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Social Determinants of Polymorphous Prejudice Against Portuguese Lesbian/Gay Individuals: The Case of Portugal

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Abstract

In the present article we analyze the polymorphous prejudice against Lesbians and Gays using a sample of Portuguese heterosexual individuals. We tested the differential importance of demographic, ideological, and psychological-level variables predicting this phenomenon. Results show that male Catholic right-wing respondents with less LG friends are the ones exhibiting higher polymorphous prejudice. Nevertheless, the introduction of psychological-level variables in the regression models increased the explained variance of polymorphous prejudice, above and beyond the remaining predictors. Also, different patterns of results are obtained when regression analyses are deployed at the level of the sub-scales of polymorphous prejudice. Results are discussed within the light of contemporary sexual prejudice frameworks, and the utility of results to intervention with discriminated LG individuals is reviewed.

Key-words: Polymorphous prejudice, sexual prejudice, Lesbian/Gay individuals, subtle and blatant prejudice

Social determinants of polymorphous prejudice against lesbian and gay individuals:

The case of Portugal

Sexual prejudice is a prevalent phenomenon in our societies and has captured the interest of psychology since the 70's (Herek 2000). Under the guise of homophobia, i.e. "the dread of being in close quarters with homosexuals – and in the case of homosexuals themselves, self-loathing" (Weinberg 1972, 4), this term has been widely used in psychological research (Clarke, Ellis, Peel, and Riggs 2010) and on Lesbian, Gay, Bisexual, Trans and Queer (LGBTQ) activism. However, as pointed out by Herek (2004), this is a problematic concept, because of its' pathologizing assumptions. As Kitzinger (1999) also argues, this pathological assumption reduces a social phenomenon to an individual one (prejudice as a result of an individual's mental illness), thus de-socializing a collective problem. Homophobia is used mainly to understand individual attitudes towards LGBTQ individuals (Herek 2004), reinforcing the individualistic tone of that line of studies, and neglecting the social dimensions of this phenomenon.

Research on sexual prejudice normally encompasses the study of predictors of this form of prejudice (Vincent, Parrott, and Peterson 2011). Nevertheless, this research is scarce and few studies have examined in a systematic way the specific predictors of sexual prejudice towards LGBT individuals (for exceptions see Basow and Johnson 2000; Herek and Capitanio 1996; Lemm 2006). In the present article, we aim at analyzing some of the social determinants of prejudice against LG individuals in Portugal, a country where legal rights of LGBT's were recently expanded. Furthermore, in this article we also present the adaptation, validation and main psychometric qualities of Massey (2009) Polymorphous Prejudice scale (PPS) to the Portuguese context. The critiques raised to the concept of homophobia have been used by some researchers to shift their focus towards other conceptualizations such as heterosexism, used by Herek (2000) to describe the ideology that marks homosexuality as an inferior sexual orientation *vis-à-vis* heterosexuality. Due to its marked macro-social emphasis, Herek (2000; Herek and McLemore 2013) proposes the use of sexual prejudice to refer to negative attitudes expressed against homosexuals, their behaviors and communities. Herek (2009) also refers to sexual stigma as a specific instance of sexual prejudice, labeling it as the socially shared knowledge about the devalued status of homosexuality in society as compared to heterosexuality. In his view, sexual stigma creates social roles and behavioral expectations that inform and guide negative attitudes towards LG individuals.

Yet another strand of research, more associated with queer theory claims the need of studying heteronormativity, the norm that uses heterosexuality as the reference for all individuals, keeping LGBTQ individuals as deviations towards such norm (Warner 1993). These norms are also very relevant for the issues of recognition of humanity, as Butler (2004) points out by showing that the intelligibility of humanity is anchored on gender and sexuality norms. Hegemonic heterosexuality, through these norms, keeps LGBTQ populations in more fragile and vulnerable positions than other populations. Such position has obvious consequences in terms of citizenship and rights, as well as on sexual prejudice.

Therefore there are several ways of analyzing the expressions of prejudice against LGBTQ, and all of them have been used in psychology (Clarke et al. 2010). Yet one important theoretical discussion started during the 80's (with practical and metric consequences) concerns the dimensionality of sexual prejudice. According to Hegarty and Massey (2006), this debate was triggered by Herek's (1984) position about the multidimensional scales used to measure homophobia or other related constructs. Herek

(1984) concluded in a research using his "Attitudes Towards Gay men and Lesbian scale" (ATGL) that these attitudes were one-dimensional and therefore his scale is based on a tolerance-condemnation continuum. This scale was used in numerous studies (e.g., Cardenás and Barrientos 2008; Herek and Gonzalez-Rivera 2006; Stotzer 2009) and they reflect the same one-dimensional structure of the original scale.

However, as argued by Heggarty and Massey (2006), this constitutes a problem when dealing with modern versions of prejudice, on the one hand, and when doing research into the multiple functions and aspects of sexual prejudice. Indeed, while traditional sexual prejudice is commonly associated to moralistic and religious perceptions of LGBT individuals, modern sexual prejudice is subtler and presumably free from normative pressures (Teney and Subramanian 2010), since sexual prejudice has become normatively proscribed. This implies that the sexual prejudice phenomenon has become increasingly complex (Morrison, Kenny, and Harrington 2005; Walls 2008) and demanding more complex and abridging measures to capture it (Massey 2009). Briefly, the rationale for these changes in research is based on changes in the expression of sexual prejudice, so that more camouflaged and subtle dimensions of this prejudice have emerged.

This argumentation was also used on research about sexual prejudice, and studies that used multidimensional measures of sexual prejudice cover not only the traditional prejudice dimensions concerning tolerance, but also include other measures and sub-scales (Walls 2008). For example, in the case of sexism Glick and Fiske (2001) propose a more benevolent and subtle form of sexism based on protecting and supporting women showing a perception of women as "pure creatures who ought to be protected, supported, and adored and who's love is necessary to make a man complete" (p.109); and a more hostile sexism, mainly focused on traditional dimensions of women devaluation and on the maintenance of traditional gender roles. This points to the fact that sexism is ambivalent and therefore

requires more than one factor to measure its dimensions. Consequently, more complex measurements of sexual prejudice were proposed in order to reflect the changes in Western societies regarding homosexuality (Seidman 2002) and the multiple entanglements between attitudes towards homosexuality and other related systems of values such as pro-gay equality orientation and consciousness of gender normalization (Martinez 2011).

Yet another aspect that should be taken into account regarding modern expressions of sexual prejudice concerns the legal changes of equality of lesbian and gay communities rights, namely the legal right to marry and the explicit prohibition of discrimination based on sexual orientation. Portugal faced significant changes in the past 40 years, after the Carnation Revolution and the ratification of the Democratic Constitution in 1976, namely by enlarging the set of social and civil rights, namely in the case of gender equality. These constitutional principles are however contradicted by the persistence of discriminatory social practices that are legitimized by institutions such as the Catholic Church. Therefore the regulatory influence of the Catholic Church, pivotal during the 48 years of fascism, can partially explain these social practices (Santos, 2012).

In Portugal, homosexuality was criminalized since 1912 until the Penal Code of 1982, when it ceased to be a crime. The accession of Portugal to the EU was instrumental for equality policies. There were significant changes in legislative terms concerning the equality of LG communities (see Oliveira, Costa, and Nogueira 2013). The main legal mechanisms used to produce such a change were the introduction of sexual orientation as one of the constitutionally explicit reasons not to be discriminated against and after that the introduction of laws concerning civil unions (in 2001), same sex marriage (in 2010) and a law on gender identity recognition (in 2011).

These laws entailed an advancement for LGBT rights, but studies on the perceptions of this population concerning heterosexism still identify patterns of felt discrimination and

perceived heterosexism (Nogueira and Oliveira 2010), despite the legal advances (Oliveira, Costa, and Nogueira 2013). As argued by Carneiro and Menezes (2007) and Santos (2012), the landscape of heterosexism in Portugal is contradictory since legal regulations that promote equality co-exist with discriminatory practices in daily life.

