COHORT DIFFERENCES IN TOLERANCE OF HOMOSEXUALITY
ATTITUINAL CHANGE IN CANADA AND THE UNITED STATES, 1981–2000

ROBERT ANDERSEN
TINA FETNER

Abstract Using data from the World Values Surveys, we explore trends in tolerance of homosexuality in Canada and the United States from 1981 to 2000. Particular attention is given to the effects of birth cohort. Consistent with previous research, we find that younger cohorts are typically the most tolerant of homosexuality. We also find that Canadians are more liberal than Americans. Most interesting, however, is the remarkable degree of change over time within cohorts, especially in Canada. These findings suggest that attitudes toward homosexuality during this period were an exception to the age-stability hypothesis, which claims that opinions on controversial social issues are formed by early adulthood, and change little with age. We speculate that differing political climate across country and time is responsible for the significant differences in public opinion.

Introduction

It is widely believed that long-term changes in public opinion largely reflect generational effects. More specifically, it is often argued that older, more conservative generations have been replaced by younger, more tolerant generations (see, for example, Inglehart 1977). A related argument is the “age-stability hypothesis” of Alwin and Krosnick (1991), which claims that people change...
their minds little as they age. This hypothesis has been supported with respect to many social attitudes (see, for example, Cutler and Kaufman 1975; Davis 1992; Firebaugh and Davis 1988; Quillan 1996; Wilson 1994). Given the rapid cultural, legal, and political changes surrounding homosexuality over the past 30 years—e.g., increased visibility of lesbian and gay people in the media, the expansion of lesbian and gay subcultures, and contested politics over lesbian and gay rights—we might expect attitudes toward homosexuality during this period to be an exception to this rule. There is certainly significant evidence to suggest that attitudes toward homosexuality have become more tolerant in both Canada and the United States (see Altmeyer 2001; Bibby 1983; MacKinnon and Luke 2002; Smith 1992; Yang 1997). There is also some evidence of an increase in tolerance within cohorts (Treas 2002).

The diverging paths of Canada and the United States in terms of policies on homosexuality may have implications for public opinion on the issue. Canadian law guarantees equal rights to gay men and lesbians, including the right to be legally married. Although not absolute in its rejection of lesbian and gay rights, policy in the United States is far less liberal. While antisodomy laws were struck down by a recent Supreme Court decision (Lawrence v. Texas, 2003), homosexuals are still legally prevented from serving in the military. Moreover, although the federal Hate Crime Statistics Act (1990) requires the Justice Department to collect data on antigay hate crimes, there is no federal antidiscrimination protection for lesbians and gay men, and many states have recently implemented policies explicitly prohibiting gay couples from marrying (Adam 2003). As yet, however, there is no systematic study of whether these national differences in policy are reflected in differences in public opinion. If policy influences public opinion, one would expect the two countries to be diverging, with Canadians becoming increasingly more liberal than Americans.

Using data from the World Values Surveys (WVS), the present study explores changes in attitudes toward homosexuality in Canada and the United States from 1981 to 2000. We build on previous research by exploring changes in the effects of birth cohort on attitudes in the two countries, controlling for other factors that are generally associated with attitudes toward homosexuality. Before discussing our analysis, we begin with a review of previous research on the impact of social factors on conservative attitudes generally, and on attitudes toward homosexuality more specifically.

Social Attitudes in Canada and the United States

There is no shortage of sociological research on attitudinal differences between Canadians and Americans. Much of this research has centered on a debate between Lipset (1964, 1968, 1986, 1996) and several Canadian researchers (see Baer, Grabb, and Johnston 1990, 1993; Grabb, Baer, and Curtis 1999;
Grabb and Curtis 1988). Although the recent research by Grabb and Curtis (2005) shows the differences within the two countries to be as marked as differences between the countries, most agree that Canadian attitudes tend to be more liberal than American attitudes. These findings apply to most social and political issues, including attitudes toward homosexuality.


SOCIAL DETERMINANTS OF SOCIALLY CONSERVATIVE ATTITUDES

The social basis of conservative attitudes has been the topic of considerable research, producing a number of widely accepted findings. It is generally agreed that exposure to a diversity of ideas and people that is typically associated with university education encourages people to be more open-minded and liberal (Janowitz and Marvick 1953; Inglehart 1977). There is also evidence that social class matters. The working class authoritarian hypothesis first proposed by Lipset (1959, pp. 490–92), for example, argues that low education, economic and social insecurity, and resulting family tension that is found disproportionately in the working class encourages out-group hostility and moral conservatism. Lipset’s hypothesis was recently supported by Svallfors’ (2005) comparative analysis of the United States, Great Britain, Sweden, and Germany, which found social class affected many social attitudes in all four countries, including attitudes toward homosexuality, even after controlling for education.

