'What's it like on your side of the pond?': a cross-cultural comparison of modern and old-fashioned homonegativity between North American and European samples

Daragh T. McDermott [a] & Karen L. Blair [b]

[a] Department of Psychology, Anglia Ruskin University, Cambridge,
UK

[b] Department of Psychology, Queen's University, Kingston, ON,
Canada

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'What's it like on your side of the pond?': a cross-cultural comparison of modern and old-fashioned homonegativity between North American and European samples

Daragh T. McDermott[a]* and Karen L. Blair[b]

[a]*Department of Psychology, Anglia Ruskin University, Cambridge, UK;* [b]*Department of Psychology, Queen's University, Kingston, ON, Canada*

The aim of the current study is to conduct a simultaneous cross-cultural assessment of modern and old-fashioned prejudice towards gay men and lesbian women. Data collected in the Republic of Ireland, the United Kingdom, Canada and the United States were compared to assess whether any notable differences in prejudice occurred and whether specific predictors of homonegativity (i.e. age of participants, gender, level of self-reported religiosity, level of education and contact with either a gay man or a lesbian woman) demonstrate the same predictive utility across all samples. The findings obtained by the current study highlight specific discrepancies in the prevalence of old-fashioned and modern homonegativity and suggest that the demographic variables assessed failed to account for comparable levels of variance across all samples. Implications of these findings, limitations of the current study and directions for future research are explored.

Keywords: modern homonegativity; old-fashioned homonegativity; cross-cultural comparison; gay men; lesbian women

Introduction

Despite the wealth of knowledge afforded by extensive empirical enquiries exploring prejudice towards sexual minorities (Herek, 2000; Herek & Captiano, 1999; McDermott, Morrison, McDonagh & O'Doherty, 2012; Morrison & Morrison, 2002; Morrison, Kenny, & Harrington, 2005), less attention has been paid to how levels and predictors of prejudice towards gay men and lesbian women are comparable in distinct cultural contexts, such as North America and Western Europe. Such comparisons could illuminate specific differences in prejudice towards gay men and lesbian women among samples drawn from diverse sociocultural backgrounds. Psychological research emanating from Canada (Morrison & Morrison, 2002; Morrison, Morrison, & Franklin, 2009), the United States (USA; Brewer, 2008; Hicks & Lee, 2006), the United Kingdom (UK; Beuchel & Hegarty, 2007; Ellis, Kitzinger, & Wilkinson, 2002; Village & Francis, 2008) and the Republic of Ireland (McDermott et al., 2012; Morrison et al., 2005) suggest that overall, attitudes towards sexual minorities are quite positive and that levels of self-reported homonegativity are declining. While results such as these are encouraging, research

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focussing on the lived experiences of gay men and lesbian women fails to complement the aforementioned explorations (e.g. Ellis, 2009; Herek, 2009; Jewell & Morrison, 2010). In 2009, Morrison, Morrison and Franklin attempted to bridge the gap in the literature by comparing levels of prejudice towards sexual minorities held by American and Canadian samples. The results obtained by these authors highlighted that distinct differences in levels of self-reported prejudice towards gay men and lesbian women were apparent.

In addition to comparisons concerning the prevalence of homonegativity, researchers have also attempted to identify specific predictors (e.g. Hicks & Lee, 2006) of prejudice towards sexual minorities. Research has found that factors such as age, religiosity and education consistently predict sexuality-based prejudice, but no research to date has compared how predictors of homonegativity may vary as a function of culture or location. As such, the remit of this article is to build on the work of M.A. Morrison et al. (2009) and extend this cross-cultural assessment by conducting a comparison of prejudice towards sexual minorities and conduct an exploration of whether the factors predicting homonegativity (Hicks & Lee, 2006; Schwartz, 2010) are homogenous or heterogeneous in four nations of the 'Western World': Canada, the United States, the United Kingdom and the Republic of Ireland.

Homonegativity

Homonegativity refers to any prejudicial attitudes or any negative behavioural responses (including discriminatory behaviours; Malcomnson, Christopher, Franzen, & Keyes, 2006) directed towards an individual because he or she is perceived to be homosexual (Cerny & Polyson, 1984). Further refinement of this construct by Morrison and Morrison (2002) led to the delineation of two closely related, yet distinct, constructs: (1) old-fashioned homonegativity and (2) modern homonegativity (Morrison et al., 2005; M.A. Morrison et al., 2009). Old-fashioned homonegativity refers to unfavourable social judgements about gay men and lesbian women attributable to a respondent's moral convictions/biblical injunctions against homosexuality (Morrison et al., 2005; M.A. Morrison et al., 2009) or beliefs that homosexuality should be considered some form of psychopathology (Anderson & Kanner, 2011; Morrison, Parraig, & Morrison, 1999). Conversely, modern homonegativity is characterised by abstract concerns such as the belief that gay men and lesbian women are too demanding and seek 'special' rights and privileges (M.A. Morrison et al., 2009) or that sexual minorities have a tendency to '. . . flaunt their sexuality' (Anderson & Kanner, 2011, p. 1552) as a source of personal pride.

To assess the viability of an old-fashioned/modern distinction, Morrison and Morrison (2002) developed the Modern Homonegativity Scale (MHS). Unlike the Attitudes Towards Lesbians and Gay Men Scale (ATLG; Herek, 1988, 1994), items on the MHS assess abstract principles such as whether federal tax revenue should be used on initiatives aimed at sexual minority populations. Morrison and Morrison (2002) furnished results which demonstrated that the MHS displayed suitable scale score reliability and validity with additional statistical evidence suggesting that the MHS and the gold standard measure of homonegativity, the ATLG, are also interrelated, yet distinct (Morrison & Morrison, 2002 [Study 3]). Further, the MHS has been successfully adapted and applied in a variety of contexts such as the United States (M.A. Morrison et al., 2009), the Republic of Ireland (Morrison et al., 2005) and the United Kingdom (Beuchel & Hegarty, 2007).

Sociocultural differences

Western Europe (e.g. the United Kingdom and the Republic of Ireland) and North America (e.g. the United States and Canada) are widely considered to be quintessential examples of the 'Western World'. As such, the validity of a comparison of homonegativity in these contexts may be queried and the authenticity of such explorations as truly cross-cultural research may be questioned (e.g. M.A. Morrison et al., 2009). However, specific sociocultural differences may influence societal impressions of gay men and lesbian women (Ellis, 2009; M.A. Morrison, et al., 2009). For example, a higher proportion of the US population identify as evangelical Protestants (22% in the United States vs. 6% in Canada; Adam, 1999), a religious identity that derides homosexuality and espouses the belief that gay men and lesbian women are perverted (Olson, Cadge, & Harrison, 2006). Similarly, between the United Kingdom and the Republic of Ireland, 91.9% of the Irish population are members of the Catholic Church (Central Statistics Office, 2009), an institution widely acknowledged to hold conservative views on homosexuality (Štulhofer & Rimac, 2009) and that has wielded a significant amount of power and influence over Irish political and social development until recent times (FitzGerald, 2000; Malesevic, 2010). Contemporaneously, 71% of the UK population identify as Christian (Weller, 2004) and predominantly Anglican, a religious group that fundamentally holds more progressive views on homosexuality than other religious institutions (Village & Francis, 2008).

