Still an Occupational Hazard? The Relationship between Homophobia, Heteronormativity, Student Learning and Performance, and an Openly Gay University Lecturer

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Abstract

This study examined the complex relationship between homophobia, heteronormativity, and an openly gay lecturer in a British university setting. First, heterosexual undergraduate sports students' levels of homophobia were recorded. Then, after taught sessions, participants were asked to estimate the frequency of homosexual-heterosexual examples and content used, as well as to complete tests to measure academic progress. This was followed by an end-of-course examination. Results indicated (a) no relationship between levels of homophobia and levels of heteronormativity; (b) that levels of heteronormativity and homophobia were unrelated to a student's ability to learn from an openly gay lecturer or their examination performance; (c) the presence of an openly gay lecturer significantly reduced homophobia among undergraduate students. These findings offer support to gay educators by highlighting the minimal impact on student learning and performance from being open about their sexuality. Instead, these results suggest that being open about homosexuality could reduce homophobia among undergraduate students.

Introduction

A body of literature (e.g., Irwin 2002; Ferfolja 2007; Mills 2004) has emerged highlighting how homophobia in educational settings operates at both the cultural and institutional level. Exemplifying this, Irwin (2002) examined 120 lesbian, gay, bisexual and transgendered (LGBT) Australian educators who teach from primary to university levels. The findings from this study revealed that participants experienced homophobia, harassment, and discrimination in the workplace. The majority of this discrimination came, not from students, but administrative staff, whose homophobia led to sexual minorities being repeatedly overlooked for promotions, denied opportunities to progress their careers, as well as producing extra work-related stress. Perhaps sensing the potential for struggle, many teachers therefore remain closeted, leaving educational institutions bereft of sexual diversity, with students denied exposure to a multiplicity of sexual and gendered identities (Sands 2009).

While homophobia is (traditionally) negatively correlated with increasing levels of educational attainment (Ohlander, Batalova and Treas, 2005) – meaning those who teach at university may not experience the same degree of discrimination as those who teach younger age groups – prejudice still remains within higher education (Flood and Hamilton 2005). Indeed, Russ, Simonds and Hunt's (2002) research into student evaluations of sexual minority lecturers led them to describe coming out of the closet as an 'occupational hazard'. Here, Russ et al. (2002) hired a professional speaker to deliver an identical lecture to eight classes. Students were informed that the 'guest lecturer' was applying for a teaching position at their institution. In half of the talks, 'the guest lecturer' presented as heterosexual by mentioning his partner, Jennifer, while in the other four classes he presented to the class as homosexual by mentioning his partner, Jason. While there were no other alterations to the lecture or the lecturer's gendered-self, results indicated that the students were biased against

the lecturer when he identified as homosexual, evaluating him as less credible and less knowledgeable in comparison to when he identified as heterosexual. In addition, 93% of students suggested that they would 'unquestionably' hire him when he identified as heterosexual, while only 8% of students suggested that they would 'unquestionably' hire him when appeared to be homosexual.

Such findings help to explain why many teachers and lecturers of all sexual identities are motivated to appear heterosexual (Taulke-Johnson 2010). Indeed, Francis and Skelton (2001) found educators to achieve the displacement of homosexual suspicion through the use of sexual innuendos while talking to female students, as well as the widespread use of homophobic discourse. The pressure to remain closeted in the workplace may therefore lead to the reaffirming of specific forms of gender presentation in educational settings; namely, ones that are (often) overtly sexist and homophobic. Consequently, institutional pressures to remain closeted may inhibit educational systems from challenging sexual and gendered hierarchies (Jones 2007).

Despite these findings, there are a number of social trends that hold the potential to improve attitudes towards sexual minorities at universities; with the most salient being a rapid decline in homophobia among undergraduate men (Anderson 2009; Kozloski 2010; Taulke-Johnson 2008). Specifically, recent years have seen a marked change in the attitudes straight male youth hold towards sexual minorities (Savin-Williams 2005). This includes homosexual and heterosexual youth building and maintaining long lasting and meaningful friendships, heterosexual men exhibiting a genuine interest in learning about and immersing themselves in homosexual cultures, as well as heterosexual men increasingly becoming allies in the fight for social equality (Anderson 2009; McCormack 2011). This cultural shift has led to the

acceptance of a range of sexual and gender identities in British educational institutions that, in turn, have improved the educational experiences of LGB identifying students (McCormack 2012).