Research also indicates that people from urban centers tend to be more tolerant than those from rural settings (Wirth 1938; Wilson 1985), though some argue that it is the size of the community in which one lived as a teenager that matters most (Stephan and McMullin 1982). The mechanisms for the urban effect are perhaps best explained by Merton’s (1957, see also Andersen and Yaish 2003) distinction between “localite” and “cosmopolitan” individuals. Localites are largely in contact with people similar to themselves and are thus generally preoccupied with individualistic or close community issues, rather than issues that pertain to the larger world. In contrast, cosmopolitans—i.e., those living in larger centers—see themselves as belonging to a larger world.
The lack of familiarity with outside groups thus contributes to localites being less open-minded than cosmopolitans.

It is widely accepted that religious institutions typically emphasize historical wisdom, and hence adherence to the *status quo*, that hinders social change (Durkheim 1954). It is not surprising, then, that religious practice is positively related to conservative attitudes generally (Weller 1975; Schwartz and Huismans 1995), and intolerance of homosexuality more specifically (Agnew et al. 1993). The relationship between religion and attitudes toward homosexuality is complex, however. For example, although many religious institutions still adhere to proscriptions against homosexuality, in recent decades some churches in the United States and Canada have liberalized (Wood and Bloch 1995; Buzzell 2001; Moon 2004). Moreover, some research suggests that there is no relationship between an intrinsic religious orientation and intolerance (Batson, Schoenrade, and Ventis 1993), and that it is fundamentalist beliefs, not denomination, that is the main religion-related predictor of antigay attitudes (Fulton, Gorsuch, and Maynard 1999; Yang 1997). Because religiosity and the proportion of fundamentalist Christians is much higher in the United States than in Canada, this might account for some of the differences between the countries, and perhaps some of the changes over time within each country (see, for example, Bibby 2004).

Most important to the present study is the role of age in producing socially conservative attitudes. Although it is often unclear whether age differences result from birth cohort effects, period effects, or a combination of the two (see, for example, Danigelis and Cutler 1991), it is clear that life course events affect attitudes (Kiecolt and Acock 1988; Trent and South 1992). For example, getting married and having children are events associated with traditional lifestyles that can promote more traditional and conservative attitudes. There is also broad agreement that attitudes regarding controversial social issues tend to be relatively stable, implying that changes in public opinion largely result from generational differences—i.e., as older generations are replaced with younger generations, overall attitudes change, but there is little change within each birth cohort (Alwin and Krosnick 1991; Cutler and Kaufman 1975; Davis 1992; Firebaugh and Davis 1988; Quillan 1996; Wilson 1994).

Research on the social determinants of attitudes toward homosexuality finds effects following the same patterns as the determinants of social attitudes in general (e.g., Aguero, Bloch, and Byrne 1984; Ellison and Musick 1993; Heren 1984; Kite 1984; Kite and Whitley 1996; Lottes and Kurillof 1994; Stephan and McMullin 1982). There is a broad consensus that women tend to be more approving of homosexuality than men, and younger generations are more tolerant than older generations. Moreover, age, the size of city in which people live, and education have all been found to be positively related to liberal attitudes. Social class is also a factor, with those who have more economic stability tending to be more liberal than others (Svallfors 2005). Finally, several studies also demonstrate that being acquainted with a lesbian, a gay man, or
a bisexual person increases the likelihood of approval of homosexuality (e.g., Cotten-Huston and Waite 2000; Herek and Capitanio 1996; Herek and Glunt 1993; Wills and Crawford 2000).

Other research indicates that changes in public opinion on homosexuality over the past few decades have been widespread, and thus cannot be explained by changes in demographic composition (Adam 1998, Loftus 2001). In fact, using US data, Treas (2002) found that changes in attitudes toward homosexuality have been much greater than the changes in attitudes toward any other sexuality issue (e.g., premarital sex). Many notable cultural changes since 1981 in both Canada and in the United States—such as the tragedy of the AIDS epidemic, which brought gay men’s lives into the public sphere, and the greater inclusion of gay and lesbian characters in film and television (Walters 2001)—may be responsible for the rapid changes in public opinion. Given the national differences over time in social policy on lesbian and gay rights, we might further expect increasing disparity in attitudes toward homosexuality between Canada and the United States.

