Judit Takács, Ivett Szalma

HOW TO MEASURE HOMOPHOBIA IN AN INTERNATIONAL COMPARISON?

ABSTRACT: *How to measure homophobia in internationally comparable ways is a central issue of the present study. Our main goal was to compare attitudes on homophobia in 27 European countries as measured by different variables within two large-scale longitudinal surveys, the European Social Survey and the European Values Study, with both following multistage probabilistic sampling plans, in order to enable a better understanding of the main determinants of homophobic attitudes at the individual as well as country levels. Our dependent variables were the following: the 'justification' of homosexuality, non-preference for homosexual neighbours, and acceptance of gay men and lesbian women (agreement with the statement that gay men and lesbians should be free to live their own life as they wish). We constructed multilevel fixed--effects linear regression and multilevel logistic regression models in order to test our hypotheses regarding the validity of our homophobia measurement instruments as well as the effects of socio-demographic, attitudinal and country-level variables on homophobic attitudes.*

KEY WORDS: *homophobia, European Social Survey, European Values Study, multilevel regression*

Kako meriti homofobijo v mednarodnih primerjavah?

IZVLEČEK: *Osrednje raziskovalno vprašanje članka je, kako mednarodno primerjalno meriti homofobijo. Naš glavni cilj je bil primerjava stališč glede homofobije v 27 evropskih državah, ki so bila izmerjena z različnimi spremenljivkami v okviru dveh velikih longitudinalnih študij – Evropske socialne raziskave in Evropske raziskave vrednot –, ki sta zasnovani na večstopenjskem verjetnostnem vzorcu. S tem smo želeli bolje razumeti glavne determinante homofobičnega vedenja tako na individualni ravni kot na ravni posameznih držav. Uporabili smo naslednje odvisne spremenljivke: »upravičenost« homoseksualnosti, ne želeti homoseksualca za soseda ter sprejemanje gejev in lezbijk (strinjanje s trditvijo, da naj bi geji in lezbijke lahko svobodno živeli svoje življenje, kot ga želijo). Izvedli smo večnivojsko linearno regresijo fiksnih učinkov in uporabili večstopenjski logistični regresijski model. Tako smo testirali hipoteze glede veljavnosti našega merskega inštrumenta za homofobijo, hkrati pa tudi učinke socio-demografskih*

spremenljivk ter spremenljivk, ki so povezana s stališči in s posameznimi državami, na stališča glede homofobije.

KLJUČNE BESEDE: homofobija, Evropska socialna raziskava, Evropska raziskava vrednot, večstopenjska regresija

1 Introduction

During the 1990s when talking with friends and colleagues from other Eastern European or post-socialist countries there was sometimes a spontaneous contest emerging about which of our countries could claim the title of being "the happiest barracks in the Soviet camp" during the state-socialist past – and, of course, most of us were convinced that it was our own country. Nowadays we can often witness a somewhat similar situation when discussing the social acceptance of lesbian, gay, bisexual and trans (LGBT) people in Europe and especially Southern and/or Eastern European scholars and activists report on perceptions of their own country being probably the most homophobic one in their region, if not in the whole of Europe.[1] These perceptions usually derive from the increasingly well-documented accounts of various direct and indirect forms of discrimination and humiliation experienced by LGBT people – however, it is often hard to find "objective and reliable" indicators of homophobia that are presentable to policy-makers, having a taste for number crunching, to facilitate a diagnostic process of (un)equal treatment of LGBT people at the national and the European levels.

Additionally, homophobia has been a contested term since the 1970s in the sense that it is hard to define its exact scope and content. While it was disparaged by various scholars as a misnomer drawing attention mainly to individual traits, and largely ignoring socio-cultural influences in connection with hostility towards homosexuality (Plummer 1975; Plummer 1981; Kitzinger 1987), others interpreted it as one potential aspect of 'homonegativism', a larger, multidimensional "domain or catalogue of anti-gay responses" (Hudson and Ricketts 1980: 358). In the present article homophobia will be used in an interpretational framework centred around the *heteronorm*, a cultural ideology perpetuating sexual stigma (Plummer 1975; Herek 2004, 2011) and heteronormative oppression, implying that LGBT people suffer disadvantage and injustice because of everyday practices resulting from unquestioned norms and assumptions underlying institutional rules (Young 1990). In fact, homophobia could be replaced by a more telling term, *genderphobia* (Wilchins 2004) – i.e. breaking-gender-norms-

---

1. According to empirical research findings in the European context Eastern European respondents tend to manifest the highest level of rejection when they are asked about *"justification" of homosexuality* or whether *gay men and lesbians should be free to live their lives as gays and lesbians*. However, regarding attitudes toward adoption by same-sex couples Southern European respondents tend to manifest even higher levels of rejection than the Eastern Europeans (Takács and Szalma 2012, 2013a, 2013b).

-phobia[2] – referring to the strategic avoidance of addressing non-normative gender issues and norms in everyday life as well as policy-making practices. Nevertheless, while being aware of its limitations, in this article we will stick to the use of the more widely known term homophobia as an awareness raising tool about heteronormative oppression.

The possibilities of empirically measuring homophobia in internationally comparable ways are central issues in the present study. During the last few years we have encountered various variables that were assumed to measure homophobia by authors who previously examined them in homophobia or homonegativity related analyses, and probably by those who developed the actual questionnaires of the large scale surveys that included these variables, although researchers rarely have the chance to follow the "genealogy of variables" they use.[3] However, we could never be really sure what these variables actually measured, or more precisely, what was the exact understanding of our respondents regarding the potential denotations and connotations of the given terms: one can say that a general weakness and at the same time a general strength of survey research derives from the fact that researchers do not have the opportunity to ask respondents the famous ethnomethodological 'what do you mean' questions (Garfinkel 1967) while conducting surveys.[4] Now one of our main goals is to come up with an at least indirect solution for testing the validity of homophobia-measurement of our examined variables: thus we compare three different variables within two large scale longitudinal surveys that have been used as homophobia-indicators in previous research and – while still being aware of our inability to determine the exact scope and meaning of what they measure, but assuming that at least one of them, which can be any of the three, measures homophobia – check whether they measure (more or less) the same thing. In the course of our measurement-validity testing activities we have constructed multilevel fixed-effects linear regression and multilevel logistic regression models in order to test our hypotheses regarding the effects of socio-demographic, attitudinal and country-level variables on homophobic attitudes, too.

Variables that can potentially be used for measuring various aspects of homophobia can be found in a few large-scale quantitative cross-national surveys. The first attempt to measure homophobic attitudes worldwide was provided by the first wave of the European Values Study (EVS) and the World Values Survey (WVS), where the following variable was used in 1981: *Please tell me whether you think homosexuality can always be justified, never be justified, or something in between.*[5] Since then this question has been included in all the EVS (1981, 1990, 1999, 2008) and WVS (1981-

---

2. Thanks to Gudrun Jevne for this form of deciphering genderphobia.
3. Most probably it would be instructive to have more insight into the "genealogy of variables" in the sense of potentially reconstructing the meaning attribution processes and assumptions on the basis of which the questionnaire developers worked.
4. To be fair we have to add that in some cases during qualitative data collection, such as interviewing, when researchers would have the chance to clarify what respondents actually mean, they miss these – i.e. meaning clarification – opportunities, too.
5. Source: *http://www.worldvaluessurvey.org/*

1984, 1989-1993, 1994-1999, 1999-2004, 2005-2008, 2010-2014) data collection rounds that can enable researchers to examine longitudinal changes in homophobic attitudes in several non-European countries, too.

In 2000 the panel surveys of the Generations and Gender Programme (GGP)[6] were initiated and since then conducted in 15 countries (Australia, Austria, Belgium, Bulgaria, Estonia, France, Georgia, Germany, Hungary, Italy, Lithuania, the Netherlands, Norway, Romania, and the Russian Federation). The GGP survey includes a question that measures the agreement level with the following statement: *Homosexual couples should have the same rights as heterosexual couples do.* However, as this is only an optional question in the GGP surveys, not all of the participating countries include this variable into their questionnaires.[7]

In 2006 the Eurobarometer public opinion survey, conducted in 25 European Union member states and two candidate countries (Bulgaria and Romania) included the following questions: *For each of the following propositions, tell me if you absolutely agree, rather agree, rather disagree or absolutely disagree: Homosexual marriages should be allowed throughout Europe; Adoption of children should be authorized for homosexual couples throughout Europe* (European Commission 2006). Even though social scientists often work with Eurobarometer findings (Murinkó and Szalma 2010), we could not find any research studies analysing Eurobarometer data regarding these variables.[8]

In 2012 the 4th Family, Work and Gender Roles module of the International Social Survey Programme (ISSP)[9] was extended with two new variables: *A same-sex female couple can bring up a child as well as a male-female couple; A same-sex male couple can bring up a child as well as a male-female couple.*[10] A great advantage of these new variables is that they can enable the examination of attitudes towards same-sex parenting in a gender specific way. For example, by using these variables a hypothesis about potentially higher levels of social acceptance towards lesbian couples in comparison to gay couples can be tested (Takács and Szalma 2013b).[11]

In this study we will examine data from the European Values Study (EVS)[12] and the European Social Survey (ESS).[13] The EVS, a large-scale longitudinal survey research programme which has been conducted every nine year since 1981, following multistage probabilistic sampling plans. The EVS provides insights into the ideas, beliefs,

---

6. Source: *http://www.ggp-i.org/*

7. For example, this variable is not included in the Hungarian GGP surveys.

8. This might be explained by the difficulty to get full access to Eurobarometer data: the system files are not made publicly available, only the findings.

