A Structural Equation Model of Political Instability, Religiosity, and Progressive Values

Lee Gregory Johnson

Fred Joseph Pasquarella

California State University, Fullerton

Abstract

A great deal of evidence supports the theory that political instability and religiosity are positively correlated. Moreover, religiosity has been shown to be positively related to progressive social values. No current research addresses the causal relationship between all three constructs. This paper proposes a model of complete mediation in which political instability is related to progressive values strictly through religiosity viz. increases in political instability are associated with decreases in progressive values through increases in religiosity. A structural equation model was created to confirm this hypothesis using randomly sampled data from the 2005 World Values Survey (N = 3,881). Exploratory factor analyses found that indicators for the latent factors were satisfactory. The hypothesized model was found to have poor fit. A threefactor EFA with oblique rotation indicated the presence of separate factors within Progressiveness. A revised model was tested with only Gender Equality as a form of Progressiveness. The new model attained satisfactory fit to the data. The estimated parameters fit the proposed theory with two exceptions: greater political instability was associated with lower religiosity, and the direct effect of religiosity on gender equality was quite weak. Limitations included systematic missing data, unrepresentative country proportions in the sample data, and the agglomeration of religious denominations into one measure of religiosity. Future research should utilize a more objective measure of Political Instability and attempt to look at betweencountry differences in the mediation model. Based on the estimated parameters, a direct feedback loop between religiosity and political instability should also be investigated.

Keywords: religiosity, progressiveness, political instability, world values survey

A Structural Equation Model of Political Instability, Religiosity, and Progressive Values

The United States of America is unique among developed countries in that it is one of the most religious (Huffington, 2010; Pew Global Attitudes Project, 2002; Shermer, 2013). Since the 1950's, religiosity has seen a relatively precipitous decline in the world's developed countries (Pew Global Attitudes Project, 2002; McCleary & Barro, 2006; Shermer, 2013; Solt, Habel, & Grant, 2011). Religiosity is conceptualized as the collective beliefs in religion, behaviors (i.e. religious service attendance) and the subjective values that individuals place on their religious beliefs (e.g., Johnson Shen, Haggard, Strassburger, & Rowatt, 2013; Reiss, 2000; Solt, Habel, & Grant, 2011; Whitley, 2009).

The 2002 Pew Global Attitudes Project found that, with the exception of the United States, religious importance was negatively correlated with annual per capita income. Moreover, wealthier nations tended to be less religious. Comparing the Pew data with the United Nations Development Programme's Human Development Index (HDI) revealed that religiosity is not just related to a nation's wealth. The HDI takes into account educational attainment, life expectancy, and income. For the most part, the nations that place religion very high in importance often have the lowest HDI.

Various social psychological theories have been put forward to explain the downtrend in religiosity in the developed world. The secularization hypothesis, or the demand-side theory, posits that social and economic development reduces religious participation and beliefs by reducing the demand for them (McCleary & Barro, 2006). It suggests that as human conditions improve the need for spirituality is minimized. The theory places higher levels of education, urbanization, greater life expectancy, medical advancements, economic development and stability at the forefront of the decline in religious adherence. Indeed, Presser and Chaves (2007)

suggested that the recent decline in religious service attendance might be explained by urbanization or an increase in average education levels. Testing the secularization hypothesis with an international sample, McCleary & Barro found that increases in a country's GDP were associated with drastic decreases in religious service attendance (2006). A similar trend was found with beliefs in a god. A large GDP tended to be associated with decreases in various religious beliefs. Although no direct effect on education and religiosity was observed, McCleary and Barro found strong negative relationships between religiosity and greater urbanization, higher life expectancy, and economic improvement.

Looking at regional differences in countries may further support the secularization hypothesis. Take Ukraine for example. Western Ukraine has a highly variable environmental and socio-economic situation (Baumann et al., 2011). Eastern Ukraine, on the other hand, is much more industrial and boasts a more stable economy. Interestingly, Western Ukraine has been found to be very religious and differed greatly from the less religious eastern regions (Knudson Gee, 1995).

More explanatory than the secularization hypothesis is the uncertainty hypothesis. The uncertainty hypothesis predicts the same relationship between social and economic improvement and religious decline but attributes the reduction in religiosity to a reduction in uncertainty and anxiety (Li, Cohen, & Kenrick, 2010). Under the uncertainty hypothesis, religiosity can be understood as a coping mechanism for uncertainty and anxiety. This hypothesis predicts that the decline of religiosity is due primarily to improvements in quality of life. Moreover, that religiosity declines as material security increases. Barber (2012) found that lower levels of religiosity were reliably predicted by greater economic development, favorable health conditions,

and a more equal distribution of income. As the societal conditions that provoke anxiety and cause uncertainty are reduced, so is the need to find otherworldly means to cope with them.

Following in the same vein as the uncertainty hypothesis, Shariff, Norenzayan, and Henrich have propounded that religions and god(s) were cultural adaptations evolved to exert control and police people in unstable times in which human law could not govern (2010). Snarey (1996) examined the changing roles of the Egyptian gods as the environmental extremes altered Egyptian economy from stable to unstable. In times of drought and famine, gods became omniscient, omnipresent, and punitive. In times of prosperity and plenty, gods were relegated to mere cultural icons. Societies in which water scarcity was great were more likely to have morally concerned gods who promoted the prosocial use of natural resources (Snarey, 1996). Roes and Raymond (2003) found that, across cultures, larger societies were associated with moralizing high gods. That is, the extent to which the god(s) were concerned with the morality of human interactions was contingent upon the size of the population. The diversity of gods and religions may reflect the instability of various environmental and social demands over time. Different types of gods may have been created to combat the different social and environmental situations. When food was scarce, god(s) promoted cooperation and sharing. When food was plentiful, god(s) were watchdogs, forestalling thieves and punishing evildoers. Thus, when individuals perceive their lives as unstable or challenging, they may invoke a stable figure, i.e. god, as means of comfort and control.

The overarching theme that has been reported is that religiosity decreases once societal, economical and political situations become advantages to human development. However, if that were the case, what would explain the discrepancy in trends towards secularization between the U.S. and the rest of the developed world? Income inequality may be the mediating factor.

Income inequality is much greater in the United States than in much of the developed world (Huffington, 2010). Solt, Habel, & Grant (2011) found that income inequality had a powerful positive effect on a countries level of religiosity. Moreover, this increase in religiosity due to income inequality did not distinguish between the rich or the poor. Solt, Habel, & Grant suggested that in countries where the income is vastly discrepant, religion served as a comfort to the poor and a source of justification to the wealthily.

Despite the anomalous findings in the U.S., a large body of evidence seems to support the notion that political, social and economic instability engenders greater levels of religiosity.

Interestingly, countries that are highly religious, e.g. Saudi Arabia, also tend to be extremely conservative. To our knowledge, there is no direct evidence to link political instability to the opposition of progressive values.

Progressiveness

Progressiveness, in the context of the current research, is best conceptualized as a tendency to hold positive or tolerant views toward current social and political issue in which individual freedom is the primary concern. *Progressivists*, or proponents of progressive issues, tend to regard moral truth as subject to change based on the current social and scientific consensus (Jenson, 1998). Moreover, their focus is on an individuals right to make free choices—free from the intervention of the state or church. Progressiveness is in stark contrast to conservative or traditional values. Although the list of social and political issues can be exhaustive, we attempted to explicate the influence of religiosity on three progressive issues, homosexuality, gender equality, and abortion.

Religious commitment has been consistently linked to traditional or conservative values (e.g., Hess & Rueb, 2005; Meeusen & Hooghe, 2012; Mockabee, 2007; Stack, Wasserman, &

Kposowa, 1994). Religiosity has been found to be associated with numerous negative attitudes towards the progressive issues of homosexuality (Herek, 1988; Ellison, Acevado, & Ramos-Wada, 2011; Hooghe et al., 2010; Meeusen & Hooghe, 2012; Todd & Ong, 2012; Whitley, 2009), gender equality (Arat, 1998; Feltey & Poloma, 1991; Kim & Yancey, 2008; Stack, Wasserman, & Kposowa, 1994), and abortion (Ellison, Echevarria, & Smith, 2005; Evans & Hudson, 2007; Hess & Rueb, 2005; Lindsey, Sigillo, & Miller, 2013; Putnam & Campbell, 2010; Wilcox, 1990).

Religion and Homosexuality

A longitudinal study on homophobia in young adults in Belgium found that, on the whole, homophobic attitudes decreased over a three-year period (Meeusen & Hooghe, 2012). However, an opposite trend was found when religiosity was taken into account. The more often individuals attended religious services over the three-year period the more homophobic they became. Moreover, this observed increase in homophobia was even more pronounce in Muslim individuals. Taken together, Meeusen & Hooghe (2012) found that religious individuals had high initial levels of homophobic attitudes that increased as they developed into adulthood. This trend ran contrary to their non-religious peers.

A study on Canadian and Belgium adolescents found that while controlling for education, religion was a very strong source of anti-gay sentiment (Hooghe et al., 2010). Moreover, the study found that religious commitment was more important than religious denomination as a predictor of anti-gay attitudes. Religious service attendance has been found to be a significant contributing factor to the opposition of gay marriage (Todd & Ong, 2012). Religious individuals more often than not, tend to be opposed to same sex marriage, and this opposition is dependent on their devotion to their religion (Ellison, Acevado, & Ramos-Wada (2011).

