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Attitudes Toward Lesbians and Gays Among American and Dutch Adolescents

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Attitudes toward lesbians and gays vary across national populations, and previous research has found relatively more accepting attitudes in the Netherlands as compared to the United States. In this study, we compared beliefs about and attitudes toward lesbians and gays in samples of Dutch and American heterosexual adolescents, utilizing survey data from 1,080 American adolescents (mean age=15.86 years) attending two schools and from 1,391 Dutch adolescents (mean age=16.27 years) attending eight schools. Findings indicated the Dutch participants were more tolerant of lesbians and gays, after adjusting for the gender, age, and racial/ethnic minority status of the participants. However, between-country differences were attenuated by accounting for the beliefs about lesbians and gays that participants used to justify their attitudes. American participants were more likely to justify their attitudes using beliefs related to social norms and religious opposition, while the Dutch participants were more likely to justify their attitudes using beliefs related to individual rights and the biological/genetic basis of homosexuality. The results suggest that the relative importance of particular beliefs about lesbians and gays to attitudes at the group level may be context dependent but also that certain beliefs are salient to attitudes across national contexts.

Despite a proliferation of research on the experiences of same-sex-attracted or lesbian, gay, and bisexual (LGB) youth, contextual influences on these youth's development are not fully understood (Horn, Kosciw, & Russell, 2009). One contextual factor of particular salience for lesbian and gay youth may be their heterosexual peers' attitudes toward lesbian and gay people, especially if such attitudes are openly expressed in homophobic behaviors

(Gebrekristos, 2012; Poteat, DiGiovanni, & Scheer, 2012). Yet we know relatively little about the prejudices that may affect these youth's experiences, because most studies of attitudes toward lesbian and gay people have been conducted with adults. This study adds to the literature on attitudes toward lesbians and gays among adolescents by examining the beliefs underpinning such attitudes in two national contexts, the Netherlands and the United States.

Attitudes toward homosexuality among adults have been found to vary significantly across national populations (e.g., Adamczyk & Pitt, 2009; Gerhards, 2010; Scott, 1998; Smith, 2011; van den Akker, van der Ploeg, & Scheepers, 2013; Widmer, Treas, & Newcomb, 1998). With regard to the United States and the Netherlands specifically, on which we focus in the present study, research with nationally representative samples has

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shown that attitudes toward homosexuality are more accepting in the Netherlands than they are in the United States (Smith, 2011; Widmer et al., 1998; World Values Survey, 2009). Findings from the most recent World Values Survey illustrate this contrast: Among those surveyed in the United States, 32.5% said that homosexuality was never justifiable, and 14.8% said that it was always justifiable (World Values Survey, 2009). The corresponding percentages for the Dutch participants in the same survey were 16.3% and 40.9%. Among the countries participating in the International Social Survey in 2008, the Netherlands ranked highest in acceptance of same-sex sexual behavior, with 69.6% of adults surveyed responding that same-sex sexual behavior is “not wrong at all” (Smith, 2011). The percentage of U.S. respondents who felt the same was less than half that, at 32.3%, putting the United States below all participating Western European nations except Portugal on this measure. Although acceptance of same-sex sexual behavior has been increasing over time in both countries, the difference between the two countries has been steady across successive survey waves (Smith, 2011).

While the Netherlands may indeed compare favorably to the United States when attitudes toward lesbians and gays are studied at the country level, LGB people do not enjoy complete acceptance in Dutch society. Of 1,600 Dutch LGB adolescents and young adults who participated in an online survey, three-quarters said they had encountered antigay sentiment (typically verbal harassment; Bais, 2010). A recent report summarized the attitudes of Dutch heterosexual adults toward lesbian women and gay men as “Be yourself, but act normally”; tolerance of public displays of same-sex affection or support for same-sex couples’ adoption rights are lower, for example, than support for a general principle of equal rights for gays and lesbians (Bais, 2010, p. 15). Acceptance of lesbian and gay people has also been found to be particularly limited in ethnic and religious minority communities (Bais, 2010; Keuzenkamp, 2010). Likewise, in the United States, national surveys on social policy issues that affect lesbians and gays (e.g., same-sex marriage) indicate differences in opinion across geographic regions, by urban/rural setting, and among racial groups and religious communities (Baunach, 2012; Sherkat, de Vries, & Creek, 2010).

