

Repositório ISCTE-IUL

Deposited in *Repositório ISCTE-IUL*:

2019-03-29

Deposited version:

Post-print

Peer-review status of attached file:

Peer-reviewed

Citation for published item:

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

Further information on publisher's website:

[10.1017/sjp.2014.96](https://doi.org/10.1017/sjp.2014.96)

Publisher's copyright statement:

This is the peer reviewed version of the following article: 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, which has been published in final form at <https://dx.doi.org/10.1017/sjp.2014.96>. This article may be used for non-commercial purposes in accordance with the Publisher's Terms and Conditions for self-archiving.

Use policy

Creative Commons CC BY 4.0

The full-text may be used and/or reproduced, and given to third parties in any format or medium, without prior permission or charge, for personal research or study, educational, or not-for-profit purposes provided that:

- a full bibliographic reference is made to the original source
- a link is made to the metadata record in the Repository
- the full-text is not changed in any way

The full-text must not be sold in any format or medium without the formal permission of the copyright holders.

NOTICE: this is the author's version of a work that was accepted for publication in *The Spanish Journal of Psychology*. Changes resulting from the publishing process, such as peer review, editing, corrections, structural formatting, and other quality control mechanisms may not be reflected in this document. Changes may have been made to this work since it was submitted for publication. A definitive version was subsequently published as:

De Oliveira, J., 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. doi:10.1017/sjp.2014.96

Attitudes towards same-sex marriage in Portugal: Predictors and scale validation

Abstract

The goal of the present research was to validate a Portuguese version of Pearl and Galupo's (2007) Attitudes toward Same-Sex Marriage Scale (ATSM). Participants were 1,402 heterosexual men and women that completed an on-line questionnaire. The final 15-item scale formed a single factor showing high internal consistency, as also obtained in the original validation study. In a general way, the results indicate a clearly positive attitude toward same-sex marriage. Furthermore, analysis of the scale's predictors demonstrates how a left-wing orientation and the level of denial of deservingness for lesbian/gay discrimination prove to be the best predictors of attitudes towards same-sex marriage. On the whole, these results indicate that the Portuguese ATSM version is a reliable instrument for carrying out scientific research and measuring and monitoring public opinion on this subject.

Keywords: Same-sex marriage, scale validation, Attitudes, predictors

Resumen

El objetivo del presente estudio fue validar la versión en portugués de Escala de Actitudes hacia el casamiento entre personas del mismo sexo (ATSM) de Pearl y Galupo (2007). Los participantes fueron 1.402 hombres y mujeres heterosexuales que completaran este cuestionario on-line. La escala final de 15 ítems formó un solo factor que muestra una alta consistencia interna, también obtenida en el estudio de validación inicial. De manera general, los resultados indican una actitud claramente positiva hacia el matrimonio entre personas del mismo sexo. Además, el análisis de los predictores de la escala muestra cómo una orientación de izquierda y el nivel de negación del

merecimiento de la discriminación de lesbianas / gay son los mejores predictores de las actitudes hacia el casamiento entre personas del mismo sexo. En conjunto, estos resultados indican que la versión ATSM portugués es un instrumento fiable para llevar a cabo investigación científica, la medición y seguimiento de la opinión pública sobre este tema.

Palabras clave: casamiento entre personas del mismo sexo, validación de escala, actitudes, predictores

Attitudes Toward Same-Sex Marriage: Construct Validation of a Scale for a Sample of the Portuguese Population

Public debate on same-sex marriage has attracted attention throughout most of the Western world. Among Council of Europe member states, same-sex marriage is now legal in Belgium, Iceland, the Netherlands, Norway, Portugal, Spain and Sweden, and fourteen other countries have introduced various forms of registered partnerships (Council of Europe, 2011). Very recently, in 2013, the United Kingdom and France approved same-sex marriage laws. Different countries and states around the globe have also promulgated same-sex marriage either fully or in equivalent legal forms. As a result, same-sex marriage has gained increasing coverage in the national and global media. Despite the increasing globalization of this phenomenon, the majority of the studies in this area were developed in the US, while in European countries this research area still remains underdeveloped.

Since the 2000's, Portugal has introduced legislation to prevent discrimination. Either by protecting individual rights, such as the explicit reference to sexual orientation in the Constitutional Principle of Equality (article 13) in 2004, or by securing relational rights, such as the introduction of same-sex *de facto* unions in 2001 and the same-sex marriage law in 2010 (Roseneil, Crowhurst, Hellsund, Santos, & Stoilova, 2013). As argued by Author (2013), these legislative changes do not seem to be enough to challenge widespread heterosexism, in contexts such as public demonstrations of affects between same-sex couples or feelings of multiple discrimination in the public sphere. Therefore, there is a contradiction between equality in the law and unequal social practices of discrimination. It is still not possible for a same-sex couple to adopt or co-adopt children. This study reflects also this sort of political context where, despite a

progressive legislation, there are widespread heterosexist practices and representations (Author, 2013).

The aim of the present article is to contribute to the advancement of research on this topic by providing a validated measurement instrument in a sample of Portuguese respondents. In Portugal, the need for a reliable scale to undertake regular and systematic scrutiny of public attitudes on same-sex marriage became more relevant in 2010, the year of its legalisation by the Portuguese Parliament. Therefore, in conjunction with the validation study, the present article also aims to provide a timely overview of Portuguese public opinion on this topic, as well as analyse the main predictors of attitudes towards same-sex marriage. Also this study can be a contribution for a deeper understanding of the impact of legal changes in people's attitudes and on the predictors of such attitudes.