Overall, what mattered most in discerning religions impact on negative attitudes towards homosexuality was religiosity. Although belonging to a religion affected views on homosexuality, the particular religious denomination was not important. Instead, the extent to which one practiced their religion and how important those beliefs were seemed to be at the root of the opposition to homosexuality.

Religion and Gender Equality

The success of feminist activism over the last several decades saw many improvements in gender equality. However, the struggle for women's rights still faces many challenges in mainstream religions. Interestingly, Stack, Wasserman, & Kposowa (1994) have suggested that feminism developed as a reaction to the strict patriarchal views propounded by Judeo-Christian religions. Biblical accounts are rife with examples of women being subordinate to men and, in fact, these instances helped to promulgate traditional women's roles for people in contemporary society (Stack, Wasserman, & Kposowa, 1994). Feltey and Poloma (1991) found that egalitarian views towards women in all sectors of life were negatively correlated with religiosity. Moreover, the more religious an individual was the more likely they were to hold anti-egalitarian views towards women. Despite many churches being multiracial, a hesitancy to promote gender equality still persists (Kim & Yancey, 2008). In the more extreme cases, Islamic women struggle for their independence and, in fact, many acquiesce to the roles of subservience dictated by their faith (Arat, 1998). Women often choose obedience to the dictates under threat of violence or criminal persecution.

Religion and Abortion

Religiosity has been consistently found to be a strong and reliable predictor of antiabortion attitudes (Hess & Rueb, 2005). Most organized opposition to reproductive rights, namely that of abortion and reproductive genetics, have been put forth by religious institutions (Evans & Hudson, 2007). A study that examined the U.S. public opinion survey on religion and reproductive genetic technologies found that religious opposition was panoptic, even when the technologies where health related, such as screening for fatal genetic diseases (Evans & Hudson, 2007). Moreover, the degree of this sweeping opposition seemed to be contingent upon the degree of religiosity. That is, the more one was involved in their particular religion the more they opposed any and all reproductive genetic technologies. More telling was the fact that religiosity was found to be the only factor that contributed to this opposition, regardless of the individuals' views towards embryonic life. This seemed to suggest that, for the very religious, religious doctrine carried more weight than their personal opinions.

Assessing U.S. laws and religious affiliation, Lindsey, Sigillo, and Miller (2013) found that religious affiliation alone was not a predictor of support for certain minor consent laws. Instead, the greater degree to which one practiced their religion, the greater their support for more restrictive laws. In a sample of Latino Americans, religiosity was found to be significant factor in predicting acceptance of a total ban on abortion (Ellison, Echevarria, & Smith, 2005). Although only Catholics and Protestant's were assessed, the influence of religion was contingent upon commitment not denomination. That is, the greater the commitment to either religion the greater the impact of acceptance towards a total ban of abortion.

Hypothesized Model

The negative relationship between religiosity and progressive values may best be explained by religion's reliance on traditional values. Homosexuality is traditionally thought of as unnatural. Women's traditional roles in society are that of a mother and a homemaker.

Abortion is traditionally deemed as murder, no matter what the circumstances may be.

Religiosity may stem from a desire to seek comfort and avoid anxiety or uncertainty. In the context of progressive issues, these questions are often rife with uncertainty, e.g. when does life begin and what would justify an abortion. Society and the environment can change rapidly and without warning. Thus, the opportunity for uncertainty and anxiety is present in many aspects of human life.

We proposed that while religiosity tends to decrease as socio-economic factors improve, if these factors deteriorate, religiosity may reemerges as a means for individuals to gain comfort and control over situations that may be perceived out of their control. What may explain the reduction in religiosity in the developed world may simply be the reduction of the factors that promote the need for religiosity. The upswing in religiosity may bring with it a return to more traditional values and the inevitable opposition towards progressive values.

We attempted to test this model of political instability, religiosity, and progressiveness using a structural equation model. The three variables of interest are the latent constructs of political instability, religiosity, and progressiveness. Figure 1 displays the hypothesized model. We predicted that political instability would have a direct effect on religiosity. In turn, religiosity will have a direct effect on progressiveness and that political instability and progressiveness will be indirectly related, with religiosity as the mediator. Specifically, increased political instability would predict increased religiosity, which in turn would predict decreased progressiveness.

Method

World Values Survey Data

Data were retrieved from the 2005 World Values Survey (World Values Survey Association, 2008). The World Values Survey (WVS) was completed by N = 67,268 participants from over 100 different countries. The WVS assessed changes in social values and its dynamic

relationship with social and political life. Data used for secondary analysis was randomly sampled from the WVS population. In order to ensure a worldwide sample, the random sample was stratified by country. Stratified random sampling drew 10% of the WVS data yielding n = 6,727 participants.

There were several issues within countries on the variables. Certain countries were not assessed on all the variables in questions, specifically, Japan, Argentina, Switzerland, India, China, Peru, Egypt, Morocco, Guatemala, Andorra, Malaysia, and Rwanda. Moreover, certain countries displayed large proportions of missingness due to not answering or responding "Don't know." Egypt, Japan, India, China, Morocco, Andorra, Rwanda, Guatemala, Peru and Ukraine are sets of cases in which missingness was deemed to be a considerable problem. For the aforementioned reasons, Japan, India, China, and Ukraine were removed from the dataset. Table 1 displays the distribution of countries that were retained in the final sample. After the removal of multivariate outliers, discussed in the Results section, and listwise deletion of missing data, the final sample was N=3,881.

Table 2 displays the comparison of demographic information of the participants from the WVS population and the final sample. Both samples shared similar demographic characteristic and there were no marked deviations.

Participants

The participants sampled were mostly educated and ranged in levels of highest education attained. The sample comprised individuals with no formal education (n = 169, 4.4%), incomplete primary school (n = 305, 7.9%), complete primary school (n = 623, 16.2%), incomplete technical/vocational secondary school (n = 297, 7.7%), complete technical/vocational secondary school (n = 748, 19.4%), incomplete university preparatory secondary school (n = 748, 19.4%), incomplete university preparatory secondary school (n = 748, 19.4%), incomplete university preparatory secondary school (n = 748, 19.4%), incomplete university preparatory secondary school (n = 748, 19.4%), incomplete university preparatory secondary school (n = 800, 10.4%).

244, 6.3%), complete university preparatory secondary school (n = 586, 15.2%), some university level education without a degree (n = 313, 8.1%), and university level with a degree (n = 572, 14.8%). The age of the participants ranged from 16 to 94 with an average age of 42 years old (SD = 16.834). Gender was evenly split with 48.9% (n = 1899) being male and 51.1% (n = 1982) being female. Over half the participants sampled were married (n = 2064, 53.3%), while 7.8% were not married but living together (n = 303), 4% were divorced (n = 156), 2% were separated (n = 79), 5.8% were widowed (n = 226), and 27% were single and never married (n = 1046). Most of the participants sampled had at least one child with 15.4% having 1 child (n = 576), 26.4% having 2 children (n = 989), and 14.2% having 3 children (n = 532). Almost a third of the sample did not have any children (n = 1136). The majority of participants sampled listed a religious denomination of some form or another (n = 3331, 85.8%). Although a secular option was not presented, 13.6% of participants listed their religious denomination as, "Not Applicable." Participants self described their social class with 11.4% listing they were in the Lower Class (n = 412), 28.1% in the Working Class (n = 1020), 38% in the Lower Middle Class (n = 1376), 20.9% in the Upper Middle Class (n = 758), and 1.6% in the Upper Class (n = 58).

Latent Factors

Political Instability. Five items assessing the level of confidence individuals had in different political entities comprised the latent construct Political Instability. Participants were presented with a list of governing organizations and asked to rate the extent to which they had confidence in each of them. All items were scored on a four point scale; 1 = "A great deal," 2 = "Quite a lot," 3 = "Not very much," and 4 = "None at all." The items were Confidence in the Armed Forces, Confidence in the Police, Confidence in the Justice System, Confidence in the

Government, and Confidence in the Political Parties. Overall, higher scores represented more political instability.

Religiosity. Five items comprised the factor Religiosity; Religious Importance, Importance of Faith in Children, Confidence in the Churches, Church Attendance, and Importance of God in one's Life. All items were measured with different response options. Religious Importance was assessed with a 4-point scale; 1 = "Very Important" to 4 = "Not at all Important." Importance of Faith in Children was scored dichotomously. Confidence in the Churches was scored on a four point scale; 1 = "A great deal" to 4 = "None at all." Church Attendance was measured by frequency of attendance; 1 = "More than once a week," 2 = "Once a week," 3 = "Once a month," 4 = "Only on Holy Days," 5 = "Once a year," 6 = "Less often," 7 = "Never." Importance of God in one's Life was measured on a 10-point scale from 1 = "Not at all Important" to 10 = "Very Important." The last item was reversed coded to match the other indicators. Overall, lower scores represented greater religiosity.

Progressiveness. The latent factor Progressiveness was comprised of items assessing three different issues that have gradually come to the forefront of social concern. What distinguishes these issues is that proponents hold a contemporary view, which centers the issues in concerns about personal liberty, and opponents focus on traditional views. Three different issues were included in the progressiveness factor; abortion, homosexuality, and gender equality.

