval is also fairly high in Euro-Anglo former colonies. Outside of the Euro-cultural zone, acceptance is much lower in other regions, especially in Moslem countries. Multivariate models indicate that level of development is the best predictor of acceptance and a notable factor contributing to the greater acceptance in northwest Europe. Religion is a second contributing factor as approval is higher in Christian countries with possibly Eastern Orthodox countries being less accepting than other Christian societies.

Both intercontinental and regional studies generally show more acceptance of homosexuality and gay rights among younger adults, the better educated, those attending religious services less often, and women. But the strength of these associations varies greatly across countries, often being smaller among countries with lower acceptance levels overall and sometimes also diminishing in high approval countries due to ceiling effects.

The multivariate, multi-level analysis shows that attitudes towards homosexuality and gay rights are shaped by both individual- and country-level variables. At the individual-level acceptance is greater among women, younger adults, the better educated, those with a religious affiliation, and identifiers with left-wing vs. right-wing political parties. At the country-level acceptance is higher in more developed countries, Christian countries, countries that were not formerly communist, and countries having enacted gay rights legislation.

The analysis of the age differences suggests that they typically represent cohort effects rather than aging effects. This in turn indicates that cohort turnover should continue to promote greater acceptance of homosexuality and gay rights in most countries. In addition, perhaps global increases in level of development and dissemination of innovation influences from the Euro-cultural zone will further the spread of acceptance in other religious and cultural zones, but that trajectory is far from certain.

Table 8: Regression Results of Individual-level and Individual/Country-level effects for explaining support of homosexuality

	(1) Individual Level Determinants (Logit)	(2) Country & Individual Level Determinants (Multilevel Logit)
<b>Individual-Level Variables</b>		
Age	0.986*** (0.00439)	0.972*** (0.000929)
Female	1.429*** (0.0689)	1.688*** (0.0499)
Married	0.898 (0.0905)	0.816*** (0.0247)
<i>Education (Ref: Less than High School)</i>		
High School Grad	1.080 (0.186)	1.337*** (0.0539)
More than High School	1.946*** (0.348)	1.976*** (0.0723)
<i>Religion (Ref: No Religion)</i>		
Protestant	0.600* (0.178)	0.394*** (0.0184)
Catholic	0.501*** (0.129)	0.494*** (0.0216)
Jewish	0.931 (0.330)	0.910 (0.228)
Other Religion	0.573 (0.242)	0.392*** (0.0590)
Eastern Religion	0.131*** (0.0285)	0.605*** (0.0924)
Muslim	0.0501*** (0.0213)	0.0732*** (0.0145)
Orthodox	0.737*** (0.0207)	0.380*** (0.0529)
<i>Political Views (Ref: Center Party)</i>		
Far Left Party	2.225* (0.966)	1.812** (0.125)
Left Party	2.171*** (0.573)	1.514*** (0.0672)
Right Party	1.280 (0.375)	0.819*** (0.0376)



Table 8: Regression Results of Individual-level and Individual/Country-level effects  
(continued)

Far Right Party	0.787 (0.340)	0.479*** (0.0414)
Other Party	2.498** (0.266)	1.199* (0.0534)
<b>Country-Level Variables</b>		
<i>Country Religion (Ref: Protestant Country)</i>		
Catholic Country	–	1.094 (0.308)
Orthodox Country	–	1.653 (0.691)
Christian Country	–	0.943 (0.553)
Buddhist Country	–	0.0896*** (0.0507)
Mixed Religion Country <sup>13</sup>	–	0.176*** (0.102)
Islamic Country <sup>14</sup>	–	0.875 (0.565)
GDP per capita in 2008 (000)	–	1.042*** (0.00568)
Former European Communist Country	–	0.308** (0.148)
<i>Gay Union/Marriage Laws (Ref: No Legal Recognition)</i>		
Gay Marriage Law Country	–	2.209*** (0.654)
Civil Union Law Country	–	1.598 (0.879)
Some Rights for Gay Couples Country	–	2.792* (1.605)
Rights Protected in Parts of Country	–	0.728 (0.286)
Observations	35761	34428

Standard errors in parentheses, clustered at the country level in model 1

\* $p < .10$ , \*\* $p < .05$ , \*\*\* $p < .01$

<sup>13</sup>Only includes South Korea

<sup>14</sup>Only includes Turkey

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