Attitudes Towards Same-Sex Marriage

In the US, attitudes towards same-sex marriage have been shifting (Sherkat, Powell-Williams, Maddox, & De Vries, 2011): in 1998, under 12% of respondents were favourable to same-sex marriage, whereas in 2008, 44% returned that opinion. According to Lewis and Gosset (2008), who compared *Field Polls of Californians* carried out regularly ever since 1985, support for same-sex marriage has been growing significantly, despite the strong opposition still faced in other parts of the country. The study further showed that support is growing among Liberals, Democrats and non-religious people, whereas Conservatives, Republicans and Protestants display a pattern of continuous opposition.

In Europe, and according to the Eurobarometer (European Commission, 2006), 44% of citizens support the approval of same-sex marriage, and rising especially in countries

where same-sex marriage has already been adopted, such as the Netherlands, Sweden, Spain and Belgium (all scoring above the EU average). Taken collectively, these results seem to indicate a growing change in public opinion in Western countries. As Lewis and Gosset (2008) assert, public opinion is highly important to the debate on the legalisation of same-sex marriage since, at least in the US, those states that took public action to recognise same-sex relationships are also those returning higher levels of public support.

In the case of Portugal, the absence of specific studies on attitudes towards same-sex marriage is notorious. Indeed, same-sex marriage has solely been investigated as an additional issue in studies on attitudes towards gays and lesbians (e.g., Gato, Fontaine & Carneiro, 2012). This might well have been due to the lack of scientific and validated instruments required to undertake specific research on this issue. Another feature of the present study is that the data collection occurred months before the introduction of the law, at a time where the debate was occurring in the Parliament with widespread media coverage. Therefore it seemed useful to undertake studies on attitudes concerning same-sex marriage at the time of its inception in Portuguese society.

Predictors of Attitudes Towards Same-Sex Marriage

Different social, ideological, political, demographic or psychological dimensions have been identified and analysed as predictors of attitudes towards same-sex marriage. Religion and religiosity constitute one such predictor (Olson, Cadge, & Harrison, 2006) given the moral charge in these issues. Lubbers, Jaspers, and Ultee (2009) found that the religiosity of the respondents' parents, as well as their attitudes towards homosexuality, are the strongest determinants of attitudes towards same-sex marriage. Evidence of the importance of religion consistently appears in the literature on attitudes towards same-

sex marriage, especially when taking into consideration religiosity and church attendance (Brumbaugh, Sanchez, Nock, & Wright, 2008; Pearl, & Galupo, 2007; Schwartz, 2010; Sherkat et al., 2011; Walls, 2010).

Other studies identify socio-demographic factors that account for attitudes toward same-sex marriage, such as age and political positioning. For instance, the more elderly or politically right wing respondents (Lewis, & Gossett, 2008) or reporting high levels of transphobia/genderism or traditional heterosexism (Moskowitz, Rieger, & Roloff, 2010) display more negative attitudes towards same-sex marriage.

Gender also plays an important role in these matters with women tending to be more in favour of same-sex marriage than men. In fact, this result is very consistent throughout several studies (for a review, see Lannutti, & Lachlan, 2007). Moskowitz et al. (2010) report that gender shapes the attitudes toward specific aspects of same-sex marriage, i.e., men tend to be more favourable to lesbian marriages than to gay male marriages, and this difference interlinks with stronger homophobic attitudes towards gay males than towards lesbians. In contrast, women respondents do not display different attitudes either towards gay male marriage and lesbian marriage or different degrees of homophobia toward gay males and lesbians.

Moreover, multiple positive contact with gays and lesbians proves to effectively reduce homophobia (Herek, & Capitanio, 1996). Departing from the intergroup contact hypothesis (Allport, 1954), these studies test the prediction that prejudice is reduced in an “equal situation between majority and minority groups in the pursuit of common goals” (Herek, & Capitanio, 1996, p. 412). This seems to be a promising area for future research, since it highlights the importance of studying the engagement of heterosexuals as allies for LGBT rights (Russell, 2011; Montgomery & Stewart, 2012).

The Attitudes Towards Same-Sex Marriage Scale

Although several of the above cited studies were based in poll data, thus generally using a single-item measure of attitudes towards same-sex marriage, several authors have stressed the advantages of validated multi-item scales (even assuming all items are highly inter-correlated) when assessing psychological constructs such as attitudes (e.g., DeVellis, 2003; Nunnally & Bernstein, 1994). Responses to single item scales are more prone to bias and error than to multiple items scales, which, by levelling these errors out, typically result in increased construct validity. Carefully built multi-item scales generally yield common variance, which increases reliability, but also contribute with an amount of unique variance associated with every composing item.

