

Rights for Same-Sex Couples and Public Attitudes toward Gays and Lesbians in Europe

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Abstract

This paper investigates how changes in same-sex rights affect attitudes toward homosexuality. We argue that different same-sex relationship policies vary in their impact. While registered partnership laws construct a distinct target population that receives new benefits, marriage equality sends an unambiguously positive signal and reduces the perceived group difference through inclusion into existing rights. As a consequence, marriage equality should have a positive effect on attitudes toward homosexuality, whereas partnership laws should have much less positive effects and could even lead to backlash among some groups. Combining data from eight waves of the European Social Survey with data on legislation, we analyze the effects of same-sex marriage, registered partnerships, and marriage bans on attitudes towards gays and lesbians. Marriage has a positive, bans and registered partnerships have a negative effect. Legalized partnership is especially associated with significantly more negative attitudes among non-religious and less-educated people.

1 Introduction

The past 20 years have seen a huge shift in attitudes towards homosexuality and a vast liberalization in policies targeted towards the lesbian and gay (LG) population.³ Compared to 1990, for example, all OECD countries have seen a positive shift in general attitudes towards the LG population (Andersen & Fetner, 2008). No country in the European Union had allowed same-sex marriage before 2001, but 14 had done so by 2015. Shifting opinions towards homosexuality can without a doubt be regarded as one of the big attitudinal transformations in the 21st century.

In this paper we investigate how changes in same-sex relationship policies affect general attitudes towards homosexuality. While the empirical question of how policies in this field affect public attitudes should in itself be of interest to scholars and the broader public, it also relates in important ways to a more general literature on feedback effects of public policies. Although the literature on policy feedback has found stable and wide ranging effects of policy change on changes in political behavior, the findings on attitudes are much more mixed (Campbell, 2012; Kumlin & Stadelmann-Steffen, 2014; Soss & Schram, 2007).

Some scholars have studied the effect of same-sex relationship legislation on public opinion (Flores & Barclay, 2016; Bishin et al., 2015; Ayoub, 2016), however, showing mixed effects of these policies. We build on these existing studies, but argue that two steps are necessary to identify the effects of LG policy change on public attitudes, which are so far not consistently applied in the literature. First, it is necessary to differentiate the effects of different kinds of LG rights legislation.

³Those identifying as bisexual would also be included when they are in same-sex relationships.

We argue that the introduction of same-sex marriage has fundamentally different effects on attitudes towards the homosexual population than the introduction of same-sex partnership laws. While marriage equality sends an unequivocal positive signal and reduces out-group construction, partnership laws can be regarded as more ambiguous and uphold the perception of same-sex couples as an out-group. As a consequence, marriage equality should have a positive effect on attitudes towards homosexuals, whereas partnership laws should have much less positive effects and could even lead to backlash among some groups.

Second, these potential heterogeneous effects among different parts of the population need to be taken into account. People's attentiveness and predisposition about LG issues should shape their reactions to changes in policies on same-sex relationships (Zaller, 1992). These predispositions may also amplify any divergent effects of same-sex marriage or partnership recognition. Those with strongly pre-defined attitudes toward gays and lesbians, like the highly religious, may exhibit little reaction. Those with generally socially liberal predispositions, like the highly educated, may react most positively to marriage legalization; those with socially conservative predispositions, like the less educated, may react most negatively to partnership recognition.

We employ a novel data set combining eight waves of the European Social Survey (2002-2017) with data on changes in LG legislation. We investigate the effect of the introduction of gay-marriage, same-sex partnerships (civil unions) and the constitutional ban of gay-marriage on general attitudes towards homosexuality (agreement that "gay men and lesbians should be free to live their own life as they wish"). Our findings corroborate our expectations that marriage equality, marriage bans, and same-sex partnership laws differ in their effects. We find

that the introduction of same-sex marriage leads to significantly more positive attitudes towards homosexuality, while passing a constitutional ban on same-sex marriage leads to significantly more negative attitudes. The effects of legalizing same-sex partnership are contingent in ways consistent with our proposed mechanism. We demonstrate that among non-religious people, partnership laws lead to significantly less positive attitudes while same-sex marriage has a positive effect. We additionally show that backlash to partnership recognition is driven by changing attitudes among the less-educated.

Our findings thus demonstrate that changes in institutions can indeed lead to changes in public opinion. The way in which LG legislation affects attitudes crucially depends on how the LG population is constructed as a target group. In addition to contributing to a literature on attitudinal and post-material change, our findings underline the role that LG rights play in the changing political space of post-industrial societies. They also demonstrate the crucial role that legislative changes play in the LG community's fight for recognition and acceptance.

2 Attitudes toward Homosexuality

A rich literature has found stable and substantively meaningful individual-level predictors of attitudes towards homosexuals or minority groups more generally. People who are more highly educated, younger and have less authoritarian values tend to have more positive attitudes towards homosexuality; men and especially religious individuals have more negative attitudes (Adamczyk & Pitt, 2009; Gerhards, 2010; Andersen & Fetner, 2008). Though individual-level factors play an important role for explaining attitudes towards homosexuality, they can neither

account for cross-national variation nor explain the rapid and significant change during the past 20 years. It is thus necessary to investigate how macro-level differences directly affect attitudes towards homosexuality or how they potentially moderate the effect of other individual-level factors. Despite a large body of work on individual-level determinants of attitudes towards homosexuality, the literature on macro-level effects is much more scarce. Important exceptions are mostly concerned with macro-economic indicators or general societal attitudes like religion and post-material orientations. Scholars find that factors associated with modernization generally lead to more positive attitudes, while high religiosity limits liberalization (Andersen & Fetner, 2008; Gerhards, 2010; Ayoub, 2016). The media environment also plays a crucial role in the transformation of attitudes toward gays and lesbians (Garretson, 2017; Ayoub & Garretson, 2016).

However, most socio-economic explanations cannot account for fundamentally different trajectories in such similar countries as Austria and Spain for example. While both countries showed similar levels of acceptance of gays and lesbians in the early 2000s, Spain was among the first countries to introduce same-sex marriage in 2005. Austria introduced registered partnerships in 2010 and has only recently moved to legalize same-sex marriage via a Constitutional Court decision. Strong agreement that gays and lesbians should live the way they wish was still below 50 percent in Austria in 2016, but it was above 75 percent in Spain (see Figure 1 below). This discrepancy already indicates that legislation might play a key role in explaining the trajectories of attitudes toward gays and lesbians.

Some studies indeed directly address the question of how changes in policies affect public opinion on LG issues. Exploiting variation in the introduction of same-sex marriage in the United States Flores & Barclay (2016) demonstrate

that these policies tend to improve attitudes toward gay and lesbians but overall have a rather small effect. Similarly, Bishin et al.'s (2015) well executed causal identification of potential backlash in the United States does not find any empirical evidence for an effect of LG legislation on attitudes.

Comparative work, in contrast, seems to show a clearly positive effect of same-sex rights liberalization on attitudes toward gays and lesbians in Europe. Most directly related to this article, Hooghe & Meeusen (2013) examine attitudes toward gays and lesbians using the first five rounds of ESS data. They test for differential levels and trends in tolerance of gays and lesbians between countries with and without legalized same-sex marriage and partnership, net of individual characteristics like religiosity and education. They find individuals in countries with same-sex marriage and partnership laws are more tolerant of gays and lesbians, but trends toward greater tolerance over time do vary significantly between countries with or without same-sex marriage or partnership. Takács & Szalma (2011) also using data from the European Social Survey similarly demonstrate a positive effect of same-sex partnership legislation on attitudes toward gays and lesbians. However, the designs of these studies do not address the crucial question of the potential endogeneity of public attitudes and same-sex relationship policies.