In rapidly changing contexts, with such ambivalent coexistence between formal equality and practical discrimination, new measures of sexual prejudice should tap this phenomenon in all its complexity. This is the case we make in this paper, using a multi-dimensional scale of sexual prejudice – Massey's (2009) PPS.

Polymorphous Prejudice and its Predictors

Polymorphous prejudice (PP) is a construct that derives its meaning from the notion of queer consciousness (Massey 2009). Queer consciousness encompasses attitudes that go beyond the traditional normative terms of heterosexism, heterocentrism, or sexual prejudice (Delgado, Cardenas, Estrada, Adaos, Carvajal, Peña, and Villar 2014; Massey 2004). In this sense, Massey (2009) argues that queer conscious individuals reject social norms supporting gender roles, fixed identities, and biological or psychoanalytic explanations for sexual orientation. On the contrary, they support non-essentialist conceptions of sexual orientation, and their political consequences in terms of value differences and diversity (Delgado et al. 2014; Martinez, Barsky, and Singleton 2011). The PP construct transfers these theoretical assumptions into operational definitions within a context where sexual prejudice is increasingly complex and subtle, demanding new measurement paradigms.

Within this new paradigm, Sean Massey (2009) proposed a scale on "Polymorphous Prejudice" (PPS), entailing a more comprehensive way of conceptualizing sexual prejudice, offering a much more complete picture of the relationships between sexual prejudice, egalitarian belief systems, heteronormativity, and perception of progress of sexual minorities.

Indeed, this measure draws from a rationale encompassing not only the legacy of gay and lesbian psychology, but also other propositions more grounded in historical and cultural context and on queer theory.

Seven sub-scales compose the PPS, each pointing to a different and specific aspect of sexual prejudice towards lesbians and gays (LG). These subscales are: (1) Traditional heterosexism, i.e., the evaluation of attitudes towards moral condemnation of homosexuality and that LG rights should not be recognized. (2) Denial of continuous discrimination, measures beliefs that gay and lesbian discrimination does not exist anymore and that the claims of social movements struggling against discrimination are pointless. (3) Aversion towards gays, and (4) Aversion towards lesbians, i.e., the negative affective reactions (e.g., discomfort) towards gays and lesbians. (5) Value gay progress, measuring the attitudes towards social diversity and how this diversity benefits the whole society; (6) Resistance to heteronormativity taps feelings of discomfort with heteronormativity, and a need to resist traditional gender stereotypes; (7) Positive beliefs measures the support for unique consequences derived from the fact of being gay or lesbian in an heteronormative society.

Apart from measuring sexual prejudice against LG individuals with new and multidimensional measurements, it is of extreme importance to analyze the predictors of PP, especially to determine which demographic, ideological or more importantly psychological dimensions better help us understand this multidimensional phenomenon. Indeed, while it is true that equality policies were enforced in some EU countries and in the US, there are still legal discriminations to be tackled in these countries that reinforce discriminatory social practices. As mentioned previously, we can still observe the co-existence of traditional and modern sexual prejudice in these same societies (e.g., Nogueira and Oliveira 2010). In this sense, the study of predictors of sexual prejudice that encompass both forms of prejudice is

beneficial for a full understanding of this phenomenon, as well as to inform practitioners and public policies on how to reduce it.

Demographic and ideological predictors are commonly used in the studies analysing sexual prejudice against LGBT individuals. Indeed, laboratory, public opinion surveys, and questionnaire studies have been showing that individuals with higher levels of sexual prejudice are observed among men more than woman (Morrison and Morrison 2003). Also men normally exhibit more traditional heterosexism (Massey 2009). Regarding educational level, individuals with low levels of education tend to reject more homosexuality than those who are highly educated (Herek 1993; van den Akker, van der Ploeg, and Scheepers 2013), an association also found with older people (Herek 1993). Moreover, individuals with strong religious beliefs or belonging to conservative religious movements, and that attend religious services more often tend to exhibit higher prejudice levels towards LG individuals (Costa, Pereira, and Leal 2015; Ellis, Kitzinger, and Wilson 2002; Herek and Capitanio 1996). In what concerns political ideologies, studies also show an association between a conservative political positioning or right-wing political ideology and prejudice toward LG individuals (Yang 1998; Stones 2006). Inversely, and as reported in the literature, lower levels of sexual prejudice come associated to individuals that have higher contact with gay individuals, such as those reporting having more gay friends or family members (Costa, Pereira, and Leal 2015; Herek and Capitanio 1996; Herek and Gonzalez-Rivera 2006).

Despite the considerable evidence regarding the predictors of sexual prejudice, namely demographic and ideological level variables associated to prejudice towards LG individuals, psychological-level predictors are underreported in the literature opening a gap for the full understanding of this topic. Some exceptions to this *zeitgeist* are the studies on controllability or non-controllability of homosexual orientation (Frias-Navarro, Monterde-i-Bort, Pascual-Soler and Badenes-Ribera 2015; Haider-Markl and Joslyn 2009), and openness to experience

and masculinity (Barron, Struckman-Johnson, Quevillon, and Banka 2008). Indeed, there is a lack of empirical evidence to the predictors that contemplate the perceptions of heterosexual individuals regarding LG individuals. More specifically, we will address in this paper two relevant predictors in this domain: discrimination deservingness and recognition of discrimination against LGs. As pointed by Al Ramiah, Hewstone, Dovidio, and Penner (2010), deservingness is an important issue in the expression of discrimination and in the legitimization of prejudice, based on historical and day-to-day inequalities and social norms (see also, Reyna, Henry, Korfmacher, and Tucker 2005). Accordingly, the more heterosexuals perceive that LGs deserve to be discriminated the more they are likely to be prejudiced against them.

The other predictor – recognition of discrimination – refers to heterosexuals' more or less biased perception that LG individuals are discriminated against. Apart from being an important topic that is profoundly connected to heteronormativity (Roseneil, Crowhurst, Hellesund, Santos, and Stoilova 2015), non-recognition of discrimination is also a relevant and understudied factor in the process of legitimization of prejudice against minorities (for an exception regarding racial prejudice, see Banfield and Dovidio 2013). In this sense, the lack of recognition on behalf of heterosexuals regarding LGs discrimination opens a path for the expression of prejudice against these individuals.

Apart from introducing these two understudied predictors of prejudice against LG individuals, another important gap in the literature refers to the contexts where studies of sexual prejudice are conducted. In fact, most of these studies were conducted in the US, and few analyzed the impact of similar predictors in sexual prejudice expression using European samples. In the present article, we analyze this phenomenon using a sample of Portuguese heterosexual individuals.

Therefore, this article presents a test of the differential importance of predictors such as demographical (e.g., gender and LG friends), ideological (e.g., political positioning) and psychological (e.g., discrimination deservingness) in the expression of PP of heterosexuals vis- \dot{a} -vis LG individuals. A more in-depth analysis will be carried out by testing this differential impact of predictors against the sub-dimensions of the PPS scale. This strategy allows us to analyze the predictors that contribute most to the understanding of this phenomenon and of its multiple dimensions.

Ethical Statement

All the procedures performed in this article involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. Also, the present study was conducted in accordance with the Ethical Guidelines of the host institution. In this sense, data were (1) collected anonymously; (2) did not involve questions about undesirable personal characteristics; (3) did not involve participants from a population of concern; (4) did not involve deception; (5) did not involve invasive measures; (6) did not collect personally identifying information. The study was noninvasive, no deception was created on participants and all data were analysed anonymously. All participants read an informed consent with the description and purpose of the study and was informed that by proceeding they consented to participating, but that they could withdraw at any stage of the study.

Participants

1220 self-reported heterosexual Portuguese speaking respondents participated in the present study, 75.1% Female. Respondents' mean age was 31.6 (SD = 10.31; 6 participants did not reveal their age). Regarding education, the majority of respondents completed a major (58.6%); 27.1% completed a Master's degree or even a PhD, and 14.4% completed basic or secondary school (61 respondents did not reveal their education level, i.e., 5% of the sample). About 60% of respondents are single, and 47% do not have any religious confession (although 43.4% stated that they are Catholic). Concerning political identification, the majority of participants position themselves as left-wing (53.6%), followed by 26.6% positioning themselves in the "center", and to a lesser extent 10.3% respondents declaring that they are right-wing supporters; 4% positioned themselves on extreme left, and 0.5% on extreme right; 61 respondents did not reveal their political identification (5% of total sample).