Two recently validated scales matched our purpose: Pearl and Galupo's (2007) Attitudes Towards Same-Sex Marriage scale (ATSM) and Lannutti and Lachan's (2007) Attitude Towards Same-Sex Marriage Scale (ASSMS). The scales were very similar in the number of items (17 and 18) and their level of internal consistency (both alphas scored above .90). The respective validation studies were also equally thorough and comprehensive. However, we preferred ATSM due to general orientation of the items that, in our opinion, was closer to the way the Portuguese public feel and think about this topic. Specifically, symbolic issues like the "meaning of the traditional family", "morals of society", "decay of society", "primary purpose of marriage" and so forth, were more likely to tap our targets' concerns than ASSMS items which tap predominantly the material and legal sides of same-sex marriage. Therefore, participants would be more committed, we believed, in responding to the ATSM items than to ASSMS items.

The ATSM scale was developed with the purpose of obtaining "a psychometrically sound research instrument relevant to current attitudes toward same-sex marriage"

(Pearl & Galupo, 2007; p. 121). This scale originally featured 17 items measuring different aspects of attitudes toward same-sex marriage, specifically beliefs about marriage – its general purpose, and its impact on the strength and morality of family and society; parenting and gender roles; homosexuality and ensuring the civil rights of homosexuals; the relationship between marriage and religion; and financial aspects of marriage. Finally, it includes a statement of belief in same-sex marriage. The majority of these aspects are measured twice, i.e., with one question representing a supportive attitude toward same-sex marriage, and a second question expressed in a non-supportive fashion.

In order to analyse the psychometric properties of the scale, the samples used in Pearl and Galupo study were undergraduate students and adults, all identifying themselves as heterosexuals, and belonging to different ethnic groups. The scale 17 items consistently aggregate into a single factor in all three samples surveyed. Pearl and Galupo (2007) further report high reliability across the samples (Cronbach alphas, .96 to .97). Construct validity was ascertained by high negative correlations with prejudice against lesbians and gay men – Herek's (1988) Attitudes toward Lesbians and Gay Men Scale – Short Form –, as well as with self-described religiosity, political conservatism, and moderate positive correlations with educational attainment. Finally, women proved significantly more supportive of same-sex marriage than men. All results obtained were coherent with data collected in related studies thus confirming the construct validity of the new scale.

Subsequent research using the ATSM confirmed the scale general reliability and its value in revealing group differences in the population. For instance, responses to ATSM collected in lesbian, gay and bisexual samples suggested that support to same-sex marriage diverges in these sexual minorities (Pearl, & Galupo, 2007). Whereas gay men

and lesbians were equally (highly) supportive, bisexual men were less supportive than bisexual women, seemingly, reproducing the gender differential in the heterosexual population.

Duncan and Kimmelmeier (2012) used the ATSM scale to examine the hypothesis that attitudes toward same-sex marriage were associated with essentialist beliefs about marriage, i.e., that low ATSM scores would be associated with strong essentialists beliefs. Besides confirming the authors' main hypothesis, results also suggested that belief in marriage primordialism (vs. the conception stressing human agency) mediated the effects of religiosity and political orientation (especially in the former case). In other words, the proven effects of religiosity and political orientation in attitudes towards same-sex marriage are to some extent due to the stronger beliefs that religious and right wing people hold about the transcendent nature of the marriage institution.

Overview of the ATSM scale construct validation in a Portuguese sample.

The original ATSM Scale 17 items were translated into Portuguese and applied via Web to a large and diversified sample of respondents. Responses to the items on the ATSM scale were then submitted to Principal Axes Factoring analysis (PAF), yielding a one-factor solution. In order to further examine the construct validity of the Portuguese version of this scale, the total ATSM scores were analysed by function of the relevant socio-demographic variables, beliefs and contact with Lesbian / Gay friends. The relative predictive power of each variable was assessed by means of an OLS Hierarchical Regression.

Following previous research on predictors of attitudes towards lesbian and gay men in other countries (e.g., Bessen, & Zicklin, 2007; Fleischmann, & Moyer, 2009; Herek, & Capitano, 1996; Lannutti, & Lachlan, 2007; Lewis, & Gossett, 2008; Olson et al.,

2006; Moskowitz et al., 2010), we expect that men (vs. women), with lower (vs. higher) educational levels, married (vs. single, living as married or divorced), religious (vs. non-religious), embracing a right-wing (vs. left-wing) political ideology, and without (vs. with) lesbian and gay men friends, would record less favourable attitudes towards same-sex marriage. Moreover, we predict that gay discrimination and the perception of justification for discrimination will emerge as important predictors of these same attitudes.

Method

Participants

Only heterosexual respondents with Portuguese nationality (98.5%) living mainly in urban areas (38.9%) participated in the present study, $n = 1,402$, 75.7% of whom were women (1061). The average respondent age was 31.97 ($SD = 10.35$; Min = 13, Max = 71; five cases did not report their age). As regards their level of education, the majority of respondents graduated from university (55.3%); while 26.8% completed post-graduate studies (Master's or PhD degrees), a small group of respondents had completed primary or secondary school education (12.4%; 67 respondents did not respond to this item, i.e., 4.8 % of the sample). Regarding marital status, 58.3% of respondents are single; 21% are married and 12.4% are living in common-law relationships; 7.6% are divorced and 0.6% are widows. Only 26% of sample respondents have children (mostly, married or in similar long term relationships, 77.4%).