In contrast, in his analysis of changing attitudes towards LG people Ayoub (2016) implicitly takes into account an endogenous mechanism of public attitudes and policy change. Changes in rights are associated with more positive attitudes in the old EU-15 but not in the new member states. He explains this difference as a result of varying societal context conditions and activist group behavior, where LG rights expansion can be regarded as an imposition among those who have a negative pre-disposition (Ayoub, 2016, 154)

In sum, there does not seem to be a consistent effect of same-sex relationship policy changes on attitudes toward the gay and lesbian population. One reason for this might lie in the fact that public opinion and public policies tend to be congruent because policy change might only be enacted when attitudes are sufficiently in favor of that policy (Lax & Phillips, 2009). A crucial question thus becomes how we can identify effects of policy change in a context where policy changes and public attitudes are potentially endogenous. Here, we build on this literature and argue that in order to identify an effect of LG policy change on public attitudes, two steps are necessary.

Our central argument is that it is necessary to distinguish different types of LG policies and define the mechanisms how they will specifically affect the attitudes of different groups in society. Hence, we build on the existing studies in two primary ways. First, we provide a comparative analysis of policy change distinguishing same-sex marriage, civil partnerships and constitutional bans, paying particular attention to the potential endogeneity of policies and attitudes.⁴ Second, we examine heterogeneity in responses to LG policies at the individual level based on differing pre-dispositions to LG policies. In the next section, we outline why we expect different policies to have different effects and why certain groups should react differently to them.

⁴We focus on policies explicitly targeting same-sex relationships. Though cohabitation rights may provide similar property/economic protections for same-sex and opposite-sex couples, they do not carry the same symbolic value for public attitudes.

3 The diverging effects of different LG policies

Our central claim is that while laws introducing same-sex marriage will positively affect attitudes, same-sex partnership laws will not have the same positive effects and could even lead to backlash among some groups. Marriage bans should generally have a negative effect.

The starting point for this argument is that public policies construct target groups for this policy, and the perception of these target groups affects the popularity of policies. As Schneider & Ingram (1993) argue, evaluative and normative characterizations of groups constitute necessary components of the law-making process. The construction of target groups works through emphasizing shared characteristics that distinguish them from other groups and a subsequent attribution of specific values and symbols based on this distinction (Schneider & Ingram, 1993, 335). As a consequence, policy changes can strongly affect how people perceive groups, who is considered to be part of an in- and out-group, and how the target group itself will react.

Crucially, same-sex relationship policy changes will increase the visibility of same-sex issues and LG people. They also affect how LG organizations and advocacy groups will behave, but likewise how counter-movements and groups critical of LG rights will react (Ayoub, 2016). At the micro level, LG policies will affect how gays and lesbians themselves act within their own social circles. Most importantly, LG policies can be regarded as a signal that will make it more or less likely that gays and lesbians come out to their friends and colleagues (Garretson, 2017). Coming out has been identified as one of the crucial drivers of attitudinal change in this field (Lewis, 2011). This mechanism fits strongly with Allport's (1954) clas-

sic contact hypothesis. As repeatedly demonstrated, intergroup contact reduces prejudice (Pettigrew & Tropp, 2006).

Hence, we expect different types of LG rights policies to lead to different reactions of the gay and lesbian population as well as the general public. The most obvious distinction is that between same-sex marriage and marriage bans. Same-sex marriage laws send an unequivocally positive message of inclusion and a reduction of in- and out-group distinction. In contrast, marriage bans reinforce a negative image of the LG population. Whereas the introduction of same-sex marriage should thus generate a predominantly positive image of gays and lesbians and make coming out more likely, the opposite is true for marriage bans. In addition, marriage bans provide a context in which groups fighting against LG rights (especially religious ones) will be more successful in attacking gays and lesbians. We can thus formulate two hypotheses:

H1 Same-sex marriage laws lead to more positive attitudes towards homosexuality

H2 Marriage bans lead to more negative attitudes towards homosexuality

Expectations about the effects of same-sex partnerships or civil unions are more complex, however. The introduction of civil partnerships has generally been regarded as a liberalization of policies targeted towards the LG population. In contrast to marriage equality though, these laws continue to treat homosexuals as a separate group and do not integrate them into the in-group. Simply put, the introduction of registered partnerships sends a more ambiguous signal than the introduction of same-sex marriage. Though civil union laws construct a positive image of the target group, they still reinforce the conception of homosexuals as an

out-group. For example, registered partnerships in Hungary apply only to same-sex couples, while opposite-sex couples must marry to receive the same benefits. The religious frames that justify a distinction between registered partnerships and same-sex marriage maintain negative moral evaluations of homosexuality as “sinful.” Especially counter-movements will be able to further exploit these images and distinctions. Ayoub (2016) specifically points to the role of religious and nationalist groups for counter-mobilization in the case of Poland. Hence, while in cases when same-sex marriage is introduced many opponents of LG rights will see the battle as lost, this should not be the case for civil unions. Within this environment we should see a) a less positive effect on coming out and thus on general attitudes, and b) the potential for backlash among societal groups with a higher pre-disposition to oppose gays and lesbians.

H3 Same-sex partnership laws lead to more negative attitudes towards homosexuality

We can formulate the diverging effects of same-sex marriage and civil partnership laws as general hypotheses, but we should expect different social groups to differ in their reactions to changes in LG policies according to our proposed mechanism. Building on Zaller (1992), we expect people’s reactions to these policy changes to differ by the strength and direction of their predisposition toward homosexuality. We test the potential for heterogeneous effects by two individual-level characteristics previously shown to shape attitudes toward homosexuality: religiosity and education.

First, the discussion of LG rights has always been related to issues of faith and religious individuals are generally more concerned with matters of morality

politics. Religious people have likely already formed a stronger opinion that should be more difficult to change. On average, the highly religious have lower tolerance for homosexuality than the less religious (Adamczyk & Pitt, 2009; Andersen & Fetner, 2008; Hooghe & Meeusen, 2013). However, even religious people who have relatively positive attitudes have likely had a longer engagement with the issue. Their attitudes should thus be more fixed and less affected by policy change. As a consequence, the potential effects of same-sex marriage and same-sex partnership legislation should be most visible among non-religious individuals. Specifically, we expect that among non-religious people the introduction of same-sex marriage will have visibly positive effects while the opposite is the case for civil unions.

H4a Among non-religious individuals same-sex marriage laws positively affect attitudes towards homosexuality

H4b Among non-religious individuals same-sex partnership laws negatively affect attitudes towards homosexuality

A second factor that determines individuals' likelihood to change their opinion lies in their predisposition toward the issue (Zaller, 1992, 44-48). If individuals are negatively predisposed toward gays and lesbians, then changes in legislation are more likely to increase out-group bias. Education has consistently been identified as the main predictor of attitudes on a cultural dimension (Kitschelt & Rehm, 2014) and higher education is correlated with positive attitudes toward homosexuality (Hooghe & Meeusen, 2013; la Roi & Mandemakers, 2018). We should thus expect the less educated to be more likely to react with negative backlash. In contrast, people with high levels of education will react positively to the introduction of marriage.

