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# Human values, legal regulation, and approval of homosexuality in Europe: A cross-country comparison

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# **Human values, legal regulation, and approval of homosexuality in Europe: A cross-country comparison**

## **Abstract**

Although research has revealed a trend toward liberalization of attitudes toward homosexuality in Western countries, acceptance of homosexuality differs remarkably among individuals and across countries. We examine the roles of individual value priorities and of national laws regarding homosexuality and the interaction between them in explaining approval of homosexuality. Data are drawn from the European Social Survey (ESS) and include representative national samples of 27 European countries in 2010. As hypothesized, individuals who prioritized openness to change and universalism values approved of homosexuality more whereas those who prioritized conservation and power values exhibited more disapproval. Approval was greater in countries whose laws regarding homosexuality were more progressive. In addition, legal regulation of homosexuality moderated the associations of individual value priorities. In countries with more progressive laws, both the positive effect of openness to change values and the negative effect of conservation values on approval of homosexuality were weaker. However, the positive effect of universalism values and the negative effect of power values did not vary as a function of national laws regarding homosexuality.

## **Keywords**

human values; conservation; openness to change; universalism; power; approval of homosexuality; laws regarding homosexuality; Rainbow Europe Country Index; European Social Survey

## **Human values, legal regulation, and approval of homosexuality in Europe: A cross-country comparison**

The European Union's anti-discrimination law explicitly forbids discrimination on grounds of sexual orientation (Ellis, 2005). Western countries, however, differ in granting civil rights to gay and lesbian couples. Although public opinion about homosexuality has become more liberal, approval of homosexuality differs remarkably among individuals and across countries (e.g., Gerhards, 2010). People's general attitude toward homosexuality may reflect their approval or disapproval of homosexual behavior, of people with a homosexual or bisexual orientation, and/or of communities of gay, lesbian, and bisexual people (Herek, 2000).

To date, the substantial research on approval of homosexuality and of the rights of homosexuals has mainly focused on such sociodemographic characteristics as religiosity, religious affiliations, level of education, intensity of contact with homosexuals and such social psychological characteristics as authoritarianism and traditional gender roles (e.g., Adamczyk & Pitt, 2009; Davies, 2004; Kelley, 2001; Reese, Steffens, & Jonas, 2013; Simon, 2008; Steffens & Wagner, 2004; Van de Meerendonck & Scheepers, 2004; Whitley & Lee, 2000). Several studies have also considered the influence of different indicators of individual value priorities on approval of homosexuality (Adamczyk & Pitt, 2009; Beckers, 2008; Gerhards, 2010; Jäckle & Wenzelburger, 2011; van den Akker, von der Ploeg, & Scheepers, 2013; Vicario, Liddle, & Luzzo, 2005). These studies reveal that various indexes of value priorities can predict approval of homosexuality.<sup>1</sup>

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<sup>1</sup>Beckers (2008), Gerhards (2010), Jäckle and Wenzelburger (2011) investigated the effect of postmaterialism on attitudes toward homosexuality. Van den Akker and colleagues (2013) analyzed the effect of conformity and tradition. Vicario and colleagues (2005) analyzed relations between the Rokeach (1972, 1973) values and antigay attitudes. Adamczyk and Pitt (2008) used an index measuring self-expression and survival values.

These studies investigated only single value priorities, thereby neglecting the joint effects of multiple value priorities. Studies that predict social and moral attitudes with multiple rather than single value priorities are more successful because they consider the possible interplay between various value predictors (e.g., Beckers, Siegers, & Kuntz, 2012). Past studies have also been limited to single countries, thereby overlooking possible variation in effects of value priorities across countries. Previous value research has shown that value priorities often relate differently to attitudes and behavior depending on contextual conditions such as the normative climate or national culture (Bardi & Schwartz, 2003; Boer & Fischer, 2013).

This study goes beyond previous studies of approval of homosexuality in several ways: (a) We propose and test a wider set of theory-grounded hypotheses that link several individual value priorities to approval of homosexuality; (b) we examine variation in value-attitude links across 27 countries by analyzing representative national samples; (c) we investigate country differences in approval of homosexuality as a function of variation on a comprehensive measure of their legal regulation of homosexuality; (d) we analyze possible moderations of the effects of particular individual value priorities on approval of homosexuality by the legal regulation of homosexuality. Our data come from the fifth round (2010) of the European Social Survey (ESS). We use multilevel analysis to take the nested structure of the data into account.

Numerous studies have demonstrated substantial influences of basic human values on social and moral attitudes (e.g., Beckers et al., 2012; Davidov, Meuleman, Billiet, & Schmidt, 2008a; Davidov & Meuleman, 2012; Sagiv & Schwartz, 1995; Schwartz, Caprara, & Vecchione, 2010). Basic human values are trans-situational goals that serve as guiding principles in the lives of individuals and groups (Rokeach, 1973; Schwartz, 1992). Value priorities underlie attitudes; they are the source of the positive or negative valences that

people attribute to different actions, objects, people, and events (Feather, 1995). People feel positively toward what is likely to help them attain their valued goals and negatively toward what may hinder or threaten goal attainment (Schwartz, 2006). Research has shown that basic values have similar meanings across cultures and predict a wide variety of attitudes and behaviors across numerous contexts and countries (see summary in Roccas & Sagiv, 2010). This makes basic values particularly important for cross-national research.

Recent studies have also investigated how laws regulating homosexuality predict between-country variation in approval of homosexuality. These studies have yielded inconsistent results. Both Van den Akker et al. (2013) and Jäckle and Wenzelburger (2011) found that more progressive national laws toward homosexuality related positively to approval of homosexuality. Finke and Adamczyk (2008) reported that legalization of same-sex unions and/or protection from discrimination correlated positively with liberal attitudes toward homosexuality. However, Adamczyk and Pitt (2009) found no association between approval of homosexuality and an index based on laws against discrimination and laws permitting same-sex unions.

The inconsistent findings in these studies regarding the effects of laws may be due to their use of different measures of legal regulation and/or to inadequate coverage of some important legal dimensions. The current study addresses the latter limitation by adopting the more comprehensive Rainbow Europe Country Index (RECI; ILGA Europe, 2010) to measure legal regulation of homosexuality. This index includes eight broad legal characteristics that concern protecting the rights and legal status of homosexuals. To the best of our knowledge, no previous study has used the complete RECI to measure legal regulation of homosexuality.

