

Associations Among Religiousness, Social Attitudes, and Prejudice in a National Random Sample of American Adults

Wade C. Rowatt, Jordan LaBouff, Megan Johnson, Paul Froese, and Jo-Ann Tsang
Baylor University

Psychologists have devoted considerable theoretical and empirical attention to the scientific study of social attitudes and prejudice. Most of these studies were conducted with relatively small, nonrepresentative samples of college students. In this study, the authors analyzed self-report data from a random probability sample with over 1500 American adults. Participants answered questions about their religiousness, right-wing authoritarianism (RWA), political ideology, demographic characteristics, and attitudes toward persons in historically disadvantaged social groups (i.e., ethnic minorities and homosexual individuals). In support of the *selective intolerance hypothesis*, general religiousness was associated with less accepting attitudes toward homosexuals and negligibly with general racial prejudice. These associations remained when controlling for some other known individual differences in prejudice. The authors tentatively conclude that general religiousness is not associated with universal acceptance of others. Rather, general religiousness appears to be linked with selective self-reported intolerance toward persons perceived to behave in a manner inconsistent with some traditional religious teachings.

Keywords: religiousness, attitudes toward homosexuals, racial prejudice, individual differences

The current study examined associations among general religiousness, right-wing authoritarianism (RWA), and attitudes toward members of disadvantaged social groups in a national random probability sample of adults in the United States. The primary aim was to investigate whether general religiousness was associated with unequivocal acceptance of others or selective intolerance. We also explored whether associations between religiousness and less accepting attitudes or prejudice were due to

extraneous or confounding variables, such as RWA and political ideology. Such statistical relations are important to examine, because measures of RWA, conservative political ideology, and religiousness have considerable conceptual overlap.

Why do we need another study of religiousness, social attitudes, and prejudice? To our knowledge, this is the first study of its kind that includes both a large national random sample and measures of religiousness, individual differences (especially RWA), and attitudes toward people in historically disadvantaged social groups. Informative sociology studies consistently show negative associations between religious variables and willingness to grant civil liberties to fringe groups (Beatty & Walter, 1984; Ellison & Music, 1993; Filsinger, 1976; Froese, Bader, & Smith, 2008; Katnik, 2002; Stouffer, 1955/1992), but have not accounted for potential confounds such as RWA. A meta-analysis on personality and prejudice (Sibley & Duckitt, 2008) did not include any studies that documented associations between religious dimensions and prejudice (e.g., Altemeyer & Hunsberger, 1992; Duck & Hunsberger, 1999; Herek, 1987; Laythe, Finkel, & Kirkpatrick, 2001; Whitley & Lee, 2000). Furthermore, most psychology research in this area has been limited

Wade C. Rowatt, Jordan LaBouff, Megan Johnson, Paul Froese, and Jo-Ann Tsang, Department of Psychology and Neuroscience, Baylor University.

The Baylor Religion Survey was supported by a grant from the John Templeton Foundation to Baylor University's Department of Sociology and to the Baylor Institute for Studies of Religion. We thank their colleagues for sharing this rich data set. We also thank the editorial staff and anonymous reviewers for constructive feedback on previous versions of this article. Portions of this research were presented at the Psychology of Religion and Spirituality pre-conference to the 2009 meeting of the Society for Personality and Social Psychology (Tampa, Florida).

Correspondence concerning this article should be addressed to Wade C. Rowatt, Department of Psychology and Neuroscience, Baylor University, One Bear Place 97334, Waco, TX 76798-7334. E-mail: wade_rowatt@baylor.edu

to convenience samples of college students who tend to be homogeneous with regard to age, education level, and sometimes religious background, ethnicity, and other characteristics. Subject variables such as these may account for some variability in social attitudes or prejudice. Herek (1994), for example, reported that attitudes toward gay men are more positive among women than among men (see also Kite & Whitley, 1996), among Whites than among Blacks, among more educated people than among less educated people, and among religious and political liberals than among conservatives.

Individual Differences in Social Attitudes and Prejudice

In this article we use the phrase *social attitude* in reference to an evaluative reaction toward a person or member of a specific group. We use the term *prejudice* in reference to a negative evaluative reaction. Although there are many known causes and correlates of social attitudes and prejudice, our primary focus in this study was on intraindividual factors such as personality and religiousness.

Over 50 years ago, Gordon Allport (1954, p. 408) theorized that prejudice was “lockstitched into the very fabric of personality.” Of known personality dimensions, right-wing authoritarianism (RWA; Adorno, Frenkel-Brunswick, Levinson, & Sanford, 1950; Altemeyer, 1981) appears to be one of the strongest predictors of prejudice multinationally (Sibley & Duckitt, 2008). For example, RWA and general ethnocentrism were strongly associated in a sample of White American undergraduates ($r = .73$; Cunningham, Nezlek, & Banaji, 2004). In a sample of college students from Sweden, homosexual prejudice correlated with RWA ($r = .48$) and several other personality dimensions, such as social dominance orientation (SDO; $r = .39$) and openness to experience ($r = -.22$; Ekehammar, Akrami, Gylje, & Zakrisson, 2004). In addition, RWA and SDO correlated positively with racial prejudice in a sample of college students from Australia (Heaven & St. Quintin, 2003).