Any divergent effects by education may be compounded by class-biased economic trends. Aside from the liberalizing social effects of higher education, globalization and the transition to post-industrial economies have expanded labor market opportunities for highly educated workers. In contrast, less educated workers have faced stagnating or declining economic prospects. Given this economic polarization, the new main axis of political competition is defined by a distinction between integration and demarcation, or more generally openness/closedness (Kriesi et al., 2008; Kitschelt & Rehm, 2014). Highly educated people, often working in interpersonal or ‘social-cultural’ occupations, have a strong preference for integration (e.g. European integration), openness (e.g. for immigration), and progressive change on cultural issues. At the other end are people with low levels of education who are generally opposed to integration and progressive cultural change. For example, research on immigration and citizenship rights has shown that backlash is particularly likely among the economically disadvantaged if they perceive that immigrants can acquire additional resources (Dancygier, 2010). We expect a similar mechanism for LG issues. As civil unions constitute the provision of additional resources for an out-group, we should expect these policies to lead to backlash among the losers of globalization. As marriage laws do not reinforce but reduce in- and out-group distinctions we should not expect this kind of reaction for these policies.

H5a Among highly educated individuals same-sex marriage laws positively affect attitudes towards homosexuality

H5b Among individuals with low levels of education same-sex partnership laws negatively affect attitudes towards homosexuality

4 Data & Methods

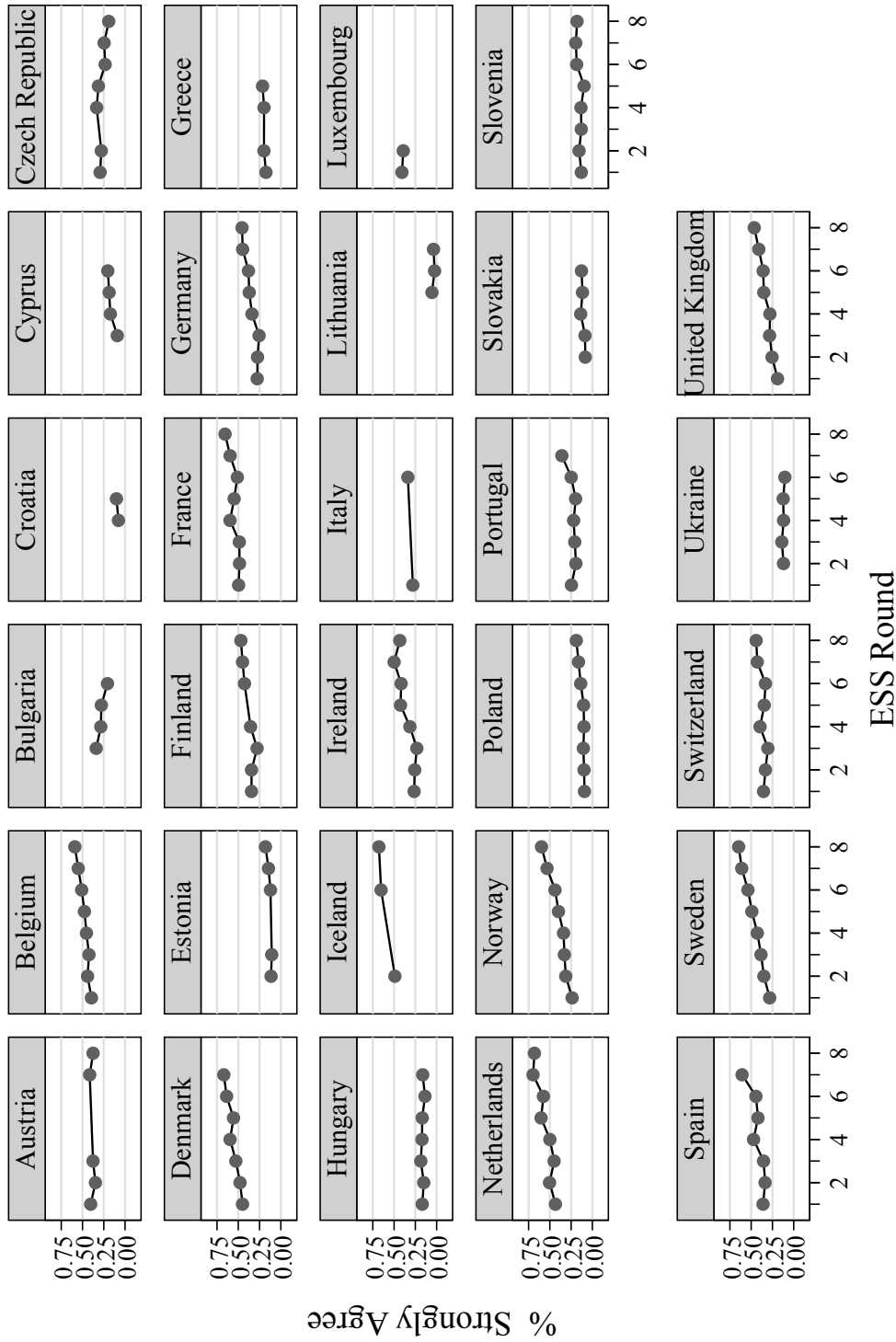
The primary data for our study come from all eight rounds of the European Social Survey (ESS), spanning the years 2002 to 2017. The ESS collects a range of political and social attitudes, along with demographic and socioeconomic information, for nationally representative samples across European countries. After removing cases with missing information, the analytic sample includes 268,489 observations nested within 29 different countries and 174 country-waves. Table [A1](#) in the appendix displays the sample sizes by country and wave.

4.1 Attitudes toward Gays and Lesbians

We measure attitudes toward gays and lesbians with agreement to the statement, “Gay men and lesbians should be free to live their own life as they wish.” Respondents rate their agreement on a five-point scale ranging from “strongly disagree” to “strongly agree.” Higher values of the five-point scale indicate stronger agreement. Alternative analyses examined various dichotomous versions, i.e., strongly agree compared to all others, strongly agree or agree compared to all others, etc. Results are consistent with those presented in Table [2](#) below.

Figure [1](#) displays the proportions of each ESS survey round in each country strongly agreeing that gays and lesbians should be free to live how they wish. The proportion varies considerably between countries. Strong agreement is particularly high in countries like Denmark, the Netherlands, Spain, and Sweden. In contrast, strong agreement is much lower in CEE countries like Hungary, Lithuania, Poland, Slovakia, Slovenia, and Ukraine.

Figure 1: Proportion of ESS Samples Strongly Agreeing that Gays and Lesbians Are Free to Live How They Wish, by ESS Survey Round.



Note: Proportions are estimated with all respondents answering the survey question on attitudes toward gays and lesbians (N = 268,489) and apply survey weights.

4.2 Policy Changes

We examine the effects of three policy changes: legalizing same-sex marriage, legalizing same-sex registered partnerships, and constitutionally banning same-sex marriage. We use the date the policy was passed, rather than implemented. Table 1 lists the countries in our sample making each policy change. Countries in bold include ESS survey data before and after the policy change.⁵

Table 1: Same-Sex Relationship Policy Changes between 2001 and 2017.