Moreover, 77% of sample respondents reported not regularly attending religious ceremonies. However, as regards their religious beliefs, 43.5% of respondents self-identified themselves as Catholic, 5.7% as non-Catholic Christians, and 3.3% other

religions (one participant – 0.1% - did not reveal his/her religious belief). Concerning political identification, a slim majority of participants declared themselves as left-wing (53.3%), followed by 26.4% identifying with the “political centre”, and a 10.3% minority of respondents declaring they are right-wingers; the remaining participants identified either with the extreme left (4.1%) or with the extreme right positions (0.4%; 5.1% of respondents did not provide their political identification).

Two sub-samples were randomly drawn from this main sample. In one we conducted a Principal Axis Factoring analysis (PAF), on the other a Confirmatory Factorial Analysis (CFA) was deployed. In the PAF sub-sample, participants were mainly female (73.8%), had a mean age of approximately 32 years old ($SD = 10.56$), and most of them completed a university major (58.6%). In the CFA sub-sample, the majority of participants were female (76.2%), with a mean age of approximately 32 years old ($SD = 9.96$), and that completed a university major (57.4%).

Procedure

Participants were recruited via e-mail, given that the questionnaire was run on the Internet, through recourse to different mailing lists, in 2009, during the same-sex law debate. These mailing lists were made available by different LGBT NGO's and universities. The questionnaire's link was disseminated through social networks (namely Facebook). The link to the questionnaire was made available at a blog site developed specifically for this study. Participants were asked to fill in the ATSM and other measures. At the beginning of the questionnaire, full anonymity and data confidentiality were guaranteed. At the end, participants received a small debriefing text and were thanked.

ATSM Scale

The original ATSM Scale was first translated into Portuguese before being reverse translated by an English translator. No discrepancies were found. The translated scale was subsequently pre-tested on a sample of thirteen respondents. In the pre-test, several respondents asked what was meant by “religious freedom” in item 14 (“The legalization of same-sex marriage will jeopardize religious freedom”), and why this question was framed in relation to same-sex marriage. Furthermore, several respondents mentioned that they agreed with the first part of item 15 but not for the reason stated (“Individuals should be free to enter into marriage with another same-sex consenting adult because God created all people and does not make mistakes”). Therefore, they were reluctant to agree with the whole statement. We reasoned that both questions involved concepts and associations unfamiliar to contemporary Portuguese culture and could, in many cases, hinder the clear expression of respondent attitudes on the topic. These two items were discarded accordingly.

We also retained the original answering scale with respondents choosing a number on a five-point Likert-type scale (1 = strongly disagree to 5 = strongly agree) to report their level of agreement with each of the fifteen statements in the Portuguese version.

Additional Measures

After completing the Portuguese version of the ATSM Scale, participants were asked to respond to some additional measures. Specifically, we collected demographic data such as gender, education, marital status, and parental status (1); ideological – political positioning (2) and religion; religiosity (3); and “friendship with lesbian and gay men” (4). Finally, we measured respondent perceptions of existing Lesbian/Gay

discrimination (5) and their perception of deservingness of discrimination toward the Lesbian/Gay community (6).

Results

We began by determining the factorial structure of the ATSM Scale by means of PAF analysis, using the first sub-sample. Prior to this all the items were subject to linearization by square rooting the participant scores for each item in order to smooth out skewed distributions. The solution obtained by PAF is shown in Table 1, and proved highly robust, KMO = .97. Furthermore, no evidence of an identity matrix was reported by Bartlett's test of sphericity $\chi^2 = 8267.49$, $df = 105$, $p < .001$, also assuring the PAF quality. A single factor explaining 58.64% of the variance aggregated all items (very close to Pearl & Galupo original result of 60%) with the scale also reporting a very high internal consistency level (Cronbach's $\alpha = .95$). Moreover, corrected item-total correlation assure of the consistency of the obtained solution.

-----Insert Table 1 here-----

In all cases, factor loadings were close to those in Pearl and Galupo (2007) original study, with items referring to legal issues (e.g., "The legalization of same-sex marriage will lead to unnecessary financial burdens, such as social security and health care benefits") presenting smaller loadings than items relative to values/moral issues (e.g., "A primary purpose of marriage is to provide stability in a loving relationship. Same-sex partners should have this legal right available to them"). These results indicate that the construct underlying this single factor structure focuses more on the values/moral dimension of same-sex marriage than on its legal implications.

-----Insert Figure 1 here -----

Resorting to the second sub-sample, we conducted a CFA on the 15 items of the ATSM scale. A diagrammatic representation of the one factor model tested, as well as the results obtained are shown in Figure 1. This one factor model was tested using M-Plus software (Muthén & Muthén, 2010), imposing the usual constraints so that model identification and required general model specifications were met (Byrne, 2012). Correspondingly, one indicator path loading of the latent factor was set to 1, and all measurement errors were set to 1. 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); the comparative fit index (*CFI*; Bentler, 1990); the Tucker-Lewis Index (*TLI*; Tucker & Lewis, 1973); the Standardized Root Mean Residual (*SRMR*); and the root mean square error of approximation (*RMSEA*; Browne & Cudeck, 1989).

The model tested proved to be highly acceptable. Indeed, an examination of both absolute and relative fit indexes (see Figure 1) shows that the model keeps within the minimum standards normally established in the literature for goodness of fit measures (cf. Bentler, 1990; Jöreskog & Sörbom, 1984). Also, the standardized regression weights of the paths from the latent factor to observed variables were, on average, moderate to high (ranging from $\lambda = 0.51$ to $\lambda = 0.87$).

