

# Homonegativity and its Relationship to Religiosity, Nationalism and Attachment Style

Timothy Marsh · Jac Brown

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**Abstract** This study investigated the relationships between negative attitudes towards homosexuals and two traditional ideologies: religiosity and nationalism, and explored the link with attachment style. An Internet survey yielded 290 participants, of highly diverse ages, nationalities, and religious backgrounds. The participants provided demographic details, and completed measures of adult attachment, nationalism, religiosity, and both explicit and implicit measures of homonegativity. The results indicated that both nationalism and religiosity were highly significant predictors of homonegativity. In the religious group, homonegativity and religiosity were positively related. This finding was greater for less securely attached individuals. Avoidance moderated the relationship in religious females, while anxiety moderated the relationship in religious males. No significant attachment moderation was found between the nationalism–homonegativity relationships.

**Keywords** Religiosity · Attachment style · Nationalism · Homonegativity

The motivations and mechanisms behind prejudicial behaviours have long been a matter of concern and curiosity to social psychologists. Strong religious and national identification are predictive of greater degrees of minority prejudice such as racism and homophobia (Allport and Ross 1967; Altemeyer and Hunsberger 1992). These ideologies are often referred to both colloquially and in the literature as *traditional values*, and are frequently highly correlated (Altemeyer 1996; Altemeyer and Hunsberger 1992).

Religiosity has been connected with adult attachment style, which has been shown to mediate some relationships between authoritarianism and discriminatory behaviour (Kirkpatrick 1997, Roccato and Ricolfi 2005). Given the high correlations between religiosity, authoritarianism, and nationalism, a similar relationship between nationalism and attachment was predicted. This paper aims to investigate the possibility that variations in the relationships between these two traditional ideologies, religiosity and nationalism, and

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T. Marsh · J. Brown (✉)  
Department of Psychology, Macquarie University, Sydney, NSW, Australia  
e-mail: jbrown@psy.mq.edu.au

the common contemporary prejudice of homonegativity can be explained by individual differences in attachment style.

### **Religiosity, Nationalism and Homonegativity**

The traditional cultural ideologies of religiosity and nationalism often involve specific beliefs that support some forms of prejudice. For example, Abrahamic religious traditions (including Judaism, Christianity, and Islam) contain scriptural passages that are frequently interpreted as forbidding homosexuality. Similarly, promoting the implicit superiority of one's own nation and perceived national culture often involves criticism of other nations.

Religiosity is defined as the degree of dedication to specific religious beliefs and the extent to which those beliefs are influential in one's life. McFarland (1989) found that 'extrinsic' religiosity provided the best predictor of discriminatory attitudes in males, and 'intrinsic' religiosity best predicted discriminatory attitudes in females. Altemeyer and Hunsberger (1992) reported that religiosity positively and negatively predicted a variety of prejudices, particularly racial prejudice and negative attitudes towards homosexuals. This finding was replicated for racism, in religions including Judaism, Islam, and Hinduism (Hunsberger 1996), and for hostility towards homosexuals (Altemeyer 2003). Regression analysis by Laythe et al. (2001) on a Christian sample found that when authoritarianism was controlled for, fundamental religiosity was a significant positive predictor of homosexual prejudice. In a further study, Schwartz and Lindley (2005) reported that religious fundamentalism and gender were the only significant predictors of homophobia. The general tendency for religiosity to predict racial prejudice has ultimately decreased over time, but religiosity has largely continued to predict negativity towards homosexuals.

Nationalistic ideology is defined as the extent of unconditional support and promotion for the intrinsic superiority of a specific nation and may include the derision of other nations through nationalism and patriotism. Patriotism includes positive regard for one's own nation and its merits (Schatz et al. 1999; Peña and Sidanius 2002; Rothì et al. 2005), while nationalism infers a comparison with other nations to affirm the superiority of one's own country (Mummendey et al. 2001). It is therefore necessary to employ a measure of nationalism that is sensitive to this distinction when studying the impact of ideological nationalism on prejudice.

While not studied as extensively in the literature, the construct of nationalism has shown links to prejudiced beliefs. Morrison et al. (2005) reported that nationalism, in contrast to patriotism, was a highly significant predictor of homonegative attitudes, particularly towards lesbians. Thus, there is some demonstrated connection between homonegativity and nationalism.

### **Religiosity, Nationalism and Attachment**

Nationalism has received very little attention compared to religiosity in general, but religious beliefs are intuitively understood to be more personal than nationalistic beliefs. Thus, these attitudes are more likely to be related to a personal-social construct such as attachment. Attachment theory was first conceived to describe the proposed mechanisms behind the behaviour of infants and young children when experiencing distress owing to separation from their primary parental caregiver (Bowlby 1973). Attachment was construed as an internal working model, formed by infants' early experiences with their

primary caregivers and is thought to represent how people relate to significant others (Bowlby 1969, 1973). The attachment model was extended into close, romantic relationships between adults by Hazan and Shaver (1987), and was later built upon by Bartholomew (1990) and Bartholomew and Horowitz (1991) to define the two dimensions of avoidance and anxiety.

There is very little research drawing links between racism and attachment style. Mikulincer and Shaver (2001) used a priming experiment and found that securely attached individuals were overall more accepting of members of out-groups than insecurely attached participants. Schwartz and Lindley (2005) found that religious fundamentalism, and gender were the only significant predictors.

Kirkpatrick (1992) proposed a framework for understanding the psychology of religion utilising adult attachment. He suggested that religions with a personal deity encourage a personal relationship, and that these deities act as attachment figures similar to those provided by interpersonal relationships. Kirkpatrick and Shaver (1992) reported that adults who described themselves as securely attached, had more positive images of God than their insecure counterparts. Also, subjects who were classified as avoidant were more likely to describe themselves as agnostics. An all-female longitudinal study found that during a 4-year period, insecurely attached subjects were more likely than securely attached subjects to convert to a new religion, suggesting that religious beliefs compensate for insecurely attached subjects' relationships (Kirkpatrick 1997). These results are somewhat more complex, as Granqvist (2002) found that securely attached individuals more predictably followed the religious traditions of their caregivers, whereas the insecurely attached individuals had religious beliefs that were globally more unstable. Kirkpatrick's findings suggested that adult attachment is appropriate for the study of traditional values and prejudiced attitudes, which is in line with other evidence concerning the effect of adult attachment on adult relationships (Collins and Read 1990; Collins and Feeney 2000; Mikulincer and Shaver 2001).