From this sample, two sub-samples were randomly retrieved (random sampling with replacement). Each of these samples corresponds roughly to 50% of the main sample. Sub-sample 1 (N = 748) was used to analyze the construct validity of the PPS by deploying a principal axis factoring (PAF) analysis. In sub-sample 2 (N = 771), the structure retrieved from the PAF was tested in a confirmatory factor analysis (CFA). These sub-samples were again collapsed in order to conduct the remaining analyses, including the analyses of the predictors of PP.

Procedure

Participants were recruited on social network websites (Facebook®, website of the study) via e-mail, using different mailing lists (e.g., personal mailing lists of the research team). The questionnaire was run on the Internet using Google Docs® platform, and

complied to the basic standards and procedures established in the literature as good-practices for Internet data collection (namely, that they were taking part in a voluntary and confidential self-report survey, and that they could abandon the study at any point by closing the web browser; Barchard and Williams 2008). Participants were provided with an Internet address where they could fill-in the Portuguese version of the PPS (i.e., the criterion variable; Massey 2009) and other measures including sociodemographic characterization measures, as well as remaining variables to be used as predictors. At the beginning of the questionnaire, participants were provided with an informed consent and they were also guaranteed full anonymity and confidentiality of the data collection process. In the end, participants were provided with a debriefing text and thanked. Repeated responding was checked by verifying that single Internet Protocol (IP) addresses were not associated with more than one questionnaire (Gosling, Vazire, Srivastava, and John 2004).

Predictors and criterion variable

In order to analyze the determinants underlying the expression of PP against LG individuals, we chose a number of variables regarding their theoretical relevance and their proven association to LG prejudice in previous studies (cf. Herek 2000; Delgado et al. 2014). We classified them in different groups: demographic – such as age, education (1 = primary through secondary school; 2 = major or graduation; 3 = MSc. or PhD); LG friends (1 = yes, 2 = no), and gender (1 = male; 2 = female); ideological – political positioning and religion; and psychological – LG discrimination recognition and LG discrimination deservedness. Regarding political positioning, participants were asked about their political positioning using a scale of 5 points that ranged from "1 = extreme right" to "5 = extreme left"; all points of the scale were anchored – "2 = right", "3 = center", "4 = left". The variable religion asked participants if they were "Catholic", "Christian, non-Catholic", "without religion" or "other

religions". For regression analyses purpose, this variables was dummy coded as 1 = "other religions", 2 = "Catholic").

In order to measure LG discrimination recognition we asked participants "From the following groups, please identify the ones that you consider that are discriminated against using a scale ranging from 1 = Not discriminated at all to 7 = Very much discriminated" (examples of target groups evaluated: lesbians, gays, transsexuals, women, men, unemployed, gypsies). Finally, to assess LG discrimination deservedness, participants were asked to rate the following item "From the following groups, please refer those that deserve being target of discrimination", using a scale ranging from 1 = deserve being discriminated to 7 = do not deserve being discriminated (the same target groups of the previous question were evaluated in this question). Only ratings regarding Lesbian and Gay targets were retained for further analyses.

Massey's (2009) PPS (our criterion variable) is originally composed by 70 items measuring different dimensions of expressions of prejudice towards LG individuals. Massey (2009) reports construct validity and adequate reliability of the scale (test-retest reliability values of the scale's factors ranging from .67 to .93). All items are rated on a 5-point Likert-type scale ranging from 1 = "totally disagree" to 5 = "totally agree". 19 items measure traditional heterosexism, i.e., the evaluation of LG individuals as immoral, sinful or perverted, and the denial of certain privileges (e.g., "Male homosexuality is a perversion"; Cronbach alpha = .95); 9 items measure the denial of continued discrimination (e.g., "Most lesbians and gay men are no longer discriminated against"; Cronbach alpha = .83); 16 items measure aversion toward gay men and lesbians (8 items each dimension) (e.g. "I'm uncomfortable when gay men act feminine"); 8 items measure value attributed to gay progress (e.g., "I see lesbian and gay movement as a positive thing"; Cronbach alpha = .94); 8 items measure resistance to heteronormativity (e.g., "I feel restricted by the sexual rules and

norms of society"; Cronbach alpha = .90); and finally 10 items measure general positive beliefs (e.g., "Straight men have a lot to learn from gay men about being friends with women"; Cronbach alpha = .86).

All 70 items of the PPS were submitted to a translation – back-translation process. Items were translated to Portuguese by a team of Psychologists and disagreements were solved through discussion (95% level of agreement reached). A Portuguese native speaker with residence in the UK made the back-translation of the Portuguese items into the original language (English). Final and original items were compared and discrepancies were adjusted for convergence with original scale items.

Results

Construct Validation of Massey's (2009) Polymorphous Prejudice Scale

In order to determine the factorial structure of the Portuguese version of Massey's PPS scale using sub-sample 1, PAF with *promax* rotation were run using the its 70 items. All items were linearized previously to the PAF analyses by calculating the natural logarithm of each participant score on each item. This allowed us to smooth skewed distributions, specifically in items more prone to socially desirable answers. PAF extraction method was preferred, since it is especially adequate when normal distribution of data cannot be guaranteed (Costello & Osborne, 2005). *Promax* rotation was chosen since it allows factors to be correlated, which is the case of the PPS (cf. Massey, 2009), and has been pointed as a preferable method of factors' rotation in the literature (Fabrigar, Wegener, MacCallum, & Strahan, 1999).

The final solution obtained from these analyses yields a six-factor structure integrating 39 of the original 70 items (KMO = .93), and explaining 56.96% of total variance (see Table

1 for a detailed description of factor loadings, eigenvalues and reliability coefficients). These six factors were retained through the application of the Kaiser rule (i.e., all factors retained had eigenvalues greater than 1.00). All factors present adequate Cronbach alpha coefficients (see Table 1).

Insert Table 1 here

Notwithstanding the relative mortality of the original scale items in our analysis, it should be noted that our final solution closely follows the original solution proposed by Massey, except for "Aversion Toward Gay Men" and "Aversion Toward Lesbians" factors that now appear collapsed in a sole factor (factor 6; see Table 1). Item mortality was mainly due to items cross-loadings in different factors, and items that did not significantly loaded on any specific factor. However, and compared to the original scale estimates, the items retained in the present solution represent the core of the construct underlying each factor, and more than 50% of the original items were retained.

Following the results of the PAF, we ran a CFA testing the 6-factor structure of the 39 PPS items using sub-sample 2 and Mplus 7.0 software (Muthén and Muthén 2012). Different models of the PPS structure were tested and fit indexes were obtained: a correlated model (our hypothesized model), a second-order model with a general PP dimension, and a uncorrelated model first-order model. The results of these analyses are presented in table 2 and described below.

The necessary constraints for model identification and specification were applied, i.e. one indicator path loading of the latent factor was set to 1, and all measurement errors were set to 1. By the same token, in the model comprising a second-order factor, the unique variances associated to first-order factors were constrained to 1 (cf. Byrne 2012). Both relative and absolute goodness of fit indexes of the models were obtained: the chi-square fit

index (χ^2); the relative chi-square fit index (χ^2 /df); Tucker-Lewis index (TLI; Tucker and Lewis 1973); the comparative fit index (CFI; Bentler 1990); and the root mean square error of approximation (RMSEA; Browne and Cudeck 1993). The results of these analyses are presented in table 2.

Insert Table 2 here

Based on the standards established in the literature for fit indexes (i.e., CFI and TLI indices greater than .90-.95; RMSEA lower than .08-.05; SRMR lower than .10-.08; Bentler 1990; Browne and Cudeck 1989; Hu and Bentler 1999; Jöreskog and Sörbom 1984; Stieger 1990), and as expected, the model proposing a correlated 6-factor structure of PP proved the best model (see Figure 1). Indeed, an examination of both absolute and relative fit indexes shows that the model kept within standards (e.g., Bentler 1990).