Two items dealt with homosexuality. Participants were asked to list whether they would like to have homosexuals as neighbors. Responses were scored dichotomously on whether they mentioned they would or not. Participants were also asked to list the extent to which the found homosexuality justifiable from 1 = "Never justifiable" to 10 = "Always justifiable." The one item assessing abortion was score on the same scale. Four items assessed the issue of gender

equality, "When jobs are scare men should have more right to a job than a women," "Men make better political leaders than women," "A university is more important for a boy than a girl," and "Men make better business executives than women do." The first item was scored with a three-point scale from 1 = "Agree" to 3 = "Disagree." The last three items were scored on a four-point scale from 1 = "Agree" to 4 = "Disagree." Overall, higher scores represented a greater tendency toward approving of progressive values.

Hypothesized Model

The hypothesized model can be seen in Figure 1. The three latent variables, Political Instability, Religiosity, and Progressiveness are represented in the circles. The rectangles represent the aforementioned indicators. The arrows represent the proposed direct effect. The model was formulated to confirm the hypothesis that increased Political Instability predicts increased Religiosity and that Progressiveness is only related to Political Instability through the mediation of Religiosity. Moreover, increased Religiosity predicts decreased Progressiveness.

Results

Because the latent factors to be modeled in the article are fairly complex and nebulous, it is important that the measurement part of the SEM model is valid. Theoretical validation of construct validity was provided previously; empirical validation is attempted here. An exploratory factor analysis and various dimensionality diagnostics were run on each of the three sets of indicators, corresponding to each latent factor. The goal was to empirically establish construct validity of the indicators by checking their dimensionality. Obviously a one-factor solution was desired because that indicates that all of the items load onto one latent construct.

For each set of indicators, dimensionality was assessed with the amount of variance explained, Kaiser's criterion, a scree plot, Horn's Parallel Analysis, Velicer's MAP test, and

whether or not the proposed factor solution had a simple factor structure (i.e. no cross-loadings). The first three tests were run in SPSS; the Parallel Analysis and MAP test were run in R. Once the number of factors was determined, the inter-indicator correlation matrix was run in CEFA with maximum-weighted likelihood extraction specified; validity of indicators was assessed by their loadings onto the factor(s), presumed to be the latent construct(s) they are supposed to measure.

Dimensionality Assessment and EFA of Political Instability Indicators

The number of factors underlying the political instability (P) indicators was established first. A one-factor solution was preferred. The first three eigenvalues were 2.7, 0.79, and 0.65. The first eigenvalue explained 54% of the total variance of all P indicators. In addition, only the first eigenvalue fulfilled the Kaiser criterion. The scree plot indicated an elbow point at the second eigenvalue, suggesting a one-factor solution as well. According to Horn's Parallel Analysis only the first eigenvalue performed better than corresponding averaged eigenvalues produced by randomly generated data sets matching the original P indicator dataset. The mean square partial correlations produced by the MAP test produced a minimum with the first eigenvalue. All diagnostics indicated a one-factor solution.

Before an exploratory factor analysis was run, several assumptions were checked. Sample size was 5097, more than adequate enough to make up for small-factor solutions (one-factor specified here) and possible problems with low communalities and few indicators (5 indicators available here). Data was NMAR but no estimation methods or other fixes were used. Full explanation is given in the assumptions part of the Hypothesized Model section on page 20. Multivariate normality and linearity were also assessed in the SEM section; the normality assumption is not crucial to EFA, it just enhances the solution. SMCs and eigenvalues for the P

indicators were inspected for any sign of multicollinearity and singularity. There were none.

Factorability of the P indicator correlation matrix was assessed next. Substantial correlations are required for factor analysis to be appropriate. All correlations were significant but this was an artifact of the large sample size. All bivariate correlations were greater than 0.30 in magnitude. Partial correlations were on the lower side meaning the discrepancy between bivariate and partial correlations was substantial enough to signal the presence of factors. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy was above 0.60; there were small values on the off-diagonal of the anti-image matrices; and Bartlett's Test of Sphericity indicated that the correlation matrix differed significantly from an identity matrix, $\chi^2(10) = 8228.3$, p < .01.

A maximum-weighted likelihood extraction with no rotation was performed through CEFA on the five P indicators. A one-factor solution was specified. Loadings of variables on the one factor, communalities, and percents of variance are shown in Table 5. Loadings under .45 are replaced by zeros. The factor extracted was presumed to be Political Instability.

Communalities were somewhat large, indicating that Political Instability is well defined. The maximum absolute residual was 0.03, indicating a reasonably small discrepancy between the observed and reproduced correlation matrices. The RMSEA was 0.121, which indicates poor fit. The factor structure was excellent, with no variables with a factor loading under 0.45. With the exception of the RMSEA, all dimensionality diagnostics and the factor analysis itself indicate that the five P indicators are relatively simple and pure measures of Political Instability.

Dimensionality Assessment and EFA of Religiosity Indicators

The number of factors underlying the Religiosity (R) indicators was established first. The first three eigenvalues were 2.68, 0.67, and 0.66. The first eigenvalue explained 53% of the total variance of all R indicators. Only the first eigenvalue fulfilled the Kaiser criterion. The scree plot

indicated an elbow point at the second eigenvalue, suggesting a one-factor solution as well.

Horn's Parallel Analysis indicated only the first eigenvalue performing above chance; the MAP test produced a minimum mean square partial correlation for the first eigenvalue. All diagnostics indicated a one-factor solution.

Factor analysis assumptions were assessed. Sample size was 5097, more than adequate for factor analysis. As with the P indicators, missing status of data, multivariate normality, and multivariate linearity of the R indicators are dealt with in the SEM assumptions section. SMCs and eigenvalues for the P indicators did not indicate multicollinearity or singularity.

Factorability of the P indicator correlation matrix was assessed next. Due to large sample size, all bivariate correlations were significant. They were all also greater than 0.30 in magnitude. The discrepancy between bivariate and partial correlations was substantial enough to signal the presence of factors. The KMO Measure of Sampling Adequacy was above 0.60; there were small values on the off-diagonal of the anti-image matrices; and Bartlett's Test of Sphericity indicated that the correlation matrix differed significantly from an identity matrix, $\chi^2(10) = 6585.2, p < .01$.

A maximum-weighted likelihood extraction with no rotation was performed through CEFA on the five R indicators. A one-factor solution was specified. Loadings of variables on the one factor, communalities, and percents of variance are shown in Table 7. Loadings under .45 are replaced by zeros. The factor extracted was presumed to be Religiosity.

Communalities were somewhat large, indicating that Religiosity is well defined. The maximum absolute residual was 0.03, indicating a reasonably small discrepancy between the observed and reproduced correlation matrices. The RMSEA was 0.028, indicating excellent fit. The factor structure was also excellent, with no variables with a factor loading under 0.45. All

dimensionality diagnostics and the factor analysis itself indicate that the five R indicators are relatively simple and pure measures of Religiosity.

Dimensionality Assessment and EFA of Progressiveness Indicators

The number of factors underlying the Progressiveness (Pr) indicators was established first. The first five eigenvalues were 2.64, 1.32, 0.87, 0.75, and 0.61. The first eigenvalue explained 38% of the total variance of all R indicators; the second eigenvalue, 57%. The first two eigenvalues fulfilled the Kaiser criterion. The scree plot indicated an elbow point at the second eigenvalue, suggesting a one-factor solution. Horn's Parallel Analysis indicated two eigenvalues performing above chance; the MAP test produced a minimum mean square partial correlation for the first eigenvalue. Diagnostics were split between a one-factor and two-factor solution. Two EFAs were run, testing each solution.

Factor analysis assumptions were assessed. Sample size was 5097, more than adequate for factor analysis. Missing status of data, multivariate normality, and multivariate linearity of the Pr indicators are dealt with in the SEM assumptions section. SMCs and eigenvalues for the Pr indicators did not indicate multicollinearity or singularity.

Factorability of the P indicator correlation matrix was assessed next. Due to large sample size, all bivariate correlations were significant. Only five out of the fifteen total bivariate correlations were greater than 0.30 in magnitude. The discrepancy between bivariate and partial correlations was much smaller than those of the P and R indicators. The KMO Measure of Sampling Adequacy was above 0.60; there were small values on the off-diagonal of the anti-image matrices; and Bartlett's Test of Sphericity indicated that the correlation matrix differed significantly from an identity matrix, $\chi^2(21) = 9274.2$, p < .01.

The one-factor solution was investigated with a maximum-weighted likelihood extraction

with no rotation, performed through CEFA. Loadings of variables on the one factor, communalities, and percents of variance are shown in Table 9. Loadings under .25 are replaced by zeros; this criterion was relaxed in order to include the factor loading of the first indicator. The factor extracted was presumed to be Progressiveness.

Communalities were mostly very small, indicating that Progressiveness was not well-defined. The maximum absolute residual was 0.45, indicating a large average discrepancy between the observed and reproduced correlation matrices; this was mostly a result of error in reproducing the correlation between items "Abortion justifiable" and "Homosexuality and justifiable." The RMSEA was 0.173, indicating poor fit. The factor structure was adequate, with all but two factor loadings above 0.40; "Abortion justifiable" and "Homosexual neighbors okay" had loadings of 0.33, and 0.25, respectively. So while the factor structure appears adequate, the fit of the solutions is bad.