In addition to studying effects of individual differences in value priorities and of country-level legal regulations on approval of homosexuality, we examine possible cross-

level interactions. That is, we generate hypotheses about stronger and weaker relations of particular value priorities to attitudes toward homosexuality as a function of national policies. A few studies have investigated how relations of individual-level variables to attitudes toward homosexuality vary across countries (Adamczyk & Pitt, 2009, Andersen & Fetner, 2008, Beckers, 2008, Jäckle & Wenzelburger, 2011). However, none of these studies examined whether relations with individual value priorities vary as a function of national differences in the legal regulation of homosexual rights.

### **Basic Human Values**

People's value priorities and their links to beliefs, attitudes, and behavior have interested social scientists for several decades (for an overview, see Eagly & Chaiken, 1993, Hitlin & Piliavin, 2004; van Deth & Scarbrough, 1995). Summarizing the various shared attributes of values specified in numerous studies, Schwartz (1992, 2006) defined values as desirable, trans-situational goals that vary in importance and serve as guiding principles in life. What distinguishes among values is their motivational domain or goal. Schwartz (1992) suggested that all basic values derive from one of three universal human requirements: needs of individuals as biological organisms, requisites of coordinated social interaction, and requirements for the smooth functioning and survival of groups.

Schwartz (1992) identified 10 basic values that people around the world recognize and understand in relatively similar ways. He labeled these values universalism, benevolence, tradition, conformity, security, power, achievement, hedonism, stimulation, and self-direction. The 10 values, ordered as above, form a circular continuum that reflects the compatibility or conflict between their motivational goals. Values whose goals are compatible are adjacent on the circular continuum (e.g., achievement and power), whereas value whose goals conflict are situated on opposite sides of the continuum (e.g., security and stimulation).

Two bipolar dimensions, each consisting of two opposing higher order values, can summarize the circular continuum. The first dimension opposes the higher order *self-transcendence* values (universalism and benevolence) to *self-enhancement* values (achievement and power). It captures the opposition between concern for the interests of others versus self. The second dimension opposes the higher order *conservation* values (security, tradition, and conformity) to *openness to change* values (self-direction, stimulation, and usually hedonism). It captures the opposition between avoiding anxiety, threat, and change versus seeking self-expression, challenge, and autonomy. In ESS analyses, the hedonism value is usually part of openness to change (Bilsky, Janik, & Schwartz, 2011).<sup>2</sup> Studies both with single values and with higher order values can illuminate the motivational bases of various attitudes and behaviors (Schwartz et al., 2012).

To clarify why we posit that values influence attitudes, we note some of the differences between values and attitudes. Hitlin and Piliavin (2004) suggested three main differences. (1) A value is a belief, whereas an attitude is the evaluative sum of several beliefs about a specific object. (2) Values transcend specific situations, whereas attitudes refer to a specific object or situation. (3) Values develop and are acquired through socialization, are presumably more stable across the lifetime, and are more central to the self-concept than attitudes. Additional distinctions include (Schwartz, 2006): (4) Values vary in importance as guiding principles; attitudes vary on positivity/negativity. (5) Values are ordered hierarchically based on their relative importance, attitudes are not ordered hierarchically.

Several studies support the assumption that value priorities are relatively stable. For example, longitudinal analyses by Bardi and colleagues (2014) show high stability of values even during major life changes (see also Cieciuch, Davidov & Algesheimer, 2014). This stability refers both to the mean importance of single values and to their relative importance

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<sup>2</sup> In theory, hedonism is located between openness to change and self-enhancement because it encompasses elements of both dimensions (Schwartz et al., 2001).

(cf. Bardi & Goodwin, 2011). Previous research also supports the causal influence of value priorities on attitudes. Studies have demonstrated that manipulating the importance of particular values leads to attitude change but that manipulating attitudes has little or no effect on values (Maio, 2010; Schwartz et al., 2010). As noted above, values underlie attitudes, providing their motivational direction. People have positive attitudes toward objects likely to help them attain their valued goals and negative attitudes toward objects that may hinder or threaten goal attainment (Schwartz, 2006).

### **Value priorities and approval of homosexuality**

The analyses of perceived and actual ramifications of homosexuality for society, presented below, suggest that homosexuality is relevant to the motivational goals of conservation, openness to change, universalism, and power values. We next portray the mechanisms that may link these values to approval of homosexuality.

People often perceive homosexuality as a threat to the traditional family (Haddock, Zanna, & Esses, 1993; Haddock & Zanna, 1998). Accepting homosexuality entails abandoning traditional views of sexual morality and gender roles in favor of changing mores. Individuals who prioritize obeying prevailing social norms and expectations (conformity values), preserving traditional practices and customs (tradition), and avoiding disruption of the status quo of social arrangements (security) should disapprove of homosexuality because it threatens the realization of these values. The higher order conservation value is close to right-wing authoritarianism both conceptually and empirically (e.g., Altemeyer, 1998; Cohrs, Moschner, Maes, & Kielmann, 2005). Numerous studies have linked right-wing authoritarianism to outgroup derogation, feelings of moral superiority, and disapproval of homosexuality (e.g., Altemeyer, 2002; Feather & McKee, 2012; Haddock & Zanna, 1998; van den Akker et al., 2013). We therefore hypothesize that ascribing priority to conservation values relates negatively to approval of homosexuality (H1).

Approving of homosexuality entails accepting the legitimacy of counter-normative, autonomous behavior that departs from prevailing social arrangements. It entails accepting the rights of people to pursue less standard ways of building relationships and finding satisfaction and pleasure in life. Attributing importance to openness to change values is likely to facilitate acceptance of such alternative lifestyles that challenge conventional mores. Self-direction values emphasize autonomy, exploration, and creativity in thought and behavior. Stimulation values emphasize the pursuit of novelty, excitement, and challenge. Hedonism values emphasize the free pursuit of pleasure. These values apply to the self, but they also legitimize pursuit of these same goals by others. We therefore hypothesize that ascribing priority to openness to change values relates positively to approval of homosexuality (H2).