In order to assess differences in public opinion between countries over time, consistent measures are required. There has been little consistency in the wording of survey questions measuring tolerance of homosexuality, however. It is clear that public opinion on the issue looks quite different depending on the measure that is used. For example, surveys suggest that most Americans are in favor of gay rights, but not necessarily in favor of changing laws to secure those rights (Herek 2002). Americans are also generally opposed to discrimination against homosexuals in housing and employment despite that most are opposed to same-sex marriage (Kite and Whitley 1996). Moreover, people are more likely to say that homosexuality is wrong than that gay men and lesbians should not have the same rights as others (Yang 1997).

The present study improves on previous research by using data that contain identical measures for Canada and the United States for several points in time. Derived from previous research, we explore five research questions regarding the impact of country and age on attitudes toward homosexuality:

1. To what degree have attitudes toward homosexuality changed over time?
2. Have attitudes changed in the same way in Canada and the United States?
3. Are people from older birth cohorts less accepting of homosexuality than are those from younger cohorts?
4. Has the gap between young and old changed over time?
5. Does the relationship between birth cohort and attitude differ across country?

Differences in birth cohort effects between the two countries and across time would suggest that society-wide pressures are at work.

Given their importance in predicting attitudes, especially regarding homosexuality, we control for gender, education, social class, religion, community size, and marital status in all of our analyses.
Data

We employ a subset of the WVS, which include data from more than 40 countries (Inglehart et al. 2001). We focus only on Canada and the United States, using data collected at three points in time during the period 1981–2000. The data for Canada were collected in 1981 (N = 1,254), 1990 (N = 1,931), and 2000 (N = 1,730). The 1981 data were collected by Canadian Facts; the 1990 and 2000 data were collected by Gallup Canada. The U.S. data were collected in 1982 (N = 2,325), 1990 (N = 1,839), and 2000 (N = 1,200). The 1982 and 1990 U.S. data were collected by the Gallup Organization; the 2000 data were collected by Ronald Inglehart and the Institute for Social Research at the University of Michigan. All of the data are from stratified random samples designed to be representative of the national adult (18 years and older) populations.

To ensure that all birth cohorts are comparable across the three waves of the study, we restrict our analysis to those who would have been eligible for selection in all three waves (i.e., respondents born before 1964, and thus would have been at least 18 years of age during the time of the first wave of the study). After removing missing cases, the total analytical sample size is 6,194, of which 3,004 respondents are from Canada and 3,190 are from the United States. All of our analyses employ the weight variable provided with the dataset to ensure that the samples are representative of their populations.

DEPENDENT VARIABLE

The dependent variable is based on a questionnaire item that asked respondents to give their opinions on various social and political issues, including homosexuality. The question was worded as follows:

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

<table>
<thead>
<tr>
<th>Homosexuality</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Never justifiable</td>
<td>Always</td>
</tr>
<tr>
<td>1</td>
<td>2 3 4 5 6</td>
</tr>
</tbody>
</table>

There are potential limitations to this item. First, because it sits among a list of morally questionable and illegal actions—such as embezzlement and

---

1. U.S. respondents were also administered a survey in 1995. We exclude these data from our analysis because there are no comparable data for Canadian respondents for that year.
2. The WVS codebook indicates that response rates range between 71 percent and 96 percent for individual country surveys. Unfortunately the individual response rates for each country are not provided. Further information, including codebooks and questionnaires, is provided on the website for the WVS (http://www.worldvaluessurvey.org/).
tolerance of homosexuality—there is a possibility of context effects. Research has shown either “consistency” or “contrast” effects depending on the issue, however, and thus it is unclear in what direction we might expect bias, if it exists at all (Schuman, Presser, and Ludwig 1981; Tourangeau et al. 1989). Secondly, the question does not differentiate male homosexuality from female homosexuality. A number of scholars have argued the importance of this distinction, claiming that tolerance of lesbians tends to be higher (e.g., Herek 1984; Raja and Stokes 1998). Nevertheless, these attributes are common to questionnaire items employed by most research in the area (see Persell, Green, and Gurevich 2001; Loftus 2001).

More importantly, it is unlikely that bias would differ between these two countries that have a common language and similar cultures generally. In other words, since the identical question was administered in Canada and the United States at all points in time that we explore, we have a consistent basis for comparison of temporal trends in the two countries.

INDEPENDENT VARIABLES

The main predictors of interest are country, year, and birth cohort. Year is included in the statistical models as a three-category factor. Birth cohort is divided into six categories of roughly 10 years each: (1) born before 1920, (2) 1920–29, (3) 1930–39, (4) 1940–49, (5) 1950–59, and (6) 1960–63.