We are aware of only one study of attitudes toward lesbian and gay people in adolescents that utilized a comparative perspective. Utilizing nationally representative survey data from adolescents in Belgium and Canada, Hooghe, Claes, Harell, Quintelier, and Dejaeghere (2010) looked primarily at demographic factors associated with support for gay rights; however, comparisons between the samples from the two countries were not the focus of the study. In both country settings, attitudes were more positive among women and varied by religious denomination; lower levels of parental education and being born outside Canada or Belgium were associated with more negative

attitudes. Studies of adolescents conducted separately within the United States (Baker & Fishbein, 1998; Heinze & Horn, 2009; Hoover & Fishbein, 1999; Horn, 2007) and the Netherlands (Collier, Bos, Merry, & Sandfort, 2013; Collier, Bos, & Sandfort, 2012; Keuzenkamp, 2010; Keuzenkamp & Bos, 2007) suggest that similar factors are associated with variation in attitudes toward lesbians and gays within the two countries, for example, gender, ethnic background, religious practice, and personal contact or experience with gay men and lesbians.

What set of factors, then, drives between-country differences in attitudes toward homosexuality? Several factors have been implicated, such as education levels, religious heritage, urbanization, economic development, and income inequality (Adamczyk & Pitt, 2009; Andersen & Fetner, 2008; Gerhards, 2010; Štulhofer & Rimac, 2009; van den Akker et al., 2013). While the Netherlands and the United States are quite different with respect to both geographic and population size as well as racial/ethnic diversity, they are more similar when compared on those factors proposed to explain cross-national variation in attitudes toward homosexuality. Specifically, they are both wealthy, democratic nations with predominantly Christian religious heritages (Andersen & Fetner, 2008); average educational attainment is actually higher in the United States, although higher levels of education are typically associated with more accepting attitudes toward homosexuality (Baldwin, 2009; van den Akker et al., 2013). Thus, in seeking to better understand the observed differences between these two countries, we turned to the broader literature on attitudes toward homosexuality and the relationship between beliefs and attitudes.

We focused our attention on the relationship between beliefs about and attitudes toward lesbian and gay people, and whether differences in the former (beliefs) could explain differences in the latter (attitudes). Within the parameters of the expectancy-value model of attitude, beliefs “represent the information people have about [an] object” (e.g., homosexuality) and form the basis of attitudes (Fishbein & Ajzen, 2010, p. 98). Individuals develop their beliefs about an object through observation, media and peer influences, educational messages, or other means; those beliefs in turn automatically influence their evaluations of, or attitude toward, that object (Fishbein & Ajzen, 2010). If adolescents in the Netherlands have generally more accepting attitudes toward gay and lesbian people than do their American counterparts, as has been observed in adults, we would therefore expect those attitudes to flow from a set of beliefs about gays and lesbians with relatively positive connotations.

Within the literature on attitudes toward homosexuality, most research addressing the beliefs that might underlie such attitudes has focused on the nature of sexual orientation, for example, whether individuals are born gay or lesbian or whether homosexuality is a choice

(Hegarty & Pratto, 2001). This research, again, has primarily been conducted with adult participants. Studies conducted in the United States have consistently found more positive attitudes toward homosexuality among those who believe that individuals are born gay or lesbian, and that such beliefs are a strong predictor of attitudes (e.g., Haider-Markel & Joslyn, 2008; Herek & Capitanio, 1995; Lewis, 2009; Tygart, 2000). In an analysis of data from 24 random opinion polls conducted in the United States since the late 1970s, Lewis (2009) found an average 12 percentage point difference in support on LGB rights issues between those who did and did not believe homosexuality is something one is born with; this was between demographically, politically, and religiously similar adults with similar moral judgments of same-sex sexual behavior and who reported similar personal relationships with LGB people.

Beliefs based in religious teachings may also be important to attitudes toward homosexuality. Different religions and religious denominations offer different teachings and have set different policies with respect to homosexuality (Ford, Brignall, VanValey, & Macaluso, 2009), and thus it is not surprising that individuals' attitudes toward homosexuality have been found to vary according to religious background (Ellison, Acevedo, & Ramos-Wada, 2011; Finlay & Walther, 2003; Fisher, Derison, Polley, Cadman, & Johnston, 1994; Herek, 1988; Hooghe et al., 2010). For example, more negative attitudes toward homosexuality have been found among conservative or evangelical Protestants and Muslims in comparison to Catholics, Jews, and nonreligious persons (Ellison et al., 2011; Finlay & Walther, 2003; Fisher et al., 1994; Hooghe et al., 2010). Assessments of religious affiliation alone, however, are limited measures of an individual's exposure to and engagement with specific religious teachings related to homosexuality. More informative are those studies that have found correlations between specific religious orientations, such as fundamentalism (characterized by "belief in absolute religious authority and strict adherence to religious texts and tradition"; Ahrold & Meston, 2010, p. 192) and Christian orthodoxy ("the degree to which one accepts central, fundamental tenets of the Christian faith"; Ford et al., 2009, p. 147) with attitudes toward homosexuality (Fulton, Gorsuch, & Maynard, 1999; Herek, 1988; Mavor & Gallois, 2008; Rowatt et al., 2006). It appears that personal religious orientation accounts for variability in attitudes of individuals from similar religious backgrounds or in those who report similarly high levels of religious engagement.