Self-transcendence values encompass tolerance, understanding, and appreciation of all individuals (universalism values) and caring for the welfare of close others (benevolence values) (Schwartz, 1992, 2006). Universalism values imply tolerance and acceptance of those who differ from oneself, understanding for rather than rejection of those with unconventional lifestyles. Universalism values emphasize equal opportunities for all. Although benevolence values also express concern for the welfare of others, this concern focuses on close others. Benevolence values may therefore only relate to approval of homosexuality if these close others openly identify themselves as gays or lesbians. Hence, priority for universalism but not for benevolence values is relevant to approval of homosexuality. We therefore hypothesize that ascribing priority to universalism values relates positively to approval of homosexuality (H3).

In contrast, self-enhancement values encompass pursuit of self-interest, either through dominating others (power) or attaining personal success (achievement) (Schwartz, 1992, 1994). Valuing power implies pursuit of superiority for self and an absence of sympathy for those one dominates. Prejudice against weak or unconventional groups such as homosexuals

is a way to assert one's superiority. Power values underlie and correlate positively with authoritarianism and social dominance orientation (e.g., Cohrs et al., 2005; Feather & McKee, 2012), both of which correlate with disapproval of unconventional groups (Feather & McKee, 2012). Achievement values concern gaining social approval for one's success but not dominating others (Schwartz, 1992). Hence, priority for power but not achievement values is relevant to approval of homosexuality. We therefore hypothesize that ascribing priority to power values relates negatively to approval of homosexuality (H4).

### **Laws Regarding Homosexuality**

Does legislation affect prejudice? More than 50 years ago, Allport (1954) answered this question positively, positing that individuals adapt to and accept new norms and legislation. Research on ethnic and racial prejudice has underlined the importance of the legal rights granted to minorities in changing intergroup relations (e.g., Allport, 1954; Pettigrew, 1979). Laws against discrimination presumably reduce outgroup prejudice directly via the learning of new norms and indirectly via providing optimal conditions for intergroup contact (Allport, 1954, p. 469ff.). Allport held that laws and policies operate in both the long and the short run (cf. Schlüter, Meuleman, & Davidov, 2013).

In the short run, individuals adapt their behavior to the new laws because they know that otherwise they will be sanctioned. Changed behavioral patterns lead, in turn, to changed attitudes in order to avoid cognitive dissonance (e.g., Allport, 1954). In the long run, laws and policies against discrimination of homosexuals institutionalize tolerant norms (Allport, 1954; van den Akker et al., 2013). They create a changed atmosphere in which the law recognizes homosexuality as legitimate and conveys the expectation that individuals reconsider negative attitudes toward homosexuality (Altemeyer, 2002; Stangor, 2000). Moreover, as homosexuality becomes more visible in everyday life, the increased familiarity with it may directly enhance approval, in line with the "mere exposure effect" (Zajonc, 1968). Following

the reasoning above, we hypothesize that approval of homosexuality is higher in countries whose legal system is more progressive toward homosexuality (H5).

In addition to its effects on country-level approval of homosexuality, the cultural or legal atmosphere may moderate the relations between particular values and approval of homosexuality. Two studies showed that this was the case for individual religiosity. Religiosity related more strongly to attitudes toward homosexuality in countries whose culture emphasized self-expression rather than survival (Adamczyk & Pitt, 2009). Moreover, relations of individual religiosity to attitudes toward sexual morality, which is not uniformly sanctioned by legal codes (e.g., cohabitation before marriage), varied more across countries than relations to attitudes toward morality, which is uniformly sanctioned (e.g., cheating on taxes, accepting bribes) (Finke & Adamczyk, 2008). The latter study suggests that in the absence of clear norms individuals may rely more on their own values and cultural perceptions in forming their attitudes.

Laws that prohibit discrimination and give equal rights to homosexuals promote tolerant norms toward homosexuality and provide a legal framework that supports them. In the absence of such laws, individuals are exposed to a variety of public views from which to formulate their own opinions on homosexuality. The religious establishment and traditions continue to promote opposition to homosexuality (Finke & Adamczyk, 2008; Pickel, 2001), but other sources such as NGOs and the European Union promote more liberal views. Hence individuals may rely more on their own values as sources of their attitude. In the presence of legal regulations that clearly legitimize homosexuality, however, choice based on individual dispositions is less likely to determine approval of homosexuality.

The above reasoning suggests that individuals' value priorities should relate less strongly to approval of homosexuality the more progressive the legal system is in a country. However, this may be the case only for conservatism and openness to change values. That is,

the moderating effect of the legal system should be present for conservation and openness to change values but not for universalism and power values, as explained below.

Openness to change values emphasize autonomy, novelty, and lifestyle freedom, all of which facilitate approval of homosexuality. In the absence of laws that call for accepting homosexuality, individuals' priority for openness to change values should strongly influence their attitudes to homosexuality. When the laws legitimize homosexuality, however, the additional contribution of strongly endorsing openness to change values to the inclination to approve homosexuality may be minimal. Hence, the positive effect of openness to change values on approval of homosexuality is weaker in countries with more progressive legal regulation of homosexuality (H6a)

Conservation values emphasize conformity to authorities, laws, and norms. Hence, if the law and the norms it promulgates call for accepting homosexuality, those who endorse conservation values may feel constrained to express positive attitudes so as not to deviate from expectations. If the law does not call for accepting homosexuality, however, those who endorse conservation values can freely express their value-based disapproval. Hence, the negative effect of conservation values on approval of homosexuality is weaker in countries with more progressive legal regulation of homosexuality (H6b).

An alternative possibility for conservation values seems less persuasive to us. It suggests that progressive laws toward homosexuality might increase, rather than decrease, the effects of conservation values on approval of homosexuality. Granting legal rights to homosexuals might magnify the symbolic and practical threat they pose to the status quo. It might therefore intensify rejection and disapproval of homosexuality among those who endorse conservation values. Coping with threats to the status quo is the key motivation of conservation values, but it does not motivate the other values. This alternative hypothesis

states that the negative effect of conservation values on approval of homosexuality is stronger in countries with more progressive legal regulation of homosexuality (H6c).

The following reasoning suggests that the progressiveness of the legal system may not moderate the positive effect of universalism values and the negative effect of power values on approval of homosexuality. Universalism and power values relate directly to approval of homosexuality. Universalism values emphasize tolerance and understanding for all others, including those who are different from the self. Unlike conservation values, the social concern that universalism values express is a proactive, self-transcending concern for the welfare of all others, regardless of their legal status.