We control for gender, education, social class, religion, marital status, and community size. Due to limitations in the data, education is measured simply as a dichotomous variable defined as high (left school after 21 years of age) and low (left before 21). Following Hout, Manza, and Brooks (1999; see also Andersen and Heath 2003), we divide social class into five categories: (1) managers, (2) professionals, (3) routine nonmanual labor, (4) working class, and (5) other. The other category includes students, those not working outside of the home (including homemakers and the unemployed), and all those for whom data are missing. The data did not allow us to identify fundamentalist followers, but religiosity and denomination could be determined. Religion is thus divided into seven categories: (1) practicing Protestants, (2) practicing Catholics, (3) practicing others, (4) nonpracticing Protestants, (5) nonpracticing Catholics, (6) nonpracticing others, and (7) those who did not identify a religion. Respondents who attended religious services at least once a month are classified as “practicing.” Marital status is measured with a simple dichotomy of married

3. Another question in the survey presented respondents with a list of socially marginalized groups and asked:

On this list are various groups of people. Could you please sort out any that you would not like to have as neighbors?

Homosexuals are included on this list in the United States and Canada for two of the three waves we analyze. We did not employ this question for two reasons: (1) its narrow scope makes it a very poor measure of overall attitudes toward homosexuals and (2) it was asked in only two years.

4. Information on self-employment was not complete, so a separate category could not be used.
versus not married. Finally, community size is divided into five categories:
(1) less than 2,000, (2) 2,000–4,999, (3) 5,000–9,999, (4) 10,000–49,999, and
(5) 50,000 or more.

**Methods**

Preliminary analyses suggested that the dependent variable followed a Gamma
distribution, suggesting the use of Gamma models to test our hypotheses.\(^5\) Like
all generalized linear models (GLMs), the Gamma model is characterized by
a linear predictor, \( \eta = X\beta \), where \( X \) is the model matrix and \( \beta \) is the vector
of coefficients. The random component of the model \( \epsilon \), is assumed to have
a Gamma distribution, and a log link \( g(\mu_i) = \log e \mu_i \) is used to map \( \mu_i \),
which is the expectation of the response vector \( y \), onto the linear predictor (see

We report the results from three Gamma models. The first model was fitted
to the pooled data from both Canada and the United States. As well as the
social background predictors discussed above, this model also includes dummy
variables for country and year, and interactions between year, country, and birth
cohort. The model takes the following form:

\[
\eta = \beta_0 + \beta_1 \text{education}_i + \sum_{l=1}^{4} \gamma_l \text{social class}_{li} + \sum_{m=1}^{6} \gamma_m \text{religion}_{mi}
\]

\[
+ \beta_2 \text{marital status}_i + \sum_{w=1}^{4} \eta_w \text{community size}_w + \beta_3 \text{gender}_i
\]

\[
+ \sum_{n=1}^{5} \alpha_n \text{birth cohort}_{ni} + \beta_4 \text{USA}_i + \sum_{p=1}^{2} \gamma_p (\text{USA}_i \times \text{year}_i)
\]

\[
+ \sum_{q=1}^{5} \alpha_q (\text{USA}_i \times \text{birth cohort}_i) + \sum_{s=1}^{10} \kappa_s (\text{year}_i \times \text{birth cohort}_i)
\]

\[
+ \sum_{v=1}^{10} \rho_v (\text{USA}_i \times \text{year}_i \times \text{birth cohort}_i).
\]

5. We avoid ordinary least squares (OLS), which assumes that the conditional distribution of the
dependent variable is normal, because it typically gives upwardly biased estimates when predicting
a dependent variable with a Gamma distribution. Still, as a preliminary measure, we also fitted
linear models estimated with OLS using the log of the dependent variable. We further fitted binary
logit models to the dependent variable recoded into two categories (1 = never justified, 0 = at
least sometimes justified) to ensure that the results from the Gamma models were not driven by
the large number of respondents giving a response of 1. The deviance and associated measures of
fit for these models indicated that the Gamma models provided much better fits to the data. More
importantly, the results from all three sets of models were substantively identical, suggesting that
they are robust.
This pooled data model provides formal tests for differences in the effects of birth cohort and time according to the country. After determining that there were, in fact, country differences worth exploring, we fitted separate models for Canada and the United States. These models exclude all regressors associated with the country variable, including the interaction terms that are now irrelevant, but include all other predictors from the pooled data model. We report both the coefficients for the country-specific models, and associated fitted values in order to clarify the interpretation.\(^6\)

**Results**

We start with figure 1, which shows the distributions of the dependent variable, the justification of homosexuality on a 10-point scale, for each year, by country. The lines in the graphs represent density estimates, which can more simply be seen as smoothed histograms. Three important points can be made from these graphs: (1) for each year the Canadian distributions are more uniform, with