Throughout history, strict adherence to some religious teachings has engendered many prejudices, discriminatory behaviors, and even violent

attacks, especially toward persons in out-groups or minority groups (see Jenkins, 2008). Relatively few psychologists, however, have considered links between religious dimensions and prejudice. Allport and Ross (1967, p. 432) reported that indiscriminately proreligious persons—those who report being both intrinsically and extrinsically religious—“are the most prejudiced of all.” By definition, *intrinsically religious* persons engage in religious practices as a valued end; whereas, *extrinsically religious* persons use religion as a means to other personal coping or social ends (Allport & Ross, 1967). Following Allport and Ross, we would predict that general religiousness would correlate positively with most or all prejudices. However, Donahue’s (1985) meta-analysis revealed that self-reported racial prejudice correlated positively with extrinsic religious orientation and negligibly with intrinsic religious orientation. In a few more recent studies, intrinsic religious orientation correlated negatively with racial prejudice but positively with homosexual prejudice (Duck & Hunsberger, 1999; Herek, 1987; Laythe et al., 2001).

This pattern of selective tolerance was anticipated by some. Herek (1987, p. 34), for example, posited that general intrinsic religious orientation “does not foster unequivocal acceptance of others but instead encourages tolerance toward specific groups that are accepted by contemporary Judeo-Christian teachings.” Batson, Schoenrade, and Ventis (1993, p. 322) theorized that “higher scores on the intrinsic, end dimension are associated with both knowledge and acceptance of the teachings of one’s religious community about right and wrong prejudices.” Rather than religion engendering universal acceptance of all people regardless of ethnicity, nationality, gender, age, religious creed, or sexual orientation, general religiousness may instead cultivate “conformity to the ‘right’ tolerances and the ‘right’ prejudices as defined by the formal and informal teachings of his or her religious community” (Batson et al., 1993, p. 322). This idea—that general religiousness may be associated with the “right” tolerances and the “right” prejudices—was tested in the current study.

What About Right-Wing or Conservative Political Ideology?

We also investigated whether some of the variability in attitudes or prejudice attributed to reli-

giousness may be due to authoritarian personality, political ideology, or other individual differences. Laythe et al. (2001) found that RWA was a strong predictor of homosexual and racial prejudice; however, when RWA was statistically controlled, religious fundamentalism (RF) negatively correlated with racial prejudice but positively correlated with homosexual prejudice. According to Altemeyer and Hunsburger (1992), religious fundamentalists believe in part that there is only one set of true religious teachings that must be vigorously defended. Rowatt and Franklin (2004) found that trait Christian Orthodoxy correlated negatively with implicit racial prejudice when RWA and RF were statistically controlled. Additionally, Tsang and Rowatt (2007) reported that the strong positive correlation between intrinsic religious orientation and self-reported attitudes toward gays and lesbians ($r = .56$) weakened considerably when authoritarianism was also statistically controlled ($r = .13$). Taken together, these previous studies supported the idea that religiousness was associated with less prejudice when variability due to the authoritarian component of personality or the fundamentalism dimension of religiousness was controlled.

Hypotheses and Predictions

Our aims were (a) to investigate whether general religiousness was associated with unequivocal acceptance of other persons or selective intolerance toward others and (b) to explore whether associations between religiousness and less accepting attitudes or prejudice were due to some extraneous or confounding variables. Toward these ends, three partially conflicting hypotheses were tested.

Hypothesis 1

Sacred texts are replete with oft-recited verses about unconditional love of others (e.g., enemies, neighbors, and one another). The *religiousness-acceptance hypothesis* was that general religiousness engenders acceptance of people regardless of their ethnicity or sexual orientation. From this hypothesis it was predicted that general religiousness would correlate negatively with racial prejudice and attitudes toward homosexuals.

Hypothesis 2

The *selective intolerance hypothesis* was that general, mainstream religion (e.g., Judeo-Christianity) discourages some prejudices and encourages others (cf. Batson et al., 1993; Herek, 1987). Given that followers of most mainstream religions perceive that homosexual behavior is sinful or wrong (Bassett et al., 2000), it was predicted that general religiousness would correlate with less accepting attitudes toward homosexuals. However, given that most mainstream religions discourage prejudice based solely on an individual's race (Batson et al., 1993; Herek, 1987), it was predicted that general religiousness would correlate negatively with general racial prejudice.

Hypothesis 3

The *confounding variable hypothesis* was that associations between religiousness and social attitudes or prejudice would be due to extraneous variables (e.g., gender, political ideology, and RWA). Because of the exploratory nature of analyses needed to test this hypothesis, specific hypotheses for each demographic variable were not formulated. In general, however, it was expected that general religiousness would remain a predictor of attitudes toward homosexuals when controlling for potential confounds.

Method

Participants and Procedure

The data used in this study were from the 2007 wave of the Baylor Religion Survey (BRS), a national random sample of 1648 adults in the contiguous United States. We omitted data from 12 of 1648 respondents who indicated that they were not U.S. citizens and from 48 persons who did not answer the citizenship question. The final sample comprised 1588 U.S. citizens. Sample characteristics are shown in Table 1.