The potential for this declining cultural homophobia to positively impact the lives of sexual minority educators should not be understated. However, despite an overt acceptance of alternative sexual identities pervading university campuses (McCormack and Anderson 2014), there remains the potential for implicit biases to influence the student population (Epstein, O'Flynn and Telford 2003). For example, Ripley, Anderson, McCormack and Rockett (2012) highlighted the prevalence of heteronormativity among an otherwise gay friendly student population during a ten-week course taught by an openly gay lecturer. Here, the researchers tabulated the lecturer's use of the lives of sexual minority individuals as content example, or when he used the lives of sexual minority individuals as educational content itself. Exemplifying this process, a heterosexual example used to illustrate a wider topic may have included, 'Jason and his wife, Susan, go for a 30-minute jog every night after work'. Conversely, an example coded as homosexual could have included, 'Jason and his husband, Mark, go for a 30-minute jog every night after work'. When using the lives of sexual minorities as educational content itself, the lecture may have included discussions of gay men in sport, while heterosexual content may have included discussions about how female athletes have lower rates of teenage pregnancies compared to non-athletes. Following this, the researchers interviewed 32 students in order to investigate their perception of the frequency of discussions related to different sexualities. The results indicated that the students vastly overestimated the number of times the lecturer discussed sexual minority individuals as both content and examples, while also underestimating the use of heterosexual lives.

Ripley et al. (2012) conceptualised this disjunction through the social psychological processes of novelty attachment and content substitution. Here, it was argued that students remember homosexual examples because of their rarity in educational settings (novelty attachment), before then morphing these examples into content by falsely assuming the lecturer was talking *about* homosexuality (content substitution). Utilising Social Identity Theory (Tajfel and Turner 1979), the authors suggest that novelty attachment and content substitution are cognitive processes that enable students to protect their in-group heterosexual identities from the 'threat' of a gay lecturer who challenges their otherwise heteronormative environment. Specifically, when a lecturer uses the lives of gay individuals in classroom discussion they place themselves in a different social group from the predominantly heterosexual student population. Thus, the lecturer is viewed as an 'other' who holds the potential to disrupt the groups heterosexual cohesion. The processes of novelty attachment and content substitution are used to prevent this by highlighting difference from the norm, whilst also re-affirming the dominant sexual identity.

Ripley et al. (2012) subsequently argued that novelty attachment and content substitution have the potential to negatively impact the careers of sexual minority educators – even when teaching gay-friendly students – as they are understood as 'always talking about gay issues'; something that could be reported in teaching evaluations and conceived as problematic by both homophobic and gay friendly administrators. A further concern resulting from the work of Ripley et al. (2012) is that the processes of novelty attachment and content substitution might negatively impact student learning from a gay lecturer. Specifically, these authors theorised that when students morph gay examples into content there is the potential that they may misinterpret key learning objectives and instead understand a lecturer's discussions to be

about ‘gay issues’, rather than about the actual intended content of the class. However, Ripley et al. (2012) did not include any measures of student learning in their study.

In order to further explore these issues, this study sought to replicate the work of Ripley et al. (2012) by examining for homophobia and heteronormativity, while also examining the impact of these phenomena on student learning and performance amongst sports students. This is an important addition to the literature, as it specifically examines how disrupting heteronormative educational settings – through the use of gay examples – impacts the ability of students to identify and retain key educational content.

Given that this study was conducted over a 12-week period, the potential for continued contact with an openly gay lecturer who uses gay examples to reduce prejudice towards sexual minorities was also examined. According to Allport’s (1954) Contact Theory, under appropriate conditions, interpersonal contact with someone of an ‘other’ group can significantly reduce prejudice towards that minority. Thus, if students are able to communicate and learn about the culture of ‘outsiders’, they might develop a new appreciation of their lives and understanding of difference. This can reduce prejudice as it humanises the outside group and challenges previously held negative stereotypes. Student exposure to a lecturer of a sexual minority status enabled the examination of this in a longitudinal manner in this study.

Following this review of the literature, it was hypothesised that (1) students with more homophobic attitudes would also be found to be more heteronormative; (2) more heteronormative students would learn and perform worse; (3) students with more

homophobic attitudes would learn and perform worse; and (4) any homophobic attitudes would be significantly reduced after contact with an openly gay lecturer.

Methods

Participants

106 sports students were recruited from a university in southern England. All students identified as heterosexual. The mean age of these participants was 19 years (*SD* = 2 years) and consisted of 78 men (74%) and 28 women (26%). 84% of participants (*n* = 89) were White-British, with the remaining 16% consisting of Chinese (*n* = 2), other Asian background (*n* = 1), Mixed - White and Black Caribbean (*n* = 2), Mixed - White and Asian (*n* = 1), Black/Black British - African (*n* = 1), Black/Black British - Caribbean (*n* = 2), Other White background (*n* = 7), and other Ethnic background (*n* = 1) participants. 80% of participants were studying on single honours degree programmes (*n* = 85), with the remaining 20% of participants studying on combined honours degree programmes (*n* = 21). 90% of participants were full-time students (*n* = 104), with the remaining 2% studying on a part-time basis (*n* = 2). The majority of participants were in their first (*n* = 103) or second year (*n* = 1) of study; which equated to 97% and 1%, respectively. The remaining 2% of participants were in their third (*n* = 2) year of study. However, not all participants completed all of the subsequent testing procedures; meaning adjusted participant numbers are reported, where appropriate.