Another factor that may influence attitudes toward homosexuality is public policy with respect to lesbian and gay rights. While public policy, to some extent, responds to public attitudes, it also plays a role in shaping them, and this may be particularly true for adolescents. The ability of public policy to communicate behavioral norms

and expectations has been an important part of various adolescent health initiatives, for example (Altman, Champion, & Sutfin, 2009). Across European countries, attitudes toward homosexuality are most accepting in nations where lesbians and gays have greater rights and protections (e.g., protection from discrimination, access to civil unions or marriages, adoption rights; van den Akker et al., 2013). Researchers have identified a somewhat similar pattern within the United States, where many policies related to lesbian and gay rights are established at the subnational level: State-level policies on second-parent adoption, hate-crime protections, and same-sex relationship recognition are congruent with public opinion in a majority of U.S. states (Lax & Phillips, 2009). However, it does appear that (adult) attitudes are actually more liberal than policies would suggest in some states (Lax & Phillips, 2009).

The Present Study

Beliefs about the genetic/biological basis of homosexuality, and those stemming from religious teachings or related to lesbian and gay rights policy, may thus be important to one's overall attitude toward homosexuality. Documented differences across U.S. and Dutch settings with regard to the manner and extent to which homosexuality is addressed within adolescent sexuality education (Darroch, Landry, & Singh, 2000; Ferguson, Vanwesenbeeck, & Knijn, 2008), religious beliefs and practices (Baldwin, 2009; Kelley & DeGraaf, 1997; World Values Survey, 2009), and lesbian and gay rights policy (Lax & Phillips, 2009; Van de Meerendonk & Scheepers, 2004), in particular, might imply that the influence of such beliefs upon group-level attitudes would vary across contexts. In comparison to the United States, the Netherlands is generally more secular, and its laws extend more uniform rights and protections to lesbians and gays at the national level (Kelley & DeGraaf, 1997; Waaldijk, 2009).

The purpose of the present study was to compare beliefs about and attitudes toward lesbians and gays in samples of heterosexual adolescents from the Netherlands and the United States. We chose to compare samples from these two countries given the observed differences between adult samples from the United States and the Netherlands with respect to attitudes toward lesbians and gays, and the similarity between the two countries on factors thought to drive between-country differences (e.g., religious heritage, economic development). We hypothesized that between-country differences in attitudes toward lesbians and gays would be attenuated (mediated) when accounting for the differing justifications for those attitudes (expressed as beliefs about lesbians and gays) used by adolescents in each country. We looked specifically at justifications based on the biological/genetic basis of

homosexuality, religious opposition, individual rights, and social norms.

Method

Participants and Procedure

Data for this study were from two data sets: one from a study originally conducted in the United States (2003–2004) and the other from its replication in the Netherlands (2010–2011). Procedures for the U.S. survey have been described elsewhere (Heinze & Horn, 2009; Horn, 2006; Horn, Szalacha, & Drill, 2008). For the study in the Netherlands, the original English-language version of the survey instrument was first translated into Dutch, then back-translated to English to ensure consistency with the original instrument. The samples of students participating from each country are described in the following sections.

American sample. U.S. participants were 1,163 students from two high schools in or near a Midwestern city. For the purpose of this study, responses from students who identified as gay, lesbian, bisexual, or questioning, or who did not provide information on their sexual orientation, were excluded from further analysis, leaving a final sample of 1,080. The participants' mean age was 15.86 years ($SD=1.03$); students in grades 9 through 12 were included. Students reported the following racial/ethnic backgrounds: White/European (29.2%), Asian/Pacific Islander (27.4%), Latino (19.8%), Black/African American (15.1%), bicultural (5.2%), Middle Eastern (3.0%), and Native American (0.3%). In comparison to population-based data on U.S. adolescents, Asian American youth were notably overrepresented, while White youth were underrepresented (Irwin, Burg, & Cart, 2002). In all, 80% of the participants reported attending religious services, which approximates national averages for U.S. adolescents (Smith, Denton, Faris, & Regnerus, 2002). Among those who reported attending religious services, and were then asked to report their affiliation in an open-ended question, the primary religions reported were Catholic (42.0%) and Christian (22.6%); smaller numbers reported they were Baptist or Evangelical Christian (6.5%), Hindu (5.7%), Greek or Eastern Orthodox (4.4%), Muslim (4.3%), or Jewish (2.0%), with the remaining 12.5% reporting other affiliations (e.g., Buddhist, Unitarian, Protestant).