<i>Policy Change</i>	Country and (Year)
Legal Same-Sex Marriage	Netherlands (2001), Belgium (2003) , Spain (2005) , Norway (2008) , Sweden (2009) , Iceland (2010) , Portugal (2010) , Denmark (2012) , France (2013) , England & Wales (2013) , Scotland (2014) , Luxembourg (2014), Ireland (2015) , Finland (2015)
Same-Sex Registered Partnerships	Germany (2001), Portugal (2001), Finland (2002), Luxembourg (2004) , Switzerland (2004) , United Kingdom (2004) , Slovenia (2005) , Czech Republic (2006) , Hungary (2009) , Austria (2010) , Ireland (2011) , Croatia (2014), Estonia (2015)
Ban on Same-Sex Marriage	Hungary (2011) , Croatia (2013), Slovakia (2014)

Note: Years refer to passage of policies rather than taking effect. Policy changes with ESS data before and after are in **bold**.

No country in our sample had legalized same-sex marriage prior to 2001. However, 14 of the 29 countries legalized same-sex marriage by 2017. Twelve of these policy changes occurred in countries with ESS survey data both before and after marriage legalization was passed. Legalization occurred during the ESS survey

⁵The analysis treats the United Kingdom as a single country but disaggregates same-sex marriage legalization between England and Wales, Scotland, and Northern Ireland. Same-sex marriage was legalized in England and Wales in July 2013 in Scotland in February 2014, both occurring between ESS rounds 6 and 7. Same-sex marriage has not been legalized in Northern Ireland. Same-sex partnership was passed in all three areas in 2004.

rounds for Belgium (2003) and France (2013). Same-sex registered partnerships were already legalized in eight countries in our sample prior to 2001: Belgium, Denmark, France, Iceland, the Netherlands, Norway, Spain, and Sweden. 13 additional countries legalized registered partnerships between 2001 and 2017, with ESS data before and after nine of these changes (combining Scotland with England and Wales). Prior to 2001, same-sex marriage was legally banned in Bulgaria, Lithuania, Poland, and Ukraine. Three countries banned same-sex marriage after 2001: Hungary, Croatia, and Slovakia. Hungary is the only country in the sample banning same-sex marriage with ESS data before and after the ban in 2011.

4.3 Analytic Strategy

We assess the relationship between attitudes toward gays and lesbians and policy changes with a series of two-way fixed-effects ordered logistic regression models. The models predict the log-odds of higher levels of agreement that gays and lesbians should be free to live how they wish for person i in country j and year t ,

$$\ln \left(\frac{\Pr(y_{ijt} \leq k)}{\Pr(y_{ijt} > k)} \right) = \beta_{Policy} Policy_{jt} + X_{ijt} \beta_X + \alpha_j + \gamma_t, \quad (1)$$

where y_{ijt} is a category of agreement relative to category k , X_{ijt} is a vector of control variables, and α_j and γ_t are country and year fixed effects, respectively. $Policy_{jt}$ is one of the three policy measures, equal to one in all country-years with the policy passed and zero in all country-years without it.

The country fixed effects control for all characteristics of countries with stable effects over time. Similarly, year fixed effects control for temporal changes

commonly affecting all countries. Additionally, fixed-effects models rely solely on within-country variation for coefficient estimates. The coefficients for the policy variables should then be interpreted as the conditional difference in the predicted outcome when a country institutes the policy. Results from this model are equivalent to those from a difference-in-difference approach.

Individual-level control variables adjust for potential impacts of compositional changes within countries over time that may be correlated with attitudes toward gays and lesbians. The models condition on: sex (female = 1); age in years; marital status (separated or divorced, widowed, and never partnered compared to married or civil partnership); household size; the presence of children (yes = 1); years of education; employment status (unemployed = jobless and looking for work, not in labor force = jobless and not looking for work, both relative to currently employed); religious attendance (regularly = monthly to daily, rarely = on special occasions, both relative to never); self-reported political orientation on an eleven-point Left-Right scale (0 = Left, 10 = Right), and Kitschelt and Rehm's (2014) 13 occupation categories (including one for not currently employed and no occupation given).⁶ At the country-year level, we control for logged GDP converted to US dollars, and for the logged unemployment rate among adults 25 and older (United Nations Statistics Division, 2016). The natural log adjusts for the skewed distributions of both variables.

We test hypotheses 4 and 5 with cross-level interactions between same-sex policies and individual-level characteristics. These models also include interaction

⁶The 12 occupation categories are in four major groups: professional (higher grade managers, technical experts, socio-cultural professionals), associate professional (associate managers, technicians, socio-cultural semi-professionals), skilled routine (office, crafts, service), and unskilled routine (office, operatives/agriculture, service).

terms between the individual-level variables and country fixed effects. Cross-level interactions introduce between-country variation to the country-level coefficients (Heisig & Schaeffer, 2018). The interactions between the individual-level variables and country fixed effects control for between-country-group variation over time, again estimating the conditional difference in attitudes given a change in the country-level policy.

First, we interact individuals' religious attendance with same-sex marriage and same-sex partnership legalization, respectively. We hypothesize regular attenders of religious services will be least affected by policy change. Non-religious individuals will be positively affected by marriage legalization (H4a), and negatively affected by partnership legalization (H4b). Second, we interact individuals' years of education with the two same-sex relationship policies. We expect the highly educated individuals to be most positively affected by same-sex marriage legalization (H5a), and less-educated individuals to be most negatively affected by same-sex partnerships (H5b).

All analyses apply weights calculated by the ESS to adjust for sampling design and nonresponse. We adjust the coefficient standard errors in the regression analyses for potential correlation between respondents within countries.

5 Results

5.1 Policy Changes and Attitudes toward Gays and Lesbians

The results from the fixed-effects ordered logistic regression models are presented in Table 2. The coefficients are presented as differences in the log-odds for a unit difference in the right-hand side variables, with positive coefficients indicating greater log-odds of stronger agreement. The *Policy Change* row presents the log-odds coefficients for legalizing same-sex marriage, legalizing same-sex partnerships, or legally banning same-sex marriage, as indicated at the top of each column. In line with previous studies, younger, female, separated/divorced or never partnered, more educated, and less religious respondents have statistically significantly higher log-odds of more favorable attitudes toward gays and lesbians. Those with smaller households, with children in the household, the employed relative to out of the labor force, and those politically identifying as more left also have significantly higher log-odds of more favorable attitudes. The coefficients are not shown, but attitudes are significantly most positive among professional and associate professional workers and least positive among manual workers. Finally, within-country increases in GDP are associated with significantly lower log-odds of favorable attitudes. However, the data include the recession period of the late 2000s, with substantial declines in GDP. Then the coefficient could be interpreted as continued growth in tolerant attitudes as GDP declined during the recession.

The pattern of effects for policy changes generally conforms to our expectations. As shown in the first model, the conditional log-odds of more favorable

Table 2: Results from Fixed-Effects Ordinal Logistic Regression Predicting Agreement that Gays and Lesbians Are Free to Live How They Wish.