Insert Figure 1 here

As presented in Figure 1, the standardized regression weights of the paths to the latent factor were on average moderate to high (F1 ranging from $\lambda = .63$ to $\lambda = .87$; F2 ranging from $\lambda = .43$ to $\lambda = .68$; F3 ranging from $\lambda = .58$ to $\lambda = .79$; F4 ranging from $\lambda = .54$ to $\lambda = .75$; F5 ranging from $\lambda = .49$ to $\lambda = .76$; F6 ranging from $\lambda = .60$ to $\lambda = .79$), as were the factor intercorrelations ($\phi = -.22$ to $\phi = .67$; correlations between F1 and F2, $\phi = -.07$, F2 and F3, $\phi = .07$, and F2 and F4, $\phi = .02$, were non-significant).

The remaining two models proved inferior quality, as it can be ascertained by the absolute and relative goodness of fit indexes presented in table 2. Note that in the second-order model, the correlation between the "positive beliefs" factor and the PP second-order factor was non-significant rendering the model theoretically inadequate ($\phi = -.06$, p = .28).

Expressions of polymorphous prejudice. Using now the whole sample (N = 1220), we checked for differences in participants mean scores in each PPS sub-scale. The ANOVA results showed that participants globally evaluate each dimension differently, F(5,6095) = 2339.41; p < .001, $\eta_p^2 = .66$. In order to analyze how the mean score of participants in each factor is positioned by reference to the factors' underlying rating scale, one-sample *t*-tests against the mid-point of the scale (i.e., value 3) were performed. Results show that in the Positive Beliefs (M = 3.64, SD = .79; subscale with reversed scores), Resist Heteronormativity (M = 3.77, SD = 1.03; subscale with reversed scores), and Denial of Continued Discrimination (M = 3.41, SD = .41) factors participants mean scores were all above the mid-point of the scale; in the Traditional Heterosexism (M = 1.32, SD = .59), Value Gay Progress (M = 2.17, SD = .80), Aversion Toward Gay Men / Lesbians (M = 2.06, SD = .94), participant mean scores were all below the scale's mid-point (all p < .01).

In this sense, results from one sample *t*-tests show that participants reveal more "subtle" PP regarding LG individuals, showing higher scores on positive beliefs, resist heteronormativity, and denial of continued discrimination. This means that participants have more negative beliefs towards LG individuals, are more heteronormative, and deny more that LG individuals are discriminated against. On the contrary, low levels of "blatant" PP were observed as implied by participants' low scores on Traditional Heterosexism, and Aversion Toward Gay Men/Lesbians factors. This means that participants generally express less traditional forms of prejudice against LG individuals. However, one exception should be made regarding the Value Gay Progress sub-scale. Indeed, in this subtler dimension of PP participants scored lower showing more pro-diversity beliefs.

Predictors of General Polymorphous Prejudice towards LG individuals

The data analysis strategy used in the present article aims at investigating the contribution of different groups of variables in the prediction of general PP against LG individuals, as well as the prediction of its sub-dimensions. More specifically, we aim at analyzing the importance of psychological-level variables (i.e., LG discrimination recognition and LG discrimination deservedness) in the prediction of PP while controlling for the remaining groups of variables. As these variables are entered hierarchically in the regression successive models, their contribution to the increment of explained variance of this criterion variable is a strong test of their predictive power. A correlation matrix of PPS total and sub-dimensions scores and predictor variables is presented in table 3.

Insert table 3 here

The groups of variables described above were entered hierarchically in different regression steps. Thus, in a first step demographic variables were entered, and their predicting value was tested against PP. In the second step, ideological variables were added, while in the third step psychological variables were added to the other two groups of variables. Variance inflation factors were calculated in every step of the regression models to account for possible multicolinearity between predictors (O'Brien 2007). A summary of the hierarchical regression for the total score of PP is presented in table 4¹.

¹ Previous hierarchical regression analyses were conducted as to determine if specific interaction terms between the sociodemographic and ideological variables and psychological variables would increase the explained variance of PP. These interaction terms were introduced as a 4th step in these analyses. Also, and to avoid issues of multicolinearity that are common when introducing interaction terms in multiple regression (cf., Draper and Smith 1966), orthogonalized predictors were built following the Gram-Schmidt procedure as described in Draper and Smith (1966; for an illustration, see Burril 2006). Briefly this procedure suggests building an interaction term that is only composed by the residual component of the interaction; this interaction term is in turn regressed on the dependent variable. The following interaction terms were regressed on the PP total score, as well as on its dimensions, all yielding non-significant results: discrimination deservingness x gender; discrimination deservingness x age; discrimination deservingness x education; discrimination deservingness x religion; discrimination recognition x gender; discrimination recognition x age; discrimination recognition x education;

The results presented in table 4 generally show that the introduction of psychologicallevel predictors, i.e., discrimination recognition against LG individuals and LG discrimination deservingness, contributes to the highest increase in the hierarchical model explained variance. In this sense, the more participants believe that LG individuals deserve to be discriminated the more they tend to score higher on PP. On the contrary, the fewer participants recognize that LG individuals are actually discriminated the more they tend to express PP.

Nevertheless, and looking more closely to the hierarchical regression results presented in table 4, we can see that scores in PP come increased in male participants, in participants that have less LG friends, that position themselves as right-wing, and that are Catholics. The results also show that age and education were not found as significant predictors of participants scores on PP.

Insert table 5 around here

Switching now to a more detailed analysis, specifically at the level of the 6 sub-scales underlying the PP construct, the different hierarchical regressions ran on each of these subdimensions show a clearer picture regarding the predictors of this type of prejudice. In fact, table 5 shows that more "blatant" forms of PP tend to share the same sets of predictors and a similar pattern of increase in the explained variance of the criterion variable.

In this sense, the prediction of scores in the sub-scales of "traditional heterosexism" and "aversion towards gay men / lesbians" benefits from the inclusion of the psychological variables. Indeed, the explained variance of the regression models reaches a maximum value

discrimination recognition x LG friends; discrimination recognition x political positioning; discrimination recognition x religion.

when these factors are added to the equations. In this sense, participants that believe that LG individuals deserve to be discriminated and that do not recognize that they are discriminated against, exhibit higher scores in these sub-scales.

Moreover, participants scores in these sub-scales are also impacted by other predictors of ideological and sociodemographic nature. In this sense, male participants, with less LG friends, right-wing, and Catholics do exhibit more traditional heterosexism and aversion towards gay men / lesbians. Note that, regarding this last sub-scale participants' level of education also predicted their scores of aversion. Consequently, participants with lower levels of education exhibited more aversion than participants with higher levels of education.

Turning now to more "subtle" forms of prejudice against LG individuals, we can observe in table 5 that "positive beliefs", "resist heteronormativity", and "denial of continued discrimination" sub-scales share similar predictors and similar increases in explained variance. However, these more "subtle" dimensions of PP do not benefit much from the introduction of the ideological or psychological predictors, over and above the sociodemographic ones.

Regarding the positive beliefs sub-scale, we can see that younger participants, with higher levels of education, non-Catholics, and that do not recognize that LG individuals are discriminated against are the ones who exhibit higher denial of expression of positive beliefs. In the same vein, participants that resist less to heteronormativity are the ones that expressed having less LG friends, that position themselves politically as more conservatives (rightwingers), that are Catholics and that do not recognize that LG individuals are discriminated against. Finally, participants with higher levels of education, right-wing, Catholics, and that do not recognize that LGs are discriminated against are among those that deny more the continued discrimination of LG individuals.

As we previously noted, the "value gay progress" sub-scale appeared once again as a special case in our analyses. Indeed, being a more "subtle" form expressing prejudice against LG individuals, the predictors of this particular sub-scale as well as the increase in the explained variance obtained at the different steps of the hierarchical regression approach it to the pattern of results obtained for the more "open" or "blatant" prejudice sub-scales. The prediction of scores in this sub-scale benefits much from the introduction of the psychological predictors. In fact, the more participants tended to think that LG individuals deserve to be discriminated and the more they do not recognize that they are, the higher the devaluation of gay progress. Moreover, other predictors help explaining the scores in this particular sub-scale: participants with less LG friends, right-wing, and Catholics are those that devalue this particular dimension of the PPS.