The two-factor solution was investigated through a maximum-weighted likelihood extraction with Varimax rotation also performed through CEFA. Loadings of variables on the two factors, communalities, and percents of variance are shown in Table 10. Loadings under 0.25 are replaced by zeros; the criterion was lowered for this rotation to demonstrate the messiness of the factor structure versus those of the other indicators. The factors extracted were interpreted as Gay/Abortion Rights and Gender Equality.

Communalities had high variability, ranging from a low of 0.10 to a high of 0.84, indicating that some variables did not have much common variance with both factors extracted. The maximum absolute residual was 0.06, indicating a somewhat large discrepancy between the observed and reproduced correlation matrices. The RMSEA was 0.038, indicating good fit. The factor structure was fairly simple with two exceptions: the item "Men have more right to jobs"

was cross-loaded between the two factors; the item "Homosexual neighbors are okay" only loaded onto one factor and poorly. In sum, the factors appeared to satisfactorily reproduce the observed correlation matrix but the factor structure was messy looking.

In sum, Political Instability and Religiosity proved to have pure and valid indicators.

Progressiveness was extremely messy – both one- and two-factor solutions had equal, poor support from the data; neither was very good. Ultimately, the authors followed theoretical considerations and considered the one-factor solution to have the best fit, tentatively validating the 7 Pr indicators as measures of Progressiveness.

Hypothesized Structural Equation Model

The hypothesized model is in Figure 1. The three circles represent the three latent variables, Political Instability, Religiosity, and Progressiveness. The rectangles represent the indicators i.e. the survey items that operationalize the latent variables. Arrows represent a direct effect; absence of an arrow indicates no direct effect.

The model was formulated to confirm the hypothesis that Political Instability is only related to Progressiveness through Religiosity. In other words, Political Instability predicts Religiosity, which in turn predicts Progressiveness.

IBM SPSS and EQS were used to evaluate assumptions. Missingness was not at random due to some countries refraining from answering questions or not allowing certain questions to be answered. After removing problematic countries and multivariate outliers, listwise deletion reduced the sample from 6,727 to 3,881. Box and whiskey plots and z-scored of the highest and lowest values for each indicator was assessed to check for univariate outliers. No univariate outliers were found. Mulitvariate outliers were assessed using χ^2 for Mahalanobis distance with a cutoff of p < .001. A total of 56 cases were found to be multivariate outliers. Table 3 displays

each case, values on each variable, and the means and standard deviations of each variable. All cases producing multivariate outliers were deleted. All of the variables were found to be significantly skewed and Q-Q plots indicate deviations from normality. However, the maximum likelihood estimation in EQS protects against multivariate normality. Bivariate scatterplots were examined to assess linearity. There was no evidence of curvilinear relationships between any of the variables. Collinearity diagnostics were produced to check for multicollinearity and singularity. No evidence of multicollinearity or singularity was found. Also, residuals for the final model were small and centered around zero.

Model Estimation. The model was run in EQS. The estimated parameters can be seen in Figure 1. The parameters for this model were not evaluated and interpreted because the overall fit of the model was poor, $\chi^2(117) = 6403$, p < .05, AIC = 6170, NNFI = 0.71, SRMR = 0.13, RMSEA = 0.12. It is important to note that model chi-square is reported due to convention; the large sample size obfuscates its interpretation. Clearly the model needed to be modified.

Model Modification. Possible model modifications were considered through tests of the statistical necessity of sets of parameters, specifically the multivariate Wald (W) and LaGrange Multiplier (LM) test. The chi-square difference (D) test was not used because the W, LM, and D tests are asymptotically equivalent, which is applicable given the large sample size of the World Survey dataset (Bentler, 2006). The Multivariate W test did not indicate any free parameters to be dropped. However the multivariate LM test did propose several parameters to be estimated; three parameters were significant according to Hancock's conservative criterion. Of these three, two were associated with a significant standardized parameter change in the univariate LM test. One possible parameter was that between the item "Homosexuality justifiable" and the Religiosity latent factor, $\chi^2(1) = 671.5$, p < .01; the associated univariate increment was

significant according to Hancock's criterion, $\chi^2(117) = 671.5$, p < .01. The other was between "Homosexual neighbors" and the Religiosity latent factor, $\chi^2(3) = 1311.2$, p < .01; the associated univariate increment was significant according to Hancock's criterion, $\chi^2(115) = 280.2$, p < .01. These parameters were cross-loadings between supposedly pure Pr indicators and the Religiosity latent factor.

The results of the LM test suggested a problem with the measurement portion of the model, specifically the measurement of Progressiveness. This makes sense given the poor fit of the one-factor structure when an EFA was performed on the Pr indicators. The LM-suggested modifications were not instituted because cross-loadings were not desired for the final model. Instead, the integrity of the indicators was re-evaluated by performing an oblique-rotation EFA on all of the indicators, which is akin to a fully saturated structural equation model where all indicators can load onto all latent factors.

Exploratory Factor Analysis of All Indicators

The number of factors underlying the full set of indicators was established first. The first seven eigenvalues were 4.7, 2.9, 1.9, 1.1, 0.78, 0.76, and 0.67. The first three eigenvalues explained 56% of the variance in all of the indicators. The first four eigenvalues fulfilled the Kaiser criterion, the last one just barely explaining more variance than a single indicator. The scree plot indicated an elbow point at the fourth eigenvalue, suggesting a three-factor solution. Horn's Parallel Analysis indicated four eigenvalues performing above chance; the MAP test produced a minimum mean square partial correlation for the third eigenvalue. Diagnostics were split between a three-factor and four-factor solution. One oblique rotation EFA with a three-factor solution was run.

Factor analysis assumptions were assessed. Sample size was 5097, more than adequate

for factor analysis. Missing status of data, multivariate normality, and multivariate linearity of the Pr indicators were dealt with in the SEM assumptions section. SMCs and eigenvalues for full set of indicators did not indicate multicollinearity or singularity.

Factorability of the P indicator correlation matrix was assessed next. Due to large sample size, the majority of bivariate correlations were significant. A good amount of correlations were above 0.30, mostly those between indicators of the same latent variable. The discrepancy between bivariate and partial correlations was small but substantial. The KMO Measure of Sampling Adequacy was above 0.60; there were small values on the off-diagonal of the anti-image matrices; and Bartlett's Test of Sphericity indicated that the correlation matrix differed significantly from an identity matrix, $\chi^2(136) = 24980.5$, p < .01.

The three-factor solution was investigated through a maximum-weighted likelihood extraction with Geomin rotation performed through CEFA. Loadings of variables on the two factors, communalities, and percents of variance are shown in Table 11. Loadings under 0.25 are replaced by zeros; the criterion was lowered for this rotation to demonstrate the messiness of the factor structure versus those of the other indicators. The factors extracted were interpreted as Political Instability, Religiosity, Progressiveness.

Communalities were mostly large, indicating that the three extracted factors accounted for much of the indicator variance. The maximum absolute residual was 0.29, indicating a medium average discrepancy between the observed and reproduced correlation matrices; no specific discrepancy was greater than 0.11. The RMSEA was 0.075, indicating medium to good fit. The factor structure was clean with the exception of three items belonging to the set of Pr indicators. "Homosexual neighbors," "Homosexuality justifiable," and "Abortion justifiable" all cross-loaded on both Religiosity and Progressiveness. These three indicators were clearly a

problem.

The three problem indicators were deemed too complex to retain in the model. This left four indicators to measure Progressiveness, which is fine from a modeling standpoint but it also became unclear if the remaining indicators would capture the complexity of the construct.

Therefore the Progressiveness factor was replaced by a Gender Equality factor, which corresponds to one of the factors extracted in the two-factor EFA on the Pr indicators.

Empirically Revised Structural Equation Model

The revised model can be seen in Figure 3. Circles represent the latent variables, Political Instability, Religiosity, and Gender Equality while rectangles represent the measured variables.

Arrows represent a direct effect; absence of an arrow indicates no direct effect.

The model was formulated to confirm the modified hypothesis that Political Instability is only related to Gender Equality through Religiosity. In other words, Political Instability predicts Religiosity, which in turn predicts Gender Equality.

Model Estimation. The model was run in EQS. The estimated parameters were identical to the original model in Figure 1 with the indicators for homosexuality and abortion removed.

The revised model fit the data well, $\chi^2(75) = 1658.64$, p < .05, AIC = 1508.64, NNFI = 0.90, SRMR = 0.06, RMSEA = 0.07. It is important to note that model chi-square is reported due to convention; the large sample size obfuscates its interpretation. Since indicators were removed from the model no tests for model improvement and comparison can be calculated. The final model with standardized and unstandardized coefficients can be seen in Figure 3.

Direct Effects. Contrary to our hypothesis, increased religiosity was predicted by greater political instability (unstandardized coefficient = .115, p < .05). Decreased gender equality was

predicted by greater religiosity (unstandardized coefficient = .133, p < .05).

Indirect Effects. The significance of the intervening variable was evaluated using tests of indirect effects through EQS. Religiosity served as an intervening variable for political instability. Increased political instability predicted decreased religiosity, which predicted increased gender equality (unstandardized indirect effect coefficient = .021, p < .05, standardized coefficient = .039). In other words, lower scores on political instability predicted greater religiosity, which predicted greater gender inequality.