<i>Variables</i>	Legalize Marriage	Legalize Partnerships	Ban Marriage
Policy	0.171* (2.44)	-0.148* (-2.02)	-0.391*** (-6.01)
ln(GDP PC)	-0.965*** (-5.70)	-1.006*** (-5.89)	-1.046*** (-6.20)
ln(Unemp. Rate)	-0.109 (-1.29)	-0.078 (-1.01)	-0.113 (-1.53)
Age	-0.017*** (-15.44)	-0.017*** (-15.40)	-0.017*** (-15.39)
Female	0.417*** (14.72)	0.417*** (14.76)	0.417*** (14.88)
Divorced (ref. = Partnered)	0.108*** (4.78)	0.108*** (4.81)	0.109*** (4.87)
Widowed (ref. = Partnered)	-0.102*** (-6.05)	-0.102*** (-6.09)	-0.101*** (-5.98)
Never Partnered (ref. = Part.)	0.103*** (4.00)	0.102*** (3.90)	0.103*** (3.94)
Household Size	-0.063*** (-7.58)	-0.063*** (-7.54)	-0.063*** (-7.52)
Children in Home	0.083*** (5.57)	0.082*** (5.56)	0.082*** (5.57)
Years of Educ.	0.051*** (18.32)	0.051*** (18.51)	0.051*** (18.21)
Unemployed (ref. = Employed)	-0.052 (-1.36)	-0.051 (-1.35)	-0.051 (-1.36)
NILF (ref. = Employed)	-0.040* (-2.30)	-0.040* (-2.26)	-0.040* (-2.22)
Never Rel. Attend (ref. = Rarely)	0.352*** (12.79)	0.352*** (12.80)	0.352*** (12.76)
Reg. Rel. Attend (ref. = Rarely)	-0.532*** (-11.49)	-0.533*** (-11.51)	-0.532*** (-11.52)
L-R Pol. Orient. (higher = Right)	-0.074*** (-5.18)	-0.073*** (-5.17)	-0.073*** (-5.15)
Countries	29	29	29
Country-Years	174	174	174
Observations	268,489	268,489	268,489

Note: Presented as log-odds coefficients and (z-statistics). Positive coefficients indicate stronger agreement that gays and lesbians should be free to live how they wish. All models include occupational controls, and country and year fixed-effects.

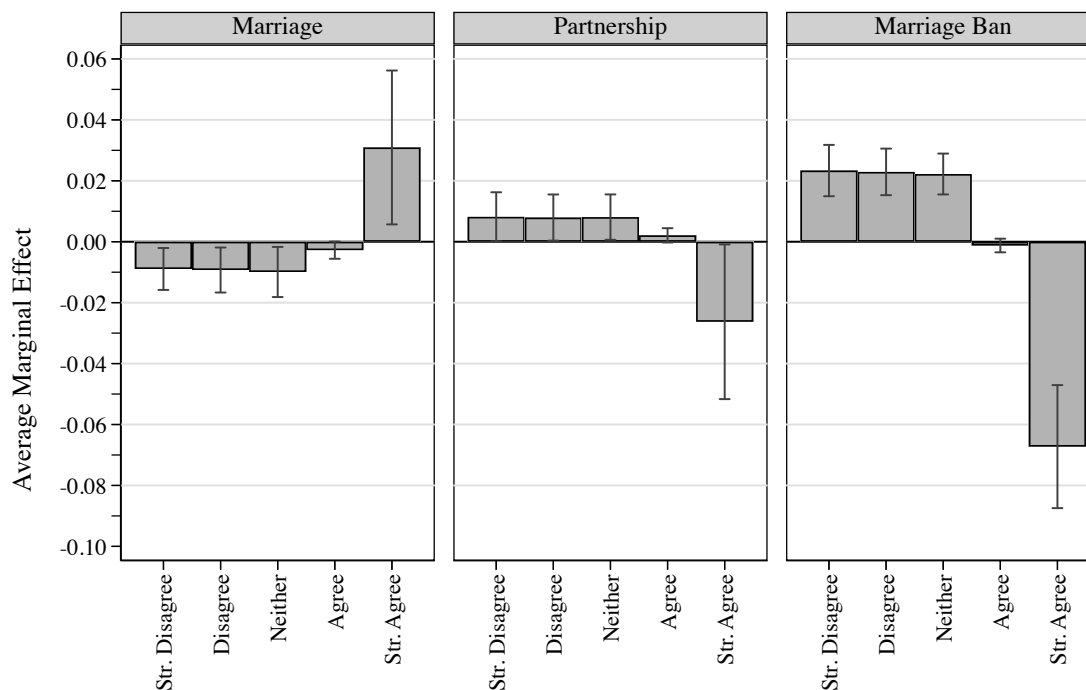
† $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (two-tailed tests)

attitudes toward gays and lesbians are greater by 0.17 when a country legalizes same-sex marriage, on average. The positive association supports hypothesis 1. Hypothesis 3 predicts a contrasting relationship for same-sex partnerships. The log-odds of more favorable attitudes are lower when a country legalizes registered partnerships for same-sex couples by nearly the same magnitude as the same-sex marriage coefficient, around 0.15. Finally, the log-odds of favorable attitudes are significantly and substantially lower when a country passes a legal ban on same-sex marriage, supporting hypothesis 2. This pattern of results is similar without including individual-level control variables.

The log-odds scale translates non-linearly to probabilities, so the magnitudes of the policy effects in Table 2 are not immediately comparable between models or categories of agreement. We present average marginal effects (AMEs) of the policy changes in Figure 2 for better interpretation. The AMEs are calculated as the difference in the predicted probability of each level of agreement with a policy change versus without it. The probabilities are predicted with the ordered logistic regression models presented in Table 2.

Across all three policies, the impact of each policy change is strongest on the probability of strong agreement that gays and lesbians should be free to live how they wish. The bars on the left of Figure 2 present the AMEs of legalizing same-sex marriage for each level of agreement. The probability of strong agreement is 3.1 percentage points higher when passing same-sex marriage legalization. This association is comparable to about three additional years of education or a standard deviation toward the left on the left-right scale. The probabilities of the lowest three levels of agreement are lower by about 1 percentage point with

Figure 2: Average Marginal Effects of Policy Changes on Predicted Probability of Agreement that Gays and Lesbians Are Free to Live How They Wish.



Note: The average marginal effects are the difference in the predicted probability of agreement with a policy change and without it. The probabilities are predicted with the ordered logistic regression models presented in Table 2. The bars indicate 95% confidence intervals.

marriage legalization.

The AMEs are of similar magnitudes for legalizing same-sex partnerships but in the opposing directions. The probability of strong agreement is 2.6 percentage points lower with the policy change. The pattern is similar for legal bans on same-sex marriage but with greater magnitudes. The probability of strong agreement is 6.7 percentage points lower, and the probabilities of strong disagreement, disagreement, and the middle category are all more than two percentage points greater. Again, we note these effects are driven by the constitutional ban

on same-sex marriage passed in Hungary, relative to all other countries.