The two participating schools have been described elsewhere (Horn & Szalacha, 2009). In brief, one was an urban college preparatory school where admission was competitive; its students came from all over the city and a majority (65.1%) was from low-income families. The second school was a suburban public high school that drew students primarily from three surrounding suburbs; less than one-third (27.7%) of its students was from

low-income families. These schools were chosen to represent distinct communities and populations, and also because they differed in their approaches to school climate concerns for lesbian, gay, bisexual, and transgender (LGBT) youth (e.g., whether training on LGBT issues was offered to school personnel, whether antidiscrimination and harassment policies included sexual orientation and gender identity; for a complete description, see Horn & Szalacha, 2009). Surveys were administered during required course periods (which varied according to the school and student grade level). A passive consent procedure was used to obtain parental permission for the adolescents to participate in the survey, and adolescents provided assent at the time of survey administration. Following permission refusals from 6 parents and 24 refusals from students, there was a response rate of 97%. Survey completion took approximately 45 minutes.

Dutch sample. In the Netherlands, participants were 1,486 students at eight urban and suburban secondary schools located throughout the country. After exclusion of participants who identified as gay, lesbian, bisexual, or questioning, or who did not answer the question about sexual orientation, the final sample of adolescents in the Netherlands was 1,391. Students were following the three routes of secondary education offered in the Netherlands: prevocational (24.9% of the sample), general secondary (30.6%), and preuniversity (44.5%). Students in years 3 through 6 were included, and the mean age of those in the sample was 16.27 years ($SD=1.24$). The ethnic composition of the sample, well reflecting the population of youth in the Netherlands in general (Statistics Netherlands, 2010), was as follows: Dutch or other Western (e.g., German, English) ethnicity (84.3%), Moroccan (2.7%), Surinamese (2.7%), and Turkish (1.4%); 8.8% reported other non-Western ethnic backgrounds, and ethnic background was not provided or could not be determined for three participants. About 22% of the Dutch participants reported attending religious services. The levels of religious participation observed in this sample were fairly consistent with national averages for Dutch youth; however, very religiously active adolescents may have been undersampled (Statistics Netherlands, 2010). Those youth who reported attending religious services were asked to report their religious affiliation in an open-ended question. Protestant (37.6%), Catholic (34.1%), and Muslim (21.5%) were the most common affiliations reported among those students reporting a religious affiliation; the remaining 6.8% reported other affiliations (e.g., Buddhist, Jewish).

Participants completed paper surveys at school during regular class times. Schools were approached for survey involvement after being randomly selected from an online directory of secondary schools. Refusals from schools were not systematically tracked. Recruitment continued until a sample size that was approximately equal to the

U.S. sample was obtained. In accordance with Dutch ethical guidelines for survey research, a passive consent procedure was used to obtain consent from parents for their children to participate in the study. Twelve parents did not allow their children to participate. The participating adolescents gave assent after a research assistant from the University of Amsterdam explained all study procedures and assured the participants of the confidentiality of their responses. Survey completion took approximately 30 minutes.

Measures

Attitude toward lesbians and gays. As the study's main outcome measure of attitude toward gays and lesbians, participants were asked to respond to the following prompt "In my opinion, being gay or lesbian is" using a 5-point response scale: 1 = *Completely wrong*, 2 = *Somewhat wrong*, 3 = *Neither right nor wrong*, 4 = *Somewhat all right*, 5 = *Completely all right*.

Beliefs about lesbians and gays. Participants were next asked to choose from a list of statements to support their judgment of lesbians and gays. The instruction read as follows: "Based on your answer to [previous question], choose the reason(s) below that come(s) closest to why you think being gay or lesbian is wrong, all right, or neither right nor wrong. Circle as many reasons as apply." A full description of these statements and their development has been provided elsewhere (e.g., Horn et al., 2008). For this study, we chose four belief statements on which to focus our analysis, based on the hypothesis we wished to test and the literature on attitudes toward lesbians and gays in the United States and the Netherlands. The statements were: "People are born gay or lesbian" (biological/genetic basis of homosexuality); "It goes against the beliefs of my religion" (religious opposition); "People should be allowed to love whomever they wish" (individual rights); and "It goes against the norms of society" (social norms). Each statement was treated as a dichotomous variable that participants either did or did

not endorse (participants endorsed only those items that supported their positions on being gay or lesbian, and not those they considered irrelevant to their positions).

Analysis

We tested our hypothesis following procedures for mediation analysis as outlined by Baron and Kenny (1986), establishing relationships between (1) the independent and dependent variables, (2) the independent variable and potential mediators, and (3) the potential mediators and the dependent variable. Because gender is related to attitudes toward homosexuality (e.g., Kite & Whitley, 1996) and the mean ages and the racial/ethnic composition of the adolescents in the American and Dutch samples differed significantly (see Table 1), gender, age, and racial/ethnic minority status were included in all analyses as control variables. We established the relationship between the independent and dependent variables (national context and attitude toward lesbians and gays) with one-way ANCOVA. To test whether the independent variable (national context) was related to the proposed mediators (justification statements), we conducted four separate logistic regression analyses, with each justification statement as the dependent variable and nation as the independent variable. We also calculated the proportion of each sample endorsing each justification statement using chi-square tests for independence. We then used one-way ANCOVA to assess whether each proposed mediator (justification statement) was related to the dependent variable (attitude toward lesbians and gays).