---

\(^6\) Fitted values are computed by creating a new matrix, \(X^*\), which includes all combinations of values of the predictors of interest, and typical values for the control variables (for the present analysis, this involves setting the control variables to their sample proportions since they are all categorical). The structure of \(X^*\) is the same as that of the model matrix \(X\), meaning that the fitted values \(\hat{\eta}^* = X^* \hat{\beta}\) represent the effect of interest. We transform these fitted values back from the log scale to the scale of the original survey item (i.e., so that they range from 1 to 10), \(g^{-1}(\hat{\eta}^*)\). See Fox (1987) for more details of effect displays for GLMs.
Table 1. Mean Responses to the Dependent Variable by Birth Cohort and Country

<table>
<thead>
<tr>
<th></th>
<th>Canada</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Age</td>
<td>Mean</td>
</tr>
<tr>
<td><strong>Canada</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Birth cohort</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before 1920</td>
<td>61+</td>
<td>1.81</td>
</tr>
<tr>
<td>1920–29</td>
<td>51–60</td>
<td>2.45</td>
</tr>
<tr>
<td>1930–39</td>
<td>41–50</td>
<td>3.18</td>
</tr>
<tr>
<td>1940–49</td>
<td>31–40</td>
<td>3.14</td>
</tr>
<tr>
<td><strong>USA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Birth cohort</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before 1920</td>
<td>61+</td>
<td>1.82</td>
</tr>
<tr>
<td>1920–29</td>
<td>51–60</td>
<td>2.07</td>
</tr>
<tr>
<td>1930–39</td>
<td>41–50</td>
<td>2.13</td>
</tr>
<tr>
<td>1940–49</td>
<td>31–40</td>
<td>2.61</td>
</tr>
</tbody>
</table>

**Note.**—High scores indicate greater tolerance of homosexuality.

far fewer responses of one (never justifiable) than in the United States; (2) for both countries the distributions become more uniform with fewer low scores as time goes on; and (3) for all surveys there is a peak in the middle of the scale, probably reflecting a large proportion of respondents who did not give the issue much thought. The first two points suggest that Canadians are generally more liberal than their American counterparts, but that attitudes have become increasingly more liberal in both countries. We now turn to table 1, which explores the relationship between birth cohort and opinions that homosexuality is justifiable. Reported are the weighted mean scores for each birth cohort by country, and over time. We see clear generational differences in terms of attitudes toward homosexuality in both countries, with the views of those in earlier cohorts tending to be less sympathetic to homosexuality than those in later cohorts. It is also evident that attitudes changed over time within all birth cohorts. In other words, we have tentative evidence that attitudes toward homosexuality were affected by social influences throughout the life course. The pattern is similar for Canada and the United States, but the mean scores are lower in nearly all cohorts in all years in the latter. Thus far our analysis has uncovered differences in attitudes according to country, year, and birth cohort. It is possible that these differences are less striking—or even disappear—after controlling for possible confounding
Table 2. Type II Chi-Square Tests for Terms in Gamma Model Predicting Tolerance of Homosexuality in Canada and the US, Pooled Data

<table>
<thead>
<tr>
<th></th>
<th>Chi-square</th>
<th>df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social background</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control variables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>72.96</td>
<td>1</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Religion</td>
<td>248.54</td>
<td>6</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Education</td>
<td>78.78</td>
<td>1</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Social class</td>
<td>60.00</td>
<td>4</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Marital status</td>
<td>9.66</td>
<td>1</td>
<td>.002</td>
</tr>
<tr>
<td>Community size</td>
<td>15.00</td>
<td>4</td>
<td>.005</td>
</tr>
<tr>
<td><strong>Independent variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>186.41</td>
<td>2</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Country</td>
<td>36.69</td>
<td>1</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Birth cohort</td>
<td>108.36</td>
<td>5</td>
<td>&lt;.001</td>
</tr>
<tr>
<td><strong>Interactions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year*Country</td>
<td>16.28</td>
<td>2</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Year*Birth cohort</td>
<td>7.96</td>
<td>10</td>
<td>.633</td>
</tr>
<tr>
<td>Country*Birth cohort</td>
<td>16.01</td>
<td>5</td>
<td>.006</td>
</tr>
<tr>
<td>Year<em>Country</em>Birth cohort</td>
<td>15.83</td>
<td>10</td>
<td>.104</td>
</tr>
</tbody>
</table>

variables. Differences across country and time may simply reflect structural changes with respect to the demographic control variables discussed earlier. Growing levels of education, and declining proportions of people who belong to the working class, to a religion, live in rural areas, or who are married, are all plausible explanations for country differences over time. In order to avoid making spurious causal claims, then, we turn to the Gamma models, which control for these possibly confounding factors.