Discussion

In this article we presented the social and psychological determinants of PP against Portuguese LG individuals. We also presented the construct validation of Massey (2009) PPS using a sample of Portuguese heterosexuals. In a general way, the results obtained add empirical evidence to the existing literature on the predictors of sexual prejudice against LG individuals, and shed light on the explanation and comprehension of this phenomenon.

As we pointed out in the introduction, research on sexual prejudice towards LG individuals has evolved from studies using unidimensional measurement instruments to multidimensional ones. In fact, these changes reflect a zeitgeist of changes operated in Western societies concerning LG individuals (Seidman 2002), especially in terms of public visibility and in legal changes. Also, research has been pointing to multiple entanglements between attitudes towards homosexuals and other value systems, such as pro-gay equality

and gender normalization (Martinez 2011). All these aspects called for a clear change in the way sexual prejudice attitudes towards LG individuals are measured. Massey (2009) PPS is one of the efforts made at the measurement level to surpass this methodological vacuum and to provide an adequate and up-to-date measurement instrument of this type of sexual prejudice attitudes.

As such, the adaptation and validation of this scale to the Portuguese context, as well as the analysis of the predictors of PP, seemed a highly relevant objective, since the recent significant changes operated in the panorama of equality rights of the LG community in Portugal (Oliveira, Costa, and Nogueira 2013), such as the introduction of same-sex marriage law (Oliveira, Lopes, Cameira, and Nogueira 2014)

The results presented in this article stem from two types of analyses. We started by adapting Massey's (2009) PPS and determining its construct validity on a sample of Portuguese heterosexuals. PAF analyses presented a six-factor structure similar to the one obtained in Massey's original study. However, some of the original items were lost (less than 50%), and the original dimensions of aversion towards lesbians and gay men were collapsed in a sole factor in our analysis. Nonetheless, the original structure of Massey's (2009) PPS was maintained and the core meaning of the dimensions and of the polymorphous prejudice construct remained intact. At the end, our adapted version of the PPS results in a shorter scale, allowing researchers to measure polymorphous prejudice in a more parsimonious way.

This six-factor solution was further tested by means of a CFA. From the three models tested, the correlated 6-factor structure proved the model with highest fits. This means that although the PPS is a multidimensional scale, its sub-scales are relatively correlated and share variance of a common underlying construct, namely prejudice towards LG individuals.

After this we continued our analysis by showing the predictors of PP towards LG individuals. In this sense, the results from the hierarchical regressions deployed show, in a

general way, that male participants, with less LG friends, that position themselves as rightwing, and that are Catholic, are the ones exhibiting higher PP. These results back up other previously published empirical evidence (Herek 1993; Herek and Capitanio 1996; Herek and Gonzalez-Rivera 2006; Yang 1998).

However, these regression models also showed that the introduction of psychological predictors (e.g., LG discrimination deservingness) contribute more to the explained variance of PP, above and beyond the remaining predictors added in these regression models. In this sense, the more participants think that LG people deserve to be discriminated, the more they tend to express PP. Inversely, the less they recognize that LG's are actually discriminated the more they tend to express this type of prejudice. These results are new and signal the importance of discrimination deservingness and discrimination recognition in the explanation of polymorphous prejudice against LG individuals. Indeed, the importance of the psychological-level predictors has been outlined in numerous studies on prejudice (e.g., racism; Vala, Brito, & Lopes, 1999), but less often demonstrated, as far as we know, in the domain of sexual prejudice.

Also of added interest are the results from the different hierarchical regression deployed with the PPS sub-scales. Indeed, more "blatant" prejudice sub-scales (i.e., "traditional heterosexism" and "aversion towards gay men/lesbians") share the same set of predictors, and scores in these sub-scales are mostly impacted by psychological-level factors. Notwithstanding, these "blatant" sub-scales are also predicted by sociodemographic and ideological factors.

A completely different picture was obtained when deploying the regression models predicting more "subtle" sub-scales (i.e., "positive beliefs", "resist heteronormativity", and "denial of continued discrimination"). In this case, the ideological or psychological-level

factors do not add much to the explained variance of these sub-scales above and beyond that obtained with the sociodemographic set of predictors.

These two patterns of results are extremely interesting since more blatant sub-scales are associated to a more complex set of variables, while more subtle subscales are mainly associated to sociodemographic predictors. In reality, studies with other forms of prejudice tend to show a reversed pattern (e.g., Vala, Brito, & Lopes, 1999), where blatant scales are mainly associated with sociodemographic variables, and subtle scales to ideological and psychological ones. The nature of the subtle subscales of the PPS might help us understand this reversed pattern. On the one hand, the expression of more positive beliefs towards LG's, and the recognition that they are discriminated against and that society continually imposes an heterosexual normative context might be subjects that are only cognitively available to participants depending on age, educational level, friendship with LG's, and even their political or religious positioning. On the other hand, more blatant forms of polymorphous prejudice might be mainly anchored on participants' perceptions of justice and equity between social groups (deservingness) and the lack of recognition that LG's are targets of prejudice or stigmatization.

The only exception to this pattern of results was the "value gay progress" sub-scale. Although being a more "subtle" subscale in its nature, the set of predictors revealed by the regression models approach it to the ones obtained with the more "blatant" subscales. Indeed, respondents that tended to think that LG people deserve discrimination, and that do not recognize that LG's are actually discriminated, were among the ones that devalued more gay progress. Indeed, the wordings of some of the items of this particular subscale serve both purposes of blatant and subtle prejudice, i.e., raising sensitive issues for both types of prejudiced individuals. In this sense, it is interesting to note that the score on this particular dimension was significantly below the mid-point of the scale (indicating less support of gay progress) hand in hand with the blatant dimensions of the PPS.

These results shed new empirical evidence and stress the importance of studying the phenomenon of LG prejudice in a multidimensional way, since the results obtained with the total score of PP do not enable us to obtain an accurate and overall picture. Indeed, general PP comes qualified by a set of predictors that do not differentiate it from other forms of prejudice, like prejudice against black individuals (Vala, Brito, and Lopes 1999). But a totally different picture is obtained when analyzing PPS subscales. In terms of its predictors, more "blatant" subscales approach the pattern of results obtained with the total score of the PPS. But regarding more "subtle" subscales, we can see that sociodemographic predictors help us accounting most of the construct that underlies each of these sub-scales. Briefly, these results support the contemporary argumentation regarding the need of more complex and multidimensional measures of sexual prejudice (Hegarty and Massey 2006), namely instruments that help taping not only attitudes towards homosexuality, but also values and other belief systems (Martinez 2011).

The results presented in this article also provide evidence helping the development of practical measures to fight prejudice against LG individuals. Indeed, different types of actions might be taken to alert individuals of their prejudiced opinions regarding LGB individuals, depending on the more or less "blatant" or "subtle" nature of their PP. In this sense, anti-prejudice campaigns could be targeted to specific types of individuals with the knowledge acquired from the different predictors used in the present study. Also, professionals working in the field of sexual prejudice or stigma can tailor specific information to different target individuals during consciousness raising campaigns.

Limitations

Our study is not without limitations. Firstly, some psychological level predictors were not covered by our study, such as beliefs about homosexuality controllability, openness to change, biographical variables, and personality traits. In future studies, the role of these variables predicting LG prejudice could be analysed. Secondly, our data collection method (web-surveys) might have raised issues of participants' confidentiality or privacy. There are well known limitations regarding web-surveys data collection, especially in terms of confidentiality. However, in our questionnaire participants were never asked to disclose personal or potentially identifiable information. Moreover, web-surveys are useful for collecting data on socially sensitive issues (Couper, 2000) like the one we are addressing in the present article. Thirdly, there are limitations in the sample used regarding the high level of education of participants (the majority with a university degree), normally exhibiting lower levels of prejudice when contrasted with the general population. To overcome this possible bias, in future studies participants with different levels of education should be inquired.