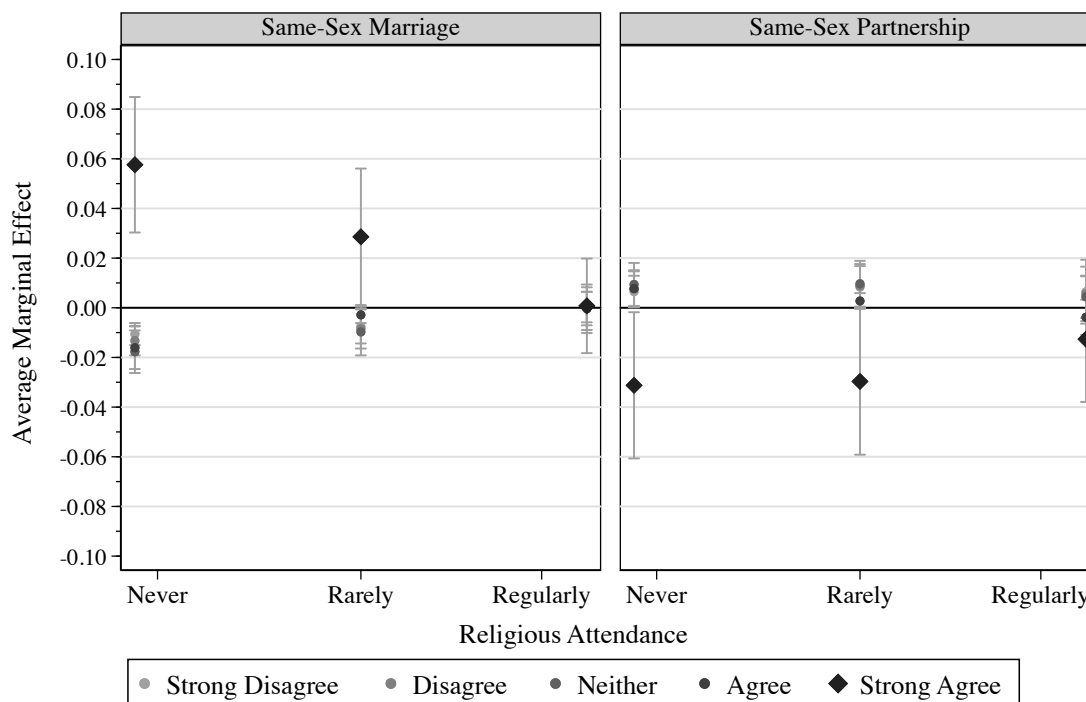
We have argued that registered partnerships may be viewed as a liberalization of policies toward same-sex relationships, but may also reinforce the construction of gays and lesbians as outsiders. More consistent with the second argument than the first, the direction of the average marginal effects for legalizing registered partnerships is the same as for marriage bans for every category. Next we address heterogeneity in responses to policy changes in order to gain more leverage on our argument about the different effects of policies.

5.2 Heterogeneity in Responses to Policy Changes

As outlined above, we test hypothesis 4 with cross-level interactions between policy changes and religious service attendance. We expect those who regularly attend religious services to be least affected by same-sex policy changes because their attitudes are the most strongly predefined. Figure 3 shows the AMEs for legalizing same-sex marriage and partnerships by the regularity of religious service attendance. We refer to the predicted probability figures for interpretation; the corresponding log-odds coefficients are presented in Table A2 in the appendix.

Consistent with hypothesis 4a, attitudes toward gays and lesbians increase most with legalized same-sex marriage among those who report never attending religious services. With legalized same-sex marriage, the probability of strong agreement increases by 5.8 percentage points among this group. The probability also increases by 2.9 percentage points among those who rarely attend services. However, there is virtually no change in the probability of agreement among those who regularly attend services.

Figure 3: Average Marginal Effects of Policy Changes on Predicted Probability of Agreement that Gays and Lesbians Are Free to Live How They Wish, by Regularity of Religious Service Attendance.



Note: The probabilities are predicted with the ordered logistic regression models presented in Table 2, but with interaction terms between the policy changes and religious attendance. The bars indicate 95% confidence intervals.

The results for legalized same-sex partnership are the mirror image, as predicted by hypothesis 4b. Again, there is virtually no predicted change in attitudes towards gays and lesbians among those who regularly attend religious services. The probability of strong agreement is 3.1 percentage points lower among those who never attend services and 3.0 percentage points lower among those who rarely attend. Both associations are statistically significant ($p < 0.05$).⁷

⁷Age is another individual characteristic that may indicate durable predispositions toward homosexuality. Older adults may have already formed attitudes toward gays and lesbians that are less affected by policy change compared to the young. We find similar results to Figure 3 using

Next, we test hypothesis 5 with cross-level interactions between same-sex policy changes and years of education. Figure 4 shows the AMEs for legalizing same-sex marriage and partnerships by years of education. The range for years of education in Figure 4 spans the 10th to the 90th percentiles in the sample. As predicted by hypothesis 5a, the probability of strong agreement is most positively associated with legalizing same-sex marriage for the highly educated. The probability is greater by 6.1 percentage points with legalized same-sex marriage for those with 18 years of education. In contrast, the probability is a non-significant 1.3 percentage points greater for those with only eight years of education.

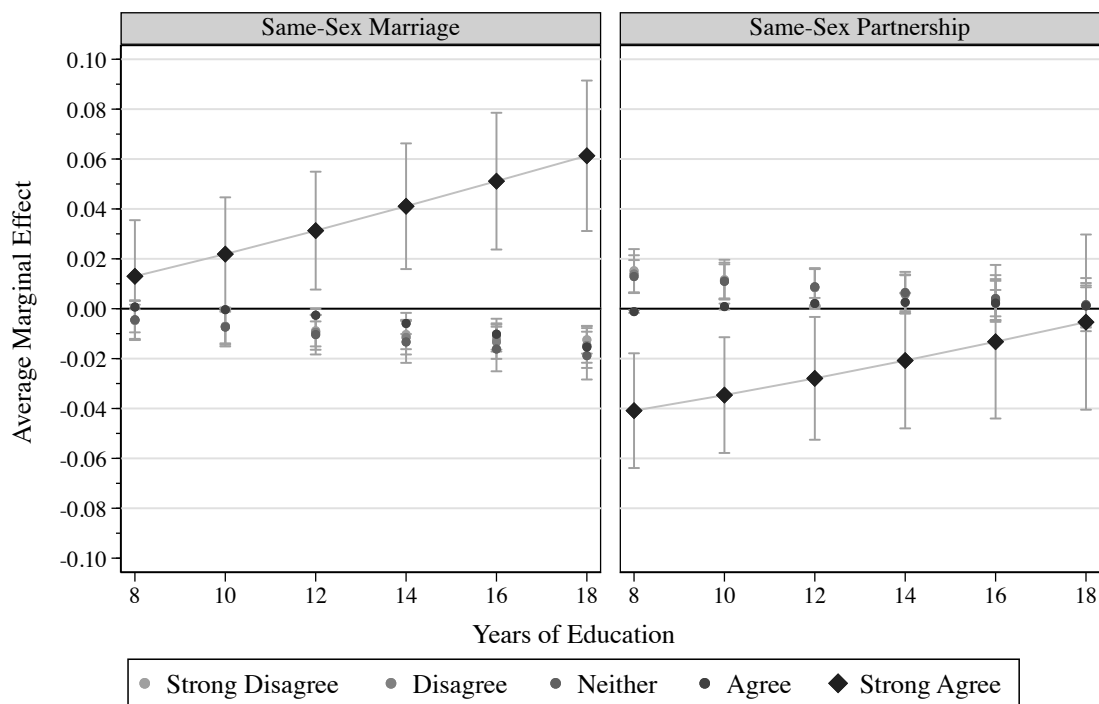
The results for same-sex partnerships also support hypothesis 5b. The probability of strong agreement that gays and lesbians should live how they wish is 4.1 percentage points lower with legalized partnerships for those with only eight years of education. There is virtually no difference among those with 18 years of education.

5.3 Robustness and Causality

Table 3 presents the coefficients for legalizing same-sex marriage and partnership, and banning same-sex marriage, from a number of additional analyses assessing the robustness of our results. The first column includes controls for individuals' income deciles, with similar results to those presented in Table 2. Each row is a separate model, the first including same-sex marriage legalization, the second including same-sex partnership, and the third including bans on same-sex marriage. We

cross-level interactions between age and policy changes, consistent with this theoretical mechanism. Attitudes are not significantly different among older adults with either policy change. Attitudes become more supportive among the young with same-sex marriage and less supportive with same-sex partnership.