9. Source: *http://www.issp.org*

10. Previous ISSP Family, Work and Gender Roles modules were conducted in 1988, 1994 and 2002 but these did not include any variables that might have been used for measuring homophobic attitudes. See: *http://www.gesis.org/en/issp/issp-modules-profiles/family-and-changing-gender-roles/*

11. The 2012 ISSP data will become publicly accessible only in 2014.

12. Source: *http://www.europeanvaluesstudy.eu/*

13. Source: *http://www.europeansocialsurvey.org/*

preferences, attitudes, values and opinions of citizens all over Europe by applying standardized questionnaires. The first three waves of EVS (1981, 1990, 1999) had one variable measuring homosexuality- and homophobia-related attitudes: a general acceptance question *Please tell me ... whether you think homosexuality can always be justified, never be justified, or something in between*;[14] and in 1990 another one was introduced to measure reactions to homosexuality in the immediate setting: *On this list are various groups of people* (including people with a criminal record, left wing extremists, heavy drinkers, right wing extremists, people with large families, emotionally unstable people, Muslims, immigrants/foreign workers, people who have AIDS, drug addicts, *homosexuals*, Jews, Gypsies, Christians) – *could you please sort out any that you would not like to have as neighbours?* In the fourth wave of EVS, conducted between 2008 and 2010, a third homosexuality-related variable was introduced, measuring the agreement level with the statement that *homosexual couples should be able to adopt children* – but we will not analyse this variable in detail in the present study.

Diagram 1 provides an overview of the temporal changes of the mean values of the "justification" of homosexuality variable between 1981 and 2008. Diagram 2 provides an overview of the temporal changes of the mean values of the non-preference for homosexual neighbours variable between 1990 and 2008. Even though in 1981 there were only 14 participating countries in the EVS,[15] the longer term trends reflect a general decrease in homophobic attitudes.

Diagram 1.
"Justification" of homosexuality in Europe between 1981 and 2008
(1 = 'homosexuality can never be justified';
10 = 'homosexuality can always be justified')
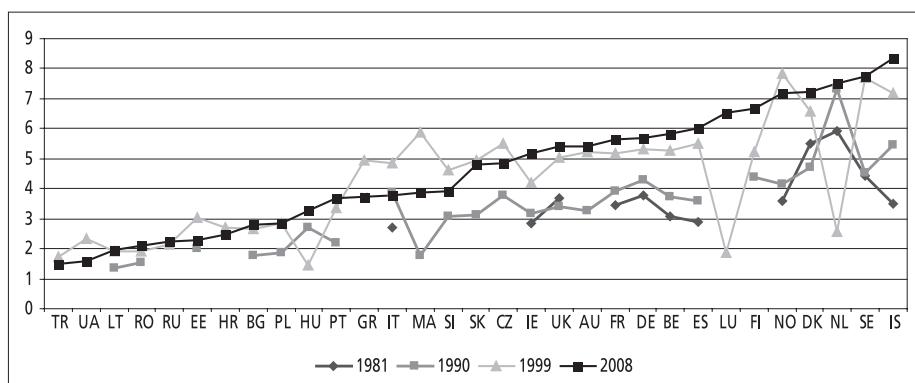
Source: EVS 1981, 1990, 1999, 2008

---

14. This variable is also used as a core question in the WVS. Since the timing of data collection is different in the WVS and the EVS, researchers can gain longitudinal data from both datasets regarding at least those countries that participate in both surveys.
15. Belgium, Denmark, France, Germany, Iceland, Ireland, Italy, Malta, the Netherlands, Norway, Spain, Sweden, Great Britain, Northern Ireland.

Diagram 2.
(Non-)Preference for homosexual neighbours in Europe
between 1990 and 2008
(Percentage of those who have not indicated that they would not like to have homosexual neighbours)
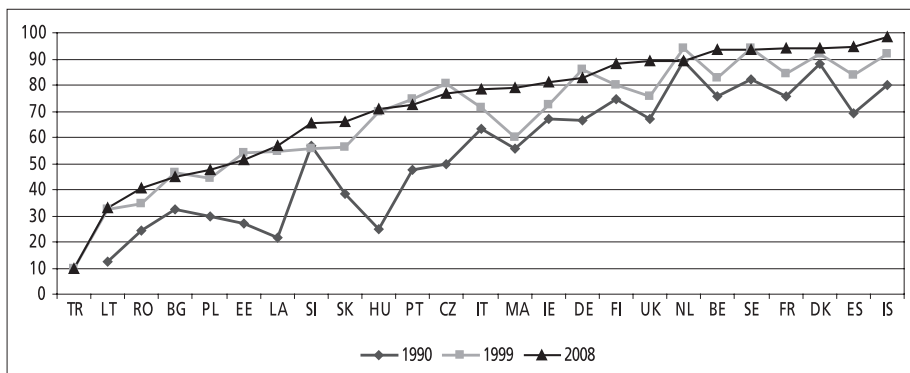

Source: EVS 1990, 1999, 2008

The ESS is a large scale, cross-national longitudinal survey initiated by the European Science Foundation in order to study changing social attitudes and values in Europe. The first round of ESS data collection was completed in 2002. Since ESS is a repeat cross-sectional survey, in each round of data collection, following each other every two years, a core module and two rotating modules (focusing on specific academic and policy concerns, being repeated not in every ESS round, but only at certain intervals) are used. The ESS core module also includes a general acceptance question about the agreement level with the statement that *gay men and lesbians should be free to live their own life as they wish* (where freedom of lifestyle is meant as being free and/or entitled to live as gays and lesbians), which has been included in the core module of the main ESS questionnaires since 2002 in all data collection waves already completed (2004, 2006, 2008, 2010, 2012). Diagram 3 provides an overview of the temporal changes of the mean values of the *gay men and lesbians should be free to live their own life as they wish* variable between 2002 and 2010. Even though in comparison to the EVS, the ESS reflects shorter term trends, we can observe a general decrease in homophobic attitudes here, too.

Diagram 3.[16]
Social acceptance of gay men and lesbian women in Europe
between 2002 and 2010
(1 = strong disagreement; 5 = strong agreement with the statement that *gay men and lesbians should be free to live their own life as they wish*)
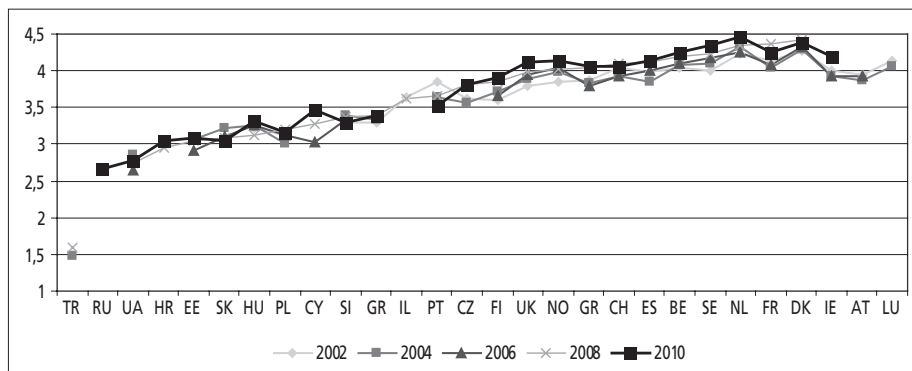
Source: ESS 2002, 2004, 2006, 2008, 2010

2 Data and methods

Using data gathered in 2008 (when both EVS and ESS had a data collection round at the same time) regarding the general acceptance variables of both surveys and the question about non-preference for homosexual neighbours of EVS, we wanted to test the relationship of these variables with other socio-demographic and attitudinal variables that can be found in both surveys. In 2008 the following 27 European countries took part in both the EVS and the ESS data collection rounds: Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Latvia, Poland, Portugal, Norway, the Netherlands, Romania, Russia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, and the United Kingdom – thus we have focused only on these countries. This way we could see whether there are differences between the effects of socio-demographic and other attitudinal determinants regarding homophobia related attitudes, if they are measured in different ways – by three different variables within two surveys – in the same time period within the same set of countries. Our three dependent variables were the following: *"justification" of homosexuality* (measured on a ten-point scale in the EVS, where 1 means that *homosexuality can never be justified*, and 10 means that *homosexuality can always be justified*), non-preference for homosexual neighbours (where 1 means that homosexuals were mentioned among those one would not like to have as neighbours, and 2 means that they were not mentioned), and acceptance of gay men and lesbian

16. We used the design weight for each of the rounds in the descriptive statistic. However, we did not use any kinds of weights in the regression models because we included all basic socio-demographic (gender, age, educational level, settlement type) variables in the models, which make it unnecessary to weight the sample.

women (agreement with the statement that *gay men and lesbians should be free to live their own life as they wish* measured in the ESS on a five-point scale, where 1 expresses strong agreement and 5 expresses strong disagreement).