M.A. Morrison et al. (2009) argue that compared to the United States, Canadian political history has had a history of social democracy, a movement that has tended to support more liberal and egalitarian policies. For example, in 1998, the definition of 'spouse' was amended such that common law same-sex partners enjoyed the rights and obligations of marriage. Further, in 2005 the Canadian parliament enacted federal legislation that granted same-sex couples the right to marry. Conversely, unions between same-sex couples are constitutionally prohibited in 24 States of the United States. Of the States that do recognise same-sex unions, only seven perform same-sex marriages.

Within the Anglo-Irish context, legislation providing for same-sex couples is widely considered to be progressive. For example, both nations currently permit same-sex unions in the form of civil partnerships (Civil Partnerships Bill, 2010; Village & Francis, 2008). However, while rights afforded to same-sex couples in the United Kingdom are largely comparable to those afforded to heterosexual marriage, Irish legislation limits the rights afforded to same-sex couples. Asher (2009) argues that the Irish legislation embraces a 'separate but equal' ethos and does not grant gay and lesbian couples the same status as heterosexuals in terms of taxation, inheritance or adoption.

With respect to anti-discrimination policies, workplace dismissal based on sexual orientation is extant in 36 of the 50 States of the United States (Malcomnson et al., 2006). Conversely, discrimination based on sexual orientation is prohibited in the United Kingdom, Canada and the Republic of Ireland. However, particular nuances remain which are representative of institutional discrimination (i.e. heterosexism; Peel, 2001) within the Republic of Ireland. For example, Section 37 of the Employment Equality Act (1998) permits religious authorities to dismiss an employee because of his or her sexual orientation, which is particularly problematic in the field of education where most Irish secondary schools are run by Catholic organisations whose teachings and philosophies are evident in course curricula.

Despite the aforementioned sociocultural differences, an examination of previously published literature highlights a number of similarities in prejudice towards sexual minorities in each of these contexts. Across all samples, levels of modern homonegativity (as measured by the MHS) tend to be more prevalent than levels of old-fashioned

homonegativity (Beuchel & Hegarty, 2007; Morrison et al., 2005; M.A. Morrison et al., 2009). Further, across all of the studies reviewed from each of the countries of interest, male participants consistently report higher levels of homonegativity than female participants (e.g. Beuchel & Hegarty, 2007; Hicks & Lee, 2006; Morrison, Speakman, & Ryan, 2009; Moskowitz, Rieger, & Roloff, 2010).

The current study

To date, no empirical study has attempted to assess levels of homonegativity simultaneously across the four countries mentioned herein. As such, the primary aim of the current study is to conduct an assessment of old-fashioned and modern homonegativity towards gay men and lesbian women across samples solicited from Canada, the United States, the United Kingdom and the Republic of Ireland.

Indeed across the aforementioned studies, a number of factors have been determined to be significant predictors of homonegativity. Specifically, gender (e.g. Ellis et al., 2002; Herek, 2002b; Morrison & Morrison, 2002; Morrison et al., 2005; M.A. Morrison et al., 2009) and age (e.g. Village & Francis, 2008) differences were consistently identified as variables that influence levels of homonegativity. Further, T. Morrison et al. (2009) and McDermott et al. (2012) provided results suggesting that increased contact with sexual minorities ameliorates homonegativity. In his analysis of the predictors of attitudes towards homosexuality, Schwartz (2010) identifies age, gender, education and religiosity as key demographic variables that influence levels of homonegativity and provide a more nuanced picture of prejudice towards sexual minorities. However, some limitations exist that may inhibit the validity of these variables to provide a comprehensive impression of homonegativity worldwide. First, Schwartz (2010) relies on data that were solely collected in the United States (e.g. Brewer, 2003; Herek, 2000, 2002b; La Mar & Kite, 1998; Ohlander, Batalova, & Treas, 2005). For that reason, a supplementary aim of the current study is to assess whether differences in the predictive ability of each of these variables exist across the four countries of interest. Second, the majority of the research articles discussed by Schwartz utilised measures of old-fashioned homonegativity. Thus, it would be naïve to assume that factors that influence measures such as the ATLG or the Homonegativity Scale (HS; Morrison et al., 1999) would be identical to those that influence tools that measure modern homonegativity (e.g. MHS; Morrison & Morrison, 2002).

Based on the aforementioned review of the literature, the following hypotheses will be tested:

H1:   Due to the religious ethos extant in the United States and the Republic of Ireland, levels of modern and old-fashioned homonegativity will be higher in these nations than scores in the United Kingdom and Canada.

H2:   Participants' age, gender, religiosity, level of education and contact with sexual minorities will significantly predict levels of modern and old-fashioned homonegativity in all samples.

H3:   Significant differences in levels of homonegativity will be apparent between male and female respondents.

Method

Participants

A total of $N = 1003$ general population respondents from the United States, Canada, the United Kingdom and the Republic of Ireland completed or partially completed the

online survey. A total of 209 respondents did not complete the demographic question-naires or measures of old-fashioned or modern homonegativity, and as such, these cases were removed from further analyses. An additional 153 participants were removed from subsequent analyses, as their nationality was not one of the four countries of interest, or these respondents self-identified as bisexual or gay/lesbian. Thus, for the current study, data from $n = 637$ participants met the inclusion criteria and were included in subsequent analyses. Table 1 provides a breakdown of demographic variables stratified according to country of origin. Participants who took part were given the option to enter a lottery for a $100 (CAD value – converted to local currency) voucher as remuneration for participation. To assess whether significant differences exist in the mean ages of participants from each sample, a one-way analysis of variance was conducted. There were significant differences, $F (3, 633) = 15.80, p < 0.001$. Since average age differed in the four countries, the age of participants will be controlled for all subsequent between-subject analyses.

Measures

Demographic information

General demographic information was solicited, with participants reporting their age, gender, religious affiliation, level of religiosity (e.g. how religious are you?), education (e.g. what is the highest level of education that you have completed), location of residence (i.e. the United States or Canada), nationality (e.g. Irish, American) and sexual orienta-tion (e.g. exclusively heterosexual, exclusively homosexual). Participants were also asked whether they knew any gay men or lesbian women and, finally, the level of contact they had with each of these groups (e.g. no contact, daily contact, weekly contact and monthly contact). These variables will be tested for their efficacy as predictors of homonegativity.

The Modern Homonegativity Scale

This measure examines abstract concerns about gay men and lesbian women such as (1) the demands made by sexual minorities for equal status are unnecessary; (2) discrimination against gay men and lesbian women no longer occurs (i.e. it is a thing of the past); and (3) gay men and lesbian women exaggerate the importance of their sexual orientation and, in so doing, contribute to their own marginalisation. The MHS is a psychometrically sound scale displaying good construct validity and reliability (Morrison & Morrison, 2002; M.A. Morrison et al., 2009; T. Morrison et al., 2005). McDermott et al. (2012) reported good scale score reliability ($\alpha = 0.87$) and demonstrated good construct validity with scores on the MHS correlating ($r = 0.55$) with the Social Dominance Orientation (Pratto, Sidanius, Stallworth, & Malle, 1994) Scale. This iteration of the MHS uses a 5-point Likert scale (1 = strongly disagree and 5 = strongly agree). Higher scores denote greater levels of modern prejudice towards gay men and lesbian women.[1] Parallel gay (i.e. MHS-Gay) and lesbian (i.e. MHS-Lesbian) versions were used in order to assess whether differ-ences in modern prejudice towards gay men and lesbian women were evident (Morrison & Morrison, 2002).

The Attitudes Towards Lesbians and Gay Men Scale

The ATLG measures prejudice towards gay men and lesbian women that is rooted in traditional religious and moral objections to homosexuality (i.e. old-fashioned prejudice

Table 1.   Demographic information stratified according to gender and country of origin.