This wave of the BRS was administered and collected by the Gallup Organization using a mixed-mode method (telephone and self-administered mailed surveys) in October and November 2007. In order to avoid various sources of bias, a random digit procedure was used, designed to provide representation of both listed and unlisted (including not-yet-listed) numbers. For results

Table 1
Characteristics of the National Sample (N = 1588)

Measure	%	n	Measure	%	n
Sex			\$150,001 or more	6.7	106
Male	46.1	732	Missing	4.8	77
Female	53.9	856	Race		
Marital status			White	88.2	1400
Married	62.5	993	Black/African-American	8.4	134
Living as married	5.3	84	Hispanic/Latino	5.4	84
Separated	1.0	15	Asian	0.5	8
Divorced	8.2	130	American Indian/Alaska native	3.1	50
Widowed	5.9	94	Native Hawaiian/other Pacific Islander	0.3	5
Never married	13.0	206	Other	3.8	61
Missing	4.2	67	Place where you live		
Education level			A large city	13.0	206
8th grade or less	1.0	15	A suburb near a large city	27.2	433
9th to 12th grade	6.7	107	A small city or town	37.0	588
No high school diploma			A rural area	20.7	329
High school graduate	28.7	456	Don't know	0.9	14
Some college	27.4	436	Missing	1.2	19
Trade/technical/vocational training	10.1	161	Religious affiliation		
College graduate	13.4	213	Protestant	52.9	841
Postgraduate work/degree	12.4	196	Catholic	20.9	332
Missing	0.2	4	Jewish	1.8	29
Household income			Muslim	0.5	7
\$10,000 or less	7.3	115	Buddhist	0.6	9
\$10,001–\$20,000	7.5	119	Hindu	0.2	3
\$20,001–\$35,000	12.4	197	Other	8.5	133
\$35,001–\$50,000	15.9	253	No religion	11.3	180
\$50,001–\$100,000	33.1	525	Don't know	1.4	23
\$100,001–\$150,000	12.4	197	Missing	1.9	31

Note. The total percentage of the race variable exceeds 100% because some participants identified with more than one group.

based on the final sample, one can say with 95% confidence that the error attributable to sampling and other random effects could be plus or minus 4 percentage points. See Bader, Mencken, and Froese (2007) for more methodological information about the BRS.

Measures and Data Reduction

General religiousness. A four-item measure of general religiousness was created by summing (after transforming to *z* scores) responses to questions about degree of religiousness, frequency of attendance at religious services, reading of sacred books, and praying outside religious services.¹ Responses on this measure of general religiousness were internally consistent (Cronbach's alpha = .81). This measure was unidimensional.²

General racial prejudice. Racial attitudes were assessed toward three historically disadvantaged social groups in the United States (Asians,

Blacks, and Hispanic-Latinos) and summed to create an index of general racial prejudice. In a process similar to that of distance scales (cf. Bor-

¹ Items on the general religiousness scale were worded as follows: (a) *How religious do you consider yourself to be?* (not at all religious, not too religious, somewhat religious, very religious); (b) *How often do you attend religious services?* (never, less than once a year, once or twice a year, several times a year, once a month, 2–3 times a month, about weekly, weekly, several times a week); (c) *How often do you read the Bible, Koran, Torah or other sacred book?* (never, less than once a year, once or twice a year, several times a year, once a month, 2–3 times a month, about weekly, weekly, several times a week); and (d) *About how often do you pray or meditate outside of religious services?* (never, only on certain occasions, once a week or less, a few times a week, once a day, several times a day).

² Principal components analysis of the four-item *general religiousness scale* revealed one component that accounted for 64.15% of the variance (eigenvalue = 2.57). The loadings on the religiousness dimension were *read sacred books* (.84), *attend religious services* (.80), *religious* (.79), and *pray* (.77). Principal components analysis of the three-item *RWA scale* revealed one component that accounted for 69%

gardus, 1933; Ponton & Gorsuch, 1988), respondents were asked to indicate “*How comfortable would you be . . .*” with four levels of interaction with a person of each race (i.e., *working with someone who is _____; if a family moved next door to you with about the same income and education as you and is _____; if a member of your family wanted to bring a friend home to dinner who is _____; if your daughter married someone who is _____*). Respondents were provided with three response options after each statement: very comfortable (= 1), somewhat comfortable (= 2), or not at all comfortable (= 3). Responses on each four-item scale were internally consistent (i.e., attitudes toward Asians [$\alpha = .79$], Blacks [$\alpha = .74$], and Hispanic/Latinos [$\alpha = .81$]). A second-order analysis of these three attitude variables revealed that each loaded highly (.92–.95) on a single component (eigenvalue = 2.65) that accounted for 88% of the variance. We summed these three racial attitude variables (after transforming to z scores) to create a “general racial prejudice” score ($\alpha = .94$). Higher values indicated more negative attitudes and racial prejudice.

Attitudes toward homosexuals (ATH). Four items assessed ATH: (a) *homosexuals should be allowed to marry*, (b) *homosexuals should be allowed civil unions*, (c) *people choose to be homosexuals* (reverse-keyed), and (d) *people are born as either homosexual or heterosexual*. The response options for these items were *strongly agree*, *agree*, *undecided*, *disagree*, and *strongly disagree*. For data reduction purposes, items 1 and 2 were summed to create a variable labeled “against gay marriage/civil unions” ($\alpha = .86$). Items 3 and 4 were summed to create a variable labeled “people choose to be homosexuals” ($\alpha = .78$). These two-item variables correlated strongly ($r = .64$).

of the variance (eigenvalue = 2.06). The loadings for each item were *crackdown on troublemakers* (.85), *obedience and respect* (.83), and *respect America’s traditions* (.80). Principal components analysis of the four-item *attitudes toward homosexuals* scale revealed one component that accounted for 70% of the variance (eigenvalue = 2.78). The loadings for each item were *allowed to civil unions* (.86), *allowed to marry* (.85), *born that way* (.84), *choose to be homosexual* (.78). Higher scores on this measure indicate negative attitudes toward homosexual marriage or civil union and stronger beliefs that homosexuality is a choice. We interpret higher scores to indicate less accepting ATH.