In a previous article we have already emphasized that the ESS variable with direct reference to *gay men and lesbians* seems to be a much less ambiguous utterance than the "justification" of homosexuality variable of the EVS (and the WVS) as it is hard to deduce what kinds of concept, behaviour and identity the respondents might have had in mind about homosexuality when answering (Takács and Szalma 2011). Nevertheless, both variables are often used in studies focusing on homophobic attitudes in an international comparison (Štulhofer and Rimac 2009; Adamczyk and Pitt 2009; Gerhards 2010; Takács and Szalma 2011, 2012; van der Akker, van der Poelg and Scheepers 2012; Hooghe and Meeusen 2013). However, the findings of these studies are hard to compare with each other because of the different time frames of data collection, the different scope of examined countries and independent variables, and the different variable categories. Even though they usually apply similar statistical methods – mainly multilevel regression models that are well-suited for analysing cross-national survey data – and some of the results, especially those regarding gender, age, educational background and religiosity of the respondents, indeed show similar patterns.

In the present study we tried to overcome these difficulties by examining the same time frame (2008), the same 27 countries, and the same kind of independent variables within the EVS and the ESS data sets. However, regarding the independent variables – with the exception of gender, age, educational background, belonging to a religious denomination and frequency of attendance at religious services – there are certain differences in the variable categories used by the ESS and the EVS. For example, the settlement type is measured by a five-category variable in the ESS, while the EVS differentiates according to the number of people living in a settlement. Table 1 provides an overview of all independent variables – from both the ESS and the EVS – that were used in our analyses.

Table 1.
Description of the independent variables

	ESS			EVS		
Variable	Scale range	N	%	Scale range	N	%
Gender	Male	22635	46	Male	17713	43,6
	Female	26608	54	Female	22870	56,4
Age	Continuous variable					
Settlement type	Big city	12749	26	Under 2000	8071	20,8
	Suburbs	4650	9,5	2000-5000	3797	9,8
	Town	14506	29,5	5000 -10000	3721	9,5
	Village	15009	30,6	10000- 20000	3662	9,4
	Farm	2185	4,4	20000- 50000	5010	12,9
	-	-	-	50000-100000	3937	10,1

				100000-500000	6354	16,4
	-	-	-	100000-500000	6354	16,4
	-	-	-	More than 5000000	4315	11,1
Education level	Lower than secondary education	17906	50,1	Lower than secondary education	12987	32,3
	Secondary education	10735	30	Secondary education	17943	44,5
	Tertiary education	7096	19,9	Tertiary education	9349	23,2
Denomination	Not belonging to any	18486	37,5	Not belonging to any	11867	29,2
	Roman Catholic	12403	25,2	Roman Catholic	11270	27,8
	Protestant	6577	13,4	Protestant	6351	15,6
	Eastern Orthodox	8109	16,5	Eastern Orthodox	6937	17
	Islamic	2834	5,7	Muslim	2907	7,2
	Others	862	1,7	Others	1263	3,1
Attendance at religious services	More than once a week	1898	3,9	More than once a week	1570	3,9
	Once a week	5355	10,9	Once a week	5050	12,7
	Once a month	5089	10,3	Once a month	4017	9,9
	Only on special holy days	10988	22,3	Only on special holy days	9033	22,6
	Never	25530	52,6	Once a year	6879	17,3
	-	-	-	Never	13604	33,6
Men should have more rights…	Agree strongly	3590	7,3	Agree	8362	20,6
	Agree	7684	15,6	Disagree	27662	68,2
	Neither agree nor disagree	7823	15,9	Neither	4559	11,2
	Disagree	15927	32,4	-	-	-
	Disagree strongly	13640	27,8	-	-	-
PARTNERSHIP	Institutionalized	22662	46	Institutionalized	16244	40
	Not institutionalized	26609	54	Not institutionalized	24351	60
Satisfactions with democracy		Continuous		Don't know	2306	5,7
-		-		Very satisfied	1972	4,9
-		-		Rather satisfied	15821	38,9
-		-		Not very satisfied	15418	38
-		-		Not at all satisfied	5077	12,5
GII		Continuous variable				
Country's cultural life undermined or enriched by immigrants		Continuous variable				
Political view		Continuous variable				

Source: European Value Study 2008 dataset and European Social Survey 2008 dataset

It seems to be a general feature that the ESS uses five-point (between 0 and 5 values) or eleven-point scales (between 0 and 10 values) for attitudinal questions, while the EVS applies less consistent methods by using four-, five- or ten-point scales. In social scientific and psychological survey research the issue of rating scales has generated considerable debate over the optimal number of scale points to be used (Garland 1991; Preston and Colman 2000). The five- and eleven-point scales have neutral points, while four- or ten-point scales do not have neutral points, thus the latter ones can force respondents to make a choice even if their attitudes are neutral. In the ESS questionnaires uneven scales (with neutral points) seem to be preferred, while in the EVS questionnaires there seems to be a preference for the "forced choice" questions. These patterns can be observed in our dependent variables, too: the "justification" of the homosexuality (EVS) variable is measured on a ten-point scale, while the social acceptance of gay men and lesbian women (ESS) variable is measured on a five-point scale.

Additionally, political orientation was measured on an eleven-point scale in the ESS[17] and a ten-point scale in the EVS.[18] Regarding satisfaction with democracy an eleven-point scale was used in the ESS[19] and a four-point scale in the EVS.[20] Regarding attitudes on gender (in)equality both surveys used the following variable: *When jobs are scarce, men have more right to a job than women* – but the agreement levels were measured in different scales.[21] Finally, the variable about the effects of immigrants on a given country's cultural life was also somewhat differently formulated in the two surveys. The ESS had the following wording: *cultural life is generally undermined or enriched by people coming to live here from other countries*,[22] while the EVS presented a ten-point scale where 1 meant that *a country's cultural life is undermined by immigrants* and 10 meant that *a country's cultural life is not undermined by immigrants*.

We also wanted to examine the potential effects of three country-level indicators: satisfaction with democracy, institutionalization level of same-sex partnerships (measuring whether same-sex marriage or same-sex registered partnership is a legal option in a given country), and the Gender Inequality Index (GII).[23] Satisfaction with

---

17. In politics people sometimes talk of "left" and "right" … where would you place yourself on this scale, where 0 means the left and 10 means the right?

18. In political matters, people talk of 'the left' and the 'the right'. How would you place your views on this scale, generally speaking? 1= left, 10= right.

19. How satisfied are you with the way democracy works in [country]? 0= extremely dissatisfied 10= extremely satisfied.

20. On the whole are you very satisfied, rather satisfied, not very satisfied or not at all satisfied with the way democracy is developing in our country? 1 – very satisfied, 2 – rather satisfied, 3 – not very satisfied, 4 – not at all satisfied.

21. The EVS used a three-point scale (1=agree, 2=disagree, 3= neither) and the ESS a five-point scale (1=agree strongly, 2= agree 3= neither agree nor disagree, 4= disagree, 5= disagree strongly).

22. 0= cultural life undermined, 10= cultural life enriched.

23. The GII measures gender inequality in a given country by reflecting women's disadvantage in three dimensions: reproductive health, empowerment and the labour market. GII values can range from 0 – indicating that women and men fare equally in a country – to 1, indi-

democracy seemed to be a suitable indicator to predict the level of homophobia in a given country, especially if we agree with the argument – presented by Igor Kon (2010) originally about Russia – that sexual minority rights can contribute to the well-being of all citizens, irrespectively of their sexual orientation, and thus homophobia can be seen as a litmus test for democracy and tolerance. As previous research has also shown that homophobic attitudes are associated with traditional views regarding the roles of women in society (Herek 1984; Agnew et al. 1993; Simon 1998; Kite and Whitley, 1998), acceptance of traditional gender roles was an additional country-level indicator we applied. In this context homophobia was seen to be rooted in a broader gender belief system focusing on the appropriate, and usually not at all overlapping, paths of women and men in society.

For analysing our data sets multiple methods were applied. First, we interpreted descriptive statistics by constructing contingency tables and comparing mean as well as median values, and then we tested the order of the countries on the three measurements of homophobia by using Kendall's tau test. We have also examined the Pearson correlation coefficients between all of the homosexuality-related variables of the EVS and the ESS to measure how strongly the variables are related, and used the Cronbach's Alpha to check the internal consistency among the variables.[24]

These methods enabled us to estimate the concurrent validity of the pairs of variables which were designed to measure the same features in the different datasets. In the context of research measurement quality, validity is often defined as "the extent to which an instrument measures what it purports to measure" (Kimberlin and Winterstein 2008:2278). There are different categories of validity, including construct, content and criterion validity. In the present study we focus on a specific type of the latter one: concurrent validity – referring to the degree to which the operationalization correlates with other measures of the same construct that are measured at the same time – which is quantifiable by the correlation coefficient between the different sets of measurements.

However, our research aim was more than just measuring the concurrent validity between certain pairs of variables: we would also have liked to examine the validity of our explanatory models, by checking whether they yield similar results or not. This was necessary because the two examined datasets differed from each other regarding not only the dependent variables but also some of the independent variables, which were measured in different ways by different categories even if their conceptual backgrounds were the same. Therefore the models had to be tested too because even if certain pairs of variables from the two datasets might have indicated significant correlation, there was a possibility that we might find different effects of these variables in the regression models because of the differing ways of their measurement.

---

cating that women fare poorly in all measured dimensions. Source: *http://hdr.undp.org/en/statistics/gii/*

24. The assumption of using Cronbach's Alpha is to measure a single latent trait or construct. Since we suppose that the different variables measure the same latent variable (homophobia) within countries we use it for aggregated data.