	Canada		The United States		The United Kingdom		The Republic of Ireland	
	Male ($n = 41$)	Female ($n = 94$)	Male ($n = 96$)	Female ($n = 176$)	Male ($n = 43$)	Female ($n = 58$)	Male ($n = 58$)	Female ($n = 71$)
Age	27.97	28.29	31.85	36.96	37.02	37.62	30.12	29.38
	(10.76)	(13.07)	(13.55)	(14.00)	(13.75)	(13.29)	(10.05)	(8.44)
Religion (%)								
Protestant	22.0	19.0	12.5	22.7	34.9	32.8	3.4	1.4
Catholic	29.3	33.0	31.3	25.6	11.6	17.2	94.8	95.8
Christian	17.1	17.0	36.5	29.0	16.3	22.4	1.7	0.0
Jewish	2.4	1.1	1.0	2.8	0.0	1.7	0.0	0.0
Muslim	4.9	3.2	2.1	.6	7.0	5.2	0.0	0.0
Other	4.9	3.2	3.1	4.5	0.0	5.2	0.0	0.0
Atheist/agnostic	19.5	23.4	13.5	14.8	30.2	15.5	0.0	2.8
How religious are you? (%)								
Very	12.2	5.3	16.7	15.9	9.3	13.8	3.4	8.5
Somewhat	14.6	19.1	17.7	31.8	9.3	24.1	13.8	18.3
Not very	22.0	30.9	21.9	18.2	16.3	25.9	24.1	40.8
Not at all	46.3	42.6	43.8	31.8	62.8	34.5	58.6	32.4
Decline respectively	4.9	2.1	0.0	2.3	2.3	1.7	0.0	0.0
Highest level of education (%)								
Second level	24.4	18.1	17.7	12.5	18.6	20.7	6.9	7.0
Undergraduate	56.1	63.8	71.9	69.9	55.8	55.2	46.6	42.3
Postgraduate	12.2	10.6	7.3	13.6	20.9	20.7	27.6	36.6
Doctoral	7.3	7.4	3.1	4.0	4.7	1.7	17.2	14.1
Decline respectively	0.0	0.0	0.0	0.0	0.0	1.7	1.7	0.0
Know any gay men	87.8	94.7	65.6	88.1	83.7	93.1	93.1	100
Know any lesbian women	70.7	85.1	69.8	80.1	65.1	77.6	70.7	85.9
Contact with gay men (%)								
Daily	22.2	21.3	3.2	11.6	13.8	16.6	14.8	25.4
Weekly	27.7	28.1	30.2	27.7	22.2	29.6	42.5	29.6
Monthly	11.1	23.6	17.4	16.1	19.4	16.6	12.9	16.9
Few times a year	22.2	15.7	33.3	26.5	27.7	22.2	22.2	21.1
Yearly	2.7	2.2	12.6	10.9	8.3	5.5	3.7	1.4
Decline respectively	0.0	2.2	0.0	1.2	2.7	0.0	0.0	0.0
Contact with lesbian women (%)								
Daily	10.3	10.0	10.4	12.1	17.8	13.3	4.8	6.5
Weekly	27.6	28.8	10.4	22.6	17.8	24.4	29.2	24.5
Monthly	13.8	21.2	25.3	21.2	14.2	15.5	14.6	16.3
Few times a year	27.6	25	34.3	27.7	32.1	31.1	31.7	37.7
Yearly	10.3	7.5	10.4	8.5	10.7	4.4	14.6	8.1
Decline respectively	0.0	0.8	1.5	2.1	3.5	4.4	0.0	0.0

towards gay men and lesbian women). The 'Attitudes Towards Gay Men Scale' (AT-Gay) consists of 10 items, and with each assessing to what extent respondents endorse beliefs such as 'male homosexuality is a perversion'. Similarly, the 'Attitudes Towards Lesbian Women Scale' (AT-Lesbian) also consists of 10 items, with each discerning to what extent respondents believe that female homosexuality is acceptable (e.g. female homosexuality is a sin). The ATLG demonstrates excellent construct validity and reliability (Herek, 1994). The ATLG was measured on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree) (Herek, 1994).

Procedure

Similar to the methodology employed by Ryan, Morrison, and McDermott (2010), potential participants were invited to complete the online questionnaire through convenience sampling and chain referral. Specifically, (1) personal contacts of the authors were emailed invitations to take part in the study in conjunction with details regarding participation being posted online in locations such relevant listservs (e.g. the Canadian Psychological Association section for Sexual Orientation & Gender Identity [SOGI]), Internet groups (e.g. CrowdFlower; the LGBT Summer Institute online group) and through paid advertisements on 'Facebook'[2] and (2) persons who took part in the study were asked to invite other people, potentially interested in the research, to participate. All recruitment materials directed potential participants to a screening questionnaire that determined the potential participant's eligibility for the study (based on their geographic location and age). Eligible participants were then forwarded to an Informed Consent page, which described the study and its incentives. Interested participants provided their consent and were forwarded directly to the online survey. Although the survey only required ~15 minutes to complete, participants were provided with the option to save their progress and return to complete the survey at a later time. Any participant wishing to discontinue their participation in the study simply needed to close their browsing window and their data were subsequently not used for analysis. At the completion of the survey, participants were provided with a password for the prize draw and were then forwarded to a separate survey that allowed them to enter their email address if they wished to be entered into a draw for $100.00 (one draw per country included in the study). Participants were informed that by entering their email address into the prize draw they were in no way associating their identity with the survey results they had previously submitted and that their participation in the study remained entirely anonymous.[3]

Results

Levels of homonegativity

Table 2 provides means and standard deviation (SD) scores on each of the four measures of homonegativity stratified according to country of origin and gender of participants. Across all samples, each of the measures of homonegativity demonstrated excellent reliability with Cronbach's α scores ranging from 0.90 to 0.94 for the MHS and from 0.81 to 0.96 for the ATLG.

As predicted by hypothesis 1, participants from the United States demonstrated the highest levels of old-fashioned and modern prejudice towards both gay men and lesbian

Table 2. Means and SDs (in parentheses) for self-reported levels of homonegativity stratified according to gender and country of origin.

		Canada	The United States	The United Kingdom	The Republic of Ireland
MHS-Gay	Male	27.22 (10.8)	29.79 (9.65)	27.43 (8.52)	23.88 (8.55)
	Female	20.57 (7.27)	24.94 (10.93)	23.41 (8.85)	19.74 (6.61)
MHS-Lesbian	Male	26.85 (10.67)	29.96 (10.55)	27.20 (8.78)	23.28 (8.89)
	Female	19.84 (7.09)	24.92 (11.09)	24.10 (9.92)	18.88 (7.15)
AT-Gay	Male	21.68 (10.8)	26.05 (11.15)	21.53 (9.88)	17.52 (7.31)
	Female	16.13 (7.05)	22.0 (11.47)	17.36 (8.74)	14.55 (4.75)
AT-Lesbian	Male	21.23 (6.60)	24.67 (7.84)	20.35 (5.99)	18.60 (4.74)
	Female	18.62 (4.90)	22.70 (8.23)	19.38 (6.18)	17.91 (3.83)

women. Unexpectedly, levels of homonegativity in the United Kingdom were higher than those obtained from Canadian or Irish samples.