While there are no empirical studies that draw a connection between nationalism and attachment style, the high correlations between the different traditional values suggest that trends which hold true for religiosity are likely to hold true for nationalism. Many of the theoretic justifications offered for the relationship between attachment and religiosity attribute this phenomenon to the relationship-like qualities of most religious ideologies (Kirkpatrick 1992). It is the presumed communion with a personified entity, usually a deity, which explains the relevance of the attachment working model in religious expression. As an ideology, nationalism is commonly not personified in any way and pertains instead to more abstract loyalties, cultural trends, and perceived national conventions (Schatz et al. 1999). The commonalities or differences between nationalism and religiosity offer valuable clues regarding the potential relevance of the relationship between traditional ideologies, attachment style, and prejudice.

### **Implicit and Explicit Homonegativity**

Prejudice against minority groups can be understood in the framework of social identity theory (Tajfel and Turner 1986). The desire to identify with salient in-groups and to regard such groups positively is frequently associated with the denigration of out-groups (Tajfel 1969; Kosterman and Freshbach 1989). While many minority prejudices are currently tolerated, negative attitudes towards homosexuals, referred to as homonegativity, continues to evoke prejudice in contemporary western cultures (Kite 1994). Expressed

homonegativity is also predictably higher in men than in women (Kite 1994; Kite and Whitley 1996; Heaven and Oxman 1999), which may be the result of the anti-feminine attitudes often associated with traditional masculinity (Parrot et al. 2002).

The taboo against expressing prejudiced beliefs, presents a problem in regard to the accurate measurement of homonegativity. Social desirability is likely to motivate participants with homonegative attitudes to downplay the extent of these attitudes when explicitly questioned. There are therefore many potential advantages to employing both explicit and implicit measures of homonegativity. This study investigated two ideological components of traditional values, nationalism and religiosity, in predicting homonegativity, measured both explicitly and implicitly. The study sought to explore the possibility that these relationships would be moderated by adult attachment style.

## Hypotheses

The hypotheses of the current study are as follows. *Hypothesis 1*: Religiosity will be associated with homonegativity, which will be stronger for participants with specific religious alignments. *Hypothesis 2*: Nationalism will be related to homonegativity. *Hypothesis 3*: The relationships between religiosity and homonegativity, and nationalism and homonegativity, will be moderated by adult attachment style. Specifically, those with lower attachment security are predicted to be more homonegative within their degree of ideology than the more securely attached.

## Method

### Participants

The sample consisted of 290 participants, who each completed the survey in a single sitting over the Internet. There were 78 males (27%) and 212 females (73%). The age of the participants varied between 18 and 65 years, with a mean age just over 24. One hundred of the participants were undergraduate psychology students completing the survey in exchange for credit.

The remaining 190 participants were informed of the survey, either through its listing on notice-boards of online psychology research or through the 200 mailbox pamphlets distributed among five suburbs of Sydney, Australia, selected for their diverse average property values, and thus presumably, diverse socio-economic background. All participants were offered the chance to enter the random draws for two incentive prizes (a double movie pass, available to Australian participants, or an Amazon.com gift voucher available internationally).

As the survey was available online, data were submitted from a wide range of countries (22), though primarily from Australia ( $n = 135$ ) and the USA ( $n = 104$ ). The remaining 51 participants came from 18 other countries, although predominantly from England, Canada and South Korea.

The participants also indicated a great diversity in religious affiliations. In broad categories, the sample consisted of 39.3% Christians, 1.7% Muslims, 3.1% Buddhists, 1.4% Jews, and 4.2% other religions, such as Taoism and Scientology, in addition to 50.3% secularists.

The highest undertaken level of education for participants varied extensively, with 2 completing the 10th grade (0.7%), 54 completing high school (18.6%), 167 with bachelors degrees (57.6%), 34 with honours degrees (11.7%), 8 with postgraduate diplomas (2.7%), 17 with masters degrees (5.9%), and 8 with doctorate degrees (2.8%).

### Procedure

The survey was prepared as an interactive interface in Macromedia Flash<sup>TM</sup> Version 8, and uploaded onto a university web-space allocated for research. The sections of the survey were presented in the same order for all participants; consent form, demographic questions, the four multiple-choice response sections (attachment measure, nationalism measure, religiosity measure, then explicit homonegativity measure), and lastly the attitudes towards homosexuals as measured by the Implicit Association Test (IAT). The inclusion of the IAT was instrumental in the choice to use a Flash<sup>TM</sup> interface, as a Flash<sup>TM</sup> file can be programmed to record response times in milliseconds, and its status as a common and free Internet multimedia tool allowed for the administration of an IAT to a wide range of participants.

### Measures

The first set of questions presented in the survey were demographics questions, asking participants their age, gender, sexual orientation (on a 7-point Likert scale), current country of residence and whether or not they immigrated, what national background they most identify with, how they would best describe their own, their mothers, and their fathers (if known) religious beliefs, and the highest level of education.

#### *Experience of Close Relationships Questionnaire*

This scale consists of 36 items presented on a 7-point Likert scale, ranging from ‘Strongly Disagree’ to ‘Strongly Agree’ (Brennan et al. 1998). The scale measures adult attachment on the two distinct dimensions of avoidance (AV) and anxiety (ANX). The scale has a high level of convergent validity with many earlier established adult attachment measures, and possesses very strong internal consistency on both dimensions, with an alpha of .94 (.92 in the current sample) for AV, and an alpha of .91 (.91 in the current sample) for ANX.

#### *National Orientation and Patriotism Scale*

This scale consists of 40 items designed to measure nationalism, and was drawn from Roth et al.’s (2005) work on the identity content and relational orientation of identifying with one’s national group. Roth et al. developed and tested the measure, consisting of four subscales, each representing positive or negative facets of either national orientation or cultural content. National orientation consists of ‘blind’ and ‘constructive’ subscales, and cultural content consists of ‘traditional’ and ‘civic’ subscales. The traditional and blind items constitute a measure of nationalism, whereas constructive and civic items represent the construct defined as patriotism. Each scale has acceptably strong psychometric properties, with alphas of .84 (.92 in the current sample) for the blind items, .85 (.90 in the current sample) for the constructive items, .84 (.85 in the current sample) for the civic culture items, and .91 (.88 in the current sample) for the traditional culture items. For the purposes of this study, only the blind nationalism (BN) and traditional culture (TC) scales

were used, as they alone represent the construct of nationalism. All four scales were included in the testing interface, however, in order to disguise the consistently positive direction of the BN and TC statements. Responses to statements were given on a 5-point Likert scale, ranging from ‘Strongly Disagree’ to ‘Strongly Agree’.