Table 2 provides tests for terms in the initial model that employs the pooled data from Canada and the United States. Recall that this model tests for interaction effects among birth cohort, country and time. As one would expect, gender, education, social class, religion, and marital status all have statistically significant effects on attitudes toward homosexuality. Community size also matters, though as we shall see later from the country-specific models, this is the case for the United States only. More importantly, although the control variables have statistically significant effects, they do not render the effects of year, country, and birth cohort statistically insignificant.

Of the two-way interactions, only the year*country and country*birth cohort interactions are statistically significant. This suggests that (1) differences in attitudes by country have changed over time, and (2) although there are cohort differences in attitudes, differences between cohorts have not become any more or any less polarized over time. With respect to the latter point, this does not mean that each cohort has remained stable in its public opinion. In contrast,
all cohorts have changed at the same rate. Finally, the fact that the three-way year\text{*}country\text{*}birth cohort interaction is not statistically significant suggests that differences between the two countries in terms of cohort effects have remained constant over time. Of course, tests of significance tell us nothing about how the predictors affect attitudes. To assess the magnitude and direction of these effects, we turn to the country-specific models.

Table 3 displays coefficients for the separate models fitted to each country. These country-specific models provide largely the same story as the model fitted to the pooled data except for one notable exception: size of community matters only in the United States where there is a large, negative, and statistically significant effect. Size of community has no apparent effect in Canada. In general, however, the patterns of association with respect to the social background controls are all as expected from previous research. More specifically, respondents who are male, have low education, are from lower social classes, identify a religion, and are married tend to express the least tolerant views about homosexuality.

![Figure 2](image-url)

**Figure 2.** The Effect of Birth Cohort on Tolerance of Homosexuality, by Year and Country. Fitted Values are Based on Models for each Country Treated Separately.

More importantly, the country, year, and birth cohort effects are consistent with those uncovered in tables 1 and 2. To better see the effects of these variables, we turn to figure 2, which plots fitted values from the country-specific models showing the effects of birth cohort over time in both Canada and the United States. Several notable findings are evident in this figure. First, for both countries the pattern of the cohort effect is the same in all years—i.e., cohort
### Table 3. Coefficients for Gamma Models Predicting Tolerance of Homosexuality, Canada and USA Treated Separately

<table>
<thead>
<tr>
<th></th>
<th>Canada</th>
<th>USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>.71 (.07)***</td>
<td>.86 (.11)***</td>
</tr>
<tr>
<td>Men</td>
<td>−.23 (.03)***</td>
<td>−.16 (.03)***</td>
</tr>
<tr>
<td>Religion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Practicing Protestants</td>
<td>−.48 (.05)***</td>
<td>−.33 (.06)***</td>
</tr>
<tr>
<td>Practicing Catholics</td>
<td>−.21 (.05)***</td>
<td>−.29 (.06)***</td>
</tr>
<tr>
<td>Practicing others</td>
<td>−.49 (.05)***</td>
<td>−.49 (.07)***</td>
</tr>
<tr>
<td>Nonpracticing Protestants</td>
<td>−.08 (.06)</td>
<td>−.08 (.07)</td>
</tr>
<tr>
<td>Nonpracticing Catholics</td>
<td>−.02 (.05)</td>
<td>.02 (.06)</td>
</tr>
<tr>
<td>Nonpracticing others</td>
<td>−.18 (.11)</td>
<td>.19 (.07)*</td>
</tr>
<tr>
<td>None</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>High education</td>
<td>.16 (.03)***</td>
<td>−.267 (.04)***</td>
</tr>
<tr>
<td>Social class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managers</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>Professionals</td>
<td>.21 (.04)***</td>
<td>.13 (.05)*</td>
</tr>
<tr>
<td>Routine nonmanual</td>
<td>.28 (.04)***</td>
<td>.22 (.06)***</td>
</tr>
<tr>
<td>Others</td>
<td>.12 (.05)*</td>
<td>.13 (.08)</td>
</tr>
<tr>
<td>Working class</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>Married</td>
<td>−.07 (.03)*</td>
<td>−.08 (.03)*</td>
</tr>
<tr>
<td>Community size</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than 2,000</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>2,000–4,999</td>
<td>.03 (.05)</td>
<td>.07 (.05)</td>
</tr>
<tr>
<td>5,000–9,999</td>
<td>.08 (.04)</td>
<td>.20 (.05)***</td>
</tr>
<tr>
<td>10,000–49,999</td>
<td>−.08 (.06)</td>
<td>.24 (.07)***</td>
</tr>
<tr>
<td>50,000 or more</td>
<td>−.05 (.04)</td>
<td>.30 (.06)***</td>
</tr>
<tr>
<td>Birth cohort</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before 1920</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>1920–29</td>
<td>.16 (.06)**</td>
<td>.08 (.06)</td>
</tr>
<tr>
<td>1930–39</td>
<td>.39 (.05)***</td>
<td>.17 (.06)**</td>
</tr>
<tr>
<td>1940–49</td>
<td>.39 (.05)***</td>
<td>.23 (.06)***</td>
</tr>
<tr>
<td>1950–59</td>
<td>.47 (.05)***</td>
<td>.21 (.05)***</td>
</tr>
<tr>
<td>1960–63</td>
<td>.46 (.07)***</td>
<td>.19 (.07)**</td>
</tr>
<tr>
<td>Year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1981/82</td>
<td>−</td>
<td>−</td>
</tr>
<tr>
<td>1990</td>
<td>.43 (.05)***</td>
<td>−.08 (.08)</td>
</tr>
<tr>
<td>2000</td>
<td>.66 (.05)***</td>
<td>.21 (.09)*</td>
</tr>
<tr>
<td>Model chi-square</td>
<td>418.0 (24 df)***</td>
<td>418.2 (24 df)***</td>
</tr>
<tr>
<td>Dispersion parameter</td>
<td>.572</td>
<td>.564</td>
</tr>
<tr>
<td>N</td>
<td>3004</td>
<td>3190</td>
</tr>
</tbody>
</table>