Future Studies and Applications

Apart from the suggestion already outlined above, future lines of research should explore even further the predictors of PP, namely by adding more psychological-level predictors. For example, predictors such as perceived relative deprivation and emotions should be added to the regression models in order to analyze their utility in the amount of variance obtained for explaining this phenomenon. Also the inclusion of macro-social and political scenarios in the general framework of theories of sexual prejudice, such as neoliberalism, economic situation and geo-political situation could be useful to situate and contextualize modern forms of prejudice against LG individuals. Moreover, the analysis of polymorphous prejudice in other stigmatized populations, such as bisexuals could provide us with a greater understanding of the sexual prejudice phenomenon and enable comparison across groups with different types of stigma attached.

To sum up, the psychometric evidence presented in this article adds up to the one already obtained concerning the psychometric qualities of Massey (2009) PPS, allowing it to be used as a good instrument both in research and applied areas. Moreover, the results obtained with this scale, as well as its predictors, add new evidence to the literature on sexual prejudice, specifically prejudice against LG individuals. More importantly, our results also help us constructing more focalized intervention programs aiming at reducing prejudice against LG individuals, and as such can be very useful for those who are directly working in the field with this type of phenomena.

References

- Al Ramiah, A., Hewstone, M., Dovidio, J. F., Penner, L. A. (2010). The social psychology of discrimination: Theory, measurement and consequences. In L. Bond, F. McGinnity, & H. Russell (Eds.), *Making equality count: Irish and international research measuring equality and discrimination* (pp. 84-112). Dublin, Ireland: The Liffey Press.
- van den Akker, H., van der Ploeg, R., & Scheepers, P. (2013). Disapproval of homosexuality: Comparative research on individual and national determinants of disapproval of homosexuality in 20 European countries. *International Journal of Public Opinion Research*, 25, 64-86. doi: 10.1093/ijpor/edr058
- Banfield, J. C., & Dovidio, J. F. (2013). White's perceptions of discrimination against blacks:
 The influence of common identity. *Journal of Experimental Social Psychology*, 49, 833-841. doi:10.1016/j.jesp.2013.04.008
- Barchard, K.A., & Williams, J. (2008). Practical advice for conducting ethical online
 experiments and surveys for United States psychologists. *Behavior Research Methods*, 40, 1111-1128. doi: 10.3758/BRM.40.4.1111
- Barron, J. M., Struckman-Johnson, C., Quevillon, R., & Banka, S. R. (2008). Heterosexual men's attitudes toward gay men: A hierarchical model including masculinity, openness, and theoretical explanations. *Psychology of Men & Masculinity*, 9, 154-166. doi: 10.1037/1524-9220.9.3.154
- Basow, S. A., & Johnson, K. (2000). Predictors of homophobia in female college students. *Sex Roles*, 42, 391-404. doi: 10.1023/A:1007098221316

Bentler, P. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, *107*, 238-246. doi: 10.1037/0033-2909.107.2.238

Browne, M., & Cudeck, R. (1989). Single sample cross-validation indices for covariance structures. *Multivariate Behavioral Research*, 24, 445-455. doi: 10.1207/s15327906mbr2404 4

Burril, D. F. (2006). *Modelling and interpreting interactions in multiple regression*. Retrieved from

http://www.minitab.com/uploadedFiles/Content/News/Published_Articles/interactions_in_ multiple_regression.pdf

Butler, J. (2004). Undoing gender. New York: Routledge.

- Byrne, B. (2012). Structural equation modelling with Mplus: Basic concepts, applications, and programming. New York, NY: Routledge.
- Cárdenas, M. & Barrientos, J. (2008). The attitudes toward lesbians and gay men scale (ATLG): Adaptation and testing the reliability and validity in Chile. *Journal of Sex Research*, 45, 140-149. doi: 10.1080/00224490801987424
- Carneiro, N. S., & Menezes, I. (2007). From an oppressed citizenship to affirmative identities: Lesbian and gay political participation in Portugal. *Journal of Homosexuality*, 53, 65-82. doi: 10.1300/J082v53n03_05
- Clarke, V., Ellis, S., Peel, E., & Riggs, D. (2010) Lesbian, gay, bisexual, trans and queer psychology: An introduction. Cambridge: Cambridge University Press.
- Costa, P. A., Pereira, H., & Leal, I. (2105). "The contact hypothesis" and attitudes toward same-sex parenting. *Sexuality Research and Social Policy*, *12*, 125-136. doi: 10.1007/s/13178-014-0171-8

Couper, M. P. (2000). Web surveys: A review of issues and approaches. *Public Opinion Quarterly*, 64, 464-494. doi: 10.1086/318641

Delgado, J. B., Cardenas, M., Estrada, C., Adaos, R., Carvajal, J., Peña, M., & Villar, J. (2014). Adaptation and validation of the polymorphous prejudice scale (Pps) – a short

form in a sample of heterosexual Chilean college students. International Journal of Social Health. doi: 10.1080/19317611.2014.957795

Draper, N., & Smith, H. (1966). Applied regression analysis. New York: John Wiley & Sons.

- Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., Strahan, E. J. (1999). Psychological Methods, 4, 272-29. doi: 10.1037/1082-989X.4.3.272
- Frias-Navarro, D., Monterde-i-Bort, H., Pascual Soler, M., & Badenes Ribera, L. (2015). Etiology of homosexuality and attitudes toward same-sex parenting: Results from a randomized study. *Journal of Sex Research*, 52, 151-161. doi: 10.1080/00224499.2013.802757
- Ellis, S. J., Kitzinger, C., & Wilson, S. (2002). Attitudes towards lesbians and gay men and support for lesbian and gay human rights among psychology students. *Journal of Homosexuality*, 44, 121-138. doi: 10.1300/J082v44n01_07
- Glick, P., & Fiske, S. T. (2001). An ambivalent alliance: Hostile and benevolent sexism as complementary justifications for gender inequality. *American Psychologist*, 56, 109-118. doi: 10.1037/0003-066X.56.2.109
- Gosling, S. D., Vazire, S., Srivastava, S., & John, O. P. (2004). Should we trust web-based studies? A comparative analysis of six preconceptions about Internet questionnaires. *American Psychologist*, 59, 93-104. doi: 10.1037/0003-066X.59.2.93
- Haider-Markl, D. P., & Joslyn, M. R. (2008). Beliefs about the origins of homosexuality and support for gay rights. *Public Opinion Quarterly*, 72, 291-310. doi: 10.1093/poq/nfn015
- Hegarty, P., & Massey, S. (2006). Anti-homosexual prejudice...as opposed to what? Queer theory and the social psychology of anti-homosexual prejudice. *Journal of Homosexuality*, 52, 47-71. doi:10.1300/J082v52n01_03

- Herek, G. M. (1984). Beyond "homophobia": A social psychological perspective on attitudes toward lesbians and gay men. *Journal of Homosexuality*, 10, 1-21. doi:10.1300/J082v10n01 01
- Herek, G. M. (1993). Documenting prejudice against lesbians and gay men on campus: The Yale sexual orientation survey. *Journal of Homosexuality*, 25, 15-30. doi:10.1300/J082v25n04_02
- Herek, G. M. (2000). The psychology of sexual prejudice. *Current Directions in Psychological Science*, 9, 19-22. doi: 10.1111/1467-8721.00051
- Herek, G. M. (2004). Beyond "homophobia": Thinking about sexual stigma and prejudice in the twenty-first century. *Sexuality Research and Social Policy*, *1*, 6-24.
- Herek, G. M., & Capitanio, J. P. (1996). "Some of my best friends": Intergroup contact, concealable stigma, and heterosexuals' attitudes toward gay men and lesbians. *Personality* and Social Psychology Bulletin, 22, 412-424.
- Herek, G. M., & Gonzalez-Rivera, M. (2006). Attitudes toward homosexuality among U.S. residents of Mexican descent. *Journal of Sex Research*, *43*, 122-135.
- Herek, G. M. (2009). Sexual stigma and sexual prejudice in United States: A conceptual framework. In D. A. Hope (Ed.), *Nebraska Symposium on Motivation: Vol. 54*. *Contemporary perspectives on lesbian, gay, and bisexual identities* (pp. 65-111). New York: Springer. doi: 10.1007/978-0-387-09556-1
- Herek, G. M., & McLemore, K. A. (2013). Sexual prejudice. *Annual Review of Psychology*, 64, 309-333. doi: 10.1146/annurev-psych-113011-143826.