Power values express the opposing motivation, dominating others and asserting one's superiority by rejecting members of outgroups. Unlike conservation values that cope with uncertainty by passively yielding to social norms, authorities, and traditions, power values cope with uncertainty by seeking to actively control and dominate the social and physical environment. Legal recognition of homosexuality does not change the fact that it still represents difference and that homosexuals remain a weak outgroup over which to assert superiority. Given their direct connection with negative attitudes toward outgroups, power values are likely to motivate disapproval of homosexuality regardless of its legal status.

In sum, we expect universalism values to promote and power values to inhibit approval of homosexuality regardless of the legal climate in the environment. Nonetheless, we will perform an exploratory analysis to assess whether there is a moderating effect of the legal system in the case of these values.

### **Data and Method**

We use data from the fifth round (2010/2011) of the European Social Survey (ESS) to test the hypotheses. The ESS employs a multistage random sampling design and conducts face-to-face interviews with representative samples of residents aged 15 years and over

(Jowell, Roberts, Fitzgerald, & Gilian, 2007). We analyzed the data from 27 European countries and regions:<sup>3</sup> Belgium ( $n = 1,704$ ), Bulgaria (2,434), Croatia (1,649), Cyprus (1,083), the Czech Republic (2,386), Denmark (1,576), Estonia (1,793), Finland (1,878), France (1,728), Germany East (1,056), Germany West (1,975), Greece (2,715), Hungary (1,561), Ireland (2,576), Lithuania (1,677), the Netherlands (1,829), Norway (1,548), Poland (1,751), Portugal (2,150), Russia (2,595), Sweden (1,497), Slovenia (1,403), Slovakia (1,856), Spain (1,885), Switzerland (1,506), Ukraine (1,931), and the United Kingdom (2,422). The data and further information about documentation and data collection are found at <http://www.europeansocialsurvey.org/>.

## Measures

**Approval of homosexuality.** We measured approval of homosexuality with the following item that refers to giving equal rights to gays and lesbians in choosing their lifestyles: "...to what extent do you agree or disagree ... [that] gay men and lesbians should be free to live their own life as they wish?" Responses were given on a 5-point Likert scale ranging from 1 (*agree strongly*) to 5 (*disagree strongly*). We reverse coded the item so that higher values indicated greater approval of homosexuality.

**Individual value priorities.** We measured values with the 21-item ESS Human Values Scale (Schwartz, 2003). Each item consists of a two sentence verbal portrait that describes a person (gender-matched to the participant) in terms of his or her motivations, goals, or aspirations. For example, a universalism item is "It is important to her to listen to people who are different from her. Even when she disagrees with them, she still wants to understand them." Respondents indicate how similar this person is to them on a 6-point scale ranging from 1 (*very much like me*) to 6 (*not like me at all*). Respondents' own values are

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<sup>3</sup> We separated East from West Germany because we included a variable controlling for former communist regime.

inferred from the values of those they view as similar to themselves. Six items measured the higher order conservation value, six the higher order openness to change value, three the universalism value, and two the power value. Appendix A lists the 17 value items that were used in our analyses (for a full list of all 21 items of the ESS Human Values Scale, see Davidov, 2008).

We wished to assess the explanatory power of individual values over and above background variables known to correlate with approval of homosexuality. Past research reported that individuals who are more religious, less educated, older, and male tend to disapprove of homosexuality more strongly (e.g., Adamczyk & Pitt, 2009; Beckers, 2008; Gerhards, 2010; Jäckle & Wenzelburger, 2011; van den Akker et al., 2013). We therefore introduced the following individual-level controls.

**Religiosity.** We operationalized religiosity in two ways: (1) respondents' self-reported religiosity on a scale ranging from 0 (*not at all religious*) to 10 (*very religious*), (2) respondents' self-reported frequency of attendance at religious services, measured on a seven-point scale (1 = Every day, 2 = More than once a week, 3 = Once a week, 4 = At least once a month, 5 = Only on special holy days, 6 = Less often, 7 = Never). We recoded this variable so that higher values indicated a greater frequency.

**Religious affiliation.** We coded seven dummy variables, with no religious affiliation as the reference category: Catholic, Protestant, Orthodox, Other Christian denominations, Eastern denominations, Muslim, and Other Non-Christian denominations.

**Education.** We assigned respondents to one of three educational groups, based on the coding scheme of the International Standard Classification of Education (ISCED; UNESCO, 2011): low (ISCED 0 – 2), medium (3 – 4), and high (5 – 8). We used low education as the reference category and dummy variables for the other levels.

**Gender.** Male = 0, female = 1.

**Age.** Respondent's age in full years.

**Legal regulation of homosexuality.** We used the Rainbow Europe Country Index 2010 (RECI) provided by the European unit of the International Lesbian, Gay, Bisexual, Trans, and Intersex Association (ILGA Europe, 2010) to measure the legal regulation of homosexuality. This index is, to the best of our knowledge, the only measure combining multiple dimensions of the legal status of gay and lesbian people in Europe. RECI varies from -4 (*least progressive*) to +10 (*most progressive*) (see Appendix B for country scores). It assesses four dimensions: (1) anti-discrimination legislation referring to sexual orientation, (2) recognition of partnership of same-sex couples, (3) parenting rights for same-sex couples, and (4) the application of criminal law to hate speeches or crimes against people of a different sexual orientation. It assigns varying numbers of points to each dimension. For example, legal recognition of same-sex marriage adds three points to a country's RECI score, legality of registered partnerships adds two, and legality of cohabitation one. The RECI assigns one negative point to a country for each of the following: (1) violations of freedom of assembly for homosexuals, (2) violations of freedom of association or expression for homosexuals, (3) illegality of same sex acts, and (4) different ages of consent for homosexual and heterosexual couples.

We controlled for two country-level variables, former communist regime and country religiosity, because both have been linked to disapproval of homosexuality (e.g., Jäckle & Wenzelburger, 2011; Kon, 1993; Stulhofer & Sandfort, 2005). We operationalized *country-level religiosity* as the mean self-reported religiosity of the country sample. We treated *former communist regime* as a dummy variable with 1 = former communist regime and 0 = otherwise.

## Results

### Descriptive Statistics

Figure 1 shows that the level of approval of homosexuality differs substantially across countries. Lithuania has the lowest level of approval of homosexuality (means lower than 2.60 on the 1 to 5 scale) and the Netherlands has the highest level (4.48). The populations in the Southeastern and Eastern European countries (with the exception of the Czech Republic) show lower levels of approval than those in other countries.