Two alternative models were also tested. Resorting to the legal vs. values /moral content of the items that comprise the ATSM scale, we computed two CFA where these items were distributed in two first-order factors. In one factor (of legal issues regarding same-sex marriage), items 3, 9, 7, 17, 10, 8, 12, 5, and 13 were expected to load. In another factor (of values/moral issues regarding same-sex marriage) items 16, 6, 11, 2, 4, 1 were expected to load (see table 1 for a complete description of each of these

items). In one of these CFA models, these two factors were declared as correlated. In the other model, no such correlation was declared.

The results show that in both models the fit indexes proved unacceptable, or at least poorer when compared to the one-factor model presented above. Indeed, in the non-correlated two-factors model both relative and absolute goodness of fit indexes are unacceptable when compared with the minimum standards established in the literature: χ^2 (90, N = 349) = 532.14; χ^2/df = 5.91; *CFI* = .74; *TLI* = .69; *SRMR* = .33; *RMSEA* = .12 (90% *CI* [.11, .13]) In the case of the correlated model, fit indexes were, as expected, more adequate but still outside the minimum standards established in the literature: χ^2 (89, N = 349) = 259.54; χ^2/df = 2.92; *CFI* = .89; *TLI* = .88; *SRMR* = .05; *RMSEA* = .07 (90% *CI* [.06,.09]). Moreover, these two factors appear as highly correlated (ϕ = .97) a results that allows assuming that these two latent factors are measuring exactly the same underlying construct (i.e., that items measuring these two latent factors should in reality underlie the same factor), or at least that a second-order factor is underlying these two first-order factors.

All in all, the one-factor structure presented above allows for a far better adjustment to our present data than any of the two other models tested, i.e., the uncorrelated and the correlated two-factors model.

Descriptive Statistics

Following Pearl and Galupo (2007) original procedure, we summed up the fifteen items scores to obtain each respondent's ATSM total score (maximum disagreement = 15; maximum agreement = 75; mid-score, i.e., indecisive or indifferent = 45). The overall mean was 63.79, SD = 12.66, representing a clearly positive attitude (well above the scale mid-point, t (1401) = 55.55, p < .001). Indeed, only 9% of the sample reported

a negative position toward same-sex marriage. Scores varied between 15 and 75, but the modal score was 75, accounting for 12.6% of respondents. The overall median score was 69.

Predictors of Attitudes Towards Same-Sex Marriage

We proceeded by examining the power of the socio-demographic variables, beliefs, and perceived lesbian and lesbian/gay discrimination and grounds for discrimination to predict attitudes toward same-sex marriage in accordance with an OLS Hierarchical Regression. We began by dummy coding the two categorical variables, Marital Status and Religion before aggregating some of the categories. Marital status compares married respondents with all other respondents (cf. Becker, 2012; 0 = Married and 1 = Other marital statuses); Religion compares Catholic respondents with all other respondents (0 = Catholic, 1 = Other religious beliefs).

We then formed three blocks of predictors in order to compare the relative power of socio-demographic variables, that is, gender, age, education, marital and parental status, and social contact with lesbians and gays (i.e., having lesbian/gay friends), with variables related to respondent beliefs, i.e., political ideology, religiosity and religion, and socio-psychological variables, i.e., perceived lesbian and gay discrimination and deservedness of discrimination.

-----Insert Table 2 here -----

As seen in Table 2 the group of selected predictors plays a significant role in respondent attitudes towards same-sex marriage ($R^2 = .40$). All variables contribute significantly to predicting respondent attitudes, apart from age, educational attainment,

with parental status also contributing negligibly and non-significantly (respectively, $\beta = .01$, $\beta = .04$, and $\beta = .03$). The block of political and religious beliefs ($\Delta R^2 = .19$) and socio-psychological ($\Delta R^2 = .11$) predictors was considerably more predictive than the demographics block ($\Delta R^2 = .10$). This means that the introduction of variables accounting for beliefs and socio-psychological dimensions enables us to better explain respondent attitudes towards same-sex marriage than when deploying demographic variables.

Despite these differences in the predictive power of the different blocks of variables entered into the regression equations, the results point out how the perception of deservingness for lesbian/gay discrimination ($\beta = .30$) and political positioning ($\beta = .22$) prove among the best predictors of respondent attitudes towards same-sex marriage. Indeed, left-wing respondents and those rejecting any grounds for lesbian/gay discrimination are among those reporting the most positive attitudes towards same-sex marriage. Next, we identify the perception of lesbian/gay discrimination, religion and religiosity, lesbian/gay friends, and gender as variables equally contributing but at a lower level to predicting attitudes towards same-sex marriage. In this sense, female non-catholic respondents that do not usually attend religious services, that have lesbian/gay friends, and that assume that lesbians/gays are discriminated against return the most positive attitudes towards same-sex marriage. Finally, and with much lower predictive powers, come the variables for age and marital status. Correspondingly, younger non-married respondents are those displaying the more positive attitudes towards same-sex marriage.