Measures

Student attitudes towards homosexuality were measured using the 'Attitudes towards Lesbians and Gay Men Scale, Revised Version (ATLG-R)' (Herek 1998). The ATLG-R is a measure of heterosexuals' attitudes towards gay men and women (Herek 1998), consisting of 20 items that assess affective responses to homosexuality, gay men and lesbians. 10 items reference lesbians (the ATL subscale) and 10 items reference gay men (ATG subscale). For example, 'Lesbians just can't fit into our society'. Participants respond to each item on a 9-point Likert scale (1 = strongly disagree to 9 = strongly agree). 7 items of the ATLG-R are

reverse scored, so that a higher score indicates greater homonegativism. Thus, total scores can range from 20 to 180 for the full scale and 10 to 90 for the subscales. However, due to improvements in legal equality and the country of data collection, the following item on the ATL needed to be removed: 'State laws regulating private, consenting lesbian behaviour should be abolished'. Likewise, the following item on the ATL was re-worded from American to British to reflect the country of data collection: 'The growing number of lesbians indicates a decline in American morals.' Overall, this resulted in a total of 9 items for the ATL subscale, 10 items for the ATG subscale, and 19 items for the ATLG-R.

In line with the recommendations of Herek (1994, 1998), several variants of the ATL, ATG, and ATLG-R were also produced. Specifically, items on the ATG were revised to refer to lesbians; subsequently creating the ATL Part One and ATL Part Two variants used in the present study. Scores for these two subscales were then added to create the ATL Total variant. The same process was repeated for student attitudes towards gay men, whereby items on the ATL were revised to refer to gay men; creating the ATG Part One, ATG Part Two, and ATG Total variants used in this study. Student scores on the ATL Part One and ATG Part One were then added to create the ATLG Part One variant, and student scores on the ATL Part Two and ATG Part Two added to create the ATLG Part Two variant. ATLG Total scores were calculated by adding student scores on the ATLG Part One and ATLG Part Two variants. Total scores ranged from 9 to 81 (ATL Part One), 10 to 90 (ATL Part Two), 19 to 171 (ATL Total), 9 to 81 (ATG Part One), 10 to 90 (ATG Part Two), 19 to 171 (ATG Total), 18 to 162 (ATLG Part One), 20 to 180 (ATLG Part Two), and 38 to 342 (ATLG Total).

Herek (1998) reported that the ATLG and its subscales have shown high levels of internal consistency, with acceptable alpha levels for the subscales (> 0.85) and for the full scale (>

0.90) among samples of college students. Herek (1998) also reported acceptable full-scale test-retest reliability (0.90) after 3 weeks with a student sample. In addition, Herek (1998) found that ATLG scores were not linked to socially desirable response sets. Although Herek (1998) slightly reworded 5 items from the original ATLG to update their content or clarify their meaning, there is no indication that these minor revisions have changed the psychometric properties of the ATLG-R (Rosik 2007). Correlations between all of the ATLG-R variants used in the present study further demonstrated the convergent validity (Marsh, 2002) of the ATLG-R (as all were > 0.70).

Whilst the ATLG-R is intended to measure negative attitudes towards lesbians and gay men, rather than homophobia per se, the present study included the terminology of homophobia for a number of reasons, outlined by Rosik (2007). First, even Herek (1994) acknowledged that many of the items of the ATLG-R correspond "... to the personal and cultural attitudes popularly termed homophobia" (p. 208). Second, there is no universally agreed upon definition of homophobia, and the measurement instruments employed in this area may assess different components of homophobia or different constructs altogether (Wright, Adams and Bernat 1999). Third, there is a significant degree of item overlap evident between the ATLG-R and scales purporting to measure homophobia (Hudson and Ricketts 1980; Wright et al. 1999). Indeed, some items utilise approximately the same language and many more seem to inquire into similar content domains (Rosik 2007). In light of these considerations, it did not seem improper to use the term homophobia in the present study.

Procedure

All variants of the ATLG-R were administered during university induction, prior to students meeting the third author, an openly gay male university lecturer. However, in an attempt to

further guard against biasing the data through students' knowledge that they would have a gay lecturer (Ripley et al. 2012), the rest of the faculty were instructed not to reveal that one of their colleagues was openly gay. Unlike in the United States, where a schedule of classes indicates the assigned instructor for any given class, first-year courses at this British university are mandatory, and information on the assigned lecturer was not available at the time of data collection. Following this initial assessment, the third author explicitly disclosed his homosexuality during the first ten minutes of a sport sociology class by discussing his experiences as an openly gay coach. He then answered questions about being an openly gay man in sport before continuing with the primary content of the lesson. He was also the sole convenor of this 12-week course.