Figure 1 about here

### **Explaining variation in approval of homosexuality**

We ran multilevel analyses to explain within- and between-country variation in approval of homosexuality. This takes into account the hierarchical data structure of individuals nested in countries. We used full information maximum likelihood estimation (FIML).

Prior to the analyses, we standardized all variables over the pooled dataset. This enabled us to interpret the regression coefficients as standardized regression coefficients (Hox, 2010). We additionally group mean centered the four value priorities used as predictors prior to standardization because we were interested in their individual-level effects and their cross-level interactions with the legal regulation (Enders & Tofighi, 2007; Hofmann & Gavin, 1998). This eliminated between-country variation by subtracting country means on the value priorities from the individual value priority scores. A test of the empty model with no predictors yielded an intraclass correlation coefficient (ICC) of .22. This indicated that 22 percent of the total variance in approval of homosexuality was due to between-country differences and 78 percent to individual-level differences.

Measurement invariance is necessary to permit meaningful cross-country comparisons (e.g., Davidov, 2008). Because a single item measured approval of homosexuality, we could not test its invariance. Previous research has supported the cross-national invariance of the ESS human values scale (Davidov, 2008, 2010; Davidov & Meuleman, 2012; Davidov,

Meuleman, Schwartz, & Schmidt, 2014; Davidov, Schmidt, & Schwartz, 2008b). The four value priorities that serve as our main predictors at the individual-level and other basic value priorities exhibited full or partial metric invariance across a large subset of the ESS countries. Metric invariance does not guarantee that value effects are the same across countries. However, metric invariance is a necessary condition to allow comparing these effects across countries meaningfully and drawing substantive conclusions (Steenkamp & Baumgartner, 1998). Thus, findings of partial metric invariance enable us to compare the effects of values on attitudes toward homosexuality across countries meaningfully.

To test our hypotheses we performed a series of multilevel regressions consecutively, adding different sets of variables to the models at each step. Table 1 presents the results for these models. Model 1 included the individual-level control variables of education, age, gender, religiosity, frequency of attendance at religious services, and religious denomination and the country-level control variables former communist regime and country-level religiosity. These variables accounted for 10 percent of the individual-level variance and 82 percent of the between-country variance in approval of homosexuality. All of the background variables contributed significantly to the explanation, with age being the strongest predictor on the individual-level and former communist regime being the strongest predictor on the country-level.

Model 2 tested hypotheses H1, H2, H3, and H4 by adding the four value priorities, conservation, openness to change, universalism, and power, to the background variables and H5 by adding the index of country-level legal regulation of homosexuality (RECI). Confirming hypotheses H1 to H4, ascribing priority to conservation and power values was significantly associated with lower levels of approval of homosexuality, whereas ascribing priority to universalism and openness to change values was significantly associated with higher levels of approval of homosexuality. The effect of universalism values was at least as

strong as the effects of all the background variables except age. The four values increased the within-country variance accounted for in approval of homosexuality by 3 percent.

Table 1 about here

Confirming hypothesis H5, RECI related positively to the country-level approval of homosexuality; approval of homosexuality was higher in countries whose laws regarding homosexuality were more progressive<sup>4</sup>. Approval was lower in countries that were more religious and especially in former communist countries. The associations of former communist regime and of country-level religiosity with approval decreased once the RECI index was introduced into the model. RECI explained an additional 3 percent of the between-country variance, and the model fit improved significantly after introducing RECI and the individual value priorities ( $\Delta\text{LogLikelihood} = 1250.626$ ,  $\Delta\text{dF} = 5$ ,  $p < .001$ ).

Before testing for cross-level interactions, we examined whether the effect of the values varied across countries (Model 3 a-d in Table 1). All values showed significant random slopes, signifying that the effect of the values varied across countries. Models 4a and 4b evaluated hypotheses H6a. They tested whether higher levels of legal regulation of homosexuality in a country were associated with weaker or stronger effects of openness to change and conservation values. Models 4c and 4d tested whether the legal regulation of homosexuality moderated associations of universalism and power values with approval of homosexuality. Due to the limited number of countries, we estimated separate models with cross-level interactions for each value.

Model 4a yielded a significant interaction of RECI with openness to change values and Model 4b yielded a significant interaction with conservation values. This indicates that RECI moderates the effects of these values on approval of homosexuality. The signs of the

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<sup>4</sup> A separate analysis (not reported here) revealed a significant quadratic effect of RECI that indicated a leveling off of the effect of RECI at higher levels.

interactions show the nature of the moderation. Supporting hypotheses H6a and 6b and rejecting the alternative hypothesis 6c for conservation values, the positive effect of openness to change values and the negative effect of conservation values are both weaker in countries with more progressive legal regulation of homosexuality. Figure 2 shows that the effect of openness to change on approval of homosexuality is more positive in countries with less progressive legal regulations of homosexuality and less positive in countries with more progressive legal regulation of homosexuality. Figure 3 shows that the effect of openness to change on approval is more negative in countries with less progressive legal regulation of homosexuality and less negative in countries with more progressive legal regulation of homosexuality. It should be noted that although RECI moderates the strength of the value associations, their direction is the same in all countries.

Regarding universalism, Model 4c indicates that RECI did not significantly moderate its positive association with approval of homosexuality. Regarding power values, Model 4d showed no moderation of its negative association with approval of homosexuality.

Figures 2 and 3 about here

In addition to the cross-level interactions, we estimated the effect of value priorities on approval of homosexuality in countries where the legal regulation is least progressive (RECI = -2) and most progressive (RECI = 10) (Table 2). The effect of conservation values was weaker in countries with the most progressive laws but still significant in the most progressive countries. In contrast, the effect of openness to change values was not significant in countries with the most progressive laws. The effects of universalism and power values were significant in countries with both most and least progressive laws, although somewhat larger in the former.

In sum, at the individual level, prioritizing conservation and power values was associated with lower levels of approval of homosexuality whereas prioritizing openness to

change and universalism values was associated with higher levels of approval across 27 European countries and regions. This held even after controlling the effects of religiosity and various sociodemographic variables. On the country level, more progressive legal regulation of homosexuality was associated with higher levels of approval of homosexuality. Moreover, the positive effects of openness to change values and the negative effects of conservation values on approval of homosexuality were weaker the more progressive the legal regulation of homosexuality in a country has been. The legal regulation did not significantly moderate the association of universalism and power values with approval of homosexuality.