### *Religious Orientation Scale*

This measure consists of 21 items designed by Allport and Ross (1967), with an additional item added by subsequent researchers (Kirkpatrick 1989). Responses to statements were given on a 5-point Likert scale, ranging from ‘Strongly Disagree’ to ‘Strongly Agree’. The word “church” in some items was changed to “religious group” in order to maximise the applicability of the scale to participants of all religious affiliations. In this study, the scale was utilised under its original two-factor form of *intrinsic* and *extrinsic* religious orientation (Genia 1993; Gorsuch and McPherson 1989; Kirkpatrick 1989; McFarland 1989; Leong and Zachar 1990; Reed and Meyers 1991). The psychometric properties of the Religious Orientation Scale has an alpha of .80 (.91 in the current sample) for intrinsic religiosity (IR), and an alpha of .70 (.82 in the current sample) for extrinsic religiosity (ER; Hill and Hood 1999).

### *Attitudes Towards Homosexuals Scale*

This measure consists of 12 items, expressing statements either overtly against homosexuals, or overtly accepting of homosexuals, which participants rate on a 7-point Likert scale, ranging from ‘Strongly Disagree’ to ‘Strongly Agree’. The scale was shown by Altemeyer (1988) to have high internal consistency (.90 in the current sample), and correlates highly with measures of right-wing authoritarianism, which are known to predict explicit homonegativity (EH; Altemeyer 1996).

### *Implicit Association Test: Attitudes Towards Homosexuals*

The Implicit Association Test (IAT) was initially developed by Greenwald et al. (1998), and was designed to test heuristic or automatic attitudes by comparing the recorded speeds at which participants respond to rapidly presented stimuli, which are either congruous or incongruous with the attitude being tested. Positivity or negativity of attitudes are assessed in this way, by having a participant distinguish between two forms of stimuli, then in separate blocks associate pictures of same and opposite sex couples with positive and negative words, followed by a reversal of this association, and measuring which association took longer to respond to on average. The psychometric validity of IAT designs in detecting implicit attitudes towards homosexuals has been well established by Banse et al. (2001), and Dasgupta and Rivera (2006).

The IAT was comprised of five blocks, each of which had ten non-recorded practice trials preceding it. The five blocks contained 50, 50, 150, 50, and 150 trials, respectively, with 400-millisecond gaps between presentations, so as to meet Greenwald et al. (1998) standards for psychometric validity. After each incorrect response, the word “Incorrect” would appear in red letters during the period between presentations to provide feedback to participants. In order to discourage participants from simply tapping the keys rapidly in an attempt to provide fast and false data, the Flash<sup>TM</sup> interface was programmed to only count the 400-millisecond gap between stimuli when no key-presses were being registered. The

mean of the individual differences in reaction time between block three and block five is the IAT effect of a participant's implicit homonegativity (IH).

## Results

### Preliminary Analyses

#### *Descriptive Statistics of Variables in Relation to Religiosity*

On the basis of self report, the sample was divided into a secular and a religious group. The means, standard deviations, minimum and maximum values and univariate  $F$  values for differences between religious and secular groups of each of the non-categorical dependent variables are listed in Table 1. Most respondents were females (73%) and under the age of 25 (73.8%). Many participants were highly educated. The secular group was more likely to be male, gay, less BN, TC, IR, ER, IH and EH.

#### *Correlations*

The bivariate Pearson's correlation values of the variables are listed in Table 2 with the values above the diagonal representing the secular group ( $n = 146$ ) and the values below the diagonal representing the religious participants ( $n = 144$ ). For the secular sample, IH was significantly related to BN ( $r = .22$ ) and IR ( $r = .26$ ), while EH was significantly related to BN ( $r = .47$ ), TC ( $r = .38$ ), and IH ( $r = .30$ ). Higher implicit homonegativity was related to higher scores on blind nationalism and intrinsic religiosity, while higher

**Table 1** Univariate analysis between religious and secular participants

Variable	Religious group		Secular group		Range of scores		Univariate analysis	
	Mean	SD	Mean	SD	Lower	Upper	$F$	Sign
Gender	.22	.4	.3	.5	0	1	4.23*	.04
Age	23.1	9.0	25.3	10.0	18.0	65.0	3.68	.06
Sexual orientation	6.3	1.5	5.9	1.7	1	7	5.64*	.02
Education level	4.3	1.1	4.2	1.2	2	8	.14	.70
Avoidance	3.1	1.0	3.1	1.0	1.3	5.8	.02	.88
Anxiety	3.9	1.1	3.8	1.1	1.1	6.4	.30	.58
Attachment style	2.4	1.0	2.4	1.0	1.0	4.0	.06	.80
Nationalism, blind	2.2	.7	1.8	.6	1.0	4.1	24.64**	.00
Nationalism, constructive	4.1	.6	4.2	.6	2.2	5.0	5.63*	.02
Culture, traditional	2.5	.7	2.2	.7	1.0	4.6	13.14**	.00
Culture, civic	3.5	.8	3.3	.7	1.0	5.0	3.00	.08
Intrinsic religiosity	3.2	.9	1.8	.6	1.0	5.0	202.64**	.00
Extrinsic religiosity	2.8	.6	2.3	.7	1.0	4.7	49.54**	.00
Explicit homonegativity	2.2	1.1	1.5	.7	1.0	5.3	44.12**	.00
Implicit homonegativity	111	131.9	43.9	14.8	-549.6	732.9	16.76**	.00

\*\* Difference is significant at  $P < 0.01$

\* Difference is significant at  $P < 0.05$

**Table 2** Correlations between all variables, for secular (above diagonal) and religious (below diagonal) participants

	Age	SO	LE	BN	TC	IR	ER	Av	Anx	IH	EH
Age	–	–.04	<b>.30*</b>	–.05	.00	–.07	–.13	–.16	–.11	.20	.00
SO	–.09	–	–.05	.09	.12	.02	.13	–.18	.06	.13	<b>.22*</b>
LE	<b>.48*</b>	–.09	–	–.17	.00	.11	–.02	–.15	<b>–.23*</b>	–.06	.01
BN	–.03	.10	–.21	–	<b>.54*</b>	.05	.05	.09	.19	<b>.22*</b>	<b>.47*</b>
TC	–.08	.12	–.12	<b>.52*</b>	–	<b>.32*</b>	.20	.04	.17	.06	<b>.38*</b>
IR	.16	.08	<b>.22*</b>	.07	.09	–	<b>.37*</b>	.01	.04	<b>.26*</b>	.19
ER	–.15	.00	<b>–.24*</b>	<b>.37*</b>	.20	–.16	–	.02	.07	.02	.08
Av	<b>–.22*</b>	.01	–.12	–.02	.06	–.04	.16	–	.04	–.05	–.01
Anx	–.12	–.07	–.12	.05	.16	–.08	.15	.10	–	.04	.14
IH	–.04	.13	–.15	<b>.27*</b>	.20	.18	.03	.18	–.02	–	<b>.30*</b>
EH	–.12	.19	–.10	<b>.35*</b>	<b>.26*</b>	<b>.47*</b>	.02	.04	.04	<b>.32*</b>	–