Discussion

Although some adjustments had to be made, in particular, discarding two items from the original scale, the psychometric properties of the Portuguese version of the ATSM Scale revealed a sound factorial structure with high internal consistency, similar to that returned by the original Pearl and Gallupo (2007) study. The differences among participants as a function of their socio-demographic groups also followed the predicted direction and thus confirming the construct validity of the Portuguese ATSM Scale version. Only age and educational attainment did not achieve the levels usually found in the literature (e.g., Fleischmann, & Moyer, 2009; Lewis, & Gossett, 2008; Montgomery, & Stewart, 2012; Pearl, & Gallupo, 2007). However, in our opinion, this may be attributed to the relative homogeneity of the present sample as regards these two variables. For instance, 60% of the sample was aged between 25 and 35, and only 10% of the sample was over 40 years old. The sample was also “over-educated” with only a few representatives from lower educational levels. Correspondingly, these aspects should be approached by future studies tackling the issue of same-sex marriage.

Analysis of the predictors of attitudes towards same-sex marriage provided by the OLS Hierarchical Regression indicates that, similar to other studies (e.g., Bessen, & Zicklin, 2007; Brumbaugh et al., 2008; Moskowitz et al., 2010), people’s beliefs, whether ideological, socio-psychological or religious, hold the most decisive weighting in attitudes toward same-sex marriage. For instance, Becker (2012) found that whereas respondent demographics (including race) accounted only for 7.9% of attitudes towards same-sex marriage, political and religious beliefs, taken together (including, party affiliation), corresponded to an increment of 23.5% in explained variance. This proportion of values is similar to the present study and, to some extent, it accounts for deeming the scale construct valid. Indeed, our results point to the fact that left-wing

respondents denying any grounds for lesbian/gay discrimination are also those reporting the most positive attitudes towards same-sex marriage. Moreover, female non-catholic respondents that do not usually attend religious services, that have lesbian/gay friends, and that assume that lesbians/gays are discriminated against hold the more positive attitudes towards same-sex marriage. With lesser predictive importance of attitudes towards same-sex marriage were the socio-demographic variables, such as age and marital status. Taken collectively, the ranking of betas obtained following OLS Hierarchical Regression is consistent with the results mentioned in the literature, further confirming the scale's construct validity.

Our results also support other research studies making recourse to the Pearl and Gallupo (2007) attitudes towards same-sex marriage scale. In fact, the results concerning political ideology are consistent with those presented in the literature: the more one moves to the left of the political spectrum, the greater the openness to same-sex marriage. For instance, Pearl and Galupo (2007) obtained strong relationships with self-reported conservatism running in the same direction, with less conservative respondents proving more supportive of same-sex marriage (see also Bessen, & Zicklin, 2007; Lewis, & Gossett, 2008; Moskowitz et al., 2010).

By the same token, our results show moderate gender differences identical to those identified by Pearl and Gallupo in their undergraduate sample, as well as those returned by most empirical studies applying this scale (cf. Lannutti, & Lachlan, 2007). Indeed, Portuguese women did prove slightly more supportive of same-sex marriage than men. Regarding marital and parental status, our findings are consistent with those of Becker (2012).

Finally, and regarding the religious beliefs of respondents, the pattern of results is more complex. Perhaps due to the predominance of Catholicism in Portugal, in contrast

to the United States, as well as due to differences between the two Catholic churches in both countries, the fact remains that Portuguese Catholics are the strongest opponents of same-sex marriage, whereas in the United States other denominations take this role (e.g., Brumbaugh et al., 2008; Schwartz, 2010; Sherkat et al., 2011). The results of religiosity confirm Pearl and Galupo's (2007) findings and the importance of its interlinkage with individual attitudes toward same-sex marriage.

The results of the present study attest that this scale is a good instrument to measure attitudes towards same-sex marriage, showing individual differences in scores that can be accounted by social belongings. This is an important contribution to understand the dynamics of same-sex marriage attitudes within a context of different ideologies and positionings, This law is innovative in the Portuguese legal and social context and therefore such an instrument can give us an in depth comprehension of the changes and permanencies in attitudes created by this law.

Limitations and directions for future research

In spite of the consistent results, our validation study does incur certain limitations. Firstly, we did not inspect the convergent validity of the scale. In this sense, future studies should analyse the association between ATSM and other measures of attitudes towards same-sex marriage (e.g., Lannutti, & Lachlan, 2007). Furthermore, and to gather more evidence on construct validity, the scale should again be applied in order to analyse eventual attitudinal changes following the legalisation of same-sex marriage in 2010. In summary, the results obtained indicate that the Portuguese version of the Attitudes toward Same-Sex Marriage Scale is a reliable instrument for scientific research and assessing trends in public opinion on this subject.

Notes

- (1) “Do you have children?” answered by a dichotomous 1 = Yes; 0 = No.
- (2) In the questionnaire, participants were asked about their political positioning using a five point scale that ranged from “1 = extreme right” to “5 = extreme left”; all points of the scale were anchored – “2 = right”, “3 = centre”, “4 = left”.
- (3) “Are you a religious person?” answered by a dichotomous 1 = Yes; 0 = No.
- (4) “Do you have lesbian or gay men friends”, answered by a dichotomous 1 = Yes; 0 = No.
- (5) “Please, report to what extent do you think Gay men / Lesbians are discriminated against”, using a scale ranging from 1 = Not at all discriminated against to 7 = Very much discriminated against.
- (6) “Please, report to what extent do you think Gay men / Lesbians deserve being discriminated against”, using a scale ranging from 1 = do not deserve being discriminated against to 7 = deserve being discriminated against.

