

Abstract

While public intolerance toward homosexuality remains remarkably high in the former Soviet Republics, mechanisms behind strong homonegativity remain to be explored. Using the World Values Survey (2010-2014) data, this paper investigates individual and country-level factors that explain anti-homosexual attitudes among 14,392 people in 10 former Soviet countries. Results based on multilevel analysis show that people's attitudes toward homosexuality are influenced by demographic, socioeconomic, and cultural factors, such as age, gender, educational attainment, the place of residence, and religious denominations. Further, country-level factors, including the pace of post-Soviet economic reforms and the levels of democracy, are associated with negative attitudes toward homosexuality. These results suggest that individual characteristics and a country's economic and social structure, independently as well as jointly, contribute to the formation of anti-homosexual attitudes in this part of the world. Efforts toward improving a country's economic and social structure may lead to broader acceptance of minority groups, including homosexual individuals.

Introduction

Although a large number of homosexual individuals in the world now enjoy a wide range of legal rights from adoption to same-sex marriage, anti-homosexual sentiment remains strong in the former communist countries in Eastern Europe. Recently, there have been reports about violence, prejudice, and campaign against homosexual people. The former Soviet Republics indeed have grounds for homonegativity, given a long history of communism under the Soviet Union where individuals' rights and freedom were largely restricted (Healey 2017). Also, a drastic rise in sexually transmitted diseases (STDs) during the period following the demise of the Soviet Union has further contributed to widespread prejudice against homosexual people (Sperling 2014). While reports on brutal violence against or crackdowns of the homosexual community abound, there has been little research that examines the root of intolerance about homosexuality in the former Soviet area. The lack of research on this topic is surprising given strong anti-homosexual sentiment in this part of the world.

Using a large, multilevel, cross-country data, this study investigates the factors associated with anti-homosexual attitudes in 10 former Soviet countries. Guided by prior research (Doebler 2015; Stulhofer and Rimac 2009), we focus on a series of factors that may affect people's attitudes toward homosexuality, including individual

characteristics (e.g., demographic, socioeconomic, and cultural factors) and country-specific economic and social conditions (e.g., GDP per capita, population size, the level of freedom in society, the pace of post-communist market reforms, and the level of democracy). The current study employs multilevel regression technique and substantiates the impacts of both individual- and country-level factors on the formation of people's attitudes toward homosexuality in the former Soviet space.

Methods

Data and Measures

Data for the analysis come from the wave 6 (2010-2014) of the World Values Survey (WVS). The WVS is a large-scale cross-national survey about people's opinions, values, and attitudes towards a variety of topics. The sixth wave of the survey contains demographic, socioeconomic, and cultural information for 14,392 individuals in 10 former Soviet countries: Azerbaijan, Armenia, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Russia, Ukraine, and Uzbekistan.

To measure the dependent variable, negative attitudes toward homosexuality, respondents were asked whether they think homosexuality can never be justifiable (1) to always be justifiable (10). The scale was first reverse coded, and we then created a

binary variable with 1=never justifiable and 0=otherwise. Table 1 presents the mean scores of the answers (from 1 to 10) along with the percentages of respondents who think that homosexuality can never be justifiable in each country.

A set of individual-level variables are included in the model: gender (1=male, 0=female), age (continuous, centered), marital status (currently married/cohabitating, separated/divorced/widowed, and single as the referent), educational attainment (less than secondary education, secondary education, and more than secondary education as the reference category), rural residence (1=living in a rural area, 0=otherwise), and religious denominations (Orthodox, Christianity, Muslim, other denominations, and no affiliation as the referent). Past research (Doebler 2015; Stulhofer and Rimac 2009) has identified these demographic, socioeconomic, and cultural factors as key predictors of anti-homosexual attitudes in European countries.