Notes: All variable names excluding age are reduced

SO sexual orientation, LE level of education, BN blind nationalism, TC traditional culture, IR intrinsic religiosity, ER extrinsic religiosity, Av attachment avoidance, *Anx* attachment anxiety, IH implicit homonegativity, EH explicit homonegativity

All ‘\*’ marked correlations are significant at  $P < 0.01$  in 2 tails

explicit homonegativity was associated with higher blind nationalism, traditional culture and implicit homonegativity. For the religious sample, IH was significantly related to BN ( $r = .27$ ), while EH was significantly related to BN ( $r = .35$ ), TC ( $r = .26$ ), IR ( $r = .47$ ) and IH ( $r = .32$ ). Higher implicit homonegativity was associated with higher blind nationalism scores, while explicit homonegativity was related to higher blind nationalism, traditional culture, intrinsic religiosity and implicit homophobia.

## Tests of Predictions and Hypotheses

### *Hypothesis 1: Religiosity and Homonegativity*

Hypothesis 1 predicted that religiosity would be related to homonegativity. IR significantly predicted IH ( $F = 14.07$ ,  $P < 0.001$ ) and EH ( $F = 101.45$ ,  $P < 0.001$ ). ER significantly predicted EH ( $F = 9.11$ ,  $P < 0.01$ ), but failed to predict IH. When IR and ER were controlled for each other, IR remained a significant predictor of IH ( $F = 10.66$ ,  $P = 0.001$ ) and EH ( $F = 89.27$ ,  $P < 0.001$ ), whereas ER failed to significantly predict either.

In the religious group, IR alone significantly predicted IH ( $F = 4.92$ ,  $P \leq 0.05$ ) and EH ( $F = 41.04$ ,  $P < 0.001$ ). ER alone failed to significantly predict IH and EH in the religious group. When controlling for each other, ER failed to predict IH, while IR remained significantly predictive of both IH ( $F = 5.33$ ,  $P < 0.05$ ) and EH ( $F = 42.76$ ,  $P < 0.001$ ).

In the secular group, IR failed to predict IH, but significantly predicted EH ( $F = 5.51$ ,  $P < .05$ ). Also in the secular group, EH alone failed to significantly predict both IH and EH. When assessed together, both IR and ER continued to predict EH, while IR significantly predicted EH ( $F = 4.93$ ,  $P < .05$ ). These results confirm the hypothesis that higher religiosity predicts higher homonegativity, particularly for individuals who identify with a religious ideology.



*Hypothesis 2: Nationalism and Homonegativity*

Hypothesis 2 predicted that nationalism would be associated with homonegativity. BN was a significant predictor of both IH ( $F = 26.53, P < .001$ ) and EH ( $F = 75.25, P < .001$ ). TC was also a significant predictor of both IH ( $F = 8.66, P < .01$ ) and EH ( $F = 39.86, P < .001$ ). When BN and TC were controlled for each other, BN still significantly

**Table 3** Summary of hierarchical regression analysis predicting homonegativity in secular and religious groups

Variable	Secular implicit		Secular explicit		Religious implicit		Religious explicit	
	Beta	Sig	Beta	Sig	Beta	Sig	Beta	Sig
<b>Step 1</b>								
Gender	.22	<b>.01*</b>	.22	<b>.01*</b>	.05	.55	.10	.24
Sexual orientation	.10	.22	.20	<b>.02*</b>	.13	.14	.20	<b>.02*</b>
Level of education	-.11	.19	-.03	.70	-.14	.10	-.09	.29
<b>Step 2</b>								
Gender	.22	<b>.01*</b>	.18	<b>.02*</b>	.09	.27	.19	<b>.01*</b>
Sexual orientation	.09	.29	.16	<b>.03*</b>	.10	.25	.16	<b>.03*</b>
Level of education	-.07	.44	.03	.69	-.13	.14	-.14	.06
Blind nationalism	.25	<b>.02*</b>	.41	<b>.00*</b>	.25	<b>.01*</b>	.31	<b>.00*</b>
Traditional culture	-.09	.37	.07	.46	.04	.70	.01	.90
Intrinsic religiosity	-.04	.69	.19	<b>.05*</b>	.18	<b>.03*</b>	.49	<b>.00*</b>
Extrinsic religiosity	.02	.85	-.11	.22	-.09	.32	-.06	.40
Avoidance	-.01	.89	-.01	.86	.20	<b>.02*</b>	.06	.35
Anxiety	-.00	.99	.05	.46	-.03	.73	.08	.27
<b>Step 3</b>								
Gender	.21	<b>.02*</b>	.17	<b>.03*</b>	.11	.20	.21	<b>.00*</b>
Sexual orientation	.09	.28	.16	<b>.04*</b>	.10	.27	.19	<b>.01*</b>
Level of education	-.08	.42	.03	.73	-.10	.27	-.12	.12
Blind nationalism	.16	.74	.83	<b>.05*</b>	.89	.08	.13	.76
Traditional culture	.12	.82	-.52	.25	-.45	.36	.49	.23
Intrinsic religiosity	.21	.76	.72	.22	-.04	.92	.15	.65
Extrinsic religiosity	.15	.80	-.41	.41	.02	.95	.61	.09
Avoidance	.33	.39	.16	.63	.02	.97	.30	.55
Anxiety	.10	.80	-.18	.59	.08	.90	.84	.10
BN × anxiety	.41	.42	-.32	.47	-.35	.51	-.05	.90
BN × avoidance	-.25	.64	-.25	.58	-.49	.25	.30	.40
TC × anxiety	-.79	.17	.66	.19	.81	.19	.22	.67
TC × avoidance	.47	.38	.19	.68	-.13	.81	-1.07	<b>.02*</b>
IR × anxiety	.15	.80	-.29	.56	.30	.54	-.19	.65
IR × avoidance	-.53	.41	-.43	.44	-.05	.91	.72	<b>.04*</b>
ER × anxiety	.12	.83	.29	.56	-.89	.16	-1.01	.06
ER × avoidance	-.31	.58	.17	.73	.87	.14	-.21	.66