Jöreskog, K. G., & Sörbom, D. (1984). *LISREL 6: User's guide*. IN: Scientific Software International.

- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. Structural Equation Modeling: A Multidisciplinary Journal, 6, 1-55. doi: 10.1080/10705519909540118
- Kaiser, H. (1960). The application of electronic computers to factor analysis. *Educational and Psychological Measurement*, 20, 141-151.
- Kitzinger, J. (1999). The ultimate neighbor from hell: Media framing of pedophiles. In B.Franklin (Ed.), Social policy, the media and misrepresentation (pp. 207-221). London: Routledge.
- Lemm, K. M. (2006). Positive associations among interpersonal contact, motivation, and implicit and explicit attitudes toward gay men. *Journal of Homosexuality*, *51*, 79-99.
- Martinez, P. (2011). A modern conceptualization of sexual prejudice for social work educators. *Social Work Education: The International Journal*, *30*, 558-570
- Martinez, P., Barsky, A., & Singleton, S. (2011). Exploring queer consciousness among social workers. *Journal of Gay and Lesbian Social Services*, 23, 296-315.
- Massey, S. G. (2009). Polymorphous prejudice: Liberating the measurement of heterosexuals' attitudes toward lesbians and gay men. *Journal of Homosexuality*, 56, 147-172.
- 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.
- Morrison, M. A., & Morrison, T. G. (2003). Development and validation of a scale measuring modern prejudice toward gay men and lesbian women. *Journal of Homosexuality*, 43, 15-37.

- Muthén, L. K., & Muthén, B. O. (2012). Mplus user's guide. Los Angeles, CA: Muthén & Muthén.
- Nogueira, C., & Oliveira, J. M. (2010). *Estudo sobre a discriminação em função da orientação sexual e da identidade de género* [A study on discrimination as a function of sexual orientation and gender identity]. Lisboa: CIG.
- O'Brien, R. M. (2007). A causation regarding rules of thumb for variance inflation factors. *Quality & Quantity*, *41*, 673-690.
- Oliveira, J. M., Costa, C., & Nogueira, C. (2013). The workings of homonormativity: Lesbian, gay, bisexual, and queer discourses on discrimination and public displays of affections in Portugal. *Journal of Homosexuality*, 60, 1475-1493.
- Oliveira, J. M., Lopes, D., Cameira, M., & Nogueira, C. (2014). Attitudes towards same-sex marriage in Portugal: Predictors and scale validation. *The Spanish Journal of Psychology*, *17*, E93.
- Reyna, C., Henry, P. J., Korfmacher, W., & Tucker, A. (2005). Examining the principles in principled conservatism: The role of responsibility stereotypes as cues for deservingness in racial policy decisions. *Journal of Personality and Social Psychology*, 90, 109-128.
- Roseneli, S., Crowhurst, I, Hellesund, T., Santos, A. C., & Stoilova, M. (2013). Changing landscapes of heteronormativity: The regulation and normalization of same-sex sexualities in Europe. *Social Politics*, *20*, 165-199. doi: 10.1093/sp/jxt006
- Santos, A. C. (2012). Social movements and sexual citizenship in Southern Europe. Basingstoke: Palgrave-Macmillan.

Seidman, S. (2002). Beyond the closet: The transformation of gay and lesbian life. London: Routledge.

- Steiger, J. H. (1990). Structural model evaluation and modification: An interval estimation approach. *Multivariate Behavioral Research*, 25, 173–180. doi: 10.1207/s15327906mbr2502 4
- Stones, C. R. (2006). Antigay prejudice among heterosexual males: Right-wing authoritarianism as a stronger predictor than social-dominances orientation and heterosexual identity. *Social Behavior and Personality*, *34*, 1137-1150.
- Stotzer, R. L. (2009). Straight allies: Supportive attitudes toward lesbians, gay men, and bisexuals in a college sample. *Sex Roles*, *60*, 67-80. doi: 10.1007/s11199-008-9508-1
- Teney, C., & Subramanian, S. V. (2010). Attitudes towards homosexuals among youth in multiethnic Brussels. *Cross-Cultural Research*, 44, 151-173. doi: 10.1177/1069397109357136
- Tucker, L. R., & Lewis, C. (1973). A reliability coefficient for maximum likelihood factor analysis. Psychometrika, 38, 1-10. doi: 10.1007/BF02291170
- Vala, J., Brito, R., & Lopes, D. (1999). Expressões dos racismos em Portugal [Expressions of racisms in Portugal]. Lisboa: Imprensa de Ciências Sociais.
- Vincent, W., Parrott, D. J., & Peterson, J. L. (2011). Combined effects of masculine gender role stress and sexual prejudice on anger and aggression toward gay men. *Journal of Applied Social Psychology*, 41, 1237-1257. doi: 10.1111/j.1559-1816.2011.00755.x
- Walls, N. E. (2008). Toward a multidimensional understanding of heterosexism: The changing nature of prejudice. *Journal of Homosexuality*, 55, 20-70. doi: 10.1080/00918360802129287
- Warner, M. (1993). Fear of a queer planet: Queer politics and social theory. Minneapolis:University of Minnesota Press.

Weinberg, G. (1972). Society and the healthy homosexual. New York: St. Martin's Press.

Yang, A. S. (1998) From wrongs to rights: Public opinion on gay and lesbian Americans.

Washington, DC: Policy Institute of the National Gay and Lesbian Task Force.

Table 1: Principal axis factoring analysis of the PPS (*promax* rotation) and internal reliability of the scale's dimensions.

	EC.
Dimensions and items F1 F2 F3 F4 F5	F6
F1 Traditional Heterosexism (eigenvalue = 10.09; alpha = .94):	
1. Male homosexuality is a perversion 87 .03 .02 03 02	01
3. Lesbians are sick .82 .05 .010214	.05
2. Female homosexuality is a threat to many of our basic social.01.01.03.02.03	08
institutions	
7. Homosexual behavior between two men is just plain wrong 73 02 .04 .02 .07	.09
6. The growing number of lesbians indicates a decline in our society's .76 01 .0206 .03	01
morals	
4. Female homosexuality is detrimental to society because it breaks .80 0506 .01 .03	16
down the natural division between sexes	
5. Female homosexuality is a sin .76 .0000305 .02	08
9. I think male homosexuals are disgusting .73 .0901 .0110	.16
8. Female homosexuality is an inferior form of sexuality .74 02 02 05 - 05	003
10. If two people really love each other, then it shouldn't matter whether .6702 .02 .03 .22	09
they are a woman and a man two women or two men	
11 Male homosexuals should not be allowed to teach in school $58 - 04 - 04 - 04$	02
12 The idea of male homosexual marriage seems ridiculous to me 53 01 004 - 08 21	07
13. If a man has homosevual feelings be should do everything be can to $54 - 03 - 05 - 02 - 08$	13
oversome them	.15
E2 Desitive Deliafe (signaryous = 4.26 , slube = 92):	
F2 Positive Beners (eigenvalue = 4.20; alpha = $.35$):	07
2. Gay men are more emotionally available than are neterosexual men 04 03 04 03 02	07
1. Gay men are more creative than heterosexual men* 05 $.71$ 04 05 06	.0/
3. Being gay can make a man more compassionate*10 .690401 .05	05
6. Lesbians have a lot to teach to other women about being independent*01 .66 .07 .01 0.21	01
4. Straight men have a lot to learn from gay men about being friends to .10 .6004 .0502	.08
women*	
5. Straight men have a lot to learn from gay men about fashion* .15 .58 .020510	.07
8. Being lesbian can make a women more self-reliant*03 .53 .07 .09 .13	10
7. I find lesbians more emotionally available than other women* .02 .44 .04 .0215	15
F3 Resist Heteronormativity (eigenvalue = 3.15; alpha = .85);	
1. I feel restricted by the gender label that people attach to me* 03 - 001 .84 02 - 05	01
2. If eel restricted by the sexual label that people attach to me* -02 01 .84 02 -09	03
I left restricted by the expectations people have of me because of my 0^2 0^3 80 -0^3 -10	04
ender*	.01
genue A I feel limited by the sexual behaviors that are expected of me* -07 -02 68 -02 11	- 04
4. The initial by the scale behaviors and accepted of the -0.7 -0.2 -0.6 -0.2 -0.1	04
5. The restricted by the sexual fulles and norms of society .00205 AP .02 .29	00
E4 Daniel of Continued Discrimination (cicentralue = 2.21), slubs =	
r4 Demai of Continued Discrimination (eigenvalue = 2.21; apria =	
(3)	001
1. Most resolutions and gay men are no longer discriminated against $0.4 = 0.04 = 0.05 = -0.08$.75 0.04	.001
2. Discrimination against gay men and lesbians is no longer a problem in	.03
Portugal*	
4. Lesbians and gay men often miss out on good jobs due to $.04 - 0.16 .02$.61 .01	03
discrimination	
3. Too many lesbians and gay men still lose out on jobs and promotions .02 .01 .04 .5202	03
because of their sexual orientation	
5. On average, people in our society treat gay people and straight people06 .1105 .55 .02	.04
equally*	
F5 Value Gay Progress (eigenvalue = 1.53; alpha = 0.79):	
1. The advances made by the gay and lesbian civil rights movement have .091002 .05 .77	06
improved society overall*	
1 = 02 $004 = 09$ 66	13
2. Society is enhanced by the diversity offered by lesing and gay -002 17 01 03 67	07
neopla*	.07
$p_{\rm control}$ The accomplicity matrix of the gay and lashing give lights may among 0.4 0.0 0.2 0.2 60	01
are complishing to be admired*	.01
are something to be admined.	02
4. State laws regulating private, consenting lesbian benavior should be .1209 .0204 .41	03
ioosenea	
F6 Aversion Toward Gay Men / Lesbians (eigenvalue = 1.27; alpha =	
0.78):	
1. I wish gay men would act more masculine0104 .003 .01 .03	.76
2. I'm uncomfortable when gay men act feminine .04 .0602 .0202	.81
3. I wish lesbians would act more feminine .0113 .01 .04 .07	.56