Almost half (42.1%) of the variance in religiosity was accounted for by political instability. Gender equality's percent of variance accounted for my religiosity was negligible (0.4%).

Discussion

Political Instability, Religiosity and Progressiveness Model

The original model posited complete mediation between the three latent factors: political instability was related to gender equality only through religiosity. While it is important in the model evaluation process to avoid "fit statistics tunnel" vision by also examining whether the parameter estimates make sense (Kline, 2011), the overall model fit was so awful in terms of absolute, comparative (when compared to the revised model), and parsimony measures that interpretation of the parameters seemed inappropriate.

Also of note: before removal of the three problem indicators, several attempts were made at modifying the model: cross-loading indicators both within and across latent constructs, and correlating error terms. In other words, various nested models were considered to see if model fit could be increased to a satisfactory level; no index was ever elevated into an acceptable range.

Optimal ranges were pulled from Hooper et al. (2008). There was also a trend in the LM tests

towards adding cross-loadings for almost all of the indicators to almost all of the factors i.e. fully saturating the model. We took this to mean that the hypothesized model was not nested within the true model (or best model) or vice versa.

The LM trend and the unilateral poor fit of all nested versions of the hypothesized model were the primary reasons for running a 3-factor oblique rotation EFA. If all indicators are allowed to load onto all factors and the three factors are not restricted to a complete mediator relationship, the result should be similar to an EFA. By allowing secondary and tertiary factor loadings, EFAs are guaranteed to produce different results from CFAs (Grimm & Yarnold, 2000). The goal was to examine these secondary and tertiary loadings to see how they match up with the cross-loading suggestions of the LM tests. Cross-loadings between three Pr indicators, "Homosexual neighbors," "Homosexuality justifiable," and "Abortion justifiable," and the Religiosity factor appeared in the EFA and in the LM tests. These items were subsequently dropped because they were deemed complex measures.

The complexity of the dropped indicators makes sense theoretically as the three items cover social values that are addressed explicitly in many religious doctrines. Most religions forbid homosexuality and abortion. The remaining four Pr indicators were questions of women's rights. Inequality of women's rights is explicitly addressed in a few religious doctrines, like Islam, but most practitioners are not extreme or dogmatic in suppressing women's rights. This is not to say that there aren't pockets of believers who are extreme in their following of their doctrine when treating women inequally. Rather, the majority of people in the majority of religions probably consider gender equality to be a social value, not a religious belief.

Political Instability, Religiosity and Gender Equality Model

The revised model examined the predictors of religiosity and gender equality. It was

hypothesized that increased political instability would directly predict increased religiosity, religiosity would directly predict a reduction in support for gender equality, and that this reduction in gender equality would be indirectly predicted by increased political instability.

Although the model fit the data reasonably well, the exact opposite relationship between political instability and religiosity was found. Greater political instability predicted lower religiosity.

Additionally, the direct effect of religiosity and the indirect effect of political instability on gender were weak. Moreover, almost none of variance in gender equality was accounted for by religiosity.

An important measurement issue in the latent construct, political instability, may explain the disconfirming findings. The construct was intended to measure subjective unease with the public affairs of the country. The measured variables assessed confidence in various governing institutions. However, this may have missed the mark. Beside the obvious issues with subjective measures, this particular measure may have been confounded by religiosity itself. People who are more religious tend to also be more trusting of governing bodies (Reiss, 200). In fact, when people perceive a lack of personal control due to external factors, they display a strong tendency to support religious and sociopolitical systems (Kay, Gaucher, Napier, Callan, & Laurin, 2008). What may have been missing from the model was that actual political instability (measured more objectively) led individuals to support governing bodies (i.e. ratings of confidence for the government, police, justice system, etc.) and to be more religious. Better measures of societal instabilities should be used for future research. More objective measures such as GDP, average life expectancy, and crime statistics may better encompass the overall theory.

Limitations

Not withstanding the previously mentioned limitation of the measurement of political

instability, there were several key limitations to the research. Missingness was a major problem with the data. Although the data encompassed a wide range of countries some of the more theoretically interesting countries were omitted either because they were not asked some of the questions or the country's government did not allow for respondents to be asked some of the questions. Most notably were Saudi Arabia, Russia, China, Egypt, Ukraine, India, Rwanda, Guatemala, and Peru.

Another notable limitation was the possibility that the research overlooked important differences between religious denominations. Religion was assessed on a macro level and did not distinguish between specific religions. Assumptions or suppositions evoked in the introduction often referred to the two most prevalent religions, Christianity, in the broad sense, and the Muslim religion. This general assessment unduly ignores the differences in religious doctrine. Indeed, just surveying the differences in the hundreds of denominations of Christianity, one would find strikingly conflicting perspectives.

However, the research was focused on the tendency to seek protection and aid from the spiritual realm when caporal forces seem to be ineffective or deteriorating. Moreover, the religiosity literature consistently indicated that the extent to which one was religious is more important than specific denominations (e.g., Evans & Hudson, 2007; Ellison, Echevarria, & Smith, 2005; Evans & Hudson, 2007; Hess & Rueb, 2005; Lindsey, Sigillo, & Miller, 2013).

A further limitation was the under- or misrepresentation of the country's populations. Although a large number of countries were surveyed, the number of individuals per country was vastly out of proportion to the actual population of each country. In comparison, the number of individuals in the sample that were from the U.S. was n = 115 while the number of individual Cyprus was n = 104. However, the U.S. population currently stands at 313.9 million while

Cyprus' population is only 1.129 million. This bias was inherent to the original WVS data set.

Future Directions

Future research should be conducted to correct for the measurement issues with political instability as well as address some of the limitations. Utilizing more objective measures of sociopolitical instability should be attempted before any conclusion may be inferred from the present research. It would also be of interest to look at specific countries. As noted in the introduction, the U.S. is of particular interest, being one of the most religious of the developed countries. Looking at a wider range of social and political factors may help provide clarity to it anomalous standing.

References

- Arat, Y. (1998). Feminists, Islamists, and political change in Turkey. *Political Psychology*, 19(1), 117-131. doi: 10.1111/0162-895X.00095
- Barber, N. (2012). County religiosity declines as material security increases. *Cross-Cultural Research*, 47(1), 42-50. doi:10.1177/1069397112463328
- Bentler, P. M. (2006). *EQS 6 Structural Equations Program Manual*. Encina, CA: Multivariate Software, Inc.
- Baumann, M., Kuemmer, T., Elbakidze, M., Ozdogan, M., Radeloff, V. C., Keuler, N. S., Prishchepov, A. V., Kruhlov, I., Hostert, P. (2011). Patterns and drivers of post-socialist farmland abandonment in Western Ukraine. *Land Use Policy*, *28*(3), 552-562. doi:10.1016/j.landusepol.2010.11.003
- Ellison, C. G., Acevedo, G. A., & Ramos-Wada, A. I. (2011). Religion and attitudes toward same-sex marriage among U.S. Latinos. *Social Science Quarterly*, 92(1), 35-56. doi:10.1111/j.1540-6237.2011.00756.x3
- Ellison, C. G., Echevarria, S., & Smith, B. (2005). Religion and abortion attitudes among U.S. Hispanics: Findings from the 1990 Latino National Politcal Survey. *Social Science Quarterly*, 86(1), 192-208. doi:10.1111/j.0038-4941.2005.00298.x
- Evans, J. H., & Hudson, K. (2007). Religion and reproductive genetics: Beyond views of embryonic life? *Journal for the Scientific Study of Religion*, 46(4), 565-581. doi:10.1111/j.1468-5906.2007.00378.x
- Feltey, K., & Poloma, M. (1991). From sex differences to gender role beliefs. *Sex Roles*, 25, 181-183.
- Grimm, L. G., Yarnold, P. R. (2000). Reading and Understanding More Multivariate Statistics. Washington, DC: American Psychological Association.
- Herek, G. M. (1988). Heterosexuals attitudes toward lesbians and gay men: Correlates and gender differences. *Journal of Sex Research*, *25*, 451–477. doi:10.1080/00224498809551476
- Hess, J. A., & Rueb, J. D (2005). Attitudes toward abortion, religion, and party affiliation among college students. *Current Psychology*, 24(1), 24-42. doi:10.1007/s12144-005-1002-0
- Hooghe, M., Claes, E., Harell, A., Quintelier, E., & Dejaeghere, Y. (2010). Anti-gay sentiment among adolescents in Belgium and Canada: A comparative investigation into the role of gender and religion. *Journal of Homosexuality*, *57*, 384-400. doi:10.1080/00918360903543071