Differences in homonegativity

To assess whether statistically significant differences in modern and old-fashioned homonegativity towards gay men and lesbian women existed in each of the four contexts, a series of 4 (country) $\times$ 2 (male/female) analysis of covariance (ANCOVA) were conducted with age of respondents and levels of contact with gay men/lesbian women serving as covariates, and the various measures of homonegativity acting as the dependent variables.

Consistent with hypothesis 1, a significant difference on MHS-Gay scores was noted for country of origin $F(3, 519) = 3.02$, $p < 0.05$, partial $\eta^2 = 0.02$ and gender of participants $F (1, 519) = 26.41$, $p < 0.001$, partial $\eta^2 = 0.05$. Across all four countries, male participants consistently demonstrated higher levels of modern homonegativity towards gay men than female respondents. Post hoc analysis with a Bonferroni adjustment for multiple comparisons[4] demonstrated that differences in levels of modern homonegativity towards gay men were apparent between Irish and the US samples, $p < 0.05$. No other differences in MHS-Gay scores were apparent. Finally, no interaction effect was observed.

For the MHS-Lesbian, a significant overall effect was obtained for the nationality of participant, $F (3, 438) = 7.24$, $p < 0.001$, partial $\eta^2 = 0.05$ and gender of the participants, with male participants ($M = 27.35$, SD $= 10.16$) reporting higher levels of modern homonegativity than female participants ($M = 22.51$, SD $= 9.77$), $F (1, 438) = 20.21$, $p < 0.001$, partial $\eta^2 = 0.05$. Post hoc analyses demonstrated that MHS-Lesbian scores obtained from the US sample were higher than Canadian ($p < 0.05$) and Irish ($p < 0.001$) samples.

With respect to old-fashioned homonegativity, a series of paired sample t-tests were conducted to assess whether scores on both of the MHS scales (gay and lesbian) differed from the ATLG.[5] For the gay male version of both measures, a significant difference was observed between overall MHS-Gay ($M = 24.56$, SD $= 9.75$) and AT-Gay ($M = 20.00$, SD $= 10.18$), $t (590) = 17.82$, $p < 0.001$, $d = 0.45$. A similar disjunction was observed between the MHS-Lesbian ($M = 24.34$, SD $= 10.19$) and the AT-Lesbian ($M = 20.91$, SD $= 6.96$), $t (563) = 12.23$, $p < 0.001$, $d = 0.39$.

Despite significant differences between old-fashioned and modern homonegativity, ATLG scores obtained from the US male respondents were equal to, or greater than, the scale midpoint, implying moderate to high levels of old-fashioned homonegativity.[6] Overall, responses from the Republic of Ireland demonstrated the lowest levels of responses

on both the AT-Gay and the AT-Lesbian, representing the lowest levels of old-fashioned homonegativity across the four countries. To assess whether significant differences in old-fashioned homonegativity were apparent across the four countries, an additional pair of 4 (country) $\times$ 2 (male/female) ANCOVAs were conducted with scores from the AT-Gay and AT-Lesbian serving as the dependent variables and the age of participants and levels of contact being included as covariates.

For the AT-Gay, the results demonstrated significant differences for nationality and gender of respondents, F (3, 521) $= 11.82$, $p < 0.001$, partial $\eta^2 = 0.07$ and F (1, 521) $= 16.05$, $p < 0.001$, partial $\eta^2 = 0.03$, respectively. Post hoc analyses demonstrated that significant differences were apparent between the United States and each of the other nations (i.e. the Republic of Ireland, $p < 0.001$, the United Kingdom, $p < 0.001$ and Canada, $p < 0.001$). No additional significant differences or interaction effects were observed. For the AT-Lesbian, analyses demonstrated that differences in responses failed to differ as a function of gender, F (1, 434) $= 3.53$, $p = 0.61$, partial $\eta^2 = 0.008$, however, differed according to the nationality of the respondent, F (3, 434) $= 22.19$, $p < 0.001$, partial $\eta^2 = 0.13$. Mirroring the effects obtained by the AT-Gay, differences in AT-Lesbian scores were noted between the United States and each of the other three comparative countries (the Republic of Ireland, $p < 0.001$, the United Kingdom, $p < 0.001$ and Canada, $p < 0.001$). Finally, no interaction effects were observed.

Correlational analyses

Tables 3 and 4 provide correlations between key demographic variables and the measures of modern and old-fashioned homonegativity stratified according to each of the countries of measurement. Across all four samples, significant associations were observed between the indices of modern and old-fashioned prejudice towards gay men and lesbian women. For both versions of the MHS, concordance rates were very high with correlation coefficients ranging from $r = 0.93$ to $r = 0.96$. Associations between the measures of old-fashioned homonegativity were also closely related (r ranging from 0.76 to 0.88).

Overall, correlational findings are consistent with the hypotheses of the current study. First, the associations between self-reported religiosity and homonegativity were consistent across all samples. Further, associations between the self-reported religiosity and the old-fashioned HSs provided greater effect sizes than associations with the measures of modern homonegativity. Second, the level of contact was positively associated with levels of homonegativity, such that greater contact (i.e. daily) was associated with more positive attitudes towards gay men and lesbian women. Finally, the inverse relationship between level of education and homonegativity was partially demonstrated. Specifically, statistically significant associations between education and prejudice were only observed for the United States and the Republic of Ireland.

Predictive analyses

Diagnostic statistics were conducted to ensure the data were suitable for multiple regression analyses. Across all measures and samples, the results indicated that the standardised residuals had a mean of zero (SD < 1.0); the Durbin–Watson statistic was less than 2 in all cases; the variance inflation factor (VIF) was suitable (i.e. <1.1); and Cooks distance did not exceed an absolute value of 0.05. Thus, these findings suggest that non-normally distributed residuals, autocorrelation of residuals, multicollinearity and influential outliers are not problematic.

Table 3. Pearson product correlations between measures of homonegativity and demographic variables stratified according to country of origin for Canada and the United States.

	1	2	3	4	5	6	7	8	9	10	11
1. Age	–	−0.20**	0.09	−0.02	0.06	0.00	−0.01	0.18**	0.20**	0.12	0.15*
2. Religiosity	−0.06	–	−0.10	0.12*	0.13*	0.03	−0.10	−0.36***	−0.35***	−0.42***	−0.41***
3. Education	0.44***	−0.03	–	−0.17**	−0.10	−0.13*	−0.16*	−0.14*	−0.15*	−0.14*	−0.15*
4. Know gay men	−0.01	−0.08	−0.12	–	0.58***		0.10	0.20**	0.19**	0.19**	0.20**
5. Know lesbian women	−0.17*	−0.05	−0.20*	0.47**	–	0.11		0.10	0.13*	0.10	0.10
6. Contact gay men	0.02	0.01	−0.08	0.09	0.24	–	0.60**	0.25**	0.24**	0.20**	0.25**
7. Contact lesbian women	−0.04	−0.04	−0.15			0.51**	–	0.26**	0.27**	0.35**	0.34**
8. MHS-Gay	0.20*	−0.32***	−0.17	0.34***	0.23**	0.17	0.22*	–	0.96***	0.79***	0.82**
9. MHS-Lesbian	0.19	−0.31**	−0.17	0.26**	0.19*	0.18	0.20*	0.94***	–	0.79***	0.81**
10. AT-Lesbian	0.15	−0.36***	−0.20*	0.21*	0.15	0.13	0.18	0.69***	0.72***	–	0.88**
11. AT-Gay	0.21*	−0.42***	−0.12	0.29**	0.24**	0.15	0.14	0.82***	0.82***	0.87***	–

Notes: MHS-Gay, Modern Homonegativity Scale – gay version; MHS-Lesbian, Modern Homonegativity Scale – lesbian version; AT-Gay, Attitudes Towards Gay Men Scale; AT-Lesbian, Attitudes Towards Lesbian Women Scale. Correlations in the lower quadrant of the table represent data collected from Canada; correlations in the upper quadrant represent data collected from the United States.
*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

Table 4. Pearson product correlations between measures of homonegativity and demographic variables stratified according to country of origin for the United Kingdom and the Republic of Ireland.