The lead and second author observed the openly gay third author teach his weekly sport sociology class. Following a similar protocol to that of Ripley et al. (2012), these two researchers independently examined the content of the verbal communication used by the openly gay lecturer. Specific attention was paid to whether the lecturer used the lives of LGBT or heterosexual people as either class content or an example to examine a broader topic. Verbal comments using the lives of LGBT individuals were collectively termed 'gay talk', while those using the lives of heterosexuals were called 'straight talk'. Illustrating an example of gay talk, while discussing the depiction of athletes in the media, the lecturer might have said: 'Tom Daley, recently announced that he is to marry Dustin Lance Black'. Conversely, an example of straight talk could have been: 'Golfer, Tiger Woods, was caught cheating on his wife'. These same researchers also recorded each time the lecturer discussed homosexuality or heterosexuality as content. For example, homosexuality would have been coded when discussing Gareth Thomas 'coming-out' as gay while actively playing rugby, and heterosexuality when discussing WAGS (wives and girlfriends) in soccer. The two

researchers were positioned at the back of the lecture hall so that they were out of student view for their note taking.

In order to account for the inter- and intra-rater reliability of the two researchers, all of the classes taught were video recorded and then re-watched by the second author. Here, the second author again noted the number, style and type of verbal examples given by the lecturer during each class. To ensure inter-rater reliability, intraclass correlation coefficients (ICC) between the first and second author were then conducted for the tabulated frequencies with which the lecturer used the lives of homosexuals and heterosexuals as examples of content/content itself. In addition, ICCs were conducted between the two sets of tabulated data produced by the second author to ensure intra-rater reliability. According to the acceptable levels of test-retest reliability (i.e., > 0.70) specified by Vincent and Weir (1999), the ICCs in the present study revealed sufficient levels of inter-rater and intra-rater reliability for both gay talk (inter-rater = 0.94; intra-rater = 0.97) and straight talk (inter-rater = 0.89; intra-rater = 0.98).

Student perceptions on the amount of gay and straight talk used each week was also recorded. This was accomplished by asking each student to complete a single-item questionnaire that examined their perceptions on the frequency of homosexual-heterosexual examples and content. Concurrently, student learning was measured by administering multiple-choice exams at the end of 8 of the 12 lectures (a total of 80 questions). These exams contained questions focusing on the content covered in each specific class. An average score was taken from each student at the end of this 8-week period, with an additional performance measure taken in the final week of the course. Here, students were required to sit a 30-minute formative examination covering all content covered during the semester. Following this

exam, student attitudes towards homosexuality were assessed for a second time using the ATLG-R variants described previously. During all assessments, students sat at least one space apart, and were subject to standard university examination policies and procedures.

Initially, students were told about the value of research to academic scholarship in higher education during university induction. An invitation to participate in the present study was then extended to the students who were informed that this research was interested in how attitudes towards homosexuality change over time. Students were also informed that two researchers would be observing the sessions delivered by the third author, and that as participants they would be required to reflect on their in-class experiences. In addition, students were told that this study involved the use of multiple formative assessments in an effort to support both student learning and attainment on the module, with regular feedback provided to students on their academic progress. Once data collection was complete, participants were fully de-briefed about the aims of the study, while their right to withdraw remained throughout. Confidentiality and anonymity were also assured for all participants – by asking students to use memorable data instead of their names as part of the data monitoring process – and written informed consent obtained. All British Sociological Association ethical codes were followed throughout.

Data Analysis

A series of correlations were run between ATLG-R scores, student estimates of gay and straight talk, and student learning and performance. In line with the recommendations of Cohen (1988), correlation coefficients were classified as small (0.10), medium (0.30), or large (0.50). Paired samples t-tests were also undertaken to compare student ATLG-R scores before and after the 12-week course. Statistical significance for all analyses was set at the

95% level ($p < 0.05$) and all analyses were computed using the Statistical Package for Social Sciences (SPSS v.21).

Results

Pre ATLG-R Scores and Student Estimates of Gay and Straight Talk

Table 1 indicates that no or small correlations exist between the pre ATLG-R questionnaire variants and student estimates of gay and straight talk. Thus, it would appear as though pre-homophobia scores have little relation to student estimates of gay or straight talk.