There are four country-level variables. GDP per capita captures the wealth of a nation and is logarithmically transformed. The model includes the population size in million. We focus on the following three indicators that are particularly important for the former Soviet states: the pace of economic reforms after the collapse of the Soviet Union, the level of freedom in society, and the level of democracy. The European Bank for Reconstruction and Development (EBRD)'s transition indicators assess the pace of

post-communist economic reforms from 1 (exhibit little or no change from a rigid centrally planned economy) to 4+ (fulfill the standards of an industrialized market economy). The indicators were reverse coded so that higher values correspond to a slower pace of economic reforms. We also focus on the level of freedom in society. Freedom House has annually published an evaluation of societal freedom since 1973. The measurement incorporates political rights and civil liberties, and the score ranges from 1 (free) to 7 (not free). In addition, the level of democracy is included as a proxy for authoritarianism. Based on electoral process and pluralism, civil liberties, functioning of government, political participation, and political cultures, the Economist Intelligence Unit's Democracy Index ranks a country's level of democracy from 0 (least democratic) to 10 (democratic). We reverse coded this variable so that higher scores represent lower levels of democracy. Note that the indicators of post-communist economic reforms, societal freedom, and democracy were centered around mean values.

Statistical Analyses

The WVS is hierarchically structured with individuals (level-1) nested within countries (level-2). We therefore used multilevel models that simultaneously account for individual and country-level factors (Singer and Willett 2003). Results of likelihood

ratio tests indicate that age and rural residency exhibit significant variations by country.

These variables were therefore allowed to vary by country, while the rest of the indicators were fixed.

Four sequential models are used to assess the relative impacts of the adjusted variables on anti-homosexual attitudes. The first model includes demographic characteristics (i.e., age, gender, and marital status). The second model adds socioeconomic factors (i.e., educational attainment and rural residency). The third model includes religious affiliation, and the final model adds country-level variables (i.e., GDP per capita, the population size, the pace of post-communist economic reforms, the level of societal freedom, and democracy index). The full specifications of multilevel models are as follows:

Level-1:

$$\text{Log}\left[\frac{p_{ij}}{(1-p)}\right] = \beta_{0j} + \beta_{1j}\text{Age} + \beta_{2j}\text{Male} + \beta_{3j}\text{Marital status} + \beta_{4j}\text{Education} \\ + \beta_{5j}\text{Rural residency} + \beta_{6j}\text{Religion} + r_{ij}$$

Level-2:

$$\beta_{0j} = \beta_{00} + \beta_{01}\text{GDP} + \beta_{02}\text{Population} + \beta_{03}\text{Reform} + \beta_{04}\text{Freedom} + \beta_{05}\text{Democracy} + u_{0j}$$

where p_{ij} is the probability that respondent i in country j think that homosexuality is never justifiable. All analyses in the present study are weighted.

Results

Table 1 begins with a statistical summary of the dependent variable. Results in Table 1 show that approximately 68% of the respondents in 10 former Soviet countries said that homosexuality was never justifiable, thereby suggesting the highest degree of homonegativity. Azerbaijan had the highest level of negative attitudes toward homosexuality (95.97%), followed by Armenia (92.51%) and Georgia (87.12%). In contrast, intolerance toward homosexuality was the lowest in Estonia in terms of the mean score (7.90) and the percentage of respondents who disapproved homosexuality (48.10%). Although there are variations by country, the respondents in this sample tend to have negative attitudes toward homosexuality, as the mean score was 8.93.

Table 2 summarizes the multilevel regression results. The first three models include individual-level models by bloc, and the final model adds country-level factors that may explain homonegativity. Results in model 1 suggest the strong influence of age and gender on the formation of people's views about homosexuality. Older age and male are strongly associated with higher odds of rejecting homosexuality. Compared to women, for instance, men exhibited 18% higher odds of rejecting homosexuality. In contrast, those who were separated, divorced, or widowed were more tolerant toward homosexuality compared to single persons. Model 2 adds educational attainment and

rural residency. Lower educational attainment and living in a rural area are predictive of homonegativity, net of age, gender, and marital status. Respondents with less than secondary education display 38% higher odds of disapproving homosexuality compared to those with more than secondary education, and similar results are shared by the middle-level education category (28%). The impacts of educational attainment are significant at the 0.001 level. Also, rural residence is closely associated with higher odds of having negative attitudes toward homosexuality. We then test the impacts of religion in model 3. Religious affiliation is strongly related to anti-homosexual attitudes in the 10 former Soviet countries. Net of demographic and socioeconomic variables, Orthodox, Christians, and Muslims have significantly higher odds of rejecting homosexuality compared to non-members. In particular, Christianity is associated with the highest odds (47%) of having anti-homosexual attitudes. Other religion, such as Hinduism and Judaism, have limited impacts on anti-homosexual attitudes.