	1	2	3	4	5	6	7	8	9	10	11
1. Age	–	–0.02	0.12	0.11	–0.04	–0.11	–0.12	0.19	0.12	0.13	0.13
2. Religiosity	–0.04	–	0.04	–0.17	–0.21*	–0.07	–0.03	–0.20	–0.25*	–0.37***	–0.37***
3. Education	–0.01	0.26	–	0.00	0.04	–0.17	–0.09	–0.13	–0.14	–0.05	–0.02
4. Know gay men	0.24**	–0.03	–0.12	–	0.49***	0.22	0.17	0.44***	0.44***	0.57***	0.62***
5. Know lesbian women	0.03	–0.09	–0.01	0.13	–			0.34**	0.35**	0.44***	0.51***
6. Contact gay men	0.16	–0.12	–0.29**	–0.03	0.06	–	0.45**	0.29**	0.23*	0.32**	0.39***
7. Contact lesbian women	0.07	–0.05	–0.23*			0.40**	–	0.12	0.14	0.15	0.17
8. MHS-Gay	0.05	–0.24**	–0.24**	0.08	0.05	0.27**	0.15	–	0.93***	0.73***	0.76***
9. MHS-Lesbian	0.09	–0.27	–0.27**	0.08	0.03	0.23*	0.11	0.93***	–	0.76***	0.75***
10. AT-Lesbian	0.13	–0.44**	–0.20*	0.26**	0.18	0.18	0.17	0.60***	0.61***	–	0.86***
11. AT-Gay	–0.19*	–0.38**	–0.29**	0.19*	0.12	0.39***	0.26*	0.74***	0.75***	0.76**	–

Notes: MHS-G, Modern Homonegativity Scale – gay version; MHS-LESBIAN = Modern Homonegativity Scale – lesbian version; AT-Gay = Attitudes Towards Gay Men Scale; AT-Lesbian = Attitudes Towards Lesbian Women Scale. Correlations in the lower quadrant of the table represent data collected from the Republic of Ireland; correlations in the upper quadrant represent data collected from the United Kingdom.
*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

In an effort to assess whether there were distinct differences in factors that predict homonegativity across the countries tested, a series of 16 multiple regression analyses were conducted. The data were stratified according to the nationality of the respondents, and each of the four measures of homonegativity served as the criterion variables. The predictor variables were (1) age, (2) gender, (3) self-reported religiosity, (4) level of education and (5) contact. Table 5 provides a breakdown on each of the regression analyses.

Overall, the model was successful in predicting homonegativity scores in each country except for prejudice towards lesbian women in the United Kingdom, where the current predictors failed to provide a statistically significant model for the MHS-Lesbian, $F (5, 60) = 1.63$, $p = $ ns, $\Delta R^2 = 0.05$ or the AT-Lesbian, $F (5, 60) = 2.12$, $p = $ ns, $\Delta R^2 = 0.08$. The current predictors demonstrated the greatest predictive ability for AT-Gay scores among the Canadian samples, accounting for 35% of the variance. Congruently, the model's ability to explain AT-Gay scores accounted for the highest level of variance explained for the Republic of Ireland (31%) and the United Kingdom (30%). With respect to old-fashioned prejudice towards lesbian women, the results are less conclusive. Thirty percent of AT-Lesbian scores were accounted for among US respondents and 23% among Canadian respondents. Conversely, among the European nations, 20% of the variance of AT-Lesbian scores was explained for Irish participants, while the current model failed to significantly predict AT-Lesbian scores among samples obtained from the United Kingdom.

With respect to modern homonegativity, the model significantly predicted MHS-Gay scores in each of the four nations. Analyses demonstrated that 30% of the variance was accounted for in the Canadian samples, and 26% explained in the US sample. Within Europe, 17% of the variance of MHS-Gay was explained for responses obtained from the Republic of Ireland; however, only 12% of UK variance was elucidated. A similar effect was observed for the MHS-Lesbian where 30%, 23% and 20% of the variance was explained for the United States, Canada and the Republic of Ireland, respectively. The current model failed to predict MHS-Lesbian scores obtained from the United Kingdom.

Discussion

The aim of the current study was twofold: the primary aim was to conduct a simultaneous cross-cultural assessment of old-fashioned and modern homonegativity (McDermott et al., 2012; Morrison & Morrison, 2002, 2011; Morrison et al., 2005; M.A. Morrison et al., 2009; T. Morrison et al., 2009) in four nations of the Western World (i.e. Canada, the United States, the United Kingdom and the Republic of Ireland). The second aim of the current study was an assessment of the universality of specific predictors of homonegativity (Schwartz, 2010) and the efficacy of such predictors (i.e. age of participants, gender, level of self-reported religiosity, level of education and contact with either a gay man or a lesbian woman) to account for modern and old-fashioned homonegativity scores across cultural boundaries.

Across all four samples, the levels of modern homonegativity were moderate (i.e. relatively egalitarian opinions about gay men and lesbian women). As predicted and consistent with M.A. Morrison et al. (2009), the highest levels of old-fashioned and modern homonegativity were apparent in data collected in the United States. Unexpectedly, the mean scale scores from the Republic of Ireland provided the lowest levels of modern and old-fashioned homonegativity (indicating positive attitudes) towards both gay men and lesbian women. Levels of homonegativity solicited from respondents in Canada and the United Kingdom provided comparable results and are indicative of moderate levels of modern and old-fashioned prejudice (Herek, 1988; Morrison & Morrison, 2002).

Table 5.   Multiple regressions of the measures of homonegativity stratified according to country of origin.

Predictors	Canada ($n = 135$)			The United States ($n = 272$)			The United Kingdom ($n = 101$)			The Republic of Ireland ($n = 129$)		
	B	F	Adj. R^2	β	F	Adj. R^2	β	F	Adj. R^2	β	F	Adj. R^2
(1) MHS-Gay		10.65***	0.30		15.34***	0.26		3.14**	0.12		5.83***	0.17
Age	0.28**			0.17**			0.12			0.03		
Gender	−0.33***			−0.22**			−0.19			−0.31**		
Religiosity	−0.31***			−0.35***			−0.19			−0.23*		
Education	−0.28**			−0.13*			−0.13			−0.12		
Contact	0.15			0.22***			0.24*			0.18*		
(2) AT-Gay		12.88***	0.35		17.02***	0.28		7.91***	0.30		11.67***	0.31
Age	0.32***			0.13*			−0.5			0.10		
Gender	−0.28***			−0.16**			−0.27**			−0.30***		
Religiosity	−0.39***			−0.42***			−0.43***			−0.32***		
Education	−0.27**			−0.12*			−0.07			−0.13		
Contact	0.13			0.24***			0.33**			0.27**		
(3) MHS-Lesbian		7.87***	0.26		14.52***	0.27		1.63	0.05		4.80**	0.18
Age	0.32**			0.18**			.07			0.07		
Gender	−0.30**			−0.22**			−0.20			−0.37**		
Religiosity	−0.26**			−0.31***			−0.27			−0.26*		
Education	−0.28**			−0.18*			−0.07			−0.19		
Contact	0.16			0.18***			0.13			0.03		
(4) AT-Lesbian		6.73***	0.23		17.41***	0.30		2.12	0.08		5.43***	0.20
Age	0.34***			0.03**			0.01			0.24*		
Gender	−0.18*			−0.13*			−0.10			−0.14		
Religiosity	−0.29**			−0.40***			−0.37			−0.32**		
Education	−0.30**			−0.15*			−0.09			−0.12		
Contact	0.14			0.27***			0.14			0.07*		

Note: *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

Consistent with the predictions made by the current study, male participants demonstrated higher levels of both forms of homonegativity in all samples. This finding concurs with the results reported by Ellis et al. (2002), Herek (2002a), Morrison and Morrison (2002) and Morrison et al. (2005) who demonstrated similar effects in each of the four countries of interest. In essence, the finding obtained by the current study suggests that irrespective of cultural context, male, as opposed to female, respondents consistently demonstrate higher levels of old-fashioned and modern homonegativity.