Table 1. Pearson's Product Moment Correlation Coefficients between pre ATLG-R scores and student estimates of gay and straight talk

		Gay Talk	Straight Talk
ATL Part One	Pearson Correlation	-0.168	0.134
	Sig. (Two-Tailed)	0.156	0.259
	N	73	73
ATL Part Two	Pearson Correlation	-0.009	0.037
	Sig. (Two-Tailed)	0.940	0.758
	N	73	73
ATL Total	Pearson Correlation	-0.088	0.085
	Sig. (Two-Tailed)	0.459	0.473
	N	73	73
ATG Part One	Pearson Correlation	-0.083	0.124
	Sig. (Two-Tailed)	0.485	0.296
	N	73	73
ATG Part Two	Pearson Correlation	-0.082	0.134
	Sig. (Two-Tailed)	0.493	0.257
	N	73	73
ATG Total	Pearson Correlation	-0.086	0.135
	Sig. (Two-Tailed)	0.470	0.256
	N	73	73
ATLG Part One Total	Pearson Correlation	-0.126	0.132
	Sig. (Two-Tailed)	0.289	0.265
	N	73	73
ATLG Part Two Total	Pearson Correlation	-0.054	0.098
	Sig. (Two-Tailed)	0.648	0.411
	N	73	73
ATLG Total	Pearson Correlation	-0.090	0.116
	Sig. (Two-Tailed)	0.451	0.329
	N	73	73

Post ATLG-R Scores and Student Estimates of Gay and Straight Talk

Table 2 indicates that no correlations exist between any of the post ATLG-R questionnaire variants and student estimates of gay and straight talk. Thus, it would appear as though post-homophobia scores also have no relation to student estimates of gay or straight talk.

Table 2. Pearson's Product Moment Correlation Coefficients between post ATLG-R scores and student estimates of gay and straight talk

		Gay Talk	Straight Talk
ATL Part One	Pearson Correlation	-0.030	0.079
	Sig. (Two-Tailed)	0.818	0.539
	N	62	62
ATL Part Two	Pearson Correlation	0.012	-0.050
	Sig. (Two-Tailed)	0.923	0.698
	N	62	62
ATL Total	Pearson Correlation	-0.009	0.014
	Sig. (Two-Tailed)	0.947	0.914
	N	62	62
ATG Part One	Pearson Correlation	-0.021	0.071
	Sig. (Two-Tailed)	0.874	0.583
	N	62	62
ATG Part Two	Pearson Correlation	-0.028	-0.028
	Sig. (Two-Tailed)	0.831	0.829
	N	62	62
ATG Total	Pearson Correlation	-0.025	0.024
	Sig. (Two-Tailed)	0.845	0.853
	N	62	62
ATLG Part One Total	Pearson Correlation	-0.025	0.076
	Sig. (Two-Tailed)	0.844	0.555
	N	62	62
ATLG Part Two Total	Pearson Correlation	-0.007	-0.041
	Sig. (Two-Tailed)	0.959	0.749
	N	62	62
ATLG Total	Pearson Correlation	-0.017	0.019
	Sig. (Two-Tailed)	0.894	0.882
	N	62	62

Student Estimates of Gay and Straight Talk and Student Learning and Performance

Table 3 indicates that no or small correlations exist between student estimates of gay and straight talk and student learning and performance. Thus, it would appear as though student estimates of gay and straight talk have little relation to student learning or performance. However, there exists a significant, large, negative, linear correlation between student estimates of gay and student estimates of straight talk. Specifically, the results indicate that students who overestimate gay talk, simultaneously underestimate straight talk. In addition, there exists a significant, large, positive, linear correlation between student learning and performance. Therefore, it would appear as though those students who learned more also performed better.

Table 3. Pearson's Product Moment Correlation Coefficients between student estimates of gay and straight talk and student learning and performance

		Student Learning	Student Performance	Gay Talk
Student Learning	Pearson Correlation			
	Sig. (Two-Tailed)			
	N			
Student Performance	Pearson Correlation	0.699**		
	Sig. (Two-Tailed)	< 0.01		
	N	42		
Gay Talk	Pearson Correlation	-0.109	-0.030	
	Sig. (Two-Tailed)	0.370	0.863	
	N	69	36	
Straight Talk	Pearson Correlation	0.041	0.010	-0.865**
	Sig. (Two-Tailed)	0.737	0.956	< 0.01
	N	69	36	73

** Significant at the 0.01 level (two-tailed)

Student Estimates of Gay and Straight Talk and Actual Gay and Straight Talk

Table 4 indicates that students slightly overestimate gay talk and slightly underestimate straight talk.

Table 4. Mean per cent student estimates of gay and straight talk and actual mean per cent gay and straight talk

Student Estimates		Actual	
Gay Talk	Straight Talk	Gay Talk	Straight Talk
66.00	34.00	58.00	42.00

Pre ATLG-R Scores and Student Learning and Performance

Table 5 indicates that no or small correlations exist between the pre ATLG-R questionnaire variants and student learning and performance. Thus, it would appear as though pre-homophobia scores have little relation to student learning or performance.