Finally, model 4 adds a set of country-level factors. Results show that the pace of post-Soviet economic reforms and the level of democracy have strong influences on the formation of attitudes about homosexuality among individuals in the former Soviet countries. People in countries with little market reforms have almost 10 times higher odds of disapproving homosexuality. Further, citizens in less democratic countries

exhibit three-times greater odds of having negative attitudes toward homosexuality compared to those from more democratic countries. There are no indications of strong impacts of per-person GDP and population size on people's attitudes toward homosexuality. Additionally, the adjustment of country-level factors produced no appreciable change in the measured effects of individual-level variables on homonegativity.

Discussion

While it is widely recognized that intolerance toward homosexuality remains strong in the former Soviet space, mechanisms behind persistent homonegativity remain unexplored. Using a large, multilevel, cross-national data, the present study numerically tested the root of this problem. Results from multilevel analysis suggest that both individual- and country-level factors contribute to the formation of anti-homosexual attitudes in this part of the world. At the individual-level, older age, being a male, lower levels of educational attainment, rural residence, and religious denominations were associated with greater odds of rejecting homosexuality. These results are in line with prior research findings that opinions about homosexuality are largely influenced by individuals' demographic, socioeconomic, and cultural characteristics (Doebler 2015;

Stulhofer and Rimac 2009). Importantly, apart from these individual-level variables, our results illustrate the substantial impacts of country-level indicators on anti-homosexual attitudes. The country-level results demonstrate that a failure to depart from the communist part, as seen in a slow pace of economic reforms and authoritarian traditions, negatively influences people's opinions about homosexuality, suggesting the root of anti-homosexual sentiment in the former Soviet space may be structural. These results also suggest that efforts toward improving a country's economic and social structure may lead to broader acceptance of minority groups in society, including homosexual people.

As with any cross-sectional analysis, one should be cautious in interpreting the present results as causal. Yet, these findings represent an important first step toward better understanding the root of strong anti-homosexual sentiment in the former Soviet area. Our results show that individual-level and country-level factors, independently as well as jointly, influence the formation of people's attitudes toward homosexuality. Further, broader social circumstances in which people are embedded influence their views about homosexuality. The present study focused on a country's economic and social structure, but future research will benefit from considerations of contextual factors that are specific to the former Soviet states and may explain why homonegativity

remains strong in this region.

References

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Table 1. Mean scores and percentage of respondents who think homosexuality is never justifiable, WVS (2010-2014)

country	n	mean ¹	% of never justifiable ²
Armenia	1,093	8.93	95.97
Azerbaijan	1,002	9.81	92.51
Belarus	1,519	8.56	57.21
Estonia	1,368	7.90	48.10
Georgia	1,188	9.77	87.12
Kazakhstan	1,500	8.82	67.13
Kyrgyzstan	1,494	9.10	68.74
Russia	2,244	8.49	60.20
Ukraine	1,500	8.50	53.80
Uzbekistan	1,484	9.37	77.29
Total	14,392	8.93	68.63

Note:

¹ Mean is the average value of the answer about anti-homosexuality, ranging from 1 (always justifiable) to 10 (never justifiable).

² % of never justifiable refers to the percentage of respondents who think homosexuality is never justifiable.

Table 2. Multilevel models predicting individual- and country-level variables associated with anti-homosexual attitudes in 10 former Soviet Republics, WVS (2010-2014)

	Model 1	Model 2	Model 3	Model 4
<i>Individual-Level Factors</i>				
Demographic factors				
Age	1.02***	1.01***	1.01***	1.01***
Male	1.18***	1.16***	1.18***	1.18***
Marital status				
Separated/Divorced/Widowed	0.89*	0.87*	0.88*	0.87*
Married/Cohabiting	1.05	1.03	1.01	1.02
Single	ref.	ref.	ref.	ref.
Socioeconomic factors				
Educational attainment				
Low education		1.38***	1.37***	1.37***
Middle education		1.28***	1.28***	1.28***
High education		ref.	ref.	ref.
Rural residence		1.21*	1.22*	1.29*
Religion				
Orthodox			1.32***	1.33***
Muslim			1.32***	1.30***
Christian			1.47***	1.48***
Other religion			1.22	1.22
No affiliation			ref.	ref.
<i>Country-Level Factors</i>				
GDP per capita (ln)				0.96
Population size				0.99
Economic reform				9.18***
Democracy index				2.45**

Note: * p<.05 **p<.01 *** p<.001