At the next stage, explanatory models were constructed by applying multilevel fixed-effects linear regression and multilevel logistic regression.[25] Our regression analyses were conducted by the STATA 11.1 statistical program. The statistical argument for using multilevel regression models is that citizens of a given country would not necessarily form views independent from each other according to the dimension of the dependent variable. For example, if same-sex marriage is a legal option in a given country, it is possible that a citizen of this country will manifest a higher level of tolerance towards gays and lesbians than the same citizen would manifest in another country where same-sex partnerships are not at all institutionalized. In this case, it cannot be guaranteed that the independence of observations, being a basic assumptions of standard regression models, is fulfilled, thus estimate results can become distorted. Applying multilevel models have the advantage of recognizing the partial interdependence of individuals within the same group – or citizens within the same country in our case. Multilevel models are useful for analysing data characterised by a complex variance structure, where this complexity of variance is caused by individual observations being nested in groups. During data analyses the total variation in the dependent variable is decomposed into within-group variance and between-group variance, while the two sources of variation can be studied simultaneously. Therefore, at this stage of our analysis we could introduce not only individual- but also various country-level outcome variables into our models.

3 Hypotheses

We have constructed the following hypotheses regarding the validity of our measurement instruments as well as the effects of socio-demographic, attitudinal and country-level variables on homophobic attitudes.

I. Hypothesis on the validity of our measurement instruments

In order to test the validity of our dependent variables for measuring homophobic attitudes in similar ways we have the following assumption:

H1: *If our dependent variables are valid measurement instruments of homophobia, we will have to get very similar results regarding the effects of the various independent and control variables within our regression models*. If our findings differ from each other in the three models, it will mean that (any or all of) our dependent variables measure different features, thus they cannot be defined as valid measurement instruments of homophobia. However, if the effects of the explanatory variables are the same on the dependent variables in our models, it could well mean that these variables are indeed valid measurement instruments of homophobia.[26]

---

25. Multilevel logistic regression was applied for the dummy dependent variable: Non-preference for homosexual neighbours (EVS), while linear regression models were applied for the two other dependent variables: "Justification" of homosexuality (EVS) and *Gay men and lesbians should be free to live their own life as they wish* (ESS).

26. In theory it can also happen that we find our dependent variables to be valid in the sense

II. Hypotheses regarding the effects of individual level socio-demographic and attitudinal variables on homophobic attitudes

On the basis of our previous research findings (Takács and Szalma 2011, 2012, 2013a, 2013b) we had the following assumptions about the effects of gender, age, education level, settlement type, religiosity, satisfaction with democracy, xenophobic views and traditional gender beliefs on homophobic attitudes at the individual level.

H2.1: *Women, younger people, those with higher level of education and living in more urbanized environments are less homophobic than men, older people, those with lower level of education, and living in smaller settlements.*

H2.2: *Concerning religiosity we assume that membership in certain churches or denominations can have more significant influence on manifesting homophobic views than not belonging to any denomination. Additionally we also assume that higher frequency of attending religious services can increase homophobic attitudes.*

H2.3: *Lower level of satisfaction with democracy, negative attitudes towards immigrants, and traditional gender beliefs can correspond with homophobic attitudes.*

III. Hypotheses regarding the effects of country-level variables on homophobic attitudes

Also on the basis of our previous empirical findings (Takács and Szalma 2011) we wanted to test the effects of country-level homophobia indicators – being connected to characteristic features of the examined societies, and not only to the personal traits of respondents – including the institutionalisation level of same-sex partnerships, depending on whether the legal institution of same-sex marriage and/or registered partnership exists in a given country, satisfaction with democracy, and traditional views regarding the roles of women in society. We had the following assumptions regarding the potential effects of the country-level variables:

H3.1. *Having same-sex marriage and/or registered partnership as a legal institution in a given country can correspond with decreasing levels of homophobia.*

H3.2. *Satisfaction with democracy can decrease homophobia.*

H3.3. *Acceptance of the traditional role of women in society can correspond with homophobia.*

---

that they measure the same feature but in reality it might be the case that they measure something else than homophobia. In this case it would be an issue of reliability, instead of validity of our research instruments. In the context of the present study we assume that at least one of our dependent variables measures homophobia. Thus if the regression models constructed around the dependent variables show very similar results, we assume that all of them actually measure homophobia.

4 Results

Diagrams 4, 5 and 6 provide an overview of the mean and median values of the three dependent variables. Table 5 summarizes the mean values of the three dependent variables in the examined countries. Since the mean values can be affected by any single value being too high or too low compared with the rest of the sample, we also show the median values of our dependent variables by countries.[27] The median is defined as the numeric value separating the higher half of a sample from the lower half, and better suited to discern the central tendency for skewed distributions since it is much more robust than the mean. Thus it can provide a much better indication of central tendency if the distribution of the given variable is not a normal distribution in some of the examined countries. For example, on Diagram 4 there are eleven countries (Turkey, Romania, Cyprus, Russia, Estonia, Latvia, Croatia, Bulgaria, Poland and Hungary) with a median value of one, while the mean ranges from 1.48 to 3.26 for those countries.

In order to check whether the examined 27 European countries have reached significantly similar order in the three measures (variables) we have used Kendall's tau test, a nonparametric measure of association based on the number of concordances and discordances in paired observations[28] (Bolboaca and Jantschi 2006). We found that there is a significant concordance among countries on all three measurements.[29]

Diagram 7, illustrating the relationship between the "justification" of homosexuality (EVS) and the acceptance of gay men and lesbian women (ESS) variables, presents Turkey, Ukraine, Russia, Romania, Croatia, Lithuania and Estonia in the most homophobic corner, while Denmark, the Netherlands, Sweden and Norway are in the least homophobic one. Table 6 provides an overview of those European countries where same-sex partnerships became institutionalised between 1989 and 2013 either in the form of marriage or registered partnership, and where adoption by same-sex couples is a legal option either in the form of second-parent adoption or joint adoption. It can be observed that the countries in the homophobic corner of Diagram 7 do not have any same-sex partnership or parenting legislation in place, and the lack of these legal institutions can be interpreted as symptoms of institutionalised homophobia characterising these countries.

Diagrams 8 and 9 illustrate the relationship between the two general acceptance variables ("justification" of homosexuality and the social acceptance of gays and lesbians) and the individual level variable measuring gender (in)equality in the examined societies: these results show that the most homophobic countries – such as Turkey, Ukraine, Russia, Romania – are also characterised by the most traditional views on

---

27 Since the non-preference for homosexual neighbours is a dummy variable, median values are provided only in the case of the first two independent variables.

28 The formula for Kendall's tau-b is
$$\tau = \frac{\sum_{i<j} (\mathrm{sgn}(x_i - x_j)\,\mathrm{sgn}(y_i - y_j))}{\sqrt{(T_0 - T_1)(T_0 - T_2)}}$$

29 The applied significance level is *p<0,05*

gender relations, and the least homophobic ones – including the Nordic countries and the Netherlands – by the least traditional views on gender relations. Diagrams 10 and 11 illustrate the relationship between the two general acceptance variables and the variable measuring the level of satisfaction with democracy: here we can observe overlaps between homophobia and lower levels of satisfaction with democracy not only in Ukraine, Russia, Romania but also in Bulgaria, Hungary, Croatia and Lithuania, while in the other corner of the diagram we can find not only the Nordic countries and the Netherlands but also Switzerland.
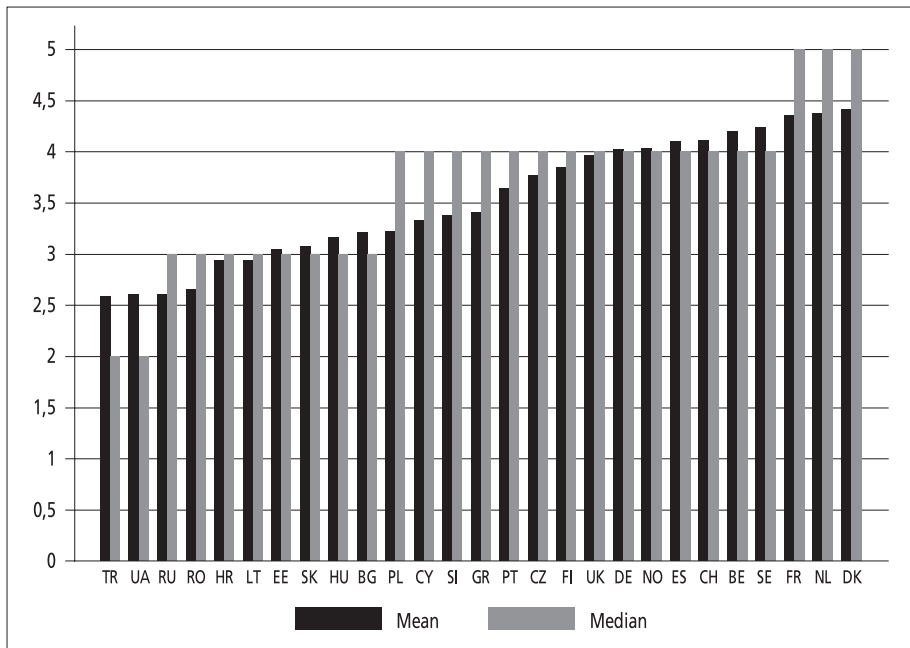
Diagram 4.
"Justification" of homosexuality in 27 European countries:
Mean and median values
(1 = 'homosexuality can never be justified';
10 = 'homosexuality can always be justified')
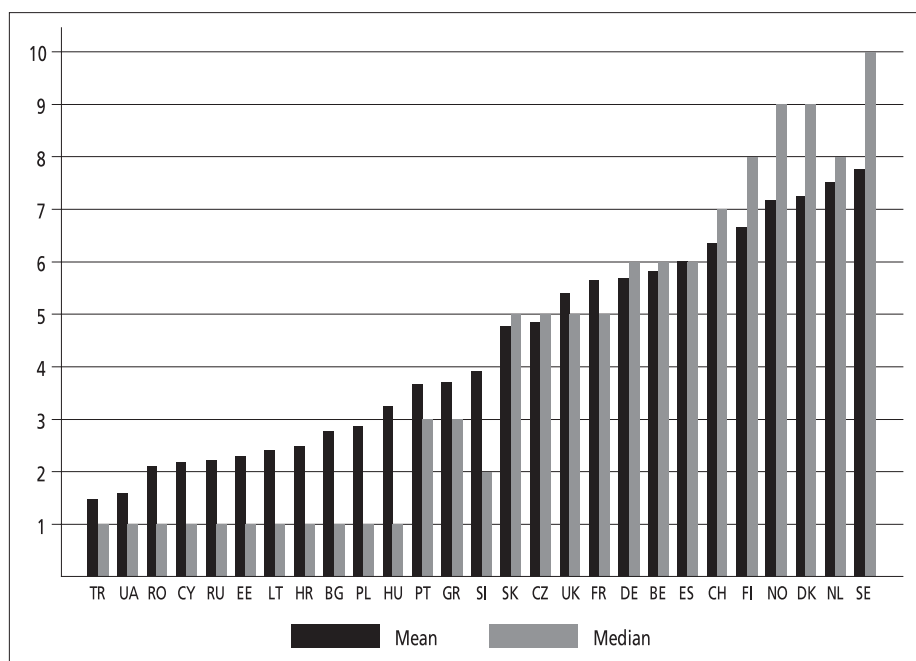
Source: EVS 2008