Figure 4: Average Marginal Effects of Policy Changes on Predicted Probability of Agreement that Gays and Lesbians Are Free to Live How They Wish, by Years of Education.



Note: The probabilities are predicted with the ordered logistic regression models presented in Table 2, but with interaction terms between the policy changes and education. The bars indicate 95% confidence intervals.

exclude income in the primary analyses due to high levels of missing data, deleting 61,714 cases, including 12 entire country-waves. The models in Table 3 include income deciles categorically with an additional category for missing income.

One central issue with interpreting our findings as a causal effect of policy change on public attitudes is reverse causality. This observational design cannot fully rule out that public attitudes are driving policy change rather than the other way around. However, two points support the causal direction we propose in this article. First, the two-way fixed effects design excludes level and time trend effects.

Table 3: Robustness Checks for Policy Changes from Fixed-Effects Ordinal Logistic Regression, Presented as Log-Odds Coefficients and (*z*-scores).

	Control for Income	Control for % Agree _{<i>t</i>-1}	Policy Change _{<i>t</i>-1}	Policy Change _{<i>t</i>+1}	Care about Environment	Gov. Reduce Income Diff.
Same-Sex Marriage	0.184* (2.50)	0.133* (2.01)	0.269** (4.09)	0.106 (1.60)	0.019 (0.27)	-0.111 (-1.37)
Same-Sex Partnership	-0.150 (-1.80)	-0.131 (-1.29)	-0.249* (-3.50)	-0.151 (-1.74)	-0.030 (-0.38)	-0.014 (-0.17)
Same-Sex Marriage Ban	-0.460*** (-6.39)	-0.339*** (-4.61)	-0.272*** (-2.62)	-0.370*** (-5.61)	-0.559*** (-10.70)	-0.373*** (-5.85)
N	268,489	217,676	268,489	241,958	260,325	266,558

Note: Positive coefficients indicate stronger agreement that gays and lesbians should be free to live how they wish. All models include all controls, and country and year fixed-effects.
†*p* < 0.10, * *p* < 0.05, ** *p* < 0.01, *** *p* < 0.001 (two-tailed tests)

The effects stem from within-country variation and show the deviation from a common time trend. Public opinion in a country would have to deviate from the common time trend within the two-year period between ESS rounds to make same-sex marriage more likely, thus creating reverse causality. Combined with the fact that studies have shown that changes in LG policies are strongly affected by patterns of party competition (Engeli et al., 2012), diffusion mechanisms (Ayoub, 2015; Fernández & Lutter, 2013), or even international courts (Helfer & Voeten, 2014) it is unlikely that these deviations are causally driving policy change instead of the other way around.

Second, results from multiple empirical tests are consistent with a causal effect of same-sex marriage and partnership legalization on attitudes toward gays and lesbians. The second column of Table 3 presents results from a model controlling for prior country-level agreement that gays and lesbians should be free to live how they wish. We calculate the percent of each ESS country-round that agree or strongly agree and include the percentage from each country's previous wave as a control. Coefficients for all three same-sex relationship policy changes are similar to Table 2, but the coefficient for same-sex partnerships is not statistically significant. The interactions between same-sex partnership and religious service attendance and education are consistent with those in Figures 3 and 4 when controlling for prior agreement.

Next, we examined lagged and leading values for policy change to get empirical leverage on this question. If the policy changes affect attitudes rather than the reverse, we would still expect significant coefficients with lagged values, predicting attitudes an additional year after the policy change. ESS rounds are spaced two years apart, so we lag and lead the policy changes by two years. Results for the

lagged policy changes are presented in the third column of Table 3 and are similar to those in Table 2. There should not be significant coefficients with leading values though, predicting attitudes the year prior to the policy change.

The results with policy changes leading attitudes by two years are presented in the third column of Table 3. This model excludes ESS round 8 because leading policy changes (2018–2020) have not yet been observed. Neither same-sex marriage nor same-sex partnerships are significant. The coefficient for banning same-sex marriage is significantly negative but weaker than in Table 2. The significant coefficient for marriage bans emphasizes our caution with this estimate, which is based only on Hungary’s same-sex marriage ban.

Finally, two alternative dependent variables provide placebo tests for our analysis. If changes in policies for same-sex couples’ rights operate as we have argued, we should not observe significant effects on attitudes unrelated to homosexuality. Significant effects would suggest the policy changes may be related to some more general attitudinal shift, including but not limited to attitudes toward homosexuals. First, ordinal logistic regressions predict six-point agreement that it is important to care about nature and the environment, with the same right-hand-side specification as the models in Table 2. The coefficients for the three policy changes are presented in the fourth column of Table 3. Second, these models predict five-point agreement that the government should reduce income differences. The coefficients for the three policy changes are presented in the fifth column of Table 3. Agreement on these variables could be considered more progressive and left-wing attitudes, like the acceptance of homosexuality. They should, however, not be affected by changes in LG rights. Legalizing same-sex marriage and partnerships have no significant association with either attitude. Banning same-sex

marriage is significantly negatively related to both. Again, the results reinforce our caution with the estimated negative effect for attitudes toward homosexuals. Attitudes in Hungary around the time of the same-sex marriage ban likely became more conservative beyond those regarding homosexuality. However, the results of the placebo tests reinforce our confidence in the effects of legalizing same-sex marriage and partnerships.

6 Conclusion

In this paper we demonstrate how different types of LG policies affect general attitudes toward the homosexual population. While the introduction of same-sex marriage leads to significantly more positive attitudes, the opposite is true for same-sex registered partnerships. We find that the different effects are especially pronounced for non-religious individuals. Backlash is also particularly likely for individuals with low levels of education.

These findings contribute to a broader literature on feedback effects of public policies. Not only can we show that changes in policies can indeed lead to changes in attitudes, but in a quantitative comparative assessment we can also demonstrate how policies targeted toward a specific group can affect not only the group itself but the general population. This opens up a novel perspective for other research on feedback effects that so far has primarily focused on how policy changes directly affect social groups or how they change the context conditions for those targeted by policies (Gingrich & Ansell, 2012).

Future studies on the relationship between LG rights change and transformations of attitudes should in more depth investigate the mechanisms that lead

to attitudinal change. While we discuss the of role coming out as well as movements and counter movements, we cannot explicitly test these mechanisms in this study. Similarly, more fine grained analyses of different types of rights changes could help further parse out the relationship between policies, attitudes, and behavior. For example, cohabitation rights in countries like Sweden ensure some degree of economic security for both opposite-sex and same-sex couples following union dissolution. However, cohabitation rights do not involve the same degree of public debate or symbolic importance as policies explicitly focusing on same-sex couples. In addition to policy change, court cases upholding policy liberalization should send signals similar to the ones discussed in this article. Interestingly, in the Spanish case we can witness two periods of changes toward more positive attitudes: one following the introduction of same-sex marriage in 2005 and another following the constitutional court decision of 2012.

In addition, our findings have noteworthy implications for scholars of LG rights as well as activists and supporters. While we have treated same-sex marriage as a generally inclusive concept in this study, there of course exists an important debate among queer scholars and activists about the effects that same-sex marriage will have on the LG community. Queer critics of same-sex marriage make the highly relevant point that instead of challenging existing oppressive norms, the introduction of same-sex marriage reinforces these and only provides privileges for those that are willing to assimilate (Bernstein, 2018; La Sala, 2007). While our study cannot directly address or even solve these issues, we do think it is noteworthy that same-sex marriage leads to more positive attitudes toward the LG population in general and may thus contribute to an improvement of the lives of many, not only those willing to adjust to the heteronormative concept of

marriage.