We also included these four items in a principal components analysis. As is detailed in Footnote 2, these items loaded highly on a single dimension ($\alpha = .85$). As such, we summed items 1 to 4 to create an aggregate measure interpreted as less accepting ATH. Higher ATH scores indicate more negative attitudes toward homosexuals.

Right-wing authoritarianism (RWA; Altemeyer, 1981). A three-item measure of RWA assessed the extent to which respondents agree or disagree with the following statements (strongly disagree, disagree, undecided, agree, or strongly agree): (a) *obedience and respect are the most important things kids should learn*, (b) *we must crack down on troublemakers to save our moral standards and keep law and order*, and (c) *people should be made to show respect for America’s traditions*. Responses on this brief RWA scale were internally consistent (Cronbach’s alpha = .77). This measure was unidimensional (see Footnote 2).

Political ideology was assessed with a single item that read, “*How would you describe yourself politically?*” (extremely conservative, conservative, leaning conservative, moderate, leaning liberal, liberal, or extremely liberal). This item was included because some variability in prejudice attributed to religiousness or RWA could be due to political conservatism or liberalism.

Demographic items. Included in the demographics section of the survey were measures of age, gender (1 = female, 2 = male), race, highest level of education completed, household income, home geographic region, and religious affiliation.

Results

Descriptive statistics for key variables were provided in Table 2.³ Correlations were computed to test whether religiousness was associated with general acceptance (Hypothesis 1) or selective intolerance (Hypothesis 2). In support of the selective intolerance hypothesis, general religiousness was associated with less accepting attitudes toward homosexuals and negligibly with racial prejudice (see Table 3). A few other notable correlations were found between demo-

³ Frequency distributions and scatterplots of the main dependent variables were also examined. Variables were normally distributed and did not violate assumptions of parametric tests.

Table 2
Descriptive Statistics for Key Measures

Measure	<i>M</i>	<i>SD</i>	Minimum	Maximum	<i>N</i>	Number of items
General religiousness	0.00	0.86	-1.53	1.32	1514	4
Authoritarian personality	3.78	0.94	1.00	5.00	1563	3
Political ideology	3.61	1.63	1.00	7.00	1541	1
Against gay marriage/civil unions	3.16	1.44	1.00	5.00	1556	2
People choose to be homosexuals	2.92	1.27	1.00	5.00	1553	2
Attitudes toward homosexuals	3.04	1.23	1.00	5.00	1548	4
General racial prejudice	0.00	0.93	-0.79	3.64	1464	12

Note. The *attitudes toward homosexuals* variable was scored so that higher values indicated less acceptance (i.e., against gay marriage or civil union; stronger agreement that people choose to be homosexuals).

graphic variables and self-reported social attitudes. For example, RWA correlated positively with general religiousness, less accepting ATH, and general racial prejudice. Political liberalism correlated negatively with general religiousness, less accepting ATH, and general racial prejudice. According to the confounding variable hypothesis, some variability in ATH or racial prejudice attributed to general religiousness could be due to one of these potential confounding variables.

To test the confounding variable hypothesis, a hierarchical multiple regression analysis was computed to predict ATH (see Table 4). In the first step, several demographic variables were entered simultaneously (see Model 1). General religiousness was forward entered in the second step (see Model 2). RWA was forward entered in the third step (see Model 3). Political ideology was forward

entered in the fourth step (see Model 4). Missing data were replaced with the mean.

In Model 1 (see Table 4), being Protestant was associated with less accepting views of homosexual persons, when the other variables in the model were controlled. Being a woman, higher education level attained, and higher income were associated with more accepting views toward homosexual individuals. In Model 2, when general religiousness was added, the R^2 increased significantly from .16 to .36. The strong positive association between general religiousness and less accepting ATH remained ($\beta = .51$) when other individual differences were statistically controlled. In Model 3, when RWA was added to the equation, the R^2 increased to .40. Both religiousness ($\beta = .47$) and RWA ($\beta = .22$) were still associated with less accepting ATH. In Model 4, when political ide-

Table 3
Correlations Between General Religiousness, Individual Differences, and Prejudice in a National Sample

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. General religiousness	—											
2. Right-wing authoritarianism	.27**	—										
3. Political ideology	-.39**	-.40**	—									
4. Gender (1 = male; 2 = female)	.18**	.05*	.10**	—								
5. Age	.09**	.16**	-.08**	.02	—							
6. Race (0 = non-White; 1 = White)	.04	.08**	.06*	.03	-.10**	—						
7. Education	-.04	-.35**	.16**	-.03	-.07**	-.03	—					
8. Household income	-.11**	-.19**	-.01	-.07**	-.02	-.14**	.39**	—				
9. Protestant (0 = no; 1 = yes)	.48**	.35**	-.32**	.10**	.11**	.04	-.17**	-.11**	—			
10. Against gay marriage/unions	.54**	.41**	-.56**	-.04	.09**	-.03	-.22**	-.15**	.40**	—		
11. People choose to be homosexuals	.42**	.28**	-.46**	-.18**	-.05	.03	-.15**	-.10**	.28**	.64**	—	
12. Attitudes toward homosexuals	.53**	.39**	-.57**	-.12**	.03	.00	-.20**	-.14**	.38**	.92**	.89**	—
13. General racial prejudice	.08*	.31**	-.20**	-.03	.23**	.02	-.23**	-.22**	.20**	.29**	.18**	.26**

* $p < .01$. ** $p < .001$.