Diagram 5.
Social acceptance of gay men and lesbian women in 27 European countries:
Mean and median values
(1 = strong disagreement; 5 = strong agreement with the statement that *gay men and lesbians should be free to live their own life as they wish*)

Source: ESS 2008

Diagram 6.
Non-preference for homosexual neighbours in 27 European countries:
Mean values
(Percentage of those who have not indicated that they would not like
to have homosexual neighbours)
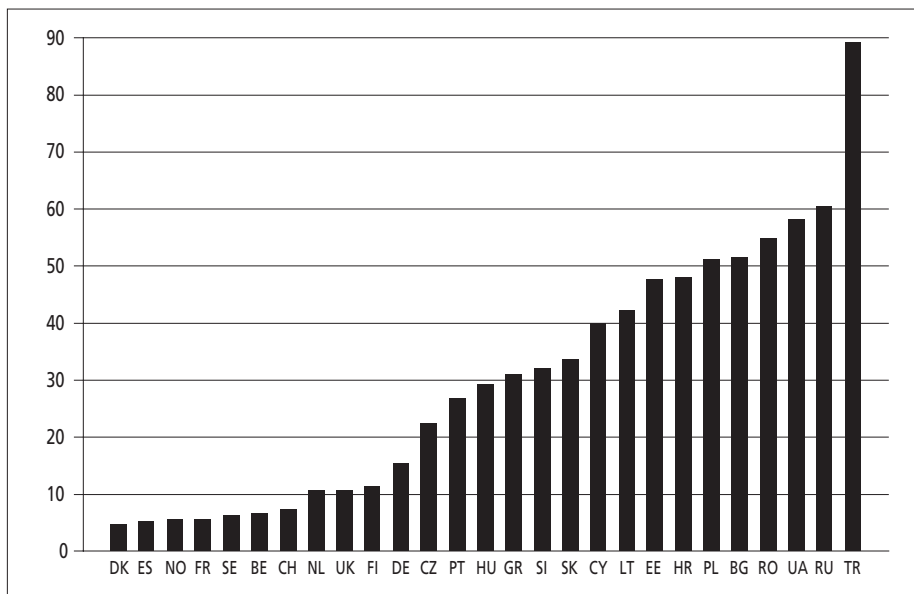
Source: EVS 2008

Diagram 7.
Relationship between the variables *"justification"* of homosexuality (EVS)
and *social acceptance of gay men and lesbian women* (ESS)
in 27 European countries
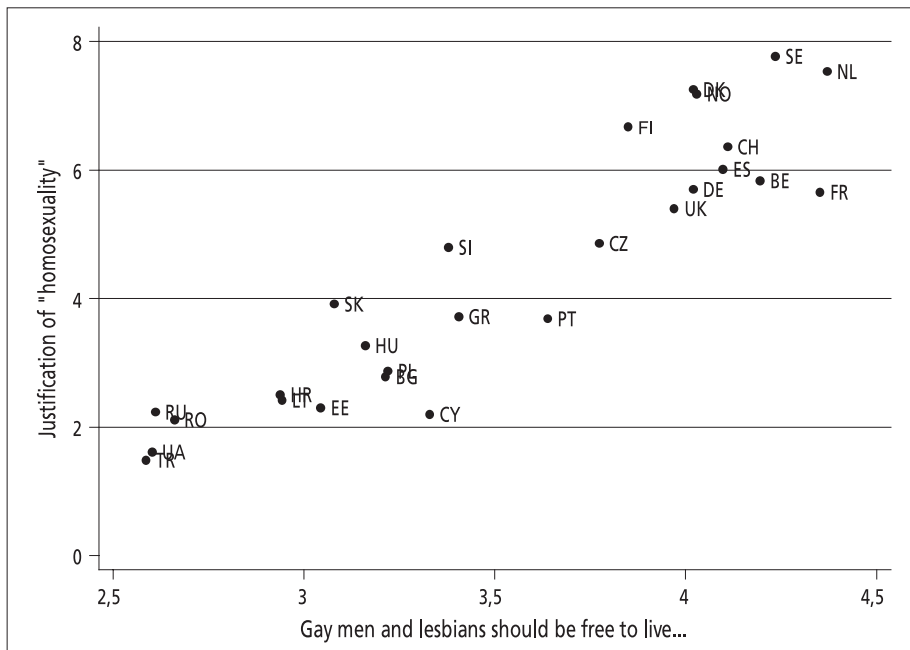
Source: EVS 2008, ESS 2008 own calculation

Diagram 8.
"Justification" of homosexuality and gender inequality
in 27 European countries
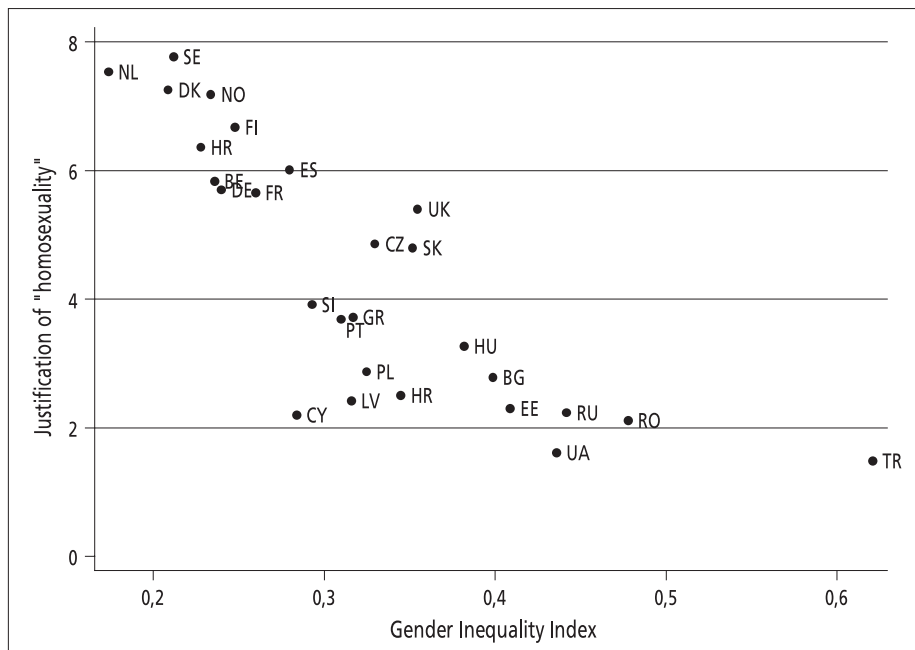
Source: EVS 2008

Diagram 9.
Social acceptance of gay men and lesbians and gender (in)equality
in 27 European countries
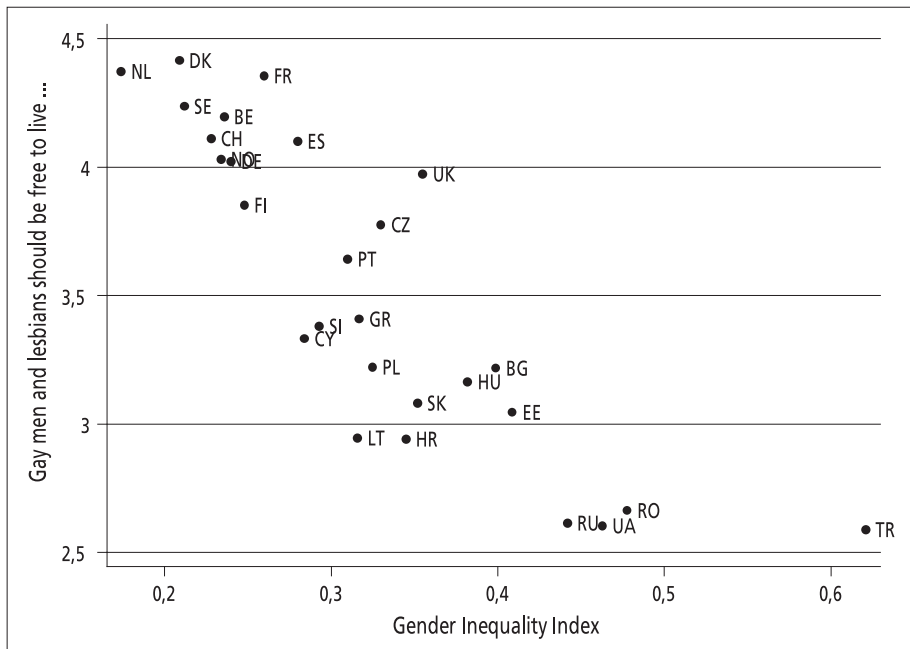
Source: ESS 2008