### **Discussion**

Although the EU anti-discrimination law explicitly forbids discrimination on grounds of sexual orientation, not all European countries grant equal civil rights to homosexuals, and many people in European countries show low levels of approval of homosexuality. The purpose of this study was twofold. First, we investigated the influence of individuals' basic value priorities on their approval of homosexuality. Second, we examined whether the effect of individuals' value priorities varied with the legal regulation of homosexuality.

Individual values have emerged as powerful influences on a wide range of social and moral attitudes (e.g., Schwartz et al., 2010). This study was the first, however, to explain approval of homosexuality systematically with priorities for several individual values and across a large set of countries. It revealed a consistent pattern of effects across a wide range of European countries.

It is noteworthy that the effects of individual value priorities were at least as strong as the effects of such variables as religiosity, gender, and religious denomination and were similar to those of age and education. This might be because value priorities underlie, motivate, and justify approval of homosexuality and partly mediate the effects of sociodemographic variables. The effects of age and education were stronger than those of

gender and religiosity. It is likely that both younger and more educated persons, compared with older and less educated, have been exposed to more direct socialization and persuasion to approve of homosexuality regardless of their own motivations. The strength of the effects of value priorities underlines the importance of considering individual values in research that seeks to explain differences in the approval of homosexuality. This result also corresponds to findings from previous research which have shown that differences in anti-gay attitudes among individuals from different religious denominations are due to psychological processes rather than to the religious affiliation itself (Reese et al., 2013).

We recognize that attitudes and values might also influence one another in reciprocal causality. Yet values are usually formed in childhood and youth and subsequently remain relatively stable across the life span for most people (e.g., Hitlin & Piliavin, 2004; Inglehart, 2008). Thus, we postulate that the causal influence is stronger from values to approval of homosexuality. Although values are difficult to change in adulthood, socialization of youth that promotes universalism and openness to change and discourages conservation and power values should increase approval of homosexuality as they grow older.

At the country level, progressive regulation of homosexuality was associated with greater approval of homosexuality. This underscores the potential role of the legal system in combating prejudice. Of course, more liberal attitudes and national policies may have mutual causal effects on one another. Coleman's (1990) boat hypothesis suggests a feedback loop in which country-level characteristics shape individual attitudes, which, in turn, affect behavior that influences the country-level characteristics. Thus, progressive laws may promote positive attitudes toward homosexuals that promote positive behavior that feeds back to progressive laws. In many European countries, however, progressive changes in laws regulating homosexuality have taken place as a response to directives of the European Union and may

not reflect attitude change within the country (see also Pettigrew, 1979; Schlüter et al., 2013). Assessing this assumption requires panel studies.

Perhaps the most interesting finding of this study was the moderation of the effects of particular individual values on approval of homosexuality by the legal regulation of homosexuality in countries. The more progressive the regulations, the weaker the effects of individuals' conservation and openness to change values are on their approval of homosexuality. This fits the reasoning behind hypotheses H6a and 6b that individuals rely less on their own values to form attitudes to the extent that legal regulations prescribe the attitude that is socially expected. These results are also in line with findings from previous research that identified boundary conditions for the effects of value priorities: Individuals tended to behave in conformity with normative expectations, regardless of their own value priorities, when a value or behavior was widely sanctioned, whether positively or negatively (Bardi & Schwartz, 2003).

As expected, however, legal regulations regarding homosexuality did not moderate the effects of universalism and power values. Universalism values promote and power values inhibit approval of homosexuality regardless of the legal climate in the environment. The core goal of universalism values is tolerance and understanding for *all* others, not only for ingroup members but also for those who are different from the self. For most respondents, homosexuals fall into this category. Universalism values find expression in a proactive, self-transcending concern for the welfare of all others. Hence, universalism values support approval of homosexuality regardless of its legal status.

The core goal of power values is dominance and control over others. Power values impel people to take action to control others and situations actively in order to cope with potential threats to their status or resources. Valuing power leads people to assert their own superiority over those whom they perceive as different and weaker. The different lifestyle of

homosexuals questions the superiority of the conventional lifestyle of heterosexuals (the sample majority) if they value power, though it may pose no challenge to the conventional lifestyle of others. For those who value power, rejecting homosexuality is therefore a direct and necessary assertion of superiority and social dominance. Hence, power values inhibit approval of homosexuality regardless of its legal status.

We have examined one country-level moderator of the associations between personal values and approval of homosexuality. Future research should examine other possible country-level moderators of the relations of specific values with attitudes toward homosexuality. Potential moderators that may affect the normative environment (e.g., gay pride parades, sympathetic portrayals of homosexuals in the media) are especially good candidates for study.

The ESS data provided only a single item to measure approval of homosexuality. This limitation did not allow us to take measurement error in this variable into account or to assess its invariance across countries. A multi-item index would be preferable, but the high quality of the ESS data and the unique opportunity it provides to test the hypotheses across many European countries compensate for this limitation. Future research would profit from using multi-item and multidimensional measures of approval of homosexuals and homosexuality. Such measures can provide more robust evidence about the within- and between-country causes of these attitudes.

The present study identified specific values that correlate with approval of homosexuality and suggested mechanisms through which the values may influence these attitudes. It also revealed that policies moderate the effects of particular values on approval of homosexuality. Highly progressive policies apparently reduce opposition to homosexuality even among people with strong conformity values that inherently oppose it.