Table 4

Regressions of Attitude Toward Homosexuals on Demographics, Religiousness, Authoritarianism, and Political Ideology

Variable	Model 1		Model 2		Model 3		Model 4	
	β	t	β	t	β	t	β	t
Protestant	.32	13.74**	.11	4.90**	.07	3.19*	.05	2.38†
Gender (1 = male; 2 = female)	-.15	-6.58**	-.22	-10.89**	-.22	-11.14**	-.16	-8.76**
Education	-.14	-5.40**	-.17	-7.54**	-.10	-4.51**	-.07	-3.48*
Age	-.01	<1	-.04	-1.88	-.06	-3.20*	-.06	-3.22*
Race (1 = non-White; 2 = White)	-.02	<1	-.03	-1.33	-.04	-2.03	-.02	<1
Household income	-.06	-2.51†	-.03	-1.17	-.02	<1	-.06	-2.91*
General religiousness			.51	22.20**	.47	21.05**	.36	16.68**
Right-wing authoritarianism					.22	9.87**	.11	5.29**
(Liberal) Political ideology							-.35	-16.19**
R^2 (total model)	.16		.36		.40		.48	
F (total model)	50.26**		127.33**		130.40**		164.22**	
dfs (total model)	6, 1581		7, 1580		8, 1579		9, 1578	
R^2 change			.20		.04		.09	
F change			495.42**		97.45**		262.23**	

* $p < .01$. ** $p < .001$. † $p < .02$.

ology (PI) was added to the equation, the R^2 increased again from .40 to .48. Liberal political ideology was associated with more accepting ATH ($\beta = -.35$), whereas general religiousness ($\beta = .36$) and RWA ($\beta = .11$) remained as significant predictors of ATH.

General racial prejudice was also regressed on demographics, political liberalism, general religiousness, and RWA. Variables were entered simultaneously in this analysis. As is shown in Table 5, self-reported general racial prejudice increased with age, RWA, and being Protestant, and it decreased with household in-

come, political liberalism, and education level. The relationship between general religiousness and general racial prejudice was negative and small when the other variables in the equation were statistically controlled.

Discussion

This is one of the first empirical studies to examine associations between general religiousness, right-wing authoritarian personality, and attitudes toward people in historically disadvantaged groups in a large, random sample of American adults. In general, results from this nationally representative sample are consistent with those from less representative samples of undergraduate college students. This bodes well for the continued use of convenience samples of university students to test theories about the psychology of religion, social attitudes, and prejudice.

Consistent with the selective intolerance hypothesis, general religiousness correlates strongly with less acceptance of homosexuals but appears to be only minimally related to racial prejudice in this sample of Americans. This pattern fits with the idea that within some mainstream religions (e.g., Judeo-Christianity), there appear to be some proscribed and nonproscribed prejudices (see Batson et al., 1993; Herek, 1987).

Table 5

Regressions of General Racial Prejudice on Demographics, Religiousness, Authoritarianism, and Political Ideology

Variable	β	t
Age	.18	7.51**
Right-wing authoritarianism	.18	6.54**
Household income	-.14	-5.51**
(Liberal) political ideology	-.10	-3.70**
Protestant (0 = no; 1 = yes)	.08	2.88*
Education	-.07	-2.53†
General religiousness	-.07	-2.46†
Gender (1 = male; 2 = female)	-.04	-1.50
Race (1 = non-White; 2 = White)	.01	
R^2	.16	
Total model: $F(9, 1578)$	34.31**	

* $p < .01$. ** $p < .001$. † $p < .02$.

Little support exists for the confounding variable hypothesis. That is, associations between religiousness and attitudes toward homosexuals do not seem to be due entirely to gender, authoritarianism, or political ideology. For example, although RWA correlates positively with general religiousness, less accepting ATH, and racial prejudice, the moderate association between religiousness and ATH remains when RWA is controlled (see Table 4, Model 3). A small negative association exists between general religiousness and self-reported racial prejudice when controlling for other individual differences (see Table 5).

We should also note that political ideology is a strong correlate of ATH in this sample. As political ideology becomes more liberal (or less conservative), attitudes toward homosexual persons become more positive. In fact, political ideology is just as strong a correlate of ATH as is religiousness (compare columns 1 and 3 in Table 3) and remains a moderately strong predictor of ATH when religiousness and other variables are controlled (see Table 4, Model 4).

Demographic variables appear to play a small role in the prediction of the social attitudes assessed. At the bivariate level, respondent age, education, and household income correlate (positively, inversely, and inversely, respectively) with general racial prejudice; general religiousness did not. However, ATH becomes more positive as education level, household income, and political liberalism increase. ATH is more negative among Protestants than among persons who identify another religious affiliation. Men in this national sample reported slightly more negative ATH than did women (cf. Herek, 1988; Kite & Whitley, 1996), consistent with past research. Age and race did not account for appreciable variability in ATH in this sample.