Table 5. Pearson's Product Moment Correlation Coefficients between pre ATLG-R scores and student learning and performance

		Student Learning	Student Performance
ATL Part One	Pearson Correlation	0.049	-0.136
	Sig. (Two-Tailed)	0.664	0.392
	N	81	42
ATL Part Two	Pearson Correlation	-0.023	-0.161
	Sig. (Two-Tailed)	0.837	0.310
	N	81	42
ATL Total	Pearson Correlation	0.016	-0.169
	Sig. (Two-Tailed)	0.886	0.285
	N	81	42
ATG Part One	Pearson Correlation	-0.045	-0.181
	Sig. (Two-Tailed)	0.690	0.252
	N	81	42
ATG Part Two	Pearson Correlation	-0.053	-0.078
	Sig. (Two-Tailed)	0.636	0.624
	N	81	42
ATG Total	Pearson Correlation	-0.051	-0.137
	Sig. (Two-Tailed)	0.650	0.386
	N	81	42
ATLG Part One Total	Pearson Correlation	-0.007	-0.174
	Sig. (Two-Tailed)	0.953	0.270
	N	81	42
ATLG Part Two Total	Pearson Correlation	-0.049	-0.118
	Sig. (Two-Tailed)	0.667	0.457
	N	81	42
ATLG Total	Pearson Correlation	-0.021	-0.156
	Sig. (Two-Tailed)	0.850	0.325
	N	81	42

Post ATLG-R Scores and Student Learning and Performance

Table 6 indicates that no or small correlations exist between the post ATLG-R questionnaire variants and student learning and performance. Thus, it would appear as though post-homophobia scores also have little relation to student learning or performance.

Table 6. Pearson's Product Moment Correlation Coefficients between post ATLG-R scores and student learning and performance

		Student Learning	Student Performance
ATL Part One	Pearson Correlation	-0.044	-0.074
	Sig. (Two-Tailed)	0.720	0.648
	N	81	42
ATL Part Two	Pearson Correlation	-0.121	-0.187
	Sig. (Two-Tailed)	0.317	0.247
	N	81	42
ATL Total	Pearson Correlation	-0.090	-0.159
	Sig. (Two-Tailed)	0.461	0.326
	N	81	42
ATG Part One	Pearson Correlation	-0.043	-0.068
	Sig. (Two-Tailed)	0.721	0.675
	N	81	42
ATG Part Two	Pearson Correlation	-0.101	-0.191
	Sig. (Two-Tailed)	0.408	0.238
	N	81	42
ATG Total	Pearson Correlation	-0.077	-0.147
	Sig. (Two-Tailed)	0.528	0.365
	N	81	42
ATLG Part One Total	Pearson Correlation	-0.044	-0.074
	Sig. (Two-Tailed)	0.715	0.649
	N	81	42
ATLG Part Two Total	Pearson Correlation	-0.113	-0.199
	Sig. (Two-Tailed)	0.351	0.218
	N	81	42
ATLG Total	Pearson Correlation	-0.084	-0.156
	Sig. (Two-Tailed)	0.490	0.337
	N	81	42

Pre and Post ATLG-R Scores

Table 7 indicates that, in every ATLG-R questionnaire variant, student attitudes towards homosexuals were significantly more positive after the twelve-week course.

Table 7. Mean (*SD*) pre and post ATLG-R scores and paired samples t-test comparisons

Pair		Mean	SD	t	df	Sig. (Two-Tailed)
ATL Part One	Pre	19.85	11.49			
	Post	16.45	10.60	3.294	70	0.002**
ATL Part Two	Pre	30.89	11.61			
	Post	28.55	11.12	2.311	70	0.024*
ATL Total	Pre	50.87	21.40			
	Post	45.00	20.21	3.564	70	0.001**
ATG Part One	Pre	21.83	13.84			
	Post	16.79	11.16	4.264	70	< 0.01**
ATG Part Two	Pre	34.18	12.68			
	Post	29.32	11.08	3.693	70	< 0.01**
ATG Total	Pre	56.01	25.52			
	Post	46.11	20.85	4.461	70	< 0.01**
ATLG Part One	Pre	41.54	23.99			
	Post	33.24	21.28	4.261	70	< 0.01**
ATLG Part Two	Pre	65.07	23.33			
	Post	57.89	21.67	3.322	70	0.001**
ATLG Total	Pre	106.89	45.40			
	Post	91.08	40.44	4.409	70	< 0.01**

* Significant at the 0.05 level (two-tailed)
** Significant at the 0.01 level (two-tailed)