Next, we conducted four separate hierarchical regression analyses to determine the extent to which between-country differences in attitudes toward homosexuality were mediated after accounting for each justification statement. We ran hierarchical regression analyses with attitude toward lesbians and gays as the dependent variable; gender, age, racial/ethnic minority status, and nation were added to the model in Step 1, and the justification statement being tested was added in Step 2. We calculated the percentage change in the standardized beta

Table 1. *Descriptive Characteristics of U.S. and Netherlands Samples*

Variable	Netherlands (N=1,391)	United States (N=1,080)	Total (N=2,471)	t or χ^2	df	p
Age in years	16.27 (1.24)	15.86 (1.03)	16.09 (1.17)	9.00	2454.96	<.001
Gender						
Female	56.0% (779)	59.8% (646)	57.7% (1,046)	3.46	1	.063
Male	44.0% (612)	40.2% (434)	42.3% (1,425)			
Racial/ethnic minority ^a	15.5% (215)	70.8% (753)	39.4% (968)	768.04	1	<.001
Religious participation ^b	1.44 (0.95)	3.57 (1.68)	2.37 (1.69)	-37.22	1587.97	<.001

Note. For the variables Age and Religious Participation, means and standard deviations are provided. Differences between groups were assessed with independent samples t tests. For the variables Gender and Racial/Ethnic Minority, numbers are percentages (n); the χ^2 test for independence with Yates' correction for continuity was used.

^aAmong the Dutch participants, those who did not identify as being of Dutch or other Western ethnicity were classified as minorities. Among the U.S. participants, those who did not identify their racial/ethnic background as White/European were classified as minorities.

^bMeasure of how often the participant attends religious services (1 = *Never*; 6 = *More than once a week*).

coefficient value for the nation variable between Step 1 and Step 2 in all four models. Those justification statements whose additions resulted in at least a 20% decrease in value for the beta coefficient for nation were subsequently tested together to build a final hierarchical regression model. The justification statement variables were added to the model step-by-step, in descending order of their impact on the beta coefficient for nation, until their addition no longer increased the total variance explained by the model. As a final sensitivity analysis of our model, we assessed whether the relationships between beliefs about and attitudes toward lesbians and gays were the same within each country's sample.

Results

Comparison of the Netherlands and U.S. Samples

Descriptive information about the participating adolescents from each country is presented in Table 1. The Netherlands sample was, on average, slightly older ($M_{\text{age}} = 16.27$ years, $SD = 1.24$) than the U.S. sample ($M_{\text{age}} = 15.86$ years, $SD = 1.03$), and this difference was statistically significant. The gender composition of the two samples was not significantly different. The U.S. sample was composed of a significantly greater proportion of participants who would be classified as racial/ethnic minorities in that setting. The American participants reported more frequent attendance of religious services, on average, than did the Dutch participants.

Attitude Toward Lesbians and Gays

One-way ANCOVA showed significant differences in the Dutch and American participants' attitudes toward lesbians and gays, $F(1, 2428) = 83.73$, $p < .001$. Mean attitude scores, adjusted for gender, age, and racial/ethnic minority status, were 3.67 ($SE = .04$) for the Dutch participants and 3.10 ($SE = .04$) for the American participants, indicating more tolerant attitudes toward lesbian and gay people among the Dutch adolescents. The effect size of this difference, indicated by partial η^2 , was .033.

Justifications for Attitude Toward Lesbians and Gays

To confirm differences across the American and Dutch samples in the use of each justification for attitudes

toward lesbians and gays, we conducted logistic regression analyses, controlling for gender, age, and racial/ethnic minority status. These analyses showed that the Dutch participants were more than twice as likely than their American counterparts to endorse the statements that people are born gay or lesbian ($OR = 2.54$; 95% CI: 2.05–3.16) or that people “should be allowed to love whomever they wish” ($OR = 2.56$; 95% CI: 2.06–3.18). On the other hand, American participants were five times more likely than their Dutch counterparts to use social norms–based ($OR = 5.24$; 95% CI = 3.74–7.34) and religious opposition–based justifications ($OR = 5.34$; 95% CI: 3.95–7.22) for their attitude toward lesbians and gays. Results of the chi-square tests, showing differences in the proportions of each sample using each justification, are presented in Table 2.