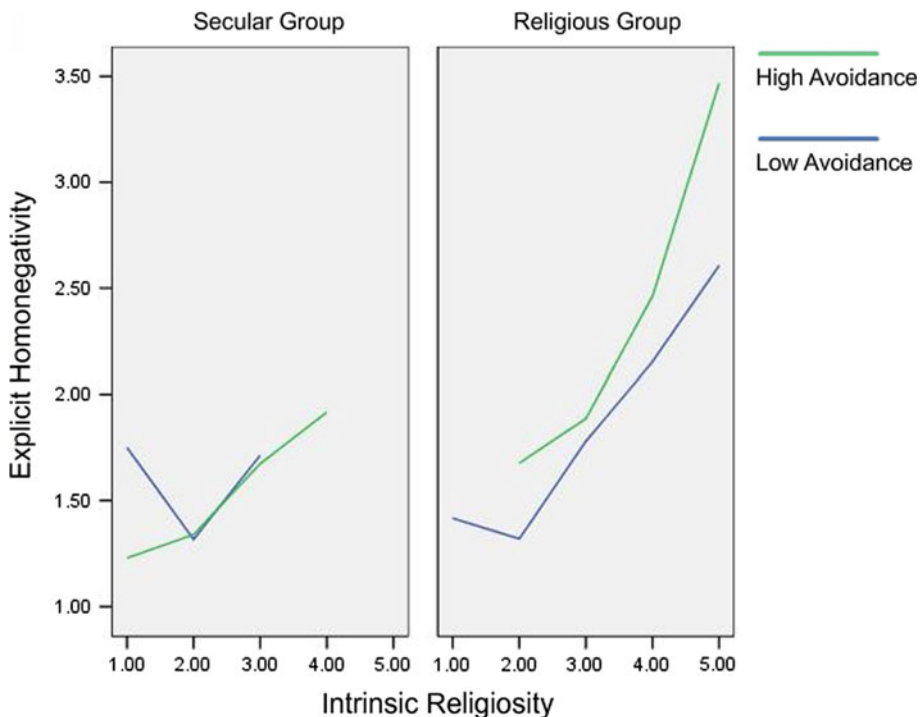
Note: significance levels marked with an \*\* denote a  $P < 0.05$

predicted IH ( $F = 17.34, P < .001$ ) and EH ( $F = 36.54, P < .001$ ), whereas TC continued to significantly predict EH ( $F = 5.02, P < .05$ ) but failed to predict IH.

These results support the hypothesis that as scores on nationalism become higher, so does homonegativity. The veracity of this result could only be firmly established if the effect remained after controlling for the other predictive variables in the study such as religiosity and sexual orientation, which was explored in *Hypothesis 3*.

### *Hypothesis 3: The Moderation of Ideology–Prejudice Relationships by Attachment*

Hypothesis 3 predicted that the relationship between nationalism and religiosity would be mediated by attachment style. Identical hierarchical regressions were performed, using all of the independent variables and the appropriate interaction terms to predict both IH and EH. As the relationships were expected to differ between religious and secular individuals, the analyses were performed on the religious ( $n = 144$ ) and secular ( $n = 146$ ) groups separately. The hierarchical regressions predicting the secular and religious group's IH and EH are detailed in Table 3. In the secular group's IH regression, only the main effects of gender and BN were statistically significant, with no significant interactions. In the secular group's EH regression, gender, sexual orientation, and BN and IR were significant predictors with no further significant interactions. For the religious group's IH regression, BN, IR, and AV were significant predictors with no significant interactions. Finally, in the religious group's EH regression, gender and sexual orientation were significant predictors with both BN and IR highly significant. Two attachment-related interactions were also



**Fig. 1** Interaction graph: lines represent high and low avoidance

statistically significant: the negative interaction between TC and AV, and more importantly, the positive interaction between IR and AV.

The significant interaction found between IR and AV in the religious group, supports the hypothesis that the relationship between religiosity and homonegativity is moderated by attachment insecurity for individuals who hold a religious ideology. The direction of the interaction predicted in the third hypothesis was also supported. This is demonstrated in Fig. 1, using a median-split of AV. Religious participants with higher AV scores showed greater EH at higher levels of IR. It should be noted, however, that significance of the interaction depends in part on the controlling of nationalism in the model, as when tested in a model containing only intrinsic religiosity, the two attachment dimensions, and the three

**Table 4** Summary of hierarchical regression analysis predicting homonegativity in females and males

Variable	Female explicit		Female implicit		Male explicit		Male implicit	
	Beta	Sig	Beta	Sig	Beta	Sig	Beta	Sig
<b>Step 1</b>								
Sexual orientation	.08	.26	.18	<b>.01*</b>	.352	<b>.00*</b>	.29	<b>.01*</b>
Level of education	−.08	.28	.05	.49	−.106	.34	−.17	.12
<b>Step 2</b>								
Sexual orientation	.03	.66	.04	.46	.344	<b>.00*</b>	.27	<b>.00*</b>
Level of education	−.09	.22	−.02	.75	−.073	.53	−.10	.29
Blind nationalism	.22	<b>.01*</b>	.28	<b>.00*</b>	.316	<b>.02*</b>	.40	<b>.00*</b>
Traditional culture	−.04	.63	.01	.84	−.053	.71	.09	.46
Intrinsic religiosity	.22	<b>.00*</b>	.56	<b>.00*</b>	.216	.07	.33	<b>.00*</b>
Extrinsic religiosity	−.01	.89	−.11	.07	−.151	.20	−.18	.07
Avoidance	.07	.33	−.04	.49	.036	.73	.14	.11
Anxiety	−.03	.65	.01	.86	.048	.69	.11	.22
<b>Step 3</b>								
Sexual orientation	.04	.60	.05	.35	.373	<b>.00*</b>	.27	<b>.01*</b>
Level of education	−.09	.23	−.02	.68	−.070	.55	−.09	.33
Blind nationalism	.67	.12	.09	.78	.328	.58	.34	.49
Traditional culture	−.09	.82	.04	.90	.140	.82	.64	.21
Intrinsic religiosity	.01	.99	.39	.19	−.319	.46	−.32	.37
Extrinsic religiosity	−.02	.96	.32	.30	.441	.41	−.28	.52
Avoidance	−.27	.38	−.03	.89	.881	.08	.62	.13
Anxiety	.41	.18	.24	.31	−.342	.49	−.49	.24
BN × anxiety	−.53	.24	−.14	.70	.865	.17	.50	.34
BN × avoidance	−.04	.91	.38	.18	−.868	.18	−.41	.44
TC × anxiety	−.17	.72	.47	.20	−.819	.34	−.59	.40
TC × avoidance	.25	.56	−.55	.100	.385	.57	−.39	.49
IR × anxiety	.18	.60	−.24	.36	.847	<b>.02*</b>	.69	<b>.02*</b>
IR × avoidance	.06	.85	.48	.06	−.118	.80	.22	.58
ER × anxiety	−.21	.62	−.47	.16	−.195	.74	.33	.49
ER × avoidance	.24	.55	−.19	.56	−.787	.20	−.20	.68

Note: significance levels marked with an \*\* denote a  $P < 0.05$

demographic predictors, the  $P$ -value of the interaction is reduced to the very boundary of significance, with  $P = 0.05$ .