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**Table 1.** Multilevel Regression Models Predicting Approval of Homosexuality

	Model 1	Model 2	Model 3a	Model 3b	Model 3c	Model 3d	Model 4a	Model 4b	Model 4c	Model 4d
Intercept	.008	.003	.002	-.001	.000	.002	.002	-.001	.000	.002
<i>Individual-level Controls</i>										
<i>Education</i>										
Low	<i>Reference</i>									
Medium	.069***	.055***	.054***	.054***	.053***	.055***	.054***	.055***	.053***	.055***
High	.125***	.096***	.095***	.097***	.095***	.096***	.095***	.097***	.095***	.096***
Age	-.161***	-.135***	-.133***	-.133***	-.134***	-.134***	-.133***	-.133***	-.134***	-.134***
Female	.090***	.086***	.087***	.086***	.086***	.086***	.087***	.086***	.086***	.086***
Religious importance	-.061***	-.059***	-.059***	-.060***	-.060***	-.059***	-.059***	-.060***	-.060***	-.059***
Attendance at religious services	-.102***	-.095***	-.095***	-.095***	-.095***	-.095***	-.095***	-.095***	-.095***	-.095***
<i>Religious Denominations</i>										
None	<i>Reference</i>									
Catholic	-.011	.001	.002	.000	.001	.001	.002	-.000	.001	.002
Protestant	-.014**	-.008	-.010*	-.009	-.008	-.008	-.010*	-.009	-.008	-.008
Orthodox	-.050***	-.040***	-.039***	-.036***	-.039***	-.040***	-.039***	-.036***	-.039***	-.040***
Other Christian	-.031***	-.031***	-.030***	-.031***	-.030***	-.031***	-.030***	-.031***	-.030**	-.030**
Eastern	.003	.003	.003	.002	.003	.003	.003	.002	.003	.003
Other Non-Christian	-.001	-.003	-.002	-.003	-.002	-.003	-.002	-.003	-.002	-.003
Muslim	-.067***	-.061***	-.060***	-.060***	-.060***	-.061***	-.060***	-.060***	-.060***	-.061***
<i>Individual Value Priorities</i>										
Conservation (CONS)		-.087***	-.087***	-.091***	-.085***	-.087***	-.087***	-.092***	-.085***	-.087***
Openness to Change (OPEN)		.069***	.068***	.068***	.067***	.069***	.068***	.067***	.067***	.069***
Universalism (UN)		.123***	.123***	.127***	.126***	.123***	.123***	.128***	.126***	.122***
Power (PO)		-.038***	.040***	-.037***	-.035***	-.038***	-.040***	-.036***	-.035***	-.038***
<i>Country-level Controls</i>										
Former Communist Regime	-.371***	-.293***	-.292***	-.237***	-.251***	-.292***	-.292***	-.237***	-.251***	-.292***
Level of religiosity	-.144**	-.099*	-.099*	-.086*	-.087*	-.098*	-.099*	-.085*	-.087*	-.098*
Legal regulation (RECI)		.128*	.128*	.122*	.135**	.128*	.130*	.170**	.159**	.129*
<i>OPEN*RECI</i>							-.027**	.023*		
<i>CONS*RECI</i>										

<i>UN*RECI</i>									.013	
<i>PO*RECI</i>										-.001
<b>Variance Components</b>										
Residual Variance	.706***	.687***	.685***	.684***	.684***	.687***	.685***	.684***	.684***	.687***
Random Intercept	.040***	.032***	.032***	.036***	.033***	.032***	.032***	.034***	.033***	.032***
Random Slope OPEN			.002***				.001***			
Random Slope CONS				.003***				.002***		
Random Slope UN					.003***				.003***	
Random Slope PO						.000**				.000**
<b>Explained Variance<sup>a</sup></b>										
reduction of residual variance	10 %	13 %								
reduction of intercept variance	82 %	85 %								
reduction of respective slope variance							38%	19%	7%	3%
<b>Model Comparison</b>										
-2LogLikelihood	113353.477	112102.851	112026.274	111949.236	111953.904	112096.224	112015.816	111944.817	111952.499	112096.160
Difference -2LogLikelihood	5004.823 <sup>b</sup>	1250.626	76.577 <sup>c</sup>	153.615 <sup>c</sup>	148.947 <sup>c</sup>	6.627 <sup>c</sup>	10.458 <sup>d</sup>	4.419 <sup>e</sup>	1.405 <sup>f</sup>	0.064 <sup>g</sup>
Difference df	15	5	2	2	2	2	1	1	1	1
p-value (one-tailed)	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	< 0.01	< 0.05	n.s.	n.s.

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$

Note: N (individuals) = 45,474, N (countries) = 27; all variables were standardized prior to model estimation;

Source: ESS round 5, 2010.

<sup>a</sup>Reduction in variances compared to the residual components of the empty model;

Residual variance  $\sigma = .788$ ; random intercept variance:  $\tau$  (intercept) = .217.

<sup>b</sup>Improvement in model fit compared to empty model: 2LogLikelihood = 118358.230, degrees of freedom (dF) = 3.

<sup>c</sup>Improvement in model fit compared to Model 3.

<sup>d</sup>Improvement in model fit compared to Model 4a.

<sup>e</sup>Improvement in model fit compared to Model 4b.

<sup>f</sup>Improvement in model fit compared to Model 4c.

**Table 2.** Simple slopes: The effect of the value priorities in countries with least and most progressive legal regulations of homosexuality

	Least progressive laws (RECI = -2)	Most progressive laws (RECI = 10)
Openness to change	.117***	.022
Conservation	-.134***	-.052*
Universalism	.102***	.149***
Power	-.035**	-.040**

*Note:* ESS round 5, 2010; N (individuals) = 45,474, N (countries) = 27.

**Appendix A.** Portrait Value Questionnaire items for Conservation, Openness to Change, and Universalism in the ESS

Conservation	<i>Tradition</i>	<p>It is important to him to be humble and modest. He tries not to draw attention to himself.</p> <p>Tradition is important to him. He tries to follow the custom handed down by his religion or his family.</p>
	<i>Conformity</i>	<p>It is important to him always to behave properly. He wants to avoid doing anything people would say is wrong.</p> <p>He believes that people should do what they are told. He thinks people should follow rules at all times, even when no-one is watching.</p>
	<i>Security</i>	<p>It is important to him to live in secure surroundings. He avoids anything that might endanger his safety.</p> <p>It is important to him that the government ensures his safety against all threats. He wants the state to be strong so it can defend its citizens.</p>
Openness to change	<i>Self-direction</i>	<p>Thinking up new ideas and being creative is important to him. He likes to do things in his own original way.</p> <p>It is important to him to make his own decisions about what he does. He likes to be free and not depend on others.</p>
	<i>Stimulation</i>	<p>He likes surprises and is always looking for new things to do. He thinks it is important to do lots of different things in life.</p> <p>He looks for adventures and likes to take risks. He wants to have an exciting life.</p>
	<i>Hedonism</i>	<p>He seeks every chance he can to have fun. It is important to him to do things that give him pleasure.</p> <p>Having a good time is important to him. He likes to "spoil" himself.</p>
Self-	<i>Universalism</i>	<p>He thinks it is important that every person in the</p>