One-way ANCOVA analyses showed that those who did and did not use each justification statement differed significantly in their attitude toward lesbians and gays. These results are presented in Table 3. Given that there were statistically significant relationships between the independent and dependent variable, independent variable and mediators, and mediators and dependent variable, we proceeded to test whether the justifications mediated the observed cross-national differences in attitudes.

The Role of Justifications in Explaining Differences Across National Contexts

We conducted four separate hierarchical regression analyses with attitude toward lesbians and gays as the dependent variable, adding the control variables and nation in Step 1 and each different justification statement in Step 2. We first found that nation, gender, age, and racial/ethnic minority status together explained 17.5% of the variance in participants' attitude toward lesbians and gays. The standardized beta coefficient for nation was $-.21$ ($p < .001$); gender ($\beta = .25$), age ($\beta = .07$), and racial/ethnic minority status ($\beta = -.16$) also contributed significantly to this model at the $p < .001$ level. These findings confirm that attitudes toward lesbians and gays were significantly different among participants in the United States and the Netherlands even when controlling for age, gender, and racial/ethnic minority status. Dutch participants had significantly more tolerant attitudes toward lesbian and gay people than did their U.S. counterparts;

Table 2. U.S. and Netherlands Adolescents' Justifications for Attitudes Toward Lesbians and Gays

Selected Justification for Attitude	Percent Endorsing		χ^2	<i>df</i>	<i>p</i>	ϕ
	Netherlands	U.S.				
“People are born gay or lesbian”	47.4	20.7	187.78	1	<.001	-.277
“People should be allowed to love whomever they wish”	79.1	55.0	163.15	1	<.001	-.258
“It goes against the norms of society”	4.8	20.9	148.76	1	<.001	.247
“It goes against the beliefs of my religion”	5.5	32.5	309.72	1	<.001	.355

Table 3. Selected Justifications and Relationships to Attitude Toward Lesbians and Gays

	Attitude Toward Lesbians and Gays ^a			
	Used Justification <i>M (SE)</i>	Did Not Use Justification <i>M (SE)</i>	Test Statistic	η^2_p
“People are born gay or lesbian”	3.86 (.04)	3.18 (.03)	$F(1, 2422)=161.90, p<.001$.063
“People should be allowed to love whomever they wish”	3.87 (.03)	2.43 (.04)	$F(1, 2423)=828.84, p<.001$.255
“It goes against the norms of society”	2.20 (.07)	3.58 (.03)	$F(1, 2422)=331.68, p<.001$.120
“It goes against the beliefs of my religion”	2.10 (.06)	3.70 (.03)	$F(1, 2423)=635.13, p<.001$.208

Note. Test statistic shows the significance of difference between the means, adjusted for the covariates age, gender, and racial/ethnic minority status. ^aParticipants were prompted, “In my opinion, being gay or lesbian is...” with response options ranging from 1 (Completely wrong) to 5 (Completely all right).

attitudes were also more tolerant among female and older participants and those who were not racial/ethnic minorities.

We also found that each justification statement made a significant independent contribution to its respective models. Addition of the biological/genetic basis of homosexuality justification reduced the beta coefficient for nation by 21.8%; for the individual rights justification, the reduction was 46.6%; for the social norms justification, 35.7%; and for the religious opposition justification, 56.3%. We thus pursued model building with all four justifications, gradually expanding the model by adding them in descending order of importance (religious opposition, individual rights, social norms, and biological/genetic basis of homosexuality).

The final model is displayed in Table 4. In the end, all four justification statements demonstrated independent relationships with attitude toward lesbians and gays in the expected directions and made significant contributions, meriting inclusion in the final model. National context, however, no longer made an independent contribution to the model after all four justifications were included ($\beta = -.01, p = .679$). Altogether, national context, the justification statements, and the control variables (gender, age, and racial/ethnic minority status) explained 47.5% of the variance in attitudes toward lesbians and gays.

Outcome of Sensitivity Analysis

Results of the additional sensitivity analysis were consistent with other findings. One-way ANCOVA analyses showed that, as in the whole sample, those within each country who did and did not use each justification statement differed significantly in their attitude toward lesbians and gays (i.e., each justification was significantly related to attitude among both the Dutch and American participants).