Activists and policy makers might wonder if our findings should make them cautious about wanting to demand or implement registered partnerships for same-sex couples as we demonstrate that this legislation can lead to backlash. Indeed, in contexts where same-sex marriage potentially seems too contentious of a demand (e.g. in Poland), activists have focused on registered partnership laws (Ayoub, 2016). While we do show that the introduction of registered partnership laws can lead to backlash among some groups, we also know that in many contexts it has functioned as a crucial step for achieving same-sex marriage. In addition, as the Spanish case as well as others seem to demonstrate, when newly introduced institutions supporting LG rights defy a first wave of backlash they can lead to an additional boost for acceptance.

Overall our findings emphasize the importance of legislation in shaping attitudes towards the LG population. This study most directly examines attitudes toward gays and lesbians following same-sex relationship policy changes but could also be relevant for the rapidly growing visibility of trans* issues. As our analysis shows, more inclusive laws lead to more inclusive attitudes. Advocating for more inclusive legal changes directly improves the lives of LG people through equal rights and indirectly by leading to more positive attitudes in society more broadly.

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Appendix

Table A1: ESS Sample Sizes by Country and ESS Round.

	Years for each ESS Round											Total
	2002-3	2004-5	2006-7	2008-10	2010-2012	2012-13	2014-2015	2016-17				
Austria	1,804	1,849	1,853	0	0	0	0	1,547	1,756	8,809		
Belgium	1,448	1,587	1,716	1,668	1,601	1,791	1,623	1,690	13,124			
Bulgaria	0	0	834	1,382	1,583	1,533	0	0	5,332			
Croatia	0	0	0	976	1,116	0	0	0	2,092			
Cyprus	0	0	805	942	717	769	0	0	3,233			
Czech Republic	997	2,065	0	1,691	2,014	1,458	1,734	1,947	11,906			
Denmark	1,367	1,360	1,397	1,519	1,491	1,314	1,427	0	9,875			
Estonia	0	1,384	1,058	0	0	1,854	1,653	1,737	7,686			
Finland	1,861	1,910	1,804	2,079	0	2,076	1,975	1,841	13,546			
France	1,368	1,652	1,845	1,913	1,620	1,840	1,783	1,892	13,913			
Germany	2,648	2,483	2,491	2,470	2,770	2,773	2,882	2,744	21,261			
Greece	1,847	1,844	0	1,657	1,840	0	0	0	7,188			
Hungary	1,275	1,123	1,099	1,127	1,259	1,437	1,280	0	8,600			
Iceland	0	148	0	0	0	644	0	793	1,585			
Ireland	1,572	1,811	1,252	1,594	2,152	2,179	1,840	2,165	14,565			
Italy	901	0	0	0	0	690	0	0	1,591			
Lithuania	0	0	0	0	980	1,359	1,419	0	3,758			
Luxembourg	982	1,293	0	0	0	0	0	0	2,275			
Netherlands	2,195	1,759	1,761	1,679	1,709	1,754	1,763	1,555	14,175			
Norway	1,973	1,703	1,686	1,507	1,486	1,594	1,391	1,488	12,828			
Poland	1,631	1,297	1,352	1,278	1,399	1,500	1,235	1,315	11,007			
Portugal	1,113	1,282	1,464	1,452	1,322	1,371	1,063	0	9,067			
Slovakia	0	1,042	1,372	1,425	1,445	1,507	0	0	6,791			
Slovenia	987	893	995	927	860	800	887	1,012	7,361			
Spain	1,193	1,312	1,522	1,968	1,650	1,666	1,548	0	10,859			
Sweden	1,848	1,829	1,789	1,746	1,429	1,732	1,709	1,460	13,542			
Switzerland	1,777	1,932	1,664	1,641	1,389	1,382	1,402	1,410	12,597			
Ukraine	0	1,080	994	792	842	1,020	0	0	4,728			
United Kingdom	1,825	1,684	2,068	2,056	2,003	1,856	1,977	1,726	15,195			
Total	32,612	36,322	32,821	35,489	34,677	37,899	32,138	26,531	268,489			

Table A2: Predicted Agreement that Gays and Lesbians Are Free to Live How They Wish from Fixed-Effects Ordinal Logistic Regression with Cross-Level Interactions.

<i>Variables</i>	Legalize Marriage	Legalize Partnerships	Legalize Marriage	Legalize Partnerships
Policy Change	0.261*** (3.64)	-0.154* (-2.12)	-0.112 (-1.26)	-0.338** (-3.10)
Rarely Rel. Attend (ref. = Never)	-0.599*** (-39.63)	-0.599*** (-37.80)	-0.340*** (-12.62)	-0.339*** (-12.57)
Regularly Rel. Attend (ref. = Never)	-1.205*** (-35.17)	-1.229*** (-33.02)	-0.870*** (-14.47)	-0.869*** (-14.45)
Policy Change × Rarely Attend	-0.129* (-2.21)	0.008 (0.39)		
Policy Change × Regularly Attend	-0.315*** (-5.57)	0.097 (1.36)		
Years of Educ.	0.047*** (16.48)	0.047*** (16.73)	0.077*** (23.20)	0.073*** (23.37)
Policy Change × Years of Educ.			0.022*** (3.79)	0.017* (2.12)
ln(GDP PC)	-1.042*** (-5.92)	-1.092*** (-6.12)	-1.011*** (-5.95)	-1.061*** (-6.20)
ln(Unemp. Rate)	-0.121 (-1.48)	-0.111 (-1.42)	-0.108 (-1.35)	-0.096 (-1.24)
Age	-0.018*** (-16.35)	-0.018*** (-16.30)	-0.018*** (-16.06)	-0.018*** (-16.06)
Female	0.405*** (13.60)	0.405*** (13.65)	0.414*** (14.34)	0.413*** (14.35)
Divorced (ref. = Partnered)	0.117*** (4.79)	0.117*** (4.83)	0.122*** (4.88)	0.121*** (4.90)
Widowed (ref. = Partnered)	-0.092*** (-5.70)	-0.092*** (-5.76)	-0.096*** (-5.95)	-0.096*** (-5.99)
Never Partnered (ref. = Partnered)	0.098*** (4.17)	0.097*** (4.14)	0.098*** (4.10)	0.097*** (4.04)
Household Size	-0.061*** (-7.36)	-0.061*** (-7.30)	-0.062*** (-7.59)	-0.062*** (-7.55)
Children in Home	0.070*** (4.71)	0.070*** (4.67)	0.069*** (4.70)	0.069*** (4.64)
Unemployed (ref. = Employed)	-0.041 (-1.08)	-0.039 (-1.04)	-0.051 (-1.30)	-0.050 (-1.31)
NILF (ref. = Employed)	-0.043* (-2.21)	-0.042* (-2.15)	-0.044* (-2.27)	-0.044* (-2.24)
L-R Political Orientation	-0.073*** (-5.09)	-0.072*** (-5.08)	-0.073*** (-5.20)	-0.073*** (-5.21)
Countries	29	29	29	29
Country-Years	158	158	158	158
Observations	241,958	241,958	241,958	241,958

Note: Presented as log-odds coefficients and (z-statistics). Positive coefficients indicate stronger agreement that gays and lesbians should be free to live how they wish. All models include occupational controls, and country and year fixed effects. Cross-level interactions include interactions between individual-level variables and country fixed effects.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$ (two-tailed tests)