With respect to the correlations between religious identity and homonegativity (i.e. Malcomnson et al., 2006; Olson et al., 2006; Štulhofer & Rimac, 2009; Village & Francis, 2008), participants who scored high on the indicant of religiosity tended to also report higher levels of homonegativity. Across all four samples, individuals more invested in their religious identity tended to subscribe to beliefs that homosexuality contravene the morals and values inherent in their religious philosophy. Further, the associations between religiosity and homonegativity were most pronounced for scores on the AT-Lesbian and AT-Gay across all four samples. This finding lends support to Morrison and Morrison's (2002) supposition that endorsement of items on Herek's (1994) ATLG tends to be rooted in more biblical and moral injunctions against homosexuality.

Ohlander et al. (2005) furnished results that suggested that an inverse relationship existed between US respondents' level of education and self-reported homonegativity. Data obtained by the current study support these authors' findings; however, the effect was not consistent across all of the samples measured. Specifically, higher levels of self-reported education were correlated with lower levels of modern and old-fashioned homonegativity for participants in the United States and the Republic of Ireland; however, the effects were not as consistent for Canada and the United Kingdom. With specific reference to Canada, education was only correlated with scores on the AT-Lesbian, whereas in the United Kingdom, education failed to correlate significantly with scores on either of the measures of old-fashioned or modern homonegativity. In possible explanation of this effect, it is argued that due to the conservative ideologies associated with the Republic of Ireland and the United States, individuals who achieve higher levels of education are afforded greater access to information, which nullifies preconceived ideas relating to sexual minorities. As Canada and the United Kingdom are wholly more liberal nations, whose legal and political systems (1) afford greater rights to sexual minorities; (2) are more accepting of gay men and lesbian women; and (3) whose primary and secondary education curricula are more inclusive of sexuality topics, this influence is not apparent due to access to such information not being reliant on tertiary level educational achievements (e.g. completion of university degrees).

With respect to the ability of the 'ubiquitous' predictor variables of homonegativity identified by Schwartz (2010), distinct differences were noted between North American and European samples for both MHS-Gay and AT-Gay scores. Specifically, age, gender, religiosity, education and contact explained 30% of MHS-Gay variance and 35% of AT-Gay variance among Canadian participants. At the same time, 26% of MHS-Gay variance and 28% of AT-Gay variance were accounted for among United States respondents. Conversely, the model only explained 17% of MHS-Gay scores, but explained 31% of AT-Gay variance among Irish responses and accounted for only 12% of the variance of MHS-Gay scores from the United Kingdom while explaining 30% of the variance associated with the AT-Gay scores. These discrepancies suggest that factors contributing towards *old-fashioned* homonegativity towards gay men may be widely homogenous across all four samples; however, data pertaining to the MHS suggest that

the determinants of *modern* homonegativity towards gay men among European samples may be more complex. Thus, future explorations of modern homonegativity should bear this in mind, and in their analyses explore the influence of culturally specific predictors.

Indeed in a similar vein, comparable differences were noted for the MHS-Lesbian; the model accounted for comparable levels of variance in homonegativity towards lesbians in Canada (26%) and the United States (27%), while among Irish respondents it accounted for 18% but failed to predict modern prejudice scores among British respondents. For the AT-Lesbian, the model accounted for the greatest level of variance among American respondents (30%), explained comparable levels of variance for Canada and the Republic of Ireland (23% and 20%, respectively), but failed to significantly predict scores for the UK sample. With reference to specific predictor variables, noticeable differences emerged between North American and European contexts in how much variance was explained by each individual factor. For example, among North American samples, the age of respondents was efficacious in accounting for significant proportions of the variance explained. However, the same effect did not occur among responses obtained from the United Kingdom and the Republic of Ireland (except for old-fashioned homonegativity towards lesbian women among Irish respondents).

Within a European context, the predictive ability of contact was most apparent (both in terms of statistical significance and practical significance) on old-fashioned homonegativity scores obtained from the Republic of Ireland and the United Kingdom, although it also demonstrated efficacy with scores on the MHS. As such, it is argued that the influence of contact (i.e. the contact hypothesis; Allport, 1954) is most profound on belief systems based on archaic principles, such as beliefs that gay men and lesbian women are perverted or that homosexuality is some form of psychopathology (Anderson & Kanner, 2011).

The critical issue at the current juncture is to illuminate possible explanations for the discrepancies between North American and European samples. Factors identified by Štulhofer and Rimac (2009) in their analysis of the determinants of homonegativity in Europe may account for the differences identified. These authors identified the central role of (1) economic development, (2) modernisation and (3) urbanisation in promoting social tolerance and acceptance of homosexuality. With respect to the Republic of Ireland, since the 1980s this small island state has undergone massive economic and social transformations, which led to the Republic of Ireland having one of the fastest growing economies during the 1990s and 2000s (Fitzgerald, 2000). As a result of this economic development, the Republic of Ireland benefited from political stability, increased education and growth of popular culture, which encouraged Irish society to seek such a social change. This move coupled with the decline of religious influence meant '. . . that issues customarily the preserves of incontestable dogma' (p. 61), such as abortion, divorce and homosexuality, were no longer sacrosanct. As a result of the Republic of Ireland's development, specific heterosexist statutes were deemed archaic and were amended to reflect liberalising cultural shifts (FitzGerald, 2000). Thus, since the 1990s institutional policies towards gay men and lesbian women have become more egalitarian and are more accommodating of sexual minorities, although specific instances of heterosexism are still apparent. Despite these nuances, it is posited that these institutional changes have resulted in an overall cultural shift in attitudes towards gay men and lesbian women.

Yet, this explanation does not account for the unanticipated levels of homonegativity apparent among UK respondents. As the United Kingdom is legally quite progressive towards sexual minorities (Village & Francis, 2008), it was anticipated that levels of

homonegativity would reflect this. However, the results obtained by the current sample failed to support this prediction. In explanation of this effect, Štulhofer and Rimac (2009) argue that the liberalising effects of modernisation are inhibited in countries that experience high levels of immigration. As a direct response to increased mobility of populations, host countries (i.e. the country that the immigrant is moving to) respond to this mobility by reinforcing their cultural values. As such, beliefs that homosexuality is attacking a central element of national pride results in increased levels of antipathy towards such communities. Thus, prejudice towards gay men and lesbian women remains prevalent.