- Hooper, D., Coughlan, J., Mullen, M. R. (2008). Structural equation modelling: Guidelines for determining model fit. *Electronic Journal of Business Research methods*, 6(1), 53-60.
- Huffington, A. (2010). Third World America. New York: Crown.
- Jensen, L. A. (1998). Moral division within countries between orthodoxy and progressivism: India and the United States. *Journal for the Scientific Study of Religion*, *37*(1), 90-107.
- Johnson Shen, M., Haggard, M. C., Strassburger, D. C., & Rowatt, W. C. (2013). Testing the love thy neighbor hypothesis: Religiosity's association with positive attitudes toward ethnic/racial and value-violating out-groups. *Psychology of Religion and Spirituality*, 5(4), 294-303. doi:10.1037/a0033648
- Kay, A. C., Gaucher, D., Napier, J. L., Callan, M. J., & Laurin, K. (2008). God and the government: Testing a compensatory control mechanism for the support of external systems. *Journal of Personality and Social Psychology*, 95(1), 18-35.
- Kim. Y. J., & Yancey, G. (2008). Racial diversity, gender equality, and SES diversity in Christian congregations: Exploring the connections of racism, sexism, and classism in multiracial and nonmultiracial churches. *Journal of the Scientific Study of Religion*, 47(1), 103-111.
- Kline, R. B. (2011). *Principles and Practice of Structural Equation Modeling*. New York: The Guilford Press.
- Knudson Gee, G. (1995). Geography nationality, and religion in Ukraine: A research note. Journal for the Scientific Study of Religion, 34(3), 383-390. doi:10.2307/1386887
- Laurin, K., Shariff, A. F., Henrich, J., & Kay, A. C. (2012). Outsourcing punishment to god: Beliefs in divine control reduce earthly punishment. *Proceedings of the Royal Society B*, 1-10. doi:10.1098/rspb.2012.0615
- Li, Y. J., Cohen, A. B., & Kenrick, D. T. (2010). Mating competitors increase religious beliefs. *Journal of Experimental Social Psychology*, 46, 428-431.
- Lindsey, A. C., Sigillo, A. E., & Miller, M. K. (2013). Attitudes toward parental involvement clauses in minor abortion laws and individual differences in religion, political affiliation, and attribution style among college students. *Individual Differences Research*, 11(2), 59-69.
- McCleary, R. M., & Barro, R. J. (2006). Religion and political economy in an international panel. *Journal for the Scientific Study of Religion*, 45(2), 149-175. doi:10.1111/j.1468-5906.2006.00299.x
- Meeusen, C., & Hooghe, M. (2012). Homophobia and the transition to adulthood: A three-year panel study among Belgian late adolescents and young adults, 2008-2011. *Journal of Youth and Adolescence, 41,* 1197-1207. doi:10.1007/s10964-012-9786-3

- Mockabee, S. T. (2007). A question of authority: Religion and cultural conflict in the 2004 election. *Political Behavior*, *29*, 221-248. doi:10.1007/s11109-006-9023-4
- Pew Research Center's Global Attitudes Project (2002). Among wealthy nations: U.S. stands alone in its embrace of religion. Retrieved from http://www.pewglobal.org/2002/12/19/among-wealthy-nations/
- Presser, S., & Chaves, M. (2007). Is religious service attendance declining? *Journal for the Scientific Study of Religion*, 46(3), 417-423. doi:10.1111/j.1468-5906.2007.00367.x
- Putnam, R. D., & Campbell, D. E. (2010). *American Grace: How religion divides and unites us.* New York, NY: Simon & Schuster.
- Reiss, S. (2000). Why people turn to religion: A motivational analysis. *Journal for the Scientific Study of Religion*, 1, 47-52.
- Roes, F. & Raymond, M. (2003). Belief in Moralizing Gods. *Evolution and Human Behavior*, 24, 126–135.
- Shariff, A. F., Norenzayan, A., Henrich, J. (2010) The birth of high gods. In M. Schaller, A. Norenzayan, S. Heine, T. Kameda, & T. Yamagishi, (Eds.). Evolution, Culture, and the Human Mind. New York: Lawrence Erlbaum Associates.
- Shermer, M. (2013). Is god dying? The decline of religion and the rise of the 'nones'. *Scientific American*. Retrieved from http://www.scientificamerican.com/article/is-god-dying/
- Snarey, J. (1996). The natural environment's impact upon religious ethics: a cross-cultural study. Journal for the Scientific Study of Religion, 80, 85–96.
- Solt, F., Habel, P., & Grant, J. T. (2011). Economic inequality, relative pwer, and religiosity. *Social Science Quarterly*, 92(2),447-465. doi:10.1111/j.1540-6237.2011.00777.x
- Stack, S., Wasserman, I., & Kposowa, A. (1994). The effects of religion and feminism on suicide ideology: An analysis of national survey data. *Journal for the Scientific Study of Religion*, 33(2), 110-121. doi:10.2307/1386598
- Todd, N. R., & Ong, K. S. (2012). Political and theological orientation as moderators for the association between religious attendance and attitudes toward gay marriage for white Christians. *Psychology of Religion and Spirituality*, 4(1), 56-70. doi:10.1037/a0025142
- United Nations Development Programme (2013). Human development index. Retrieved from http://hdr.undp.org/en/statistics/hdi

- Whitley, B. E. (2009). Religiosity and attitudes toward lesbians and gay men: A meta-analysis. *International Journal for the Psychology of Religion, 19,* 21–38. doi:10.1080/10508610802471104
- Wilcox, C. (1990). Religion and politics among White Evangelicals: The impact of religious variables on political attitudes. *Review of Religious Research*, *32*, 27–42. doi:10.2307/3511325
- World Values Survey Association. (2008). World Values Survey 2005 official data file, v.20081015. Retrieved from http://www.wvsevsdb.com/wvs/WVSData.jsp?Idioma=I

Table 1

Demographic Information for the original 2005 World Values Survey (WVS) and the Randomly Selected Sample by Percentage of Total Sample and Mean and Standard Deviation of Participants Age

Demographics	WVS	Random Sample
Age (M, SD)	41.78 (16.54)	42.08 (16.83)
Gender		
Male	47.8	48.9
Female	52.2	51.1
Education		
No Formal Education	9.0	4.4
Incomplete Primary School	8.0	7.9
Complete Primary School	14.6	16.2
Incomplete Secondary School: Technical/Vocational Type	7.3	7.7
Complete Secondary School: Technical/Vocational Type	18.0	19.4
Incomplete Secondary School: University-preparatory Type	6.7	6.3
Complete Secondary School: University-preparatory Type	16.1	15.2
Some University-level Education, without Degree	6.5	8.1
University-level Education, with Degree	13.8	14.8
Relationship Status		
Married	55.7	53.3
Living together as married	7.6	7.8
Divorced	3.4	4.0
Separated	1.9	2.0
Widowed	6.4	5.8
Single/Never married	25.0	27.0
Children		
No Child	28.1	30.3
1 Child	15.9	15.4
2 Children	25.5	26.4
3 Children	14.3	14.2
4 Children	7.1	6.0
5 or More Children	9	7.6
Religious Denomination		
Listed	83.1	85.8
Not Applicable	15.9	13.6
Social Class (Subjective)		
Upper Class	1.4	1.6
Upper Middle Class	18.8	20.9
Lower Middle Class	35.7	38.0
Working Class	28.9	28.1
Lower Class	15.2	11.4
Total	N = 67,268	N = 3881

Table 2

Frequency and Percent of the Countries in the Final Sample

Country	Frequency	Percent
Italy	68	1.8
Spain	94	2.4
United States of America	105	2.7
Canada	162	4.2
Mexico	133	3.4
South Africa	228	5.9
Australia	118	3.0
Norway	94	2.4
Sweden	88	2.3
Argentina	55	1.4
Finland	91	2.3
South Korea	118	3.0
Poland	58	1.5
Switzerland	89	2.3
Brazil	134	3.5
Chile	68	1.8
Slovenia	75	1.9
Bulgaria	66	1.7
Romania	116	3.0
Taiwan	117	3.0
Turkey	115	3.0
Uruguay	28	0.7
Ghana	134	3.5
Moldova	85	2.2
Georgia	86	2.2
Thailand	149	3.8
Indonesia	174	4.5
Vietnam	117	3.0
Serbia	84	2.2
Jordan	90	2.3
Cyprus	94	2.4
Trinidad and Tobago	80	2.1
Burkina Faso	106	2.7
Ethiopia	121	3.1
Mali	92	2.4
Zambia	114	2.9
Germany	135	3.5
Total	3881	100

Descriptions of Multivariate Outliers with Model Variables' Means and Standard Deviations