Diagram 10.
"Justification" of homosexuality and satisfaction with democracy
in 27 European countries

Source: EVS 2008

Diagram 11.
Social acceptance of gay men and lesbians and satisfaction with democracy in 27 European countries

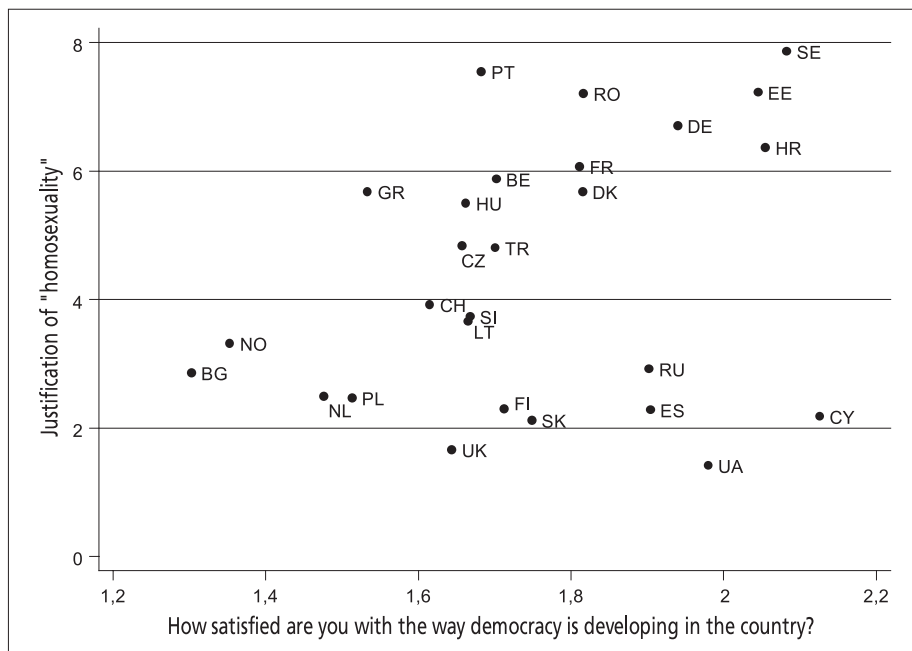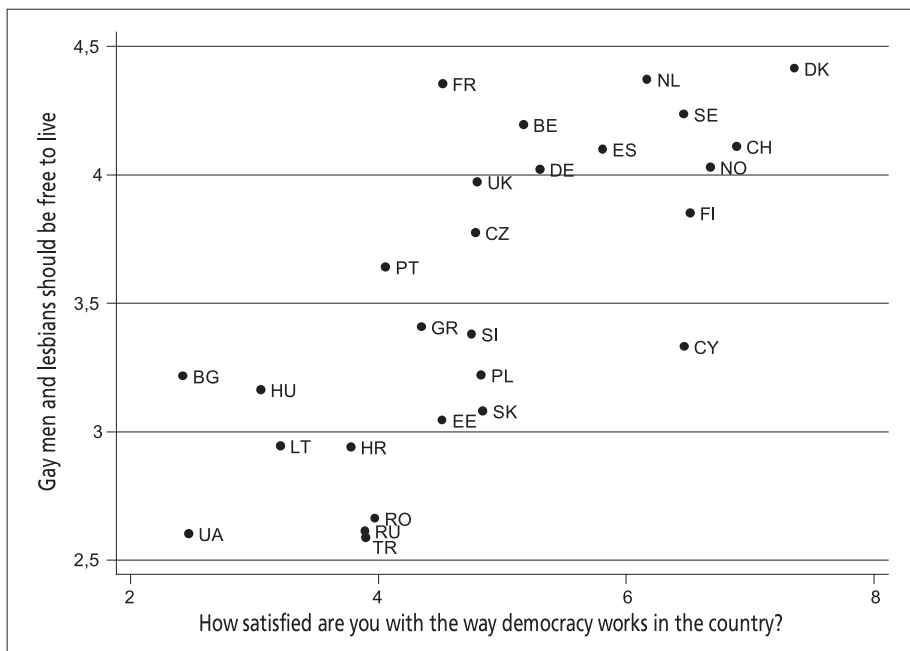Examination of the Pearson correlation coefficients showed that there are very strong correlations among all of the homosexuality-related variables of the EVS and the ESS (see Table 2). The strongest correlation can be found between the *non-preference for homosexual neighbours* and the *Gay men and lesbians should be free to live their own life as they wish* variables. The weakest (but still very strong) correlation can be found between *non-preference for homosexual neighbours* and the *Homosexual couples should be able to adopt children* variable. As for adoption by same-sex couples it seems to be less related to the homophobia than the other three variables or it is measured in other dimensions of homophobia than the other three variables.

Besides the correlation it is also important to determine whether there is an internal consistency among the examined variables within countries.[30] Regarding the Cronbach's Alpha – a widely used objective measure of reliability, indicating the internal consistency within the variables by showing a generally increasing value as the inter-correlations among test items increase – we found that its value is 0.72, which

---

30. The motivation for using Cronbach's Alpha is to measure a single latent trait or construct. Since we suppose that the different variables measure the same latent variable (homophobia or genderphobia) within countries we use it with aggregate data.

can indicate the presence of a single one-dimensional latent construct (which we can perhaps call *genderphobia*) behind the examined variables.

Table 2.
Pearson correlation coefficients among homosexuality-related variables

	Gay men and lesbians should be free to live their own life as they wish. (ESS)	"Justification" of homosexuality (EVS)	Non-preference for homosexual neighbours. (EVS)	Homosexual couples should be able to adopt children. (EVS)
Gay men and lesbians should be free to live their own life as they wish. (ESS)	1	0,921***	-0,932***	0,760***
"Justification" of homosexuality (EVS)	0,921***	1	-0,910***	0,825***
Non-preference for homosexual neighbours. (EVS)	-0,932****	-0,910***	1	-0,674***
Homosexual couples should be able to adopt children. (EVS)	0,760***	0,825***	-0,674***	1

Source: EVS 2008, ESS 2008 own calculation

Regarding the results of our regression analyses, after running our empty models in order to check whether the between-country variance levels are sufficient for examining the effects of country-level outcome variables at all, we have found that in the case of the *Gay men and lesbians should be free to live their own life as they wish* (ESS) variable 21%, in the case of the *"justification" of homosexuality* (EVS) variable 33% and in the case of the *non-preference for homosexuals neighbours* (EVS) variable 34% of the total variation in the dependent variables derived from between-country variance. These between-country variance levels are sufficient for applying multilevel analysis (Bickel 2007).

Table 3 and Table 4 provide an overview of the findings deriving from the application of two different types of regression models constructed around our three dependent variables.[31] Both the Democracy and the Gender models included two country-level variables: the **A, B, C** Democracy models contained variables measuring the institutionalisation levels of same-sex partnerships and the satisfaction with democracy, while the **A, B, C** Gender models included variables measuring

---

31. As we work with quite large sample sizes we are aware of the fact that it is more likely to reach statistically significant results than in the case of smaller sized samples, thus we rigorously indicate the significance levels of each item in our the regression models.

the acceptance levels of traditional gender roles and the institutionalisation levels of same-sex partnerships.