Transcendence		<p>world should be treated equally. He believes everyone should have equal opportunities in life.</p> <p>It is important to him to listen to people who are different from him. Even when he disagrees with them, he still wants to understand them.</p> <p>He strongly believes that people should care for nature. Looking after the environment is important to him.</p>
Self-enhancement	<i>Power</i>	<p>It is important to him to be rich. He wants to have a lot of money and expensive things.</p> <p>It is important to him to get respect from others.</p> <p>He wants people to do what he says.</p>

**Appendix B.** Rainbow Europe Country Index by country (2010)

Belgium	9
Bulgaria	2
Croatia	4
Cyprus	0
Czech Republic	3
Denmark	7
Estonia	2
Finland	6
France	5
Germany East/West	5
Greece	1
Hungary	4
Ireland	3
Lithuania	2
Netherlands	9
Norway	9
Poland	0
Portugal	5
Russia	-2
Slovakia	2
Slovenia	4
Spain	9
Sweden	10
Switzerland	4
Ukraine	-2
United Kingdom	8

*Note:* Rainbow Europe Country Index (source: ILGA Europe 2010).

**Appendix C. Correlations among the variables in the analysis**

	<b>Approval</b>	<i>Education</i>			Age	Female	Relig. Imp.	Attend.	<i>Religious Denominations</i>							
		Low	med.	high					None	Cath.	Prot.	Ortho.	Other Chris.	East.	Non- Chris.	Musl.
<b>Approval of homosexuality</b>	1															
<i>Education</i>																
Low	-.066***	1														
Medium	-.020***	-.552***	1													
High	.088***	-.388***	-.554***	1												
Age	-.197***	.163***	-.094***	-.059***	1											
Female	.030***	.032***	-.052***	.025***	.036***	1										
Religious importance	-.213***	.110***	-.067***	-.037***	.193***	.185***	1									
Attendance at religious services	-.242***	.087***	-.039***	-.043***	.148***	.142***	.632***	1								
<i>Religious Denominations</i>																
None	.191***	-.08***	.052***	.029***	-.148***	-.102***	-.589***	-.548***	1							
Catholic	-.098***	.108***	-.003	-.105***	.092***	.057***	.326***	.379***	-.519***	1						
Protestant	.085***	-.018***	-.037***	.059***	.091***	.017***	.128***	.032***	-.298***	-.253***	1					
Orthodox	-.185***	-.024***	-.023***	.031***	.031***	.054***	.192***	.180***	-.330***	-.281***	-.161***	1				

( to be continued)

	Approval	Education			Age	Female	Relig. Imp.	Attend.	Religious Denominations								
		Low	med.	high					None	Cath.	Prot.	Ortho.	Other Chris.	East.	Non- Chris.	Musl.	
Other Christian	-.033***	-.002	-.002	.004	-.014**	.012*	.093***	.094***	-.086***	-.073***	-.042***	-.047***	1				
Eastern	.020***	-.002	-.006	.009	-.030***	-.002	.033***	.019***	-.044***	-.037***	-.021***	-.024***	-.006	1			
Other Non-Christian	.007	-.002	.007	-.006	-.009 <sup>+</sup>	.002	.022***	.011*	-.042***	-.035***	-.020***	-.023***	-.006	-.003	1		
Muslim	-.058***	.053***	-.021***	-.030***	-.065***	-.023***	.084***	.030***	-.107***	-.091***	-.052***	-.058***	-.015**	-.008	-.007	1	
<i>Individual Value Priorities</i>																	
Conservation (CONS)	-.101***	.071***	-.005	-.066***	.248***	.073	.224***	.169***	-.175***	.088***	.076***	.032***	.006	.003	.002	.051***	
Openness to Change (OPEN)	.150***	-.130***	.031***	.096***	-.358***	-.093***	-.113***	-.096***	.089***	-.055***	-.044***	-.013**	-.007	.012*	.014**	.004	
Universalism (UN)	.092***	-.073***	-.017***	.092***	.069***	.080***	.075***	.036***	-.032***	.002	.022***	.007	.015**	.013**	.017***	.015**	
Power (PO)	.001	-.039***	-.008	.048***	-.156***	-.100***	-.033***	-.019***	.001	-.007	-.016***	.006	-.007	.007	.008 <sup>+</sup>	.045***	
<i>Country-level variables</i>																	
Former Communist Regime	-.353***	-.190***	.177***	-.007	.003	.036***	-.026***	-.052***	-.025***	.072***	-.220***	-.091***	-.010*	-.032***	-.013**	-.007	
Level of religiosity	-.193***	.084***	-.064***	-.013**	.007	.034***	.356***	.371***	-.391***	.264***	-.120***	.313***	.005	-.016**	-.018***	-.024***	
Legal regulation (RECI)	.379***	.126***	-.090***	-.027***	.017***	-.044***	-.133***	-.232***	.192***	-.026***	.271***	-.486***	.011*	.026***	.014**	-.002	

(to be continued)

	<i>Individual value priorities</i>				<i>Country level variables</i>		
	CONS	OPEN	UN	PO	Former comm. reg.	Level of relig.	RECI
<b>Approval of homosexuality</b>							
<i>Education</i>							
Low							
Medium							
High							
Age							
Female							
Religious importance							
Attendance at religious services							
<i>Religious Denominations</i>							
None							
Catholic							
Protestant							
Orthodox							
Other Christian							
Eastern							
Other Non-Christian							
Muslim							
<b>Individual Value Priorities</b>							
Conservation (CONS)	1						
Openness to Change (OPEN)	.035***	1					
Universalism (UN)	.480***	.255***	1				
Power (PO)	.194***	.406***	.078***	1			
<b>Country-level variables</b>							
Former Communist Regime	.000	.000	.000	.000	1		
Level of religiosity	.000	.000	.000	.000	-.081***	1	
Legal regulation (RECI)	.000	.000	.000	.000	-.616***	-.378***	1

\*\*\*  $p < .001$ , \*\*  $p < .01$ , \*  $p < .05$

**Note:** ESS round 5, 2010;  $n = 45,474$ ; non-standardized variables; group mean centered individual value priorities.