No clear support was found for the moderation by attachment dimensions of the relationship between nationalism and homonegativity, in any of the conditions. While attachment anxiety appears to significantly interact with TC for religious group's EH condition, TC failed to demonstrate any significant main effects.

Due to the strength and consistency of gender as a predictor, and prior research findings which suggest that the relational impact of attachment dimensions varies between men and women (Collins and Read 1990), further analyses were carried out on the separate gender groups ( $n = 212$  for females and  $n = 78$  for males). Table 4 presents the hierarchical regressions, similar to those in Table 3 of the IH and EH of the female and male groups.

The majority of effects that were significant for the religious group but non-significant for the secular group became non-significant when combined. The interaction between avoidance and intrinsic religiosity present for explicit homonegativity in the religious group was only present in the female group. While the avoidance interaction appeared completely absent in the male group, there was instead a significant interaction present between intrinsic religiosity and attachment anxiety, which was significant for both implicit and explicit homonegativity. The small male sample size meant that the division of the gender groups by gender and religion would create some groups with cell sizes too small for regression analysis. However, as the plot in Fig. 2 reveals, higher levels of

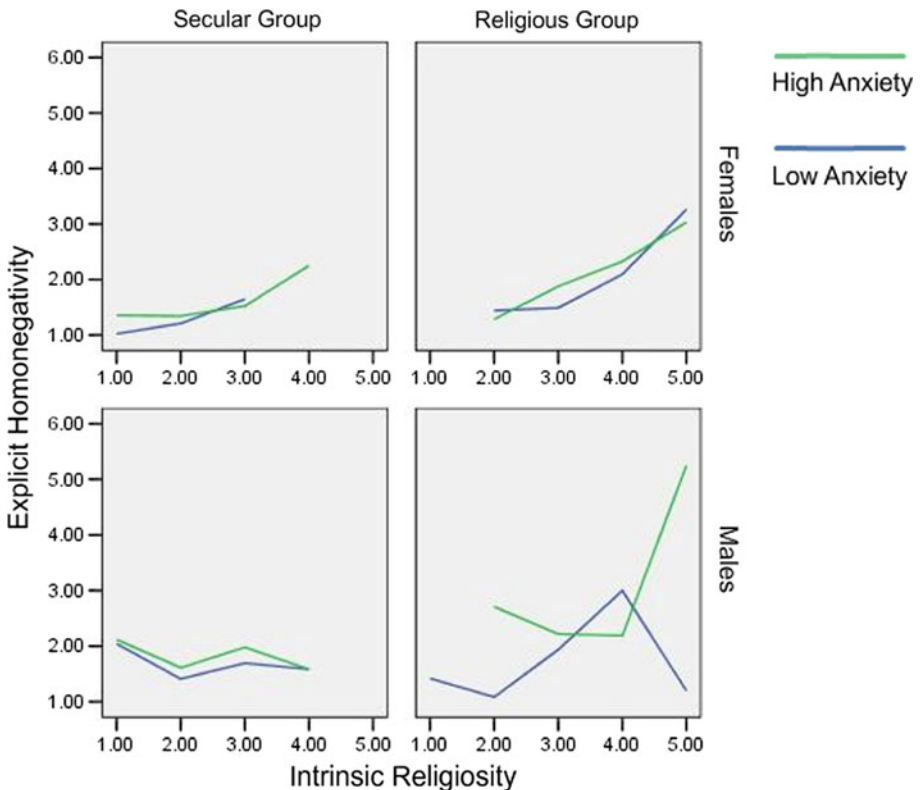


Fig. 2 Interaction graph: lines represent high and low anxiety

attachment anxiety in religious males predicts more explicit homonegative attitudes for higher levels of intrinsic religiosity.

## Discussion

### Religiosity and Homonegativity

The prediction that religiosity would be positively related to homonegativity was strongly supported by both the specific multiple regression analyses, and the combined models presented in the hierarchical regression analyses. There were significant predictions of explicit homonegativity by intrinsic religiosity as well as frequent significant predictions of implicit homonegativity by intrinsic religiosity, supporting the results of other researchers (Altemeyer and Hunsberger 1992; Hunsberger 1996; Duck and Hunsberger 1999, Laythe et al. 2001; and, McFarland 1989). Religiosity also predicted an overall linear increase in homonegativity (Altemeyer 2003). These findings are in specific contrast with those of Allport and Ross (1967), who found instead a distinct curvilinear relationship between religiosity and prejudice, with the least and most religious individuals likely to hold prejudicial attitudes as suggested by Altemeyer (2003), it is likely that this change over the decades has been partly caused by the growing acceptance of minority groups. The theoretical focus of this study suggesting that intrinsic religiosity would be a stronger predictor of homonegativity than extrinsic religiosity was supported as both IH and EH were predicted by IR, while only EH was predicted by ER. This finding is in opposition to the early findings of Allport and Ross (1967), who found ER to be a greater predictor of anti-minority attitudes than IR, again reflecting increased social acceptance of minorities. Prejudice is now less likely to be reinforced in social settings, and are less likely to relate to an individual's extrinsic religious motivations. Furthermore, the prediction was supported by the significance levels of the relationship between intrinsic religiosity and homonegativity, which was greater for the religious group than for the secular group.

### Nationalism and Homonegativity

Traditional culture is intended to measure subtle support for the cultural identifiers of one's nation, whereas blind nationalism is intended to measure unreflecting support for and the implied superiority of one's nation (Rothl et al. 2005). While both may predict prejudicial attitudes, blind nationalism most closely fits the conception of nationalism as a traditional value, and hence was expected to be the greater predictor of homonegativity.

The prediction that nationalism would be positively related to homonegativity was strongly supported by the multiple and hierarchical regression analyses, with blind nationalism proving to be the strongest and most consistent predictor of both implicit and explicit homonegativity, exceeded only by intrinsic religiosity. Traditional culture, though a significant predictor when viewed alone, was at all times non-significant when blind nationalism had been controlled. These findings are similar to those of Morrison et al. (2005), who found measures of nationalism to be predictive of homonegative attitudes, and resonates with the use of nationalistic items in measures of authoritarianism, which is also a highly reliable predictor of homonegativity (Altemeyer 1996).