Table 3. [32]
Estimates of multilevel linear regressions – ESS 2008

		A) Dependent variable: Gay men and lesbians should be free to live their own life as they wish	
Explanatory and control variables		**A) Democracy model**	**A) Gender model**
PARTNERSHIP INSTITUTIONALIZED		0,58***	0,45**
SATISFACTION WITH DEMOCRACY		0,15**	-
GII (GENDER INEQUALITY INDEX)			-2,33***
Gender: Female		0,19***	0,14***
Age		-0,01***	-0,01***
Settlement type	Big city	Ref.	Ref.
	Suburbs	-0,03	-0,02
	Town	-0,07***	-0,05***
	Village	-0,11***	-0,08***
	Farm	-0,15***	-0,13***
Education level	Lower than secondary education	-0,1***	-0,06***
	Secondary education	Ref	Ref
	Tertiary education	0,1***	0,07***
Denomination	Roman Catholic	Ref	Ref
	Protestant	-0,01	-0,02
	Eastern Orthodox	-0,1***	-0,09**
	Islamic	-0,6***	-0,53***
	Others	-0,34***	-0,34***
	Not belonging to any	0,12***	0,1***
Attendance at religious services	More than once a week	Ref.	Ref.
	Once a week	0,17***	0,16***
	Once a month	0,51***	0,39***
	Only on special holy days	0,54***	0,47***
	Never	0,59***	0,51***
Men should have more rights…	Agree strongly		Ref.
	Agree		0,13***
	Neither agree nor disagree		0,17***
	Disagree		0,31***
	Disagree strongly		0,55***

32. The three country-level variables are capitalized in both Table 3 and Table 4.

Satisfactions with democracy	0,003	
Political view	-0,003	-0,03
Country's cultural life undermined or enriched by immigrants	0,06***	0,05***
Number of observations	48966	48966
Variance between countries	0,08	0,06
Variance within countries	1,165	1,14
Log Likelihood	-73293	-71790
Wald Chi2	5821***	6876***

Note: *p<0,05; **p<0,01; ***p<0,001

Source: European Social Survey 2008, own calculations

Table 4.
Estimates of multilevel linear and logistic regressions – EVS 2008

Explanatory and control variables		B) Dependent variable: "Justification" of homosexuality		C) Dependent variable: Non-preference for homosexual neighbours	
		B) Democracy model	B) Gender model	C) Democracy model	C) Gender model
PARTNERSHIP INSTITUTIONALIZED		2,04***	1,55*	1,43***	0,55
SATISFACTION WITH DEMOCRACY		2,06**		-1,03	
GII (GENDER INEQUALITY INDEX)			-7,23***		-8,83***
Gender: Female		0,69***	0,65***	0,34***	0,31***
Age		-0,03***	-0,03***	-0,01***	-0,01***
Settlement type	Under 2000	Ref.	Ref.	Ref.	Ref.
	2000-5000	0,22***	0,20***	0,18***	0,18***
	5000 -10000	0,14*	0,13*	0,21***	0,21***
	10000- 20000	0,29***	0,26***	0,47***	0,46***
	20000- 50000	0,26***	0,24***	0,36***	0,35***
	50000-100000	0,37***	0,36***	0,35***	0,37***
	100000-500000	0,53***	0,51***	0,39***	0,38***
	More than 5000000	0,65***	0,65***	0,54***	0,52***
Education level	Lower than secondary education	-0,51***	-0,49***	-0,29***	-0,25***
	Secondary education	Ref.	Ref.	Ref.	Ref.
	Tertiary education	0,57***	0,54***	0,26***	0,24***
Denomination	Roman Catholic	Ref.	Ref.	Ref.	Ref.
	Protestant	0,22***	0,22***	0,11	0,1
	Eastern Orthodox	-0,16*	-0,19**	-0,21**	-0,21**
	Muslim	-1,83***	-1,8***	-0,72***	-0,63***
	Others	-0,64***	-0,67***	-0,06	-0,06
	Not belonging to any	0,21***	0,18***	0,01	0,01

Attendance at religious services	More than once a week	Ref.	Ref.	Ref.	Ref.
	Once a week	0,06	0,11	0,12	0,11
	Once a month	0,51***	0,57***	0,34***	0,32***
	Only on special holy days	0,81***	0,82***	0,38***	0,36***
	Once a year	0,86***	0,89***	0,5***	0,47***
	Never	1,16***	1,21***	0,53***	0,50***
Satisfactions with democracy	Very satisfied	Ref.		Ref.	
	Rather satisfied	-0,02		-0,01	
	Not very satisfied	-0,07		-0,11	
	Not at all satisfied	-0,16*		-0,24**	
Men should have more rights…	Agree strongly		Ref.		Ref.
	Agree		0,09		0,42***
	Disagree		0,6***		0,19***
Political view		-0,09***	-0,08***	-0,04***	-0,04***
Country's cultural life undermined or enriched by immigrants		0,15***	0,15***	0,09***	0,08***
Number of observations		36663	36663	37326	37326
Variance between countries		1,14	1,135	3,286	3,286
Variance within countries		6,67	6,62	0,73	0,39
Log Likelihood		-86874	-86741	-17700	-17626
Wald Chi2		7502***	7823***	1570***	1742***

*Note: *p<0,05; **p<0,01; ***p<0,001*

Source: European Values Study 2008, own calculations

Table 5.
Mean values of the dependent variables

	Social acceptance of gays and lesbians[1] (ESS 2008)	Justification of homosexuality[2] (EVS 2008)	Non-preference for homosexual neighbours[3] (EVS 2008)
Belgium	4,2	5,8	6,7%
Bulgaria	3,2	2,8	54,9%
Croatia	2,9	2,5	51,8%
Cyprus	3,3	2,2	40,5%
Czech Republic	3,8	4,9	23,3%
Denmark	4,4	7,3	5,7%
Estonia	3,0	2,3	48,7%
Finland	3,8	6,7	11,9%
France	4,4	5,6	5,7%
Germany	4,0	5,7	16,5%
Greece	3,4	3,7	31,3%
Hungary	3,2	3,2	29,5%
Latvia	2,9	2,4	43,3%
Norway	4,0	7,2	5,6%
Netherlands	4,4	7,5	10,7%
Poland	3,2	2,9	52,7%
Portugal	3,6	3,7	27,7%
Romania	2,7	2,1	59,3%
Russia	2,6	2,2	62,3%
Slovakia	3,1	4,8	34,1%
Slovenia	3,4	3,9	34,4%
Spain	4,1	6,0	5,4%
Sweden	4,2	7,8	6,3%
Switzerland	4,1	6,4	7,5%
Turkey	2,6	1,5	90,5%
Ukraine	2,6	1,6	60,2%
United Kingdom	4,0	5,4	10,8%

Source: ESS 2008, EVS 2008
1. *1 = strong disagreement; 5 = strong agreement with the statement that gay men and lesbians should be free to live their own life as they wish*
2. *1 = 'homosexuality can never be justified'; 10 = 'homosexuality can always be justified'*
3. *Percentage of those who have not indicated that they would not like to have homosexual neighbours*

Table 6.
Introduction of same-sex marriage, registered partnership and adoption
by same-sex couples in 17 European countries (1989–2013)

Countries	Same-sex marriage	Registered partnership	Adoption by same-sex couples
Austria	-	2010	2013[1]
Belgium	2003	2000	2006
Czech Republic	-	2006	-
Denmark	2012	1989	2007/2009[2]
Finland	-	2002	2009[3]
France	2013	1999 (PACS)	-
Germany	-	2001	2004[4]
Hungary	-	2009[5]	-
Iceland	2010	1996	2006
Ireland	-	2010/2011[6]	-
Luxembourg	-	2004	-
The Netherlands	2001	1998	2001
Norway	2008/2009[7]	1993	2009
Portugal	2010	-	(2013)[8]
Slovenia	-	2005	2011[9]
Spain	2005	-	2005
Sweden	2009	1994	2003
Switzerland	-	2004	-
United Kingdom[10]	-	2005	2002/2008[11]

1. *Only second-parent (or step-parent) adoption, i.e. adoption of the biological child(ren) of one's partner.*
2. *First only second-parent adoption was introduced, followed by the introduction of joint adoption rights for same-sex couples.*
3. *Only second-parent (or step-parent) adoption, i.e. adoption of the biological child(ren) of one's partner.*
4. *Only second-parent (or step-parent) adoption, i.e. adoption of the biological child(ren) of one's partner.*
5. *In Hungary the legal institution of registered partnership for same-sex and different-sex couples was introduced already in 2007, but only same-sex registered partnership came into operation in July 2009.*
6. *In the Republic of Ireland the legal institution of same-sex registered partnership was introduced in 2010 (Civil Partnership and Certain Rights and Obligations of Cohabitants Act), being in effect from January 2011.*
7. *The Norwegian Parliament enacted a gender neutral marriage law in June 2008, which came into operation on January 2009.*
8. *On May 17, 2013 the Portuguese Parliament voted in favour of allowing second-parent adoption.*
9. *Only second-parent (or step-parent) adoption, i.e. adoption of the biological child(ren) of one's partner. It is a special case because there was no new legislation introduced, but in 2011 Slovenian legal experts successfully used the old adoption legislation (originally introduced in 1976 with no specific reference to the gender of adoptive parents) for showing that second-parent adoption is in fact legal.*
10. *As of 2013, the British and Scottish parliaments are each progressing laws about the extension of marriage to same-sex couples. See: Marriage (Same-sex Couples) Bill – http://www.publications. parliament.uk/pa/bills/cbill/2012-2013/0126/cbill_2012-20130126_en_2.htm#pt1-pb1-l1g1*
11. *Adoption & Children Act – England & Wales 2002; Scotland 2008.*

Beside the specific country-level outcome variables, there were several individual level variables included in both the **A, B, C** Democracy and the **A, B, C** Gender models, such as respondents' gender, age, education level, settlement type, religiosity, satisfaction with democracy, xenophobic views and traditional gender beliefs – almost all of which manifested significant effects on the level of homophobia in ways we expected. Women, younger people, those with higher levels of education and people living in larger, more urbanized settlements tended to manifest less homophobic views than others. Regarding religiosity, frequent attendance at religious services and belonging to certain denominations (such as the Muslim/Islamic and the Eastern Orthodox) tended to increase homophobic views, while very infrequent attendance at religious services and not belonging to any denomination seemed to have the opposite effect.[33] Xenophobic views and traditional gender beliefs also indicated higher levels of homophobia, while satisfaction with democracy was the only individual-level variable, which did not seem to indicate any significant effects in any of the models.