**Note.**—Standard errors are in parentheses.
*p*-value < .05; **p*-value < .01; ***p*-value < .001.
differences do not change over time. Second, if we look only at the effects for Canada, we notice that acceptance of homosexuality gradually increased from one year of the study to the next. On the other hand, for the United States, there was a slight drop in 1990 and then a rise again in 2000. Finally, the Canadian and U.S. trends are nearly identical in 1981, but by 1990 all cohorts in Canada were more liberal, and this pattern continued in 2000. The changes within cohorts, and the differences across countries, suggest that some social forces are responsible. More specifically, these results suggest that significant social change has occurred, and that this change has been most marked in Canada. A discussion of possible influences for this change is provided below.

Discussion and Conclusions

This study explored country differences in the effects of birth cohort on attitudes toward homosexuality over a 20-year period. By comparing Canada and the United States, we were able to assess how people from two otherwise quite similar countries may have been affected by different policies on homosexuality. Our findings confirm some previous results. We found that acceptance of homosexuality is more evident in Canada than in the United States, although public opinion became increasingly tolerant in both countries over the 20-year period under study. Also consistent with previous research, we found that acceptance of homosexuality is negatively related to age. We also uncovered new findings that are even more interesting, however.

This study is the first to systematically explore how birth cohort, time, and country interact in their effects on attitudes toward homosexuality. We showed that differences in levels of tolerance of homosexuality according to birth cohort were fairly stable in both countries. We must be clear again, however, that this does not mean that attitudes did not change within cohorts. Rather, it means that the pattern of differences in attitudes remained the same across time in both countries. In fact, by 2000, tolerance had increased in both countries and within all cohorts. We also found that the cohort differences are most pronounced in Canada.

The finding that birth cohort tells only part of the story of change in tolerance of homosexuality stands apart from most findings on general social attitudes, which suggest that opinions are relatively stable through the life course. There is a wide-ranging support for this age-stability hypothesis and the notion that, once opinions are formed in young adulthood, they change very little with age (Alwin and Krosnick 1991). Our finding that the proportion of people with liberal attitudes about homosexuality increased over time for all birth cohorts suggests that views about homosexuality were a rare exception to the age-stability hypothesis, at least during the period under study. These results support Treas’s (2002) analysis of the U.S. General Social Survey, which showed that
intragroup attitude change, combined with cohort succession, resulted in a change in public opinion over time.

The fact that change in attitudes occurred within all cohorts suggests that people were influenced by widespread cultural and political change. We are not claiming that social and political climate generally matters more for the homosexuality issue than for other issues, but rather that the amount of societal change surrounding this issue was unusually high during the period under study. It is not necessarily the nature of the issue itself, then, that influenced the change in public opinion within cohorts, but rather the significant change in attention that it received. In both Canada and the United States, homosexuality went from a relatively obscure social issue in the 1980s to one with significantly high salience in 2000. It is difficult to think of another social issue that experienced such a dramatic change. We suspect that regardless of age, many people had uninformed opinions about the issue before it achieved this greater prominence. We suggest, then, that the relatively quick rise to prominence encouraged people to give greater reconsideration to this issue than they would have otherwise. This same reasoning also helps explain differences in public opinion between Canada and the United States.