## The Moderation of Ideology–Homonegative Relationships by Attachment

It was predicted that individuals with less attachment security would be more homonegative than those who are more securely attached. Moderation appeared to be taking place in the predicted direction in that the religious group was significantly more homonegative at higher levels of religiosity if they also scored high on attachment avoidance.

As suggested by other research (Collins and Read 1990; Kirkpatrick and Davis 1994; Collins and Feeney 2000; Schwartz et al. 2004) gender was also explored. It was found that the interaction between avoidance and intrinsic religiosity was present only in women, particularly in religious women. The male group also demonstrated a unique and significant interaction between intrinsic religiosity and attachment anxiety. In addition to possessing a greater effect size and degree of significance, this anxiety and intrinsic religiosity interaction, unlike the avoidance and intrinsic religiosity interaction of the female group, was significant in the prediction of both implicit and explicit homonegativity. Although there were ultimately too few males in the sample to run a hierarchical regression on groups distinguished by both gender and religious groups, and graphic explorations of these combined conditions suggest that both significant interactions are far weaker in the secular than the religious groups. When taken together, these findings suggest that attachment insecurity generally predicts greater increases in homonegativity for rises in the intrinsic religiosity of religious people, with avoidance moderating the relationship for religious females, and anxiety moderating the relationship for religious males.

The relationship between traditional culture and explicit homonegativity in the religious group appears to be significantly moderated by attachment avoidance, in a strong negative direction. Such a result must be interpreted cautiously, however, as unlike intrinsic religiosity, traditional culture consistently demonstrates no significant main effect when entered into a regression model alongside blind nationalism. The miniscule effect size of this interaction, in addition to its appearance only when many other variables are in the model, suggests that it is more likely to be an obscure statistical artefact than a relationship of any explanatory merit. As such, there is no reliable support in this sample for the hypothesis that the relationship between nationalism and homonegativity is in any way moderated by attachment security.

The design of this study has afforded an opportunity to partially test the theoretical stance advanced by Kirkpatrick (1992), which suggested that the relationship between religious ideologies and attachment was largely due to the personified and relationship-imitating aspects of most deity-centred religious traditions. By including religiosity and nationalism together, this study was able to test this claim by comparing the attachment-interactions of both ideologies of religiosity and nationalism. The presence of significant and meaningful attachment interactions associated with religiosity and the absence of similar interactions for nationalism, provide some support for Kirkpatrick's theory that it is the relationship-like considerations of religious ideology that accounts for the link between religiosity and attachment in the literature, as opposed to some general relationship between devotion to an ideology and attachment.

A wide variety of studies (e.g. Kite 1994; Kite and Whitley 1996; Heaven and Oxman 1999; Schwartz and Lindley 2005), found that gender was a consistent predictor of homonegativity, with males reliably reporting or demonstrating more negative attitudes towards homosexuals than females. This consensus was supported by the results of the current study.

The main limitation of the current study is the use of an Internet sample. As widespread Internet literacy is a relatively recent phenomenon, with higher Internet literacy in the

young, and with higher Internet literacy in the more progressive of older generations, it is predictable that a sample collected via the Internet will be younger and better educated than the general population. The presumed high proportion of psychology-educated individuals in the sample is potentially also the cause of the ~3:1 gender bias in the sample, as demographically psychologists and psychology students are comprised of a disproportionate number of females.

The sample also differs sharply from the general population in its religious demographics. Over half of the participants in the study were non-religious, which is a proportion distinctly higher than one would expect. The majority of participants, for example, came from Australia and the USA, nations in which the demographically dominant religion is Christianity. A potential explanation for this may be the aforementioned presumed over-representation of psychologists and psychology students, since scientists as a group are known to contain a high proportion of atheists and agnostics (Beit-Hallahmi 2007). However, the results remain essentially safe to interpret, for in using a sample that appears to over-represent those individuals whose earlier findings suggest will be less prejudiced, the young, the educated, the secular, and the female, the results are likely to be making a relatively conservative estimate as to what significantly predicts homonegativity in the population.

## Conclusion

Dimensions of adult attachment moderate the relationship between religious ideology and homonegativity in religious individuals, in such a way that higher attachment avoidance predicts proportionally greater homonegativity in women, and higher attachment anxiety predicts proportionally greater homonegativity in men. No moderation of this sort was found for nationalism. This lends support to Kirkpatrick's (1992) suggestion that the distinctly relationship-like facets of personified religious beliefs permit less securely attached individuals to invest in religious ideologies as a relationship surrogate. Assuming that it is the attachment insecurities that provoke the religious and prejudicial behaviours, as opposed to the other way around, these findings indicate that promoting trust in the close relationships of religious women, and promoting self-value in religious men, may be instrumental in reducing their prejudice towards homosexuals.

## References

- Allport, G. W., & Ross, J. M. (1967). Personal religious orientation and prejudice. *Journal of Personality and Social Psychology*, 5, 432–433.
- Altemeyer, B. (1988). *Enemies of freedom: Understanding right-wing authoritarianism*. San Francisco: Jossey-Bass.
- Altemeyer, B. (1996). *The authoritarian specter*. Cambridge, MA: Harvard University Press.
- Altemeyer, B. (2003). Why do religious fundamentalists tend to be prejudiced? *The International Journal for the Psychology of Religion*, 13, 17–28.
- Altemeyer, B., & Hunsberger, B. (1992). Authoritarianism, religious fundamentalism, quest, and prejudice. *The International Journal for the Psychology of Religion*, 2, 113–133.
- Banse, R., Seise, J., & Zerbes, N. (2001). Implicit attitudes towards homosexuality: Reliability, validity, and controllability of the IAT. *Zeitschrift für Experimentelle Psychologie*, 48, 145–160.
- Bartholomew, K. (1990). Avoidance of intimacy: An attachment perspective. *Journal of Social and Personal Relationships*, 7, 147–178.