Shackleford and Besser (2007) contended that some demographic variables are indirect indicators of openness to experience, which they hypothesized inversely correlate with prejudice. Using data from the 1993 General Social Survey, they found that respondents who were "less educated, older, conservative, religious fundamentalists, and geographically immobile reported less favorable attitudes toward homosexuality" (Shackleford & Besser, 2007, p. 112). Our findings with regard to demographic predictors of ATH are generally consistent with

those of Shackleford and Besser. It should be noted that Shackleford and Besser assessed feelings about homosexual sex with a single item (response options were *always wrong*, *almost always wrong*, *sometimes wrong*, and *never wrong*) and did not examine indicators of racial attitudes or attitudes toward homosexual persons. Furthermore, five demographic markers were used to assess openness to experience (i.e., education, age, political conservatism, religious fundamentalism, and geographic mobility). These demographic variables are probably correlated with the Openness to Experience dimension of personality (McCrae & Costa, 1997) but clearly do not tap broader Openness facets such as fantasy, aesthetics, feelings, actions, ideas, or values (Costa & McCrae, 1992, p. 17). Nevertheless, the finding that openness to experience and prejudice are inversely associated should be examined in future studies that include religiousness measures.

Strengths, Limits, and Future Directions

Use of data from a national random probability sample is a notable strength of the current study and of others (e.g., Shackleford & Besser, 2007). The sample is large, diverse, and much more representative of the American population than is a small sample of college students. Such a large sample size provides remarkable statistical power to detect very small associations between variables. As such, we caution readers not to make mountains out of molehills. Some of the miniscule correlations are statistically significant but are practically insignificant. For example, the .08 correlation between general religiousness and racial prejudice is very small. General religiousness accounts for only .0064% of the variability in self-reported racial prejudice in this sample. In contrast, general religiousness accounts for over 25% of the variability in attitudes toward homosexuals in this sample. On the basis of this finding, it is reasonable to conclude that religious persons in the United States self-report low acceptance of homosexuals. It would be a gross overstatement to conclude from this study that religious persons are racially prejudiced. To the contrary, when RWA and other demographics are controlled, a small negative association exists between general religiousness

and racial prejudice (see Table 5). Furthermore, there is some evidence from a small sample of college students that as Christian Orthodoxy increases, implicit racial prejudice declines when RWA, religious fundamentalism, and impression management are statistically controlled (Rowatt & Franklin, 2004).

These findings from U.S. citizens may not generalize across all nations, religions, or times. Additional research is needed, for example, to investigate whether the association between religiousness and attitudes toward homosexuals is universal across culture and religion. If one assumes that religion operates similarly within individuals across societies and cultures with regard to the domain of social attitudes, then it is probable that the patterns observed will generalize to other nations and world religions. One possibility is that religious people across cultures and religion negatively evaluate individuals or groups who behave in a manner that they perceive to be inconsistent with their cultural or religious worldview.

The measures used in this survey are somewhat narrow, in part to conserve survey space and other resources. The brief measure of general racial prejudice taps “discomfort being close to persons of different races” (i.e., Asians, Blacks, and Hispanic-Latinos) but is very similar to previous scales (see Borgardus, 1933; Ponton & Gorsuch, 1988). A person who admits being uncomfortable with social intimacy (i.e., working with, dining with, living next to, or being in-laws with) with a person of another race probably holds some prejudice.

It is also important to note that the brief measure of attitudes toward homosexuals centers both on being against gay marriage and civil unions and on stronger agreement that individuals choose to be homosexual. Our interpretation is that these constructs indicate less acceptance of homosexuals. That the brief measures of ATH and general racial prejudice correlate positively is some evidence for the convergent validity of these measures. Furthermore, our findings are consistent with previous research that shows that (a) attributing homosexuality to a controllable cause correlates positively with prejudice (Whitley, 1990) and (b) stronger beliefs that homosexuality is a choice (not biologically based) correlate positively with negative attitudes toward gay men and lesbians (Haslam & Levy, 2006; Raja & Stokes,

1998). Similar associations between attitudes toward gay marriage, underlying causes of sexual orientation, and negative attitudes toward homosexual behavior also exist in a similar data set.⁴ We also note that other measures of sexual prejudice contain similar items about gay marriage and perceived nature–nurture influences on sexual orientation.⁵

Though widely used in attitude polls and surveys, self-report methods are inherently limited. For example, responses to questions about sensitive social attitudes or degrees of religiousness are easy to deliberately control. A person could say that he or she is not prejudiced but experience negativity toward members of out-groups on a more unconscious or implicit level (Greenwald & Banaji, 1995). A few studies reveal connections between religious dimensions and implicit prejudices (see Rowatt & Franklin, 2004; Rowatt, Franklin, & Cotton, 2005; Rowatt et al., 2006). However, more rigorous experiments on the effects of religiousness on actual behaviors related to prejudice—such as discrimination, violence, or not helping a victim in need—are also needed. Studies of helping behavior could be particularly fruitful, be-

⁴ The General Social Survey (GSS; available at <http://www.norc.org/GSS+Website>) included items such as *Is homosexual sex wrong?* (recoded so that 1 = *not wrong at all* to 4 = *always wrong*); *Do you think being a homosexual is something people choose to be or something they cannot change?* (recoded so that 1 = *cannot change* and 2 = *choose to be*); and *Homosexuals should have the right to marry* (1 = *strongly agree* to 5 = *strongly disagree*). The item “Is homosexual sex wrong?” correlated .36 with the item about homosexuality being a choice ($p < .0001$, $n = 398$). The item “Is homosexual sex wrong?” correlated .66 with the item about gay marriage ($p < .0001$, $n = 2740$). We present this as further evidence that attitudes toward homosexuals include underlying dimensions about “environmental cause” and “denying rights” to homosexual persons (see also Haslam & Levy, 2006).