Discussion

This study applied a cross-national comparative perspective to the study of attitudes toward lesbians and gays among heterosexual adolescents, employing samples of youth in the Netherlands and the United States. Our findings with regard to beliefs about lesbians and gays salient to attitudes further expand the literature on these attitudes among adolescents. In accordance with our hypothesis, we found that the difference between the American and Dutch samples in overall attitude toward lesbians and gays was mediated by beliefs about lesbians and gays. We observed differences between the two samples in terms of how the participants justified their attitudes toward lesbians and gays: More of the American participants justified their attitudes by saying that being

Table 4. Hierarchical Regression Analyses of Attitude Toward Lesbians and Gays on Justifications

	Step 1			Step 2			Step 3			Step 4			Step 5		
	<i>b (SE)</i>	β	<i>p</i>	<i>b (SE)</i>	β	<i>p</i>	<i>b (SE)</i>	β	<i>p</i>	<i>b (SE)</i>	β	<i>p</i>	<i>b (SE)</i>	β	<i>p</i>
Nation ^a	-.57 (.06)	-.21	<.001	-.25 (.06)	-.09	<.001	-.12 (.05)	-.04	.029	-.07 (.05)	-.03	.192	-.02 (.05)	-.01	.679
“It goes against the beliefs of my religion”				-1.53 (.07)	-.42	<.001	-1.15 (.06)	-.32	<.001	-.99 (.06)	-.27	<.001	-.98 (.06)	-.27	<.001
“People should be allowed to love whomever they wish”							1.14 (.05)	.39	<.001	1.09 (.05)	.37	<.001	1.01 (.05)	.34	<.001
“It goes against the norms of society”										-.57 (.07)	-.13	<.001	-.57 (.07)	-.13	<.001
“People are born gay or lesbian”													<.001	.30 (.05)	.11 <.001
R^2		.18	<.001		.33	<.001		.45	<.001		.47	<.001		.48	<.001
ΔR^2					.15	<.001		.12	<.001		.02	<.001		.01	<.001

Note. All analyses included gender, age, and racial/ethnic minority status as control variables. ^aNetherlands=0; United States=1.

gay or lesbian goes against social norms or religious beliefs, while more of the Dutch participants justified their attitudes by saying that people are born gay or lesbian and “should be allowed to love whomever they wish.” These beliefs were in turn associated with less or more positive attitudes toward lesbians and gays, respectively. As was confirmed when we analyzed the relationship between beliefs about and judgments of lesbians and gays in the two country samples separately, all four beliefs that we examined were relevant to overall attitudes in both national contexts. So, for example, while beliefs about lesbians and gays related to social norms and religious opposition were not held by many of the Dutch adolescents, they were still significantly related to attitudes in that context.

Attitudes toward lesbians and gays among the American and Dutch study participants were in line with those that have been observed in representative samples of adults (e.g., Smith, 2011), in that the Dutch participants reported more tolerant attitudes, on average. The adjusted mean attitude toward being lesbian or gay indicated more mixed attitudes among the American participants. The effect size statistic indicated a small to moderate difference between the mean attitudes in the American and Dutch samples.

The beliefs that the participating adolescents endorsed in justifying their attitudes toward lesbians and gays were also predictably associated with either more or less tolerant attitudes. Previous research has suggested that beliefs about whether people are born gay or lesbian (e.g., Lewis, 2009), as well as beliefs stemming from religious teachings (e.g., Ford et al., 2009), factor into attitudes toward lesbians and gays. Beliefs about lesbians and gays and same-sex sexuality as they relate to social norms and individual rights, however, have been rarely studied in relation to attitudes. This could be because these types of research questions have typically been addressed in different lines of research; as Killen, Margie, and Sinno (2006) have observed, research on children’s moral development (addressing conceptions of fairness and justice) and their intergroup relationships (addressing prejudice and discrimination) has not always been well integrated. In the present study, we felt these issues were critical to examine, given the differing legal norms in the U.S. and Dutch settings that could have implications for social norms– and individual rights–related beliefs. The importance of the individual rights justification, in particular, to the participants’ attitudes in both national contexts certainly suggests that further study of adolescents’ application of moral principles to questions of intergroup relations with lesbians and gays is merited.

We may only speculate as to the factors potentially driving the observed differences in attitude justifications between the American and Dutch samples, given that we did not measure such factors directly. That beliefs about the biological or genetic basis of homosexuality were more common among the Dutch participants could be

related to education about homosexuality and same-sex relationships being a common component of sexuality education for Dutch secondary school students (Ferguson et al., 2008). Research with sex education teachers in the United States suggests that only about half teach about sexual orientation (Darroch et al., 2000). The relatively more favorable legal climate for lesbian and gay people in the Netherlands might explain why the individual rights–based belief was so important to attitudes toward homosexuality among the Dutch adolescents (endorsed by nearly 80% of the Dutch participants). The more mixed message that American youth have received with regard to gay and lesbian rights is perhaps reflected in the American participants’ relatively greater use of the social norms–based argument (i.e., that homosexuality goes against social norms) in support of their attitudes toward homosexuality. With regard to religious opposition being more frequently invoked by the American participants, this finding could be explained by their relatively more frequent participation in religious services, which, dependent on their specific affiliation, could potentially provide greater exposure to religious teachings that condemn same-sex sexuality. However, the difference observed in these samples with regard to religious participation does seem to reflect the larger cultural difference in religious climate between the Netherlands and United States that has been observed in other studies (Kelley & DeGraaf, 1997).