- Bartholomew, K., & Horowitz, L. (1991). Attachment styles among young adults: A test of a four category model. *Journal of Personality and Social Psychology*, *61*, 226–244.
- Beit-Hallahmi, B. (2007). Atheists: A psychological profile. In M. Martin (Ed.), *The Cambridge companion to atheism* (Vol. xix, pp. 300–317). New York, NY, US: Cambridge University Press. 331 pp.
- Bowlby, J. (1969–1980). *Attachment and loss* (Vol. 1–3). NY: Basic Books.
- Bowlby, J. (1973). *Attachment and loss: Vol. 2. Separation: Anxiety and anger*. New York: Basic Books.
- Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult attachment: An integrative overview. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46–76). New York, NY, US: Guilford Press.
- Collins, N. L., & Feeney, B. C. (2000). A safe haven: An attachment theory perspective on support giving and caregiving in intimate relationships. *Journal of Personality and Social Psychology*, *78*, 1053–1073.
- Collins, N. L., & Read, S. J. (1990). Adult attachment, working models, and relationship quality in dating couples. *Journal of Personality and Social Psychology*, *58*, 644–663.
- Dasgupta, N., & Rivera, L. M. (2006). From automatic antigay prejudice to behavior: The moderating role of conscious beliefs about gender and behavioral control. *Journal of Personality and Social Psychology*, *91*, 268–280.
- Duck, R. J., & Hunsberger, B. (1999). Religious orientation and prejudice: The role of religious proscription, right-wing authoritarianism, and social desirability. *The International Journal for the Psychology of Religion*, *9*, 157–179.
- Genia, V. (1993). A psychometric evaluation of the Allport–Ross I/E scales in a religiously heterogeneous sample. *Journal for the Scientific Study of Religion*, *32*, 284–290.
- Gorsuch, R. L., & McPherson, S. E. (1989). Intrinsic/extrinsic measurement: I/E-revised and single-item scales. *Journal for the Scientific Study of Religion*, *28*, 348–354.
- Granqvist, P. (2002). Attachment and religiosity in adolescence: Cross-sectional and longitudinal evaluations. *Personality and Social Psychology Bulletin*, *28*, 260–270.
- Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. K. (1998). Measuring individual differences in implicit cognition: The Implicit Association Test. *Journal of Personality and Social Psychology*, *74*, 1464–1480.
- Hazan, C., & Shaver, R. S. (1987). Romantic love conceptualizations as an attachment process. *Journal of Personality and Social Psychology*, *52*, 511–524.
- Heaven, P. C. L., & Oxman, L. N. (1999). Human values, conservatism and stereotypes of homosexuals. *Personality and Individual Differences*, *27*, 109–118.
- Hill, P. C., & Hood, R. W. (1999). *Measures of religiosity*. Birmingham, AL: Religious Education.
- Hunsberger, B. (1996). Religious fundamentalism, right-wing authoritarianism, and hostility toward homosexuals in non-Christian religious groups. *The International Journal for the Psychology of Religion*, *6*, 39–49.
- Kirkpatrick, L. A. (1989). A psychometric analysis of the Allport-Ross and Feagin measures of intrinsic-extrinsic religious orientation. *Research in the Social Scientific Study of Religion*, *1*, 1–31.
- Kirkpatrick, L. A. (1992). An attachment-theory approach to the psychology of religion. *The International Journal for the Psychology of Religion*, *2*, 3–28.
- Kirkpatrick, L. A. (1997). A longitudinal study of changes in religious belief and behavior as a function of individual differences in adult attachment style. *Journal for the Scientific Study of Religion*, *36*, 207–217.
- Kirkpatrick, L. A., & Davis, K. E. (1994). Attachment style, gender, and relationship stability: A longitudinal analysis. *Journal of Personality and Social Psychology*, *66*, 502–512.
- Kirkpatrick, L. A., & Shaver, P. R. (1992). An attachment-theoretical approach to romantic love and religious belief. *The International Journal for the Psychology of Religion*, *1*, 266–275.
- Kite, M. (1994). When perceptions meet reality: Individual differences in reactions to lesbians and gay men. In B. Green & G. Herek (Eds.), *Lesbian and gay psychology: Theory, research, and clinical applications* (pp. 25–48). Thousand Oaks, CA: Sage.
- 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.
- Kosterman, R., & Freshbach, S. (1989). Toward a measure of patriotic and nationalistic attitudes. *Political Psychology*, *10*, 257–274.
- Laythe, B., Finkel, D., & Kirkpatrick, L. A. (2001). Predicting prejudice from religious fundamentalism and right-wing authoritarianism: A multiple-regression approach. *Journal for the Scientific Study of Religion*, *40*, 1–10.
- Leong, F. T., & Zachar, P. (1990). An evaluation of Allport's religious orientation scale across one Australian and two United States samples. *Educational and Psychological Measurement*, *50*, 359–368.



- McFarland, S. G. (1989). Religious orientations and the targets of discrimination. *Journal for the Scientific Study of Religion*, 28, 324–336.
- Mikulincer, M., & Shaver, P. R. (2001). Attachment theory and intergroup bias: Evidence that priming the secure base schema attenuates negative reactions to out-groups. *Journal of Personality and Social Psychology*, 81, 97–115.
- Morrison, T. G., Kenny, P., & Harrington, A. (2005). Modern prejudice toward gay men and lesbian women: assessing the viability of a measure of modern homonegative attitudes within an Irish context. *Genetic, Social, and General Psychology Monographs*, 131, 219–250.
- Mummendey, A., Klink, A., & Brown, R. (2001). Nationalism and patriotism: National identification and out-group rejection. *British Journal of Social Psychology*, 40, 159–172.
- Parrot, D. J., Adams, H. E., & Zeichner, A. (2002). Homophobia: Personality and attitudinal correlates. *Personality and Individual Differences*, 32, 1269–1278.
- Peña, Y., & Sidanius, J. (2002). U.S. patriotism and ideologies of group dominance: A tale of asymmetry. *Journal of Social Psychology*, 142, 782–790.
- Reed, L. A., & Meyers, L. S. (1991). A structural analysis of religious orientation and its relation to sexual attitudes. *Educational and Psychological Measurement*, 51, 943–952.
- Roccatò, M., & Ricolfi, L. (2005). On the correlation between right-wing authoritarianism and social dominance orientation. *Basic and Applied Psychology*, 27, 187–200.
- Roth, D. M., Lyons, E., & Chrysoschoou, X. (2005). National attachment and patriotism in a European Nation: A British Study. *Political Psychology*, 26, 135–155.
- Schatz, R. T., Staub, E., & Lavine, H. (1999). On the varieties of national attachment: Blind versus constructive patriotism. *Political Psychology*, 20, 151–174.
- Schwartz, J. P., & Lindley, L. D. (2005). Religious fundamentalism and attachment: Prediction of homophobia. *The International Journal for the Psychology of Religion*, 15, 145–157.
- Schwartz, J. P., Waldo, M., & Higgins, A. J. (2004). Attachment styles: Relationship to masculine gender role conflict in college men. *Psychology of Men & Masculinity*, 5, 143–146.
- Tajfel, H. (1969). The formation of national attitudes: A social psychological perspective. In M. Sherif & C. W. Sherif (Eds.), *Interdisciplinary relations in the social sciences* (pp. 137–176). Chicago: Aldine.
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In S. Worchel & W. G. Austin (Eds.), *Psychology of intergroup relations* (pp. 7–24). Chicago: Nelson-Hall.