Implications for homonegativity research

The results reported by the current study have a number of implications for how future homonegativity research is conducted. First, it is apparent that researchers in various contexts need to account for specific sociocultural differences in analyses of prejudice towards gay men and lesbian women. As demonstrated by the current exploration, the utility of the predictor variables identified by Schwartz (2010) do not possess the same explanatory utility in Europe as they do in North America. This finding has important implications for research attempting to reduce levels of homonegativity (McDermott et al., 2012; Turner, Lambert, & Crisp, 2007) as data emanating from the United States and Canada may fail to demonstrate similar results in a European context as the factors contributing to prejudice differ.

Second, the data reported herein support the arguments of Morrison & Morrison (2002, 2011) and M.A. Morrison et al. (2009) that a distinction is apparent between modern and old-fashioned homonegativity. As such, future research should account for this distinction and either stipulates the form of prejudice that they are measuring (as opposed to all encompassing misnomer 'homophobia') or endeavour to assess levels of both modern and old-fashioned homonegativity.

Third, the findings obtained by the current study reinforce the importance of researchers differentiating between gay men and lesbian women in lieu of the more generalised androcentric term 'homosexuals' (Herek, 2002b). As demonstrated by the current study, noticeable differences in levels of both old-fashioned and modern homonegativity towards gay men and lesbian women are apparent in all contexts. As such, it is imperative that future research continues to discriminate between these two social groups.

Limitations and directions for future research

Overall, the current study illuminates some of the pertinent issues vis-à-vis homonegativity in the Western World; however, specific limitations and avenues for future research became evident throughout the process. First, data were collected through the use of online surveys and as such the generalisability of results emanating from online surveys is inhibited by (1) high dropout rates and (2) self-selection biases (Ryan et al., 2010). Indeed, as the sample entirely consisted of Internet users, individuals without access to the Internet were automatically excluded. Further, biases may be apparent in the recruitment procedure. Data collected in the Republic of Ireland and Canada were obtained by snowball sampling by the first author, whereas data collected in Canada, the United States and the United Kingdom were solicited through listservs and targeted 'Facebook' advertisements. As such, future research may benefit from a similar exploration consisting of data collected via electronic means (e.g. online questionnaires) as well as traditional pen-and-paper questionnaires.

Second, the discrepancies in age noted across all four samples are a point of concern. Specifically, the mean ages of the participants of the current study differed across each of

the four countries and as Avery et al. (2007) demonstrated older participants tend to hold less egalitarian attitudes regarding homosexuality. Differences in homonegativity scores may be confounded by this fact. While age was accounted for in the statistical analyses conducted in the current study, future research may benefit by soliciting participants of comparable age cohorts to determine whether results reported in the current study are replicated.

Third, it is worth noting that while the current predictors successfully accounted for significant (both statistical and practical) amounts of variance, the overall maximum amount of variance accounted for by these predictors was 35%. It would be unwise to conclude that the predictor variables tested hitherto conclusively explain prejudice towards gay men and lesbian women. Therefore, it is imperative that researchers exploring modern and old-fashioned homonegativity identify and test additional factors that may explain these forms of prejudice.

Finally, sample sizes obtained in the current study differed according to country. Specifically, data collected in the United States generated the greatest level of responses, while fewer complete responses were obtained from the United Kingdom. Although the combined data set met the criteria for statistical analyses (Field, 2009), the failure of the predictor variables included in the current analysis to yield the same level of efficacy for data collected in the United Kingdom as it did for the other samples may be attributable to the smaller sample solicited from this country. Indeed, we would urge researchers to replicate this study with a UK-based sample to assess the validity of these findings and future cross-cultural explorations should endeavour to solicit comparable levels of responses from each of the samples of interest.

Conclusion

The overall theme of the results contained within the current study highlights the fact that while prejudice towards gay men and lesbian women is apparent in each of the samples measured, distinct differences in the prevalence of homonegativity are apparent, as are the factors that account for negative attitudes across international boundaries. Overall, the predictors identified by Schwartz (2010) demonstrated the greatest utility for both modern and old-fashioned homonegativity among samples in the United States and Canada. For the European samples, the efficacy of these predictors is not as perspicuous and support Ellis' (2009) argument that unique sociopolitical identifiers apparent between North American and European samples influence the presence of prejudice towards gay men and lesbian women in a European context.

Regardless of international differences in levels of modern and old-fashioned homonegativity, the importance of research such as this is sadly underscored by the continued discrimination and violence enacted against sexual and gender minority individuals around the world, including within the four countries highlighted within this study. In the months preceding the acceptance of this article for publication, Jamie Hubley, a gay teenager in Canada's capital city, committed suicide after enduring years of bullying and violence as a result of his sexual orientation. Jamie's death represents just one of many tragic consequences of homonegativity and reminds us all that even within some of the most 'liberal' and 'politically progressive' nations, the journey to complete acceptance of sexual and gender diversity is far from over. This article is dedicated to Jamie and all of the other Lesbian, Gay, Bisexual, Trans and Questioning (LGBTQ) youth who struggle on a daily basis just trying to be true to themselves; may their suffering not be in vain, but serve as a catalyst for continued and strengthened research in this important area of human experience.

Acknowledgement

Notes

1. For all measures of homonegativity, higher scores denote higher levels of old-fashioned/modern homonegativity towards sexual minorities.
2. Targeted 'Facebook' advertisements refer to paid advertisements which were aimed at potential participants in the countries of interest (i.e. the United States, Canada, the United Kingdom and the Republic of Ireland). Advertisements would appear on prospective participants' personal Facebook pages and individuals interested in participation were directed by the advertisement to the questionnaire homepage.
3. The survey was hosted on a secure server at Queen's University using the Checkbox Survey Solution platform (http://www.checkbox.com).
4. The Bonferroni correction for multiple comparisons was used in all ANCOVA analyses. The corrected probability value for six comparisons was $p < 0.008$.
5. Both the MHS and the ATLG scales were measured on a 5-point Likert scale and consisted of 10 items; thus, standardisation of scores was unnecessary.
6. Levels of old-fashioned homonegativity consistently fell within five points of the scale mid-points, implying moderate levels of old-fashioned homonegativity.

Notes on contributors

Daragh T. McDermott is a lecturer in psychology at Anglia Ruskin University, Cambridge, UK. McDermott's research to date has focussed on prejudice towards gay men and lesbian women in the Republic of Ireland. McDermott has published in a number of scholarly journals, including *Journal of Social Psychology*, *Canadian Journal of Human Sexuality*, and *Journal of Bisexuality*. Daragh recently served as a co-editor for '*Sexual Minority Research in the New Millennium*', which was published in 2012.

Karen L. Blair is a PhD candidate at Queen's University in Kingston, Ontario, Canada. Funded by the Canadian Institutes of Health Research and the Social Sciences and Humanities Research Council of Canada, Karen studies the role that social support for relationships plays in the development, maintenance and dissolution of same-sex and mixed-sex intimate relationships. Beginning in the spring of 2012, Karen will be moving to the University of Utah, Salt Lake City, to complete postdoctoral research with Dr. Lisa Diamond.

References

Adam, B. (1999). Moral regulation and the disintegrating of the Canadian state. In B. Adam, J.W. Duyvendak, & A. Krouwel (Eds.), *The global emergence of gay and lesbian politics: National imprints of a worldwide movement* (pp. 12–29). Philadelphia, PA: Temple University Press.

Allport, G.W. (1954). *The nature of prejudice*. Reading, MA: Addison-Wesley.