Horn and colleagues (2008) have reported findings from the U.S. data set used in this study that offer insight into how adolescents’ beliefs and attitudes about lesbians and gays might influence social behaviors. Attitudes toward lesbians and gays were not consistently related to the U.S. adolescents’ opinions of whether it would be acceptable to exclude or tease a gay or lesbian peer. In addition, beliefs other than those examined here—about fairness and personal choice in who one associates with—were more important to judgments of the exclusion or teasing of gay or lesbian peers as right or wrong. These findings suggest that adolescents’ beliefs about lesbians and gays are distinct from their beliefs about acceptable ways to treat gay and lesbian peers (Horn et al., 2008). Further study of the factors shaping the quality of heterosexual adolescents’ social interactions with lesbian and gay peers is a key area for future research. For example, how might peer or situational influences “override” an individual’s beliefs about lesbians and gays (if they are generally positive), resulting in homophobic behaviors?

The extent to which the findings of this study could be generalized to other heterosexual American and Dutch adolescents is not clear, because the participating samples of adolescents were not representative. The observed patterns of beliefs and attitudes toward lesbians and gays within the samples could in part be related to factors such as the geographic location of the participants’ schools (in terms of urbanicity or region) as well as their status as public or nondenominational schools, and thus research

with differently composed samples might yield alternate findings.

We acknowledge additional limitations of the study. The overall approach prevented us from addressing within-country differences, though it is clear from some of the literature reviewed herein that there is a great deal of variation within both the Netherlands and the United States with regard to attitudes toward lesbian and gay people. Data were also collected in the United States and the Netherlands at different points in time. While we would have expected to find a similar pattern in terms of overall attitudes toward lesbians and gays had the data been collected at the same time in each country (i.e., with overall attitudes being more tolerant in the Netherlands), it is likely that differences between the two countries are no longer as great and that these changes are at least somewhat a function of changing beliefs about lesbians and gays (Saad, 2012). We also note that the approach to recruiting schools for participation was different in the United States and the Netherlands, and that there may be sampling biases unaccounted for, given that school participation refusals in the Netherlands were not tracked. At the level of the study's measures, we note that response bias may be a concern when asking study participants about their attitudes toward social groups. Whether the participants in either setting might have felt stronger pressure to provide socially desirable responses is unclear but would be an important issue to assess in future comparative studies. The fact that the participants were asked to use a provided list of belief statements to support their attitude toward gays and lesbians is an additional limitation; participants might have described their beliefs differently in their own words or endorsed particular beliefs only because they were offered as response choices.

The study's findings also point to several avenues for future research. We have focused here on individual-level factors—beliefs—that may be important to adolescents' attitudes toward lesbians and gays. Future work might consider additional beliefs that underpin such attitudes or identify those beliefs about lesbians and gays that are of greatest importance to attitudes among non-Western populations. While we have worked from the assumption that attitudes follow from beliefs, it is also possible that individuals arrive at beliefs about gays and lesbians that support their attitudes. As Lewis (2009) has suggested, in reference to beliefs about the origins of homosexuality in particular, "If one supports LGB rights, then one may think one should believe LGBs were born that way" (p. 690). While we were unable to make such distinctions in our cross-sectional study, theoretical work in the area of prejudice expression has distinguished between beliefs that lead to the development of prejudice and beliefs that serve to either suppress or justify the expression of existing prejudice (Crandall & Eshleman, 2003). In general, the relationship between attitudes and behaviors toward lesbians and gays (or between prejudice and prejudice expression toward lesbians and gays) needs further

exploration, as a fuller understanding of the motivations behind adolescents' homophobic behaviors is critical to efforts to create safer school environments for lesbian and gay youth.

At the same time, researchers must expand their focus beyond the individual level and consider contextual influences. Study findings have already provided evidence that school- and broader societal-level factors, such as the presence of LGB support groups at school, the density of same-sex couples in a given geographic area, and the presence of nondiscrimination laws protecting individuals on the basis of sexual orientation, relate to health outcomes for LGB people and their families in those settings (Goodenow, Szalacha, & Westheimer, 2006; Hatzenbuehler, 2011; Hatzenbuehler, Keyes, & Hasin, 2009; Lick, Tornello, Riskind, Schmidt, & Patterson, 2012). However, evidence to connect those factors to health outcomes for LGB people through the attitudes and behaviors of heterosexual adolescents and adults is lacking. Such evidence might help us more fully understand the seemingly positive effect of certain public policies or organizational supports (e.g., gay-straight alliances) on conditions for LGB people and whether there are other factors, in the absence of such policies or supports, that could positively support the development of LGB youth.

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