References

- Allport, G. (1954). *The nature of prejudice*. Reading, MA: Addison-Wesley.
- Author, 2013.
- Becker, A. B. (2012). What's marriage (and family) got to do with it? Support for same-sex marriage, legal unions, and gay and lesbian couples raising children. *Social Science Quarterly*, 93, 1007-1029. <http://dx.doi.org/10.1111/j.1540-6237.2012.00844.x>
- Bentler, P. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107, 238–246. doi:10.1037/0033-2909.107.2.238
- Bessen, Y., & Zicklin, G. (2007). Young men, religion and attitudes towards homosexuality. *Journal of Men, Masculinities and Spirituality*, 1, 250-256.
- Browne, M. W., & Cudeck, R. (1989). Single sample cross-validation indices for covariance structures. *Multivariate Behavioral Research*, 24, 445-455. doi: 10.1207/s15327906mbr2404_4
- Brumbaugh, S. M., Sanchez, L. A., Nock, S. L., & Wright, J. D. (2008). Attitudes toward gay marriage in states undergoing marriage law transformation. *Journal of Marriage and Family*, 70, 345-359. [doi:10.1111/j.1741-3737.2008.00486.x](http://dx.doi.org/10.1111/j.1741-3737.2008.00486.x)
- Byrne, B. M. (2012). *Structural equation modeling with Mplus: Basic concepts, applications, and programming*. New York, NY: Routledge Academic.
- Council of Europe (2011). *Discrimination on the grounds of sexual orientation and gender identity in Europe*. Strasbourg: Council of Europe.
- DeVellis, R. F. (2003). *Scale development: Theory and applications*. Thousand Oaks: Sage Publications

- Duncan, M. L. & Kimmelmeier, M. (2012). Attitudes toward same-sex marriage: An essentialist approach. *Analysis of Social Issues and Public Policy*, 12, 377-399. doi: 10.1111/j.1530-2415.2012.01290.x
- European Commission (2006). *Public opinion in the European Union: Standard Eurobarometer*, 66. Brussels: European Commission.
- Fleischmann, A., & Moyer, L. (2009). Competing social movements and local political culture: Voting on ballot propositions to ban same-sex marriage in the U.S. states. *Social Science Quarterly*, 90, 134-149. doi:10.1111/j.1540-6237.2008.00607.x
- Gato, J., Fontaine, A. M., & Carneiro, N. S. (2012). Escala multidimensional de atitudes face a lésbicas e gays: Construção e validação preliminar [Multidimensional scale of attitudes towards lesbians and gay men: Construction and preliminary validation]. *Paidéia*, 22, 11-20.
- Herek, G.M. (1988). Heterosexuals' attitudes toward lesbians and gay men: Correlates and gender differences. *Journal of Sex Research*, 25, 451-477.
- Herek, G. M., & Capitano, 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. doi: [10.1177/0146167296224007](https://doi.org/10.1177/0146167296224007)
- Jöreskog, K., & Sörbom, D. (1984). *LISREL 6: User's guide*. Mooresville, IN: Scientific Software International.
- Lannutti, P. J., & Lachlan, K. A. (2007). Assessing attitude toward same-sex marriage: Scale development and validation. *Journal of Homosexuality*, 53, 113-133. doi:10.1080/00918360802103373
- Lewis, G., & Gossett, C. W. (2008). Changing public opinion on same-sex marriage: The case of California. *Politics & Policy*, 36, 4-30. doi:10.1111/j.1747-

1346.2007.00092.x

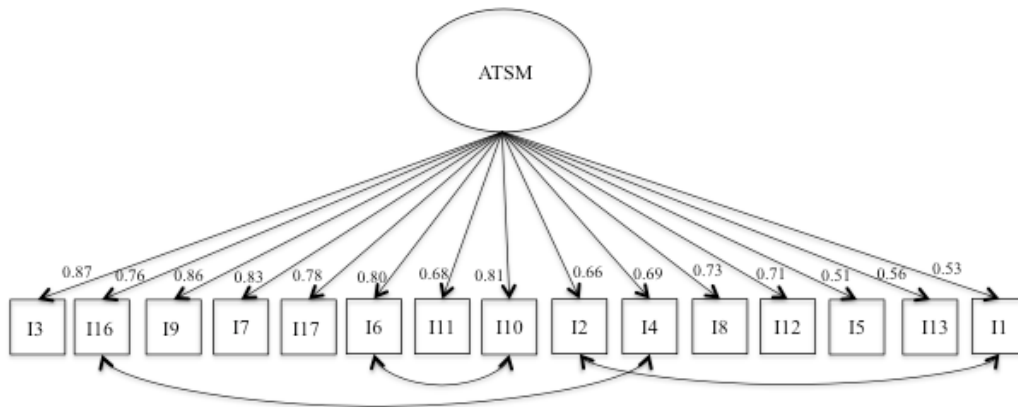
- Lubbers, M., Jaspers, E., & Ultee, W. (2009). Primary and secondary socialization impacts on support for same-sex marriage after legalization in the Netherlands. *Journal of Family Issues, 30*, 1714–1745. doi:10.1177/0192513X09334267
- Montgomery, S., & Stewart, A. (2012). Privileged allies in lesbian and gay rights activism: Gender, generation, and resistance to heteronormativity. *Journal of Social Issues, 68*, 162-177. doi:10.1111/j.1540-4560.2012.01742.x
- Moskowitz, D., Rieger, G. & Roloff, M. E.(2010). Heterosexual attitudes toward same-sex marriage. *Journal of Homosexuality, 57*, 325 -336.
[doi:10.1080/00918360903489176](https://doi.org/10.1080/00918360903489176)
- Muthén, L., & Muthén, B. (2010). *Mplus user's guide* (6th ed.). CA: Muthén & Muthén.
- Nunnally, J. C., & Bernstein, I. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
- Olson, L., Cadge, W., & Harrison, J. (2006). Religion and public opinion about same-sex marriage. *Social Science Quarterly, 87*, 340-360. doi:10.1111/j.1540-6237.2006.00384.x
- Pearl, M. L., & Galupo, M. P. (2007). Development and validation of the attitudes toward same-sex marriage scale. *Journal of Homosexuality, 53*, 117-134.
doi:[10.1300/J082v53n03_07](https://doi.org/10.1300/J082v53n03_07)
- Roseneil, 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
- Russell, G. M. (2011). Motives of heterosexual allies in collective action for equality. *Journal of Social Issues, 67*, 376-393. doi:10.1111/j.1540-4560.2011.01703.x