Discussion

Cultural and institutional homophobia has resulted in many sexual minority teachers and lecturers remaining closeted through fear of workplace discrimination (Irwin 2002; Ferfolja 2007; Mills 2004). This has had a negative effect not only on the lives of sexual minority educators, but also on the educational experiences of students who are denied exposure to a multiplicity of sexual identities (Rivers 1995). However, recent research highlights a cultural shift among undergraduate youth towards the acceptance of multiple sexual and gendered identities (McCormack and Anderson 2014). This holds the potential to disrupt the fears of sexual minority educators about being open about their sexualities. Yet, despite a decline in explicit undergraduate homophobia, educational settings have been found to perpetuate implicit inequality through the maintenance of heteronormativity (Ripley et al. 2012). This article sought to better understand the relationship between homophobia, heteronormativity and student learning and performance, as well as measuring the impact on assessed levels of homophobia by exposing students to an openly gay lecturer.

In order to examine for heteronormativity, a social psychological test that measured students' propensity to notice 'gay talk' and 'straight talk' in a classroom setting was utilised. Gay talk concerned using the lives of sexual minorities to examine content, while straight talk concerned using the lives of heterosexuals to examine content. Consistent with the Ripley et al. (2012) study, results indicated that students in this study overestimated the number of times an openly gay lecturer used gay talk, while simultaneously underestimating his use of straight talk – although not to the same degree as previously reported. Indeed, Ripley et al. (2012) found participants to collectively suggest that the lecturer used gay talk two thirds of the time, and straight talk only one third of the time. However, when the propensity of these themes was investigated through rigorous inter- and intra-rater reliability examination in this

study, results indicated that the lecturer used gay talk 58% of the time, and straight talk 42% of the time.

Despite these differences, the findings of this study largely concur with those of Ripley et al. (2012). Thus, the social psychological processes of novelty attachment and content substitution can be used to explain this overestimation of gay talk and underestimation of straight talk. Specifically, it is argued that, because the use of gay talk is novel in educational settings, students notice and attach onto this form of speech. Regardless of whether a lecturer is actually discussing the lives of sexual minorities, or simply using them as examples to illustrate wider points, students position any discussions of sexual minorities as curricular content. For example, while using the lives of homosexual individuals to exemplify how middle school teachers often work many more hours than they are contracted to, the lecturer in this study said: 'David is often frustrated at the limited amount of free-time he can spend with his husband due to the amount of papers he needs to grade on weekends'. Instead of understanding this as a discussion about highly pressurised labour practices, students attach onto the novelty of homosexual relationships being used in classroom settings; making it salient in their minds, before then morphing this into the actual topic of discussion. This process occurs with gay talk due to its novelty, but not with straight talk, as it is a frequent point of reference throughout students' educational lives and thus, goes unnoticed. Consequently, the participants in this present study believed that the openly gay teacher was using gay talk at a higher rate than straight talk.

However, in contrast to hypothesis one, individual levels of heteronormativity were found to be unrelated to individual levels of homophobia. Thus, gay friendly students were just as likely to overestimate levels of gay talk as more homophobic students. This may be a result

of the extreme levels of heteronormativity experienced in educational institutions in the United Kingdom. Indeed, throughout their educational lives, these youth are likely to have been left bereft of exposure to sexual diversity due to the vast majority of sexual minority educators remaining closeted, as well as school cultures still recovering from the impact of a Local Government Act (Proposition 28) that effectively banned all discussion of same-sex relationships in educational settings until 2003 (McCormack 2012). As the majority of these students are likely to have experienced similar levels of extreme cultural and institutional heteronormativity during their educational years, it is possible that heteronormativity outweighed homophobia in its influence on student estimates of gay and straight talk in this study.

With heteronormativity found to be pervasive among all students, regardless of their attitudes towards sexual minorities, the relationship between gay talk and straight talk and student learning and performance clearly warranted examination. Ripley et al. (2012) suggested that using the lives of sexual minorities in classroom discussions had the potential to distract students from key learning objectives, as they morph gay examples into classroom content. It would therefore appear logical that, due to the role of novelty attachment and content substitution, the more heteronormative a student is, the less able they would be to learn from a lecturer who uses gay talk. However, results from this study indicated that individual levels of heteronormativity were unrelated to a student's ability to learn from a lecturer using gay talk. Thus, in contrast to hypothesis two, more heteronormative students progressed over the 12-week period at the same rate as those who were found to be less heteronormative. Therefore, despite the potential for more heteronormative students to misinterpret the content of some classroom discussions, the novel use of gay talk may actually have engaged heteronormative students in ways that straight talk does not. Specifically, because the use of

gay talk is unique to these youth, it may have captured their attention and drawn them into class discussions; meaning any negative consequences of content substitution were nullified by equal gains in classroom attention. While it was beyond the scope of this study to examine literature on other forms of 'disruption' to content that might lead to related novelty attachment effects (e.g., race, disability, etc.), this could be a worthy avenue for future investigation.