One way that homosexuality increased significantly in prominence is with respect to the increased visibility of gay men and lesbians as characters in television and film. Before the 1980s homosexuals were virtually invisible, whereas now, even if they are sometimes represented in narrow and stereotypical ways, gay men and lesbians are far more prominent in feature films, on prime time television, daytime TV talk shows, and niche-market cable television shows (Walters 2001). Changes in the media might explain general differences over time, and within cohorts, but it is unlikely that they can explain differences between Canada and the United States. Until a comprehensive comparative analysis of lesbian and gay content in film and television has been carried out, we cannot be sure that these countries have differential consumption patterns. We assume that such differences were small, however, suggesting that they cannot explain the differences in public opinion in the two countries. Moreover, although increased exposure of gay men and lesbians may have encouraged attitudes to change, this does not explain why exposure increased in the first place. It is, of course, possible that changes in cultural representations reflected changes in public opinion rather than the other way around.

Another sort of visibility worth considering is that associated with the AIDS crisis, which captured the attention of both Canadians and Americans from the early 1980s and beyond. News stories gave audiences views into the lives of gay men that were previously hidden, and outpourings of sympathy, as well as charity, grew steadily in both nations over this decade. Cultural symbols in support of AIDS victims, such as the red ribbon, were common through the 1990s. This nonfictional representation of the lives of gay men may have changed attitudes within birth cohorts before the growth in fictionalized representations emerged (Patton 1986, 1990). Once again, however, this cultural shift cannot
account for differences between Canada and the United States because both countries experienced it.

Perhaps a more compelling explanation for the persistence of U.S. and Canadian differences emphasizes the role of activism. Social movements have been shown to play a mediating role between shifting public opinion and changes in policy (Amenta, Caren, and Olasky 2005), while affecting national cultures as well (Rochon 1998). By pushing homosexuality into public discourse, challenging existing laws and discriminatory practices against lesbians and gay men (as well as bisexual and transgender people), and by framing the public debate around lesbian and gay rights, the lesbian and gay movement may well be behind the general change in attitudes in both countries. Social movements have been present and active in both the United States and Canada throughout the time period under study (Button, Rienzo, and Wald 1997; Smith 1999; Vaid 1997). Of course, given the greater level and increase of acceptance of homosexuality in Canada, this reasoning implies that the Canadian movement has been more successful than its American counterpart.

A possible reason for the relative success of the Canadian movement may be the absence of a strong countermovement. While strong lesbian and gay movements exist in both countries, the United States has a much stronger anti-gay opposition, especially from the Religious Right (Herman 1997). Although theorists have noted some of the effects of opposing movements on each other, so far empirical research is inconclusive on the role of opposing movements in changing public opinion (Andrews 2002; Fetner 2001; Meyer and Staggenborg 1996, 1998; Rohlinger 2002). Our findings underscore this point by showing that the American shift toward more tolerant attitudes was the most pronounced between 1990 and 2000, when the Religious Right was at its peak of mobilization, publicity, and political success. Nevertheless, we feel that this topic is worth pursuing in future research.

We now return to the differences in social policy regarding lesbian and gay rights in Canada and the United States. The two nations have responded differently to the demands of the lesbian and gay movement, as well as to the cultural changes discussed above. Since the adoption of the Charter of Rights and Freedoms in 1982, Canada’s courts have regularly made decisions that grant equal rights to lesbians and gay men (Herman 1994). In the United States, the narrower test of constitutional rights has led to mixed results in the courts. In the two nations’ legislative bodies, the disparities are even greater. The example of same-sex marriage rights is most clear on this point. While lawmakers in the United States are considering adding an amendment to the American Constitution that excludes same-sex couples from marriage, Canada recently passed legislation legalizing same-sex marriage. As with the case of representations of gays and lesbians in the mass media, these differing responses likely both reflected and influenced differences in public opinion. The question of which is most exogenous cannot be tested with the present data.
From a general theoretical perspective, this study has shown that social and political factors may indeed influence change in attitudes regarding even the most controversial of social issues. Although we used only cross-sectional data, and thus could not explicitly test how individual attitudes changed over time, our finding of significant increases in acceptance of homosexuality within all cohorts is highly suggestive that individual attitudes did change. This finding, combined with the general increases in acceptance in both Canada and the United States, and the differences in change between the two countries, suggests that people responded to national debates on the homosexuality issue. We cannot be certain that policy affected attitudes rather than the other way around, but since most other social forces were similar in the two countries, the former is a logical conclusion. Of course, this does not explain why policies diverged in the first place. To answer these questions more definitively, further study is needed. In particular, future research must go beyond the two-country comparison to include other nations, both those that are similar to and those that are different from Canada and the United States.

References