⁵ For example, “*State laws regulating private, consenting lesbian behavior should be loosened*” (reverse keyed) is one item on the Attitudes Toward Lesbians and Gay Men Scale (Herek, 1988, 1994). “*If two homosexuals want to get married, the law should let them*” is an item on another widely used measure of attitudes toward homosexuals (Altemeyer & Hunsburger, 1992). “*Marriages between two lesbians (gay men) should be legal*” and “*Lesbians (gay men) should undergo therapy to change their sexual orientation*” were items on the Modern Homophobia Scale (Raja & Stokes, 1998). The item “*Homosexuals are born that way*” loads on the “environmental cause” dimension of another attitude measure (Klassen, Williams, & Levitt, 1989).

cause the decision to help or not help a person of a different race or sexual orientation could be an indirect indicator of underlying social acceptance or prejudice (Crosby, Bromley, & Saxe, 1980). Priming methods could provide a way to manipulate a cognitive component of religion. Although there appear to be no published studies on priming religiousness and prejudice, there are a few on prosocial processes. Priming positive religious mental representations increases prosocial behavioral intentions (Pichon, Boccato, & Saroglou, 2007). People primed with a God concept allocated more money to anonymous strangers than did those in the neutral prime condition (Shariff & Norenzayan, 2007). Priming a religion concept or schema may increase social acceptance or reduce some prejudices. It could also increase prejudice.

In closing, analyses of this self-report data from a national random sample of American adults reveals that general religiousness correlates strongly with less accepting attitudes toward homosexuals but negligibly with racial prejudice. The association between religiousness and attitudes toward homosexuals remains when some other known correlates are statistically controlled. Future studies could explore whether the association between religiousness and attitudes toward homosexuals remain when other personality correlates of prejudice are statistically controlled (such as Agreeableness, Openness, or Social Dominance Orientation; see Sibley & Duckitt, 2008). Future research is also needed to examine the possible causal nature of the relationship.

References

- Adorno, T. W., Frenkel-Brunswick, E., Levinson, D. J., & Sanford, R. N. (1950). *The authoritarian personality*. New York: Harper.
- Allport, G. (1954). *The nature of prejudice*. New York: Doubleday.
- Allport, G., & Ross, J. M. (1967). Personal religious orientation and prejudice. *Journal of Personality and Social Psychology*, 5, 432–443.
- Altemeyer, B. (1981). *Right-wing authoritarianism*. Winnipeg, Ontario, Canada: University of Manitoba Press.
- Altemeyer, B., & Hunsberger, B. (1992). Authoritarianism, religious fundamentalism, quest, and prejudice. *International Journal for the Psychology of Religion*, 2, 113–133.
- Bader, C. F., Mencken, C., & Froese, P. (2007). American piety: Content and methods of the Baylor Religion Survey. *Journal for the Scientific Study of Religion*, 46, 447–464.
- Bassett, R. L., Hodak, E., Allen, J., Bartos, D., Grastorf, J., Sittig, L., et al. (2000). Homonegative Christians: Loving the sinner but hating the sin. *Journal of Psychology and Christianity*, 19, 258–269.
- Batson, C. D., Schoenrade, P., & Ventis, W. L. (1993). *Religion and the individual: A social-psychological perspective*. New York: Oxford Press.
- Beatty, K. M., & Walter, O. (1984). Religious preference and practice: Reevaluating their impact on political tolerance. *Public Opinion Quarterly*, 48, 318–329.
- Borgardus, E. A. (1933). A social distance scale. *Sociology and Social Research*, 17, 265–271.
- Costa, P. T., Jr., & McCrae, R. R. (1992). *Revised NEO Personality Inventory (NEO-PI-R) Professional Manual*. Odessa, FL: Psychological Assessment Resources.
- Crosby, F., Bromley, S., & Saxe, L. (1980). Recent unobtrusive studies of Black and White discrimination and prejudice: A literature review. *Psychological Bulletin*, 87, 546–563.
- Cunningham, W., Nezelek, J. B., & Banaji, M. R. (2004). Implicit and explicit ethnocentrism: Revisiting the ideologies of prejudice. *Personality and Social Psychology Bulletin*, 30, 1332–1346.
- Donahue, M. F. (1985). Intrinsic and extrinsic religiousness: Review and meta-analysis. *Journal of Personality and Social Psychology*, 48, 400–419.
- Duck, R. J., & Hunsberger, B. (1999). Religious orientation and prejudice: The role of religious proscription, right-wing authoritarianism and social desirability. *International Journal for the Psychology of Religion*, 9, 157–179.
- Ekehammar, B., Akrami, N., Gylje, M., & Zakrisson, I. (2004). What matters most to prejudice: Big five personality, social dominance orientation, or right-wing authoritarianism. *European Journal of Personality*, 18, 463–482.
- Ellison, C. G., & Musick, M. A. (1993). Southern intolerance: A fundamentalist effect? *Social Forces*, 72, 379–398.
- Filsinger, E. (1976). Tolerance of non-believers: A cross-tabular and log linear analysis of some religious correlates. *Review of Religious Research*, 17, 232–240.
- Froese, P., Bader, C., & Smith, B. (2008). Political tolerance and God's wrath in the United States. *Sociology of Religion*, 69, 29–44.
- Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: Attitudes, self-esteem, and stereotypes. *Psychological Review*, 102, 4–27.
- Haslam, N., & Levy, S. R. (2006). Essentialist beliefs about homosexuality: Structure and implications