Interestingly, individual levels of homophobia were also found to be unrelated to student learning and performance following a course taught by an openly gay lecturer. Thus, in contrast to hypothesis three, those students expressing more homophobic attitudes experienced the same level of academic progress as those with gay friendly attitudes. Although the vast majority of these students expressed gay-friendly attitudes anyway, those students who did harbour homophobic sentiment may have placed this as a secondary concern in comparison to their desire for grades. As a result, aspirations for high ranked degree certifications may have been the most significant factor influencing student engagement; with homophobic attitudes put aside for the purpose of future employment potential. However, as interviews with participants may have unearthed this matrix between homophobia, an openly gay lecturer, and the pressure for high grades further, this is something that could be explored in subsequent research. Nonetheless, results from this study offer empirical evidence that being open about sexuality in the classroom has no impact on student learning or performance at the university level and should not therefore be considered an 'occupational hazard' on this basis (Russ et al. 2002).

Instead, results in support of hypothesis four highlight that disrupting heteronormativity is highly beneficial towards achieving another goal of education; namely, that of decreasing

prejudice and promoting social equality. Specifically, findings from this research indicated that participants were significantly more inclusive of sexual minorities upon completion of the 12-week course. These improved attitudes may be examined through Allport's (1954) Contact Theory, which posits that individual prejudice towards others is reduced through exposure to their customs, norms and styles of communication. Thus, through direct contact with members of marginalised groups (e.g., sexual minorities), negative stereotypes and previously held prejudices are challenged.

In relation to sexuality, Contact Theory has been shown to be highly effective in reducing levels of prejudice against homosexuals. Exemplifying this, Herek (1988) found that undergraduate students' attitudes towards homosexuals were strongly influenced by a single positive experience with a gay person. Similarly, Herek and Glunt's (1993) nationwide survey of the United States found that the strongest predictor of heterosexual attitudes towards sexual minorities was the level of contact between straight orientated people and gay men. This was more significant than any other demographic or social variable, including race, gender, age, marital status, religion, political ideology, number of children, education, and geographical location. Therefore, being open about sexuality in educational settings can be considered a key pedagogical tool towards reducing homophobia among youth. In particular, university classrooms offer a perfect opportunity for contact to proliferate as student-lecturer relations are not limited by the institutional restrictions experienced in other educational arenas. As a result, the openly gay lecturer in this study was able to relate to the students with less social distance than students may have experienced in earlier years of education. Collectively, this educational context allowed for a high level of social contact between the students and the openly gay lecturer that, in-turn, is likely to have caused the significant decline in homophobic attitudes over the 12-week course. It is important to note, however,

that this study examined student attitudes towards homosexuality, gay men, and lesbians only. Thus, a fruitful avenue for future research would be to examine the broader cultural context of contemporary sexual identities, particularly in reference to the multiplicity of identities amongst millennials.

Conclusion

The results from this study add four main findings to the literature on the role of homophobia and heteronormativity in educational settings. First, it highlights that individual levels of homophobia are unrelated to levels of classroom heteronormativity. As the vast majority of British students have been situated in an extremely heteronormative environment throughout their educational lives, even the most homophobic or gay-friendly students may exhibit similar levels of heteronormativity. Second, levels of heteronormativity are unrelated to a student's ability to learn from an openly gay lecturer using gay talk. Despite the potential for novelty attachment and content substitution (Ripley et al. 2012), students were found to learn at the same rate regardless of their personal levels of heteronormativity. This may be a result of gay talk engaging more heteronormative students in a way that straight talk cannot; suggesting that gay talk may be an effective pedagogical tool. Third, levels of individual homophobia were found to be unrelated to student learning and performance following a course taught by an openly gay lecturer. Although previous research highlights that homophobic students view gay educators as being less legitimate than straight educators (Russ et al. 2002), there is no evidence in this research to suggest that they are therefore unable to learn from them. Instead, the results of this study revealed that levels of homophobia were unrelated to a student's ability to learn from an openly gay lecturer. Finally, the use of gay talk and the presence of an openly gay university lecturer were found to significantly decrease levels of homophobia among undergraduate students. Through contact with the openly gay lecturer, students were able to experience sexual diversity in the classroom in ways that may have previously been denied to them. This is likely to have challenged their otherwise heteronormative environment and helped them to view the lecturer's sexuality as something that should not be hidden, but as an inherent part of the social world.

Research Ethics Statement

This study was approved by the Institutional Ethics Board of the university of the first author and performed in line with the ethical standards articulated in the 1964 Declaration of Helsinki and its subsequent amendments, as well as the British Sociological Association Code of Ethics.

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