- Schwartz, J. (2010). Investigating differences in public support for gay rights issues. *Journal of Homosexuality*, 57, 748-759. doi:10.1080/00918369.2010.485875
- Sherkat, D. E., Powell-Williams, M., Maddox, G., & de Vries, K. M. (2011). Religion, politics, and support for same-sex marriage in the United States, 1988-2008. *Social Science Research*, 40, 167-180. doi:10.1016/j.ssresearch.2010.08.009
- Tabachnick, B. G., & Fidell, L. (2007). *Using multivariate statistics*. Boston: Allyn and Bacon.
- Tucker, L. R., & Lewis, C. (1973). The reliability coefficient for maximum likelihood factor analysis. *Psychometrika*, 38, 1-10. doi:10.1007/BF02291170
- Walls, N. E. (2010). Religion and support for same-sex marriage: Implications from the literature. *Journal of Gay & Lesbian Social Services*, 22, 112-131. doi:10.1080/10538720903332420

Table 1: Principal axis factoring and reliability analyses of the ATSM Scale

Items	ATSM	Corrected Item-total correlations
3. A primary purpose of marriage is to provide stability in a loving relationship. Same-sex partners should have this legal right available to them	.89	.86
16. Same-sex marriage will lead to the moral decay of society	.88	.85
9. Men and women naturally complement one another, therefore a union between two men or two women should not be recognized in marriage	.86	.84
7. I support individuals who are not heterosexual seeking marriage rights	.83	.83
17. I oppose the legalization of same-sex marriage	.83	.80
6. Same-sex marriage will strengthen the morals of society by supporting equality	.81	.79
11. A primary purpose of marriage is to raise children, therefore only a man and a woman should be married	.81	.79
10. The legalization of same-sex marriage is an important step toward the acceptance of individuals who are not heterosexual	.80	.78
2. Two loving same-sex parents can provide the same quality of parenting and guidance as a man and a woman	.73	.71
4. The recognition of same-sex marriage poses a threat to society because public schools will be forced to teach that homosexuality is normal	.73	.71
8. Because more people will have the benefits of marriage, family will be strengthened by the recognition of same-sex marriages	.72	.71
12. Same-sex marriage ensures equal rights for all relationships regardless of sexual orientation	.70	.68
5. Marital protections, such as social security and health care benefits, should be available to same-sex partners	.62	.60
13. The legalization of same-sex marriage will lead to unnecessary financial burdens, such as social security and health care benefits	.62	.61
1. Same-sex marriage undermines the meaning of the traditional family	.52	.51
Eigenvalue		8.80
Explained variance		58.64
Cronbach alpha		.95

Figure 1: Confirmatory factorial analysis of the ATSM Scale (standardized regression weights from latent factor to observed variables and associations between measurement errors)



Notes: Model fit – $\chi^2(87, N = 349) = 214.02$, $\chi^2/df = 2.46$; $CFI = .93$; $TLI = .91$; $SRMR = .05$; $RMSEA = .07$, 90% CI [.05, .08]

Table 2: Predictors of attitudes towards same-sex marriage

Predictors	Step 1	Step 2	Step 3
Sociodemographic:			
Gender (female vs. male)	-.12***	-.16***	-.11***
Age	.00	-.10**	-.08*
Education	.03	.02	.02
LG Friends (no vs. yes)	.24***	.16***	.13***
Civil status (other vs. married)	-.15***	-.07*	-.08**
Parental status (no children vs. with children)	.02	.03	.03
Ideological:			
Political positioning		.27***	.22***
Religion (others vs. catholic)		-.18***	-.16***
Religiosity (not attending vs. attending services)		-.17***	-.13***
Socio-psychological:			
LG Deserve discrimination			.16***
LG Discrimination			.30***
Adjusted R^2	.10	.29	.40
ΔR^2	.10	.19	.11
ΔF	27.67***	112.53***	114.76***

Notes: LG = Lesbian/Gay; *** $p < .001$; ** $p < .01$; * $p < .05$