- for prejudice. *Personality and Social Psychology Bulletin*, 32, 471–485.
- Heaven, P. C. L., & St. Quintin, D. (2003). Personality factors predict racial prejudice. *Personality and Individual Differences*, 34, 625–634.
- Herek, G. M. (1987). Religion and prejudice: A comparison of racial and sexual attitudes. *Personality and Social Psychology Bulletin*, 13, 56–65.
- Herek, G. M. (1988). Heterosexuals' attitudes toward lesbians and gay men: Correlates and gender differences. *Journal of Sex Research*, 25, 451–477.
- Herek, G. M. (1994). Assessing heterosexuals' attitudes toward lesbians and gay men: A review of empirical research with the ATLG scale. In B. Greene & G. M. Herek (Eds.), *Lesbian and gay psychology: Theory, research, and clinical applications* (pp. 206–228). Thousand Oaks, CA: Sage.
- Jenkins, P. (2008). *The lost history of Christianity*. San Francisco: HarperOne.
- Katnik, A. (2002). Religion, social class, and political tolerance: A cross-national analysis. *International Journal of Sociology*, 32, 14–38.
- Kite, M. E., & Whitley, B. E., Jr. (1996). Sex differences in attitudes toward homosexual persons, behaviors, and civil rights: A meta-analysis. *Personality and Social Psychology Bulletin*, 22, 336–353.
- Klassen, A. D., Williams, C. J., & Levitt, E. E. (1989). *Sex and morality in the U.S.: An empirical inquiry under the auspices of the Kinsey Institute*. Middletown, CT: Wesleyan University Press.
- Laythe, B., Finkel, D. G., & Kirkpatrick, L. A. (2001). Predicting prejudice from religious fundamentalism and right-wing authoritarianism. *Journal for the Scientific Study of Religion*, 40, 1–10.
- McCrae, R. R., & Costa, P. T., Jr. (1997). Conceptions and correlates of openness to experience. In R. Hogan, J. A. Johnson, & S. R. Briggs (Eds.), *Handbook of personality psychology* (pp. 825–847). San Diego, CA: Academic Press.
- Pichon, I., Boccato, G., & Saroglou, V. (2007). Non-conscious influences of religion on prosociality: A priming study. *European Journal of Social Psychology*, 37, 1032–1045.
- Ponton, M. O., & Gorsuch, R. L. (1988). Prejudice and religion revisited: A cross-cultural investigation with a Venezuelan sample. *Journal for the Scientific Study of Religion*, 27, 260–271.
- Raja, S., & Stokes, J. P. (1998). Assessing attitudes toward lesbians and gay men: The modern homophobia scale. *Journal of Gay, Lesbian, and Bisexual Identity*, 3, 113–134.
- Rowatt, W. C., & Franklin, L. M. (2004). Christian orthodoxy, religious fundamentalism, and right-wing authoritarianism as predictors of implicit racial prejudice. *International Journal for the Psychology of Religion*, 14, 125–138.
- Rowatt, W. C., Franklin, L., & Cotton, M. (2005). Patterns and personality correlates of implicit and explicit attitudes toward Christians and Muslims. *Journal for the Scientific Study of Religion*, 44, 29–43.
- Rowatt, W. C., Tsang, J., Kelly, J., LaMartina, B., McCullers, M., & McKinley, A. (2006). Associations between religious personality dimensions and implicit homosexual prejudice. *Journal for the Scientific Study of Religion*, 45, 397–406.
- Shackelford, T. K., & Besser, A. (2007). Predicting attitudes toward homosexuality: Insights from personality psychology. *Individual Differences Research*, 5, 106–114.
- Shariff, A. F., & Norenzayan, A. (2007). God is watching you: Priming God concepts increases prosocial behavior in an anonymous economic game. *Psychological Science*, 18, 803–809.
- Sibley, C. G., & Duckitt, J. (2008). Personality and prejudice: A meta-analysis and theoretical review. *Personality and Social Psychology Review*, 12, 248–279.
- Stouffer, S. A. (1992). *Communism, conformity, and civil liberties*. New Brunswick, NJ: Transaction. (Original work published 1955)
- Tsang, J., & Rowatt, W. C. (2007). The relationship between religious orientation, right-wing authoritarianism, and implicit attitudes toward lesbians and gay men. *International Journal for the Psychology of Religion*, 17, 99–120.
- Whitley, B. E., Jr. (1990). The relationship of heterosexuals' attributions for the causes of homosexuality to attitudes toward lesbians and gay men. *Personality and Social Psychology Bulletin*, 16, 369–377.
- Whitley, B. E., Jr., & Lee, S. E. (2000). The relationship of authoritarianism and related constructs to attitudes toward homosexuality. *Journal of Applied Social Psychology*, 30, 144–170.

Received May 15, 2008

Revision received December 17, 2008

Accepted December 17, 2008 ■