	Сопину				Turkey	Romania	Cyprus	Jordan	Cyprus	Cyprus Burkina	Faso	Ethiopia	Ethiopia	Germany	Mexico	S Africa	Brazil	Romania	Cyprus	Cyprus	Cyprus	Trinidad	and 100ago Burkina	Faso
	Confidence in the Political Parties	2.93	0.862		4	-	4	4	4	4	4	4	_	3	4	7	4	4	4	-	4	"	0	4
	Confidence in the Government	2.54	0.91		-	4	_	1	4	4	4	4	4	2	4	1	7	4	1	3	3	-	-	_
	Confidence in Justice System	2.44	0.928		_	4	4	4	-	-	4	_	4	1	4	4	4	_	4	3	_	"	o	4
	Confidence in the Police	2.37	0.914		-	_	_	-	4	4	4	_	4	3	1	3	_	4	1	2	4	-	-	3
	Confidence in Armed Forces	2.2	0.905		-	ю	_	_	_	-	2	_	_	_	1	2	_	2	_	3	_	-	-	2
	Men are better business executives		0.941		4	2	_	П	3	-	4	4	2	4	4	3	_	_	2	4	2	-	+	_
iations	Men have Greater Right to Education	3.13	0.84		-	_	4	-	4	4	4	3	4	1	1	4	4	4	4	1	4	"	n	4
ariables' Means and Standard Deviations	Men are Better Political Leaders		0.928		1	2	_	_	3	-	П	3	_	4	4	_	4	4	33	7	7	-	-	2
d Stand	Men have Greater Right to Work	2.21	0.895		П	_	_	_	_	-	1	3	_	_	3	_	_	3	3	7	_	-	-	3
<u>ans an</u>	Abortion is Justiffable	3.68	3.01		-	_	4	_	10	-	1	10	10	10	1	_	_	_	_	4	10	-	-	-
les Me	Homosexuality is Justifiable	3.78	3.287		-	_	4	_	_	-	-	2	3	-	1	7	_	_	-	3	10	-	-	_
_	Fine with Homosexual Neighbors	1.54	0.499		П	_	7	_	_	-	1	2	2	_	1	2	_	_	-	_	2	-	-	-
ı Model	Importance of God in one's Life	7.76	2.926		10	10	10	10	10	10	10	10	10	_	10	4	10	10	10	10	10	9	10	ж
ers with	Religious Service Attendance	3.93	2.178		-	7	7	7	7	7	9	_	4	7	4	5	2	4	7	3	9	-	-	_
te Outli	Confidence in Churches	2.09	696.0		4	_	4	3	_	-	4	4	2	4	1	4	_	_	4	4	3	-	1	_
ltivaria	Importance Child Faith	1.61	0.488		-	2	2	_	2	2	1	_	2	2	2	_	_	_	2	-	2	-	-	_
s of Mu	Religious Importance	1.9	1.027		_	1	4	4	1	П	4	2	2	4	1	2	1	1	2	1	_	-	-	_
Descriptions of Multivariate Outliers with Model		Mean	S.D.	Case	2737	2437	3988	3881	4027	4028	4408	4504	4554	2067	597	721	1906	2409	3997	4011	4018	1151	41.74	4305

Country	Burkina Faso	Mexico	S Africa	S Korea	Chile	Ghana	Vietnam	Jordan	Mali	Mali	Zambia	Mexico	S Africa	Chile	Chile	Bulgaria	Taiwan	Georgia Burkina	Faso	Ethiopia	Mali	Zambia	Mexico	S Africa	S Africa
Confidence in the Political Parties	4	4	7	7	4	4	-	4	-	2	3	-	-	-	-	7	4	4	7	4	4	4	4	7	4
Confidence in the Government	4	-	-	4	4	-	-	_	33	4	4	-	3	_	-	7	7	4	4	4	4	4	_	4	4
Confidence in Justice System	4	4	3	2	4	1	2	-	1	-	1	4	-	2	7	7	7	-	4	4	4	4	1	4	2
Confidence in the Police	4	4	4	7	33	-	-	4	-	7	4	4	-	_	-	7	3	4	7	4	4	4	4	_	7
Confidence in Armed Forces	2	2	-	-	1	4	-	_	-	2	3	-	-	-	-	1	4	-	2	-	1	2	1	4	2
Men are better business executives		_	3	2	4	-	4	7	-	3	1	2	-	4	4	4	3	-	-	4	3	3	2	2	-
Men have Greater Right to Education		4	4	2	-	4	4	4	-	7	7	2	-	4	4	4	3	-	-	4	-	3	7	7	-
Men are Better Political Leaders		-	4	7	2	-	4	-	-	2	3	3	-	-	-	-	3	-	-	4	4	3	3	7	4
Men have Greater Right to Work		3	-	-	3	3	-	-	-	3	3	-	-	3	3	3	2	7	3	3	-	3	-	-	3
Abortion is Justiffable	_	7	-	5	-	-	-	-	10	1	9	-	10	10	10	4	S	S	10	10	6	10	_	_	1
Homosexuality is Justifiable	_	S	-	ĸ	9	-	-	_	10	-	ю	-	6	10	10	-	-	-	10	2	7	10		-	7
Fine with Homosexual Neighbors	_	7	2	-	2	-	-	-	-	-	7	_	-	_	-	7	7	-	7	2	-	-	_	7	2
Importance of God in one's Life	10	6	7	_	10	10	_	10	10	2	2	10	10	10	10	1	-	10	10	10	7	_	10	10	6
Religious Service Attendance	9	3	7	7	7	7	4	7	9	-	1	7	9	1	1	7	1	ъ	-	4	5	2	1	7	2
Confidence in Churches	4	7	4	4	-	-	4	_	-	-	7	1	-	_	-	4	-	-	7	4	2	_	-	-	-
Importance Child Faith	1	2	2	2	1	2	2	_	_	2	-	2	1	-	1	1	-	2	_	2	-	7	2	1	-
Religious Importance	4	3	4	1	1	1	1	1	1	1	1	1	1	1	1	4	1	-	1	4	1	-	1	1	-
	4402	009	731	1646	2090	2858	3645	3970	4626	4693	4771	657	712	2035	2297	2497	2483	3144	4426	4575	4625	4774	989	724	801

Table 3 continued

Country	Argentina	S Korea	Poland	Serbia	Serbia	Serbia	Mali	Romania	Cyprus Trinidad	and Tobago	Argentina	Turkey
Confidence in the Political Parties	2	4	2	4	3	4	4	4	33	2	4	4
Confidence in the Government	_	4	2	4	4	4	2	4	7	2	4	8
Confidence in Justice System	4	4	3	4	3	4	_	2	2	2	7	-
Confidence in the Police	4	-	2	4	3	4	3	4	33	1	7	8
Confidence in Armed Forces	3	4	2	4	3	4	_	1	4	3	4	-
Men are better business executives	4	1	4	1	7	4	1	4	4	1	4	2
Men have Greater Right to Education	4	_	_	1	4	4	3	4	3	4	4	3
Men are Better Political Leaders	3	1	_	1	-	1	_	1	1	1	П	2
Men have Greater Right to Work	_	-	3	_	3	3	3	3	-	3	3	2
Abortion is Justifiable	9	-	5	10	2	_	10	-	10	_	∞	-
Homosexuality is Justiffable	8	-	6	10	10	_	10	_	9	_	10	-
Fine with Homosexual Neighbors	2	1	2	1	_	1	_	1	-	2	2	-
Importance of God in one's Life	10	6	∞	4	4	10	10	10	10	3	10	2
Religious Service Attendance	9	4	4	7	9	9	_	2	4	1	2	7
Confidence in Churches	4	1	3	4	2	4	_	1	ю	1	3	-
Importance Child Faith	2	2	2	2	_	2	7	2	7	2	7	-
Religious Importance	1	2	1	1	1	4	1	1	-	1	1	-
	1418	1632	1679	3813	3817	3850	4637	2412	4045	4154	1367	2626

Correlations	for Political	! Instability	Construct	Indicators
--------------	---------------	---------------	-----------	------------

Items	\mathbf{P}_1	P_2	P_3	P_4	P ₅
P ₁ : Confidence in Armed Forces					
P ₂ : Confidence in the Police	0.39*				
P ₃ : Confidence in the Justice System	0.33*	0.59*			
P4: Confidence in the Government	0.33*	0.47*	0.51*		
P ₅ : Confidence in the Political Parties	0.25*	0.38*	0.41*	0.53*	

^{*} *p* < .01.

Table 4

Table 5

Factor Loadings, Communalities (h²), and Percents of Variance for MWL Extraction with No Rotation on Political Instability Indicators

Measure	F_1 ^a	h^2
P ₁ : Confidence in Armed Forces	0.47	0.22
P ₂ : Confidence in the Police	0.72	0.33
P ₃ : Confidence in the Justice System	0.75	0.40
P ₄ : Confidence in the Government	0.71	0.41
P ₅ : Confidence in the Political Parties	0.60	0.27
Percent of Variance	54%	

^a Factor labels:

Table 6

 F_1 – Political Instability

Correlations for Religiosity Construct Indicators

Correlations for Religiosity Construct II	iaicaiors				
Items	R_1	R_2	R_3	R_4	R ₅
R ₁ : Importance of Religion					
R ₂ : Importance of Having Faith	0.46*				
R ₃ : Confidence in Churches	0.45*	0.34*			
R ₄ : Frequency of Service Attendance	0.44*	0.33*	0.34*		
R ₅ : Importance of God in Life	0.61*	0.41*	0.40*	0.39*	

^{*} *p* < .01.

Factor Loadings, Communalities (h²), and Percents of Variance for MWL Extraction with No Rotation on Religiosity Indicators

Indicator	F_1^a	h^2
R ₁ : Importance of Religion	0.81	0.69
R ₂ : Importance of Having Faith	0.57	0.31
R ₃ : Confidence in Churches	0.56	0.30
R ₄ : Frequency of Service Attendance	0.55	0.29
R ₅ : Importance of God in Life	0.73	0.54
Percent of Variance	53%	

^a Factor labels:

Table 8

Table 7

 F_1 – Religiosity

Correlations for Progressiveness Construct Indicators

Items	Pr ₁	Pr ₂	Pr ₃	Pr ₄	Pr ₅	Pr ₆	Pr ₇
Pr ₁ : Homosexual Neighbors Okay							
Pr ₂ : Homosexuality Justifiable	0.28*						
Pr ₃ : Abortion Justifiable	0.17*	0.59*					
Pr ₄ : Men Have More Right to Jobs	0.18*	0.24*	0.19*				
Pr ₅ : Men Are Better Politicians	0.13*	0.26*	0.19*	0.32*			
Pr ₆ : Edu More Important for Men	0.10*	0.16*	0.13*	0.27*	0.40*		
Pr ₇ : Men Are Better Executives	0.16*	0.25*	0.17*	0.32*	0.58*	0.48*	

^{*} *p* < .01.