Anderson, K.J., & Kanner, M. (2011). Investing a gay agenda: Students' perceptions of lesbian and gay professors. *Journal of Applied Social Psychology*, *41*(6), 1538–1564.

Asher, R. (2009). Ireland, the same-sex partnership debate, and the normal sexual citizen. *Journal of Bisexuality*, *9*(3), 477–489.

Avery, A., Chase, J., Johansson, L., Litvak, S., Montero, D., & Wydra, M. (2007). America's changing attitudes toward homosexuality, civil unions, and same-gender marriage: 1977–2004. *Social Work*, *52*(1), 71–79.

Brewer, P.R. (2003). Values, political knowledge, and public opinion about gay rights. *Public Opinion Quarterly*, *62*, 173–201.

Brewer, P.R. (2008). The shifting foundations of public opinion about gay rights. *Journal of Politics*, *65*(4), 1208–1220.

Buechel, C., & Hegarty, P. (2007). Modern prejudice at work: Effects of homonegativity and perceived erotic value of lesbians and gay men on heterosexuals' reactions to explicit and discrete couples. *Lesbian and Gay Psychology Review*, *8*, 71–82.

Central Statistics Office. (2009). *Population classified by religion and nationality 2006*. Retrieved from http://www.cso.ie/statistics/popnclassbyreligionandnationality2006.htm

Cerny, J., & Polyson, J. (1984). Changing homonegative attitudes. *Journal of Social & Clinical Psychology*, *2*, 366–371.

Civil Partnership and Certain Rights. (2010). *Obligations of Cohabitants Act*. Retrieved from http://www.oireachtas.ie

Ellis, S., Kitzinger, C., & Wilkinson, S. (2002). Attitudes towards lesbians and gay men and support for lesbian and gay human rights among psychology students. *Journal of Homosexuality*, *44*(1), 121–138.

Ellis, S.J. (2009). Diversity and inclusivity at university: A survey of the experiences of lesbian, gay, bisexual and trans (LGBT) students in the UK. *Higher Education*, *57*(6), 723–739.

Employment Equality Acts. (1998). Retrieved from http://www.oireachtas.ie

Field, A. (2009). *Discovering statistics using SPSS* (3rd ed.). London: Sage.

Fitzgerald, M. (2000). Ireland before and after accession to the European Union. *Spatio-Temporal Dimensions of Economic and Social Change in Europe*, *6*(2), 61–67.

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.

Herek, G.M. (2000). Sexual prejudice and gender: Do heterosexuals' attitudes toward lesbians and gay men differ? *Journal of Social Issues*, *56*, 251–266.

Herek, G.M. (2002a). Heterosexuals' attitudes toward bisexual men and women in the United States. *Journal of Sex Research*, *39*(4), 264–274.

Herek, G.M. (2002b). Gender gaps in public opinion about lesbians and gay men. *Public Opinion Quarterly*, *66*(1), 40–66.

Herek, G.M. (2009). Hate crimes and stigma-related experiences among sexual minority adults in the United States. *Journal of Interpersonal Violence*, *24*(1), 54–74.

Herek, G.M., & Capitanio, J.P. (1999). AIDS stigma and sexual prejudice. *American Behavioral Scientist*, *42*(7), 1130–1147.

Hicks, G., & Lee, T. (2006). Public attitudes toward gays and lesbians. *Journal of Homosexuality*, *51*(2), 57–77.

Jewell, L.M., & Morrison, M.A. (2010). "But there's a million jokes about everybody . . .": Prevalence of, and reasons for, directing negative behaviors toward gay men on a Canadian university campus. *Journal of Interpersonal Violence*, *25*(11), 2094–2112.

LaMar, L., & Kite, M. (1998). Sex differences in attitudes towards gay men and lesbians: A multidimensional perspective. *Journal of Sex Research*, *35*, 189–196.

Malcomnson, K.M., Christopher, A.N., Franzen, T., & Keyes, B.J. (2006). The protestant work ethic, religious beliefs, and homonegative attitudes. *Mental Health, Religion & Culture*, *9*(5), 435–447.

Malesevic, V. (2010). Ireland and neo-secularisation theory. *Irish Journal of Sociology*, *18*(1), 121–140.

McDermott, D.T., Morrison, T.G., McDonagh, L.K., & O'Doherty, A.M.C. (2012). A test of prejudice reduction towards lesbian women: The effects of imaginary contact on explicit and implicit homonegativity. In T.G. Morrison, M.A. Morrison, M. Carrigan, & D.T. McDermott (Eds.), *Sexual minority research in the new millennium* (pp. 187–204). New York: Nova Sciences.

Morrison, M.A., & Morrison, T.G. (2002). Development and validation of a scale measuring modern prejudice toward gay men and lesbian women. *Journal of Homosexuality*, *43*(2), 15–37.

Morrison, M.A., & Morrison, T.G. (2011). Sexual orientation bias toward gay men and lesbian women: Modern homonegative attitudes and their association with discriminatory behavioral intentions. *Journal of Applied Social Psychology*, *41*(11), 2573–2599.

Morrison, M.A., Morrison, T.G., & Franklin, R. (2009). Modern and old-fashioned homonegativity among samples of Canadian and American university students. *Journal of Cross-Cultural Psychology*, *40*, 523–542.

Morrison, T., Parriag, A., & Morrison, M. (1999). The psychometric properties of the homonegativity scale. *Journal of Homosexuality*, *37*(4), 111–126.

Morrison, T., Speakman, C., & Ryan, T. (2009). Irish university students' support for the human rights of lesbian women and gay men. *Journal of Homosexuality*, *56*(3), 387–400.

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.

Moskowitz, D.A., Rieger, G., & Roloff, M.E. (2010). Heterosexual attitudes towards same-sex marriage. *Journal of Homosexuality*, *57*, 325–336.

Ohlander, J., Batalova, J., & Treas, J. (2005). Explaining educational influences on attitudes toward homosexual relations. *Social Science Research*, *34*, 781–799.

Olson, L.R., Cadge, W., & Harrison, J.T. (2006). Religion and public opinion about same-sex marriage. *Social Science Quarterly*, *87*, 340–260.

Peel, E. (2001). Mundane heterosexism. *Women's Studies International Forum*, *24*(5), 541–554.

Pratto, F., Sidanius, J., Stallworth, L.M., & Malle, B.F. (1994). Social dominance orientation: A personality variable predicting social and political attitudes. *Journal of Personality and Social Psychology*, *67*, 741–763.

Ryan, T.A., Morrison, T.G., & McDermott, D.T. (2010). Body image investment among gay and bisexual men over the age of 40: A test of social comparison theory and threatened masculinity theory. *Gay and Lesbian Issues and Psychology Review*, *6*(1), 4–20.

Schwartz, J. (2010). Investigating differences in public support for gay rights issues. *Journal of Homosexuality*, *57*, 748–759.

Štulhofer, A., & Rimac, I. (2009). Determinants of homonegativity in Europe. *Journal of Sex Research*, *46*(1), 24–32.

Turner, R.N., Crisp, R.J., & Lambert, E. (2007). Imagining intergroup contact can improve intergroup attitudes. *Group Processes & Intergroup Relations*, *10*, 427–441.

Village, A., & Francis, L.J. (2008). Attitude toward homosexuality among Anglicans in England: The effects of theological orientation and personality. *Journal of Empirical Theology*, *21*, 68–87.

Weller, P. (2004). Identity, politics, and the future(s) of religion in the UK: The case of the religion questions in the 2001 decennial census. *Journal of Contemporary Religion*, *19*(1), 3–21.