Note: * Reverse-scored items

Models	N	df	χ^2	χ^2/df	TLI	CFI	SRMR	RMSEA (CI)
Correlated	771	686	1454.37	2.12	.92	.94	.051	.038 (.035; .042)
Second-order*	771	699	1657.72	2.37	.90	.93	.075	.042 (.040; .045)
Uncorrelated	771	701	2176.52	3.10	.86	.88	.151	.052 (.050; .055)

Table 2: Summary of fit indices for confirmatory models

*In the second-order model, the standardized regression weight of the path of the secondorder latent factor to the first order factor Positive Beliefs is non-significant ($\phi = -.06$, p = .28).

5465 44145 546145							
	PP						ATGM
Predictor variables	total	TH	PB	RH	DCD	VGP	/L
	score						
Age	05	03	08**	.02	02	06*	01
Education	.02	03	.10**	.02	.11**	03	07*
LG Friends	.22***	.22***	03	.12***	04	.21***	.18***
Gender	17***	17***	01	06*	.03	08**	22***
Political positioning	30***	29***	03	17***	.11***	34***	19***
Religion	.24***	.26***	09**	.15***	09**	.30**	.15***
LG Do not deserve							
discrimination	34***	47***	.03	09**	.08**	36***	26***
LG Discrimination							
recognition	31***	18***	09**	23***	.13***	28***	21***

Table 3: Correlation matrix of polymorphous prejudice predictors and PPS total and subscales scores

Notes: PP = Polymorphous prejudice; TH = Traditional heterosexism; PB = Positive Beliefs; RH = Resist heteronormativity; DCP = Denial of Continued Discrimination; VGP = Value Gay Progress; AVGM/L = Aversion Towards Gay Men/Lesbians; * p < .05; ** p < .001; *** p < .000.

	Step 1 ⁺	Step 2 ⁺⁺	Step 3 ⁺⁺⁺
Predictors			
Sociodemographic:			
Age	05	01	03
Education	.04	.04	.03
LG Friends	.21*	.16	.14*
Gender	17*	18*	12*
Ideological:			
Political positioning		24*	18*
Religion (catholic)		.17*	.14*
Psychological:			
LG Do not deserve discrimination			23*
LG Discrimination recognition			26*
Adjusted R^2	.07	.17	.29
ΔR^2	.08	.10	.12
ΔF	23.02*	67.53*	91.78*

Table 3: Polymorphous prejudice predictors (total score^a)

Notes: ^aThe higher the score, the higher the polymorphous prejudice; LG = Lesbian/Gay; * p < .001; ⁺ Collinearity statistics, as represented by the Variance Inflation Factor (VIF), revealed absence of collinearity between predictors (VIFs ranging from 1.02 to 1.06); ⁺⁺VIFs ranging from 1.03 to 1.11, revealing absence of collinearity between predictors; ⁺⁺⁺VIFs ranging from 1.04 to 1.14, revealing absence of collinearity between predictors

	Traditional heterosexism ⁺			P	ositive belie	efs^+	Resist heteronormativity ⁺		
	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Predictors									
Sociodemographic:									
Age	02	.02	.02	11***	10**	11***	.03	.05	.03
Education	01	02	02	.12***	.12***	.11***	.02	.02	.01
LG Friends	.21***	.16***	.11***	04	03	02	.12***	.09**	.10**
Gender	15***	17***	13***	03	02	01	05	06*	03
Ideological:									
Political positioning		22***	15***		04	04		13*	11***
Religion (catholic)		.20***	.16***		10**	10**		.12***	.11***
Psychological:									
LG Do not deserve discrimination			38***			.04			02
LG Discrimination recognition			12***			09**			22***
Adjusted R^2	.07	.18	.33	.02	.03	.03	.02	.05	.09
ΔR^2	.07	.11	.15	.02	.01	.01	.02	.04	.05
ΔF	21.90***	71.13***	125.12***	6.08***	5.15**	5.05**	5.55***	21.25***	27.21***

Table 4: Polymorphous prejudice predictors (subscales scores^a)

Notes: ^aTraditional heterosexism – higher scores = higher heterosexism; Positive beliefs and Resist heteronormativity – higher scores = less positive beliefs/ less resistance; LG = Lesbian/Gay; *** p < 0.001, ** p < 0.01, * p < 0.05; ⁺ VIFs ranging from 1.018 to 1.139, revealing absence of multicolinearity between predictors

	Denial of continued discrimination ⁺			Value gay progress ⁺			Aversion toward gay men / lesbians ⁺		
	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3	Step 1	Step 2	Step 3
Predictors	-	-	-	-	-	-	-	-	-
Sociodemographic:									
Age	04	06	05	04	.01	01	001	.02	.01
Education	.11***	.11***	.12***	01	01	02	05	06	06*
LG Friends	04	02	02	.20***	.14***	.12***	.16***	.13***	.11***
Gender	.02	.03	.001	07*	09**	04	21***	22***	18***
Ideological:									
Political positioning		.09**	.08*		26***	21***		14***	10**
Religion (catholic)		07*	06*		.22***	.19***		.12***	.10**
Psychological:									
LG Do not deserve discrimination			.04			25***			19***
LG Discrimination recognition			.12***			24***			16***
Adjusted R^2	.01	.03	.04	.05	.19	.30	.06	.11	.17
ΔR^2	.02	.02	.02	.05	.14	.12	.08	.04	.06
$\wedge F$	4.07**	9.38***	9.39***	14.70***	96.90***	91.59***	23.25***	25.44***	38.68***

Table 4 (continued): Polymorphous prejudice predictors (subscales scores^a)

Notes: ^aDenial of continued discrimination and Value gay progress – higher scores = less denial / less value of gay progress; Aversion toward gay men/lesbians – higher scores = higher aversion; LG = Lesbian/Gay; *** p < 0.001, ** p < 0.01, * p < 0.05; ⁺ VIFs ranging from 1.018 to 1.139, revealing absence of multicolinearity between predictors





Figure 1: Polymorphous Prejudice CFA model (standardized estimates)