Table 9

Factor Loadings, Communalities (h²), and Percents of Variance for MWL Extraction with No Rotation on Progressiveness Indicators

Measure	$F_1{}^{\mathrm{a}}$	h^2
Pr ₁ : Homosexual Neighbors Okay	0.25	0.08
Pr ₂ : Homosexuality Justifiable	0.42	0.12
Pr ₃ : Abortion Justifiable	0.33	0.06
Pr ₄ : Men Have More Right to Jobs	0.46	0.08
Pr ₅ : Men Are Better Politicians	0.71	0.08
Pr ₆ : Edu More Important for Men	0.57	0.03
Pr ₇ : Men Are Better Executives	0.76	0.07
Percent of Variance	38%	

^a Factor labels:

 F_1 – Progressiveness

Factor Loadings, Communalities (h²), and Percents of Variance for MWL Extraction with Varimax Rotation on Progressiveness Indicators

Measure	$F_1{}^a$	F_2	h^2	
Pr ₁ : Homosexual Neighbors Okay	0.00	0.29	0.08	
Pr ₂ : Homosexuality Justifiable	0.00	0.91	0.12	
Pr ₃ : Abortion Justifiable	0.00	0.63	0.06	
Pr ₄ : Men Have More Right to Jobs	0.39	0.21	0.08	
Pr ₅ : Men Are Better Politicians	0.68	0.00	0.08	
Pr ₆ : Higher Edu More Important for Men	0.59	0.00	0.03	
Pr ₇ : Men Are Better Executives	0.80	0.00	0.07	
Percent of Variance	38%	19%		

^a Factor labels:

Table 10

 F_1 – Gay/Abortion Rights

 F_2 – Gender Equality

Table 11

Factor Loadings, Communalities (h²), and Percents of Variance for MWL Extraction with Geomin Rotation on All Indicators

Measure	F_1^a	F_2	<i>F</i> ₃	h^2
P ₁ : Confidence in Armed Forces	0.54	0.00	0.00	0.33
P ₂ : Confidence in the Police	0.78	0.00	0.00	0.60
P ₃ : Confidence in the Justice System	0.80	0.00	0.00	0.63
P ₄ : Confidence in the Government	0.74	0.00	0.00	0.58
P ₅ : Confidence in the Political Parties	0.61	0.00	0.00	0.38
R ₁ : Importance of Religion	0.00	0.87	0.00	0.74
R ₂ : Importance of Having Faith	0.00	0.57	0.00	0.34
R ₃ : Confidence in Churches	0.00	0.59	0.00	0.45
R ₄ : Frequency of Service Attendance	0.00	0.69	0.00	0.48
R ₅ : Importance of God in Life	0.00	0.82	0.00	0.64
Pr ₁ : Homosexual Neighbors Okay	0.00	0.30	0.00	0.16
Pr ₂ : Homosexuality Justifiable	0.00	0.47	0.00	0.35
Pr ₃ : Abortion Justifiable	0.00	0.51	0.00	0.31
Pr ₄ : Men Have More Right to Jobs	0.00	0.00	0.46	0.27
Pr ₅ : Men Are Better Politicians	0.00	0.00	0.79	0.64
Pr ₆ : Higher Edu More Important for Men	0.00	0.00	0.63	0.38
Pr ₇ : Men Are Better Executives	0.00	0.00	0.86	0.74
Percent of Variance	27%	17%	11%	

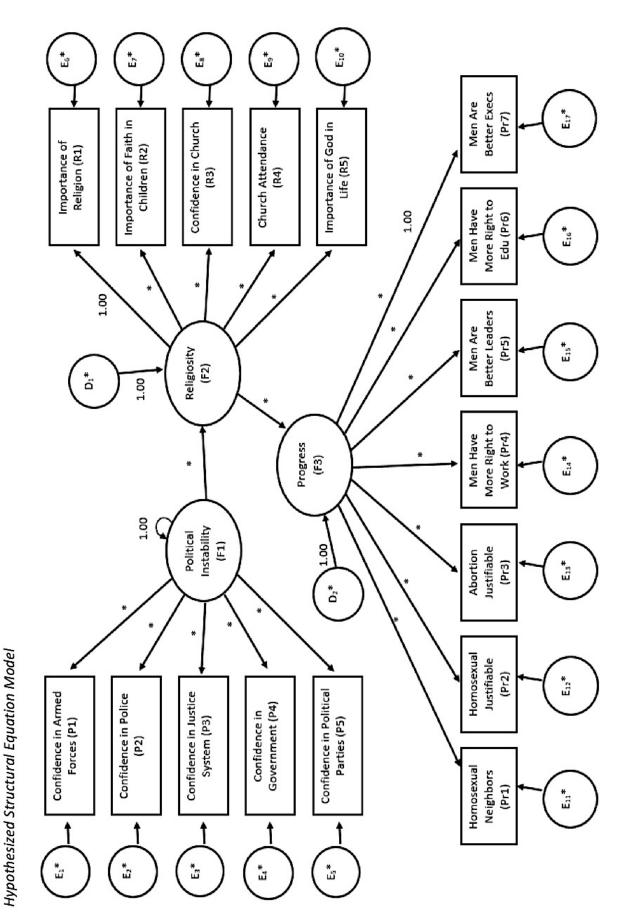
^a Factor labels:

 F_1 – Political Instability

 F_2 – Religiosity

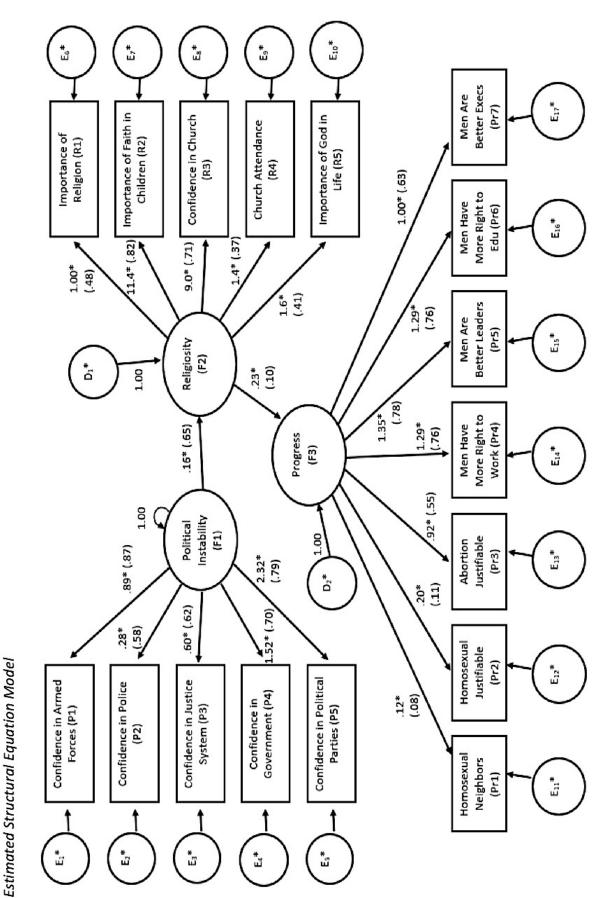
 F_3 – Progressiveness

Figure 1



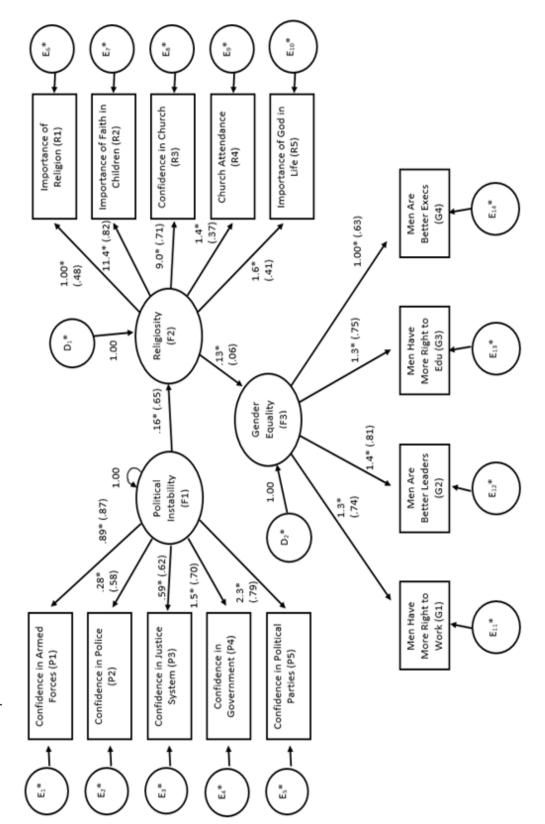
p < .05.

Figure 2



p < .05.

Figure 3 Revised Structural Equation Model



p < .05