Regarding the country-level variables, gender inequality measured by the GII seemed to be the strongest indicator of homophobia in all of our regression models. Having same-sex marriage and/or registered partnership as a legal institution significantly corresponded with decreasing levels of homophobia in all of the models except the **C** Gender model (where the dependent variable was Non-preference for homosexual neighbours). While satisfaction with democracy also had some statistically significant effect in the **A** and **B** Democracy models, it did not have any in the **C** Democracy model. We can also add here that originally we examined only 26 countries, which did not include Turkey, and in that configuration satisfaction with democracy at the country-level still had a significant effect (p<0,01) in the **C** Democracy model – however, after including Turkey into our sample, this significant relationship ceased to exist.

The likelihood ratio and the Wald tests are commonly used to evaluate the difference between nested models (Fox 1997). In this case we do not have two nested models, but we compare two similar models, which differ from each other only regarding two sets of variables: the Gender Inequality Index (GII) of the gender model and the Satisfaction with democracy of the democracy model country-level variables, and the "Men should have more rights…" variable measuring the acceptance of traditional gender roles at the individual level and the Satisfaction with democracy individual-level variable. By comparing the two types of models – on the basis of the Log Likelihood and the Wald Chi^2 values – it can be seen that homophobia is more strongly linked with the gender inequality indicators (the GII country-level variable and the acceptance of traditional gender roles individual-level variable) than with satisfaction with democracy. This link can also explain the reason for the institutionalization of same-sex partnerships losing its significant effect once the GII is included into the **C** Gender model: most probably these two country-level indicators explain the same part of the dependent variable.

---

33. It should be noted that not belonging to any denomination did not have any significant effect in any of the **C** (Non-preference for homosexual neighbours) models.

In general we could also observe that findings of the models including each of the two EVS dependent variables (respectively) do not differ significantly from those of the model containing the ESS dependent variable. Within all of these three types of models the Gender models manifested stronger explanatory power than the Democracy models. On the basis of our findings we can probably assume that all the three indicators that we used as our dependent variables are indeed valid measurement instruments of homophobia.

5 Conclusion

In this article we have explored possibilities of empirically measuring homophobia in internationally comparable ways by testing whether different homosexuality-related variables of the ESS and the EVS can be considered valid measurement instruments of homophobia. According to our findings there is quite a high probability that the agreement level with the statement that *gay men and lesbians should be free to live their own life as they wish* and the – let's face it, not only *prima facie*, utterly meaningless – *"justification" of homosexuality* variables as well as the *non-preference for homosexual neighbours* indicator can be used for measuring homophobia, or indeed, genderphobia.

However, as we are quite frequent users of large-scale survey data we must admit that we keep dreaming about much more refined measurement instruments – with much more (gender- and otherwise) sensitive wording – than those that are usually available. Nevertheless, we can observe the emergence of variables reflecting the acknowledgement of non-heteronormative partnership and family practices in large-scale international survey questionnaires (such as the question on same-sex adoption in the 2008 round of the EVS or more recently the questions about gender-specific same-sex parenting practices in the 2012 module of the ISSP) in parallel with the general decrease of homophobia in most – or at least in the happier – parts of Europe, shown also by the longitudinal results of both the EVS and the ESS.

Additionally we should also note that even though there might be a general longitudinal decrease of homophobia in Europe, certain (groups of) countries tend to lose their – historically speaking – "original" genderphobic character at a different pace than others. For example, EVS data on non-preference for homosexual neighbours between 1990 and 1999 reflected a more dynamic decrease of (the social distance aspect of) homophobia in the post-socialist countries than in the non-post-socialist countries – but to be fair, we have to add that the levels of non-preference for homosexual neighbours were much higher in post-socialist Europe around 1990 than in most of the Northern and Western European countries. However, in the first decade of the 21st century the positive trend that could previously be observed in the post-socialist countries has changed into a broad spectrum of stagnation, reflecting that the "contest for the title of the most homophobic country" is still an on-going event in the region…

References

Adamczyk, Amy, and Pitts, Cassidy (2009): Shaping attitudes about homosexuality: The role of religion and cultural context. *Social Science Research,* 38 (2): 338–351.

Agnew, Christopher, et al. (1993): Proximal and Distal Predictors of Homophobia: Framing the Multivariate Roots of Outgroup Rejection. *Journal of Applied Social Psychology*, 3 (24): 2013–2042.

Akker, van den Hanneke, van der Ploeg, Rozemarijn, and Scheepers, Peer (2012): Disapproval of Homosexuality: Comparative Research on Individual and National Determinants of Disapproval of Homosexuality in 20 European Countries. *International Journal of Public Opinion Research,* 25 (1): 64–86.

Bickel, Robert (2007): *Multilevel Analysis for Applied Research: It's Just Regression!* London: The Guilford Press.

Bolboaca, Sorana D., and Jantschi, Lorentz (2006): Pearson versus Spearman, Kendall's Tau Correlation Analysis on Structure-Activity Relationships of Biologic Active Compounds. *Leonardo Journal of Sciences* 5 (9): 179–200.

European Commission (2006): STANDARD EUROBAROMETER 66 – Public Opinion in the European Union. First Results. Autumn 2006 – *TNS Opinion & Social* http://ec.europa.eu/public_opinion/archives/eb/eb66/eb66_en.pdf (Accessed 7.10.2012).

Fox, John (1997): *Applied regression analysis, linear models, and related methods.* Thousand Oaks, CA: SAGE.

Garfinkel, Harold (1967): *Studies in Ethnomethodology.* Englewood Cliffs, NJ.: Prentice-Hall.

Garland, Ron (1991): The Mid-Point on a Rating Scale: Is it Desirable? *Marketing Bulletin*, 2 (1): 66–70.

Gerhards, Jürgen (2010): Non-Discrimination towards Homosexuality: The European Union's Policy and Citizens' Attitudes towards Homosexuality in 27 European Countries. *International Sociology,* 25: 5–28.

Herek, Gregory M. (1984): Beyond "Homophobia": A Social Psychological Perspective on Attitudes toward Lesbians and Gay Men. *Journal of Homosexuality*, 10 (1/2): 1–21.

Herek, Gregory M. (2004): Beyond "Homophobia": Thinking About Sexual Prejudice and Stigma in the Twenty-First Century. *Sexuality Research & Social Policy,* 1 (2): 6–24.

Herek, Gregory M. (2011): Anti-equality marriage amendments and sexual stigma. *Journal of Social Issues, 67 (2):* 413–426.

Hooghe, Marc and Meeusen, Cecil (2013) Is Same-Sex Marriage Legislation Related to Attitudes toward Homosexuality? *Sexuality Research and Social Policy,* 1–11. DOI: 10.1007/s13178-013-0125-6, Published online 11 June 2013.

Hudson, Walter W., and Ricketts, Wendell A. (1980): A Strategy for the Measurement of Homophobia. *Journal of Homosexuality,* 5 (4): 357–372.

Kimberlin, Carole and Winterstein, Almut G. (2008): Validity and reliability of measurement instruments used in research. *American Journal of Health-System Pharmacy,* 65 (23): 2276–2284.

Kite, Mary E., and Whitley, Bernard E. Jr (1998): Do Heterosexual Woman and Men Differ in Their Attitudes Toward Homosexuality? A Conceptual and Methodological Analysis. In G.M. Herek (ed.): *Stigma and Sexual Orientation. Understanding Prejudice Against Lesbians, Gay Men, and Bisexuals*: 39–61 Thousand Oaks – London – New Delhi: SAGE.

Kitzinger, Celia (1987): *The Social Construction of Lesbianism*. London: SAGE.

Kon, Igor (2010): Homophobia as a Litmus Test of Russian Democracy. *Russian Social Science Review,* 51 (3): 16–37.

Murinkó, Lívia, and Szalma, Ivett (2010): The 9th Conference of the European Sociological Association: European Sociology or European Sociologies? *Corvinus Journal of Sociology and Social Policy,* 1 (1): 123–137.

Plummer, Kenneth (1975): *Sexual Stigma: An Interactionist Account*. Boston: Routledge and Kegan Paul.

Plummer, Kenneth (1981): *Homosexual Categories*: Some Research Problems in the Labelling Perspective of *Homosexuality. I*n K. *Plummer K* (ed.): *The Making of the Modern Homosexual.*: 53–75. London: Hutchinson.

Preston, Carolyn C., and Colman, Andrew M. (2000): Optimal number of response categories in rating scales: reliability, validity, discriminating power, and respondent preferences. *Acta Psychologica,* 104 (1): 1–15.

Simon, Angela (1998): The Relationship between Stereotypes of and Attitudes toward Lesbians and Gays. In G.M. Herek (ed.): *Stigma and Sexual Orientation. Understanding Prejudice against Lesbians, Gay Men, and Bisexuals*: 62-81. Thousand Oaks – London – New Delhi: SAGE.

Štulhofer, Aleksandar, and Rimac, Ivan (2009): Determinants of Homonegativity in Europe. *Journal of Sex Research,* 46: 1–9.

Takács, Judit, and Szalma, Ivett (2011): Homophobia and Same-sex Partnership Legislation in Europe. *Equality, Diversity and Inclusion: An International Journal,* 30 (5): 356–378.

Takács, Judit, and Szalma, Ivett (2012): Homofóbia és az azonos nemű partnerkapcsolatok intézményesítettsége Európában [Homophobia and the Institutionalization of Same-Sex Partnerships in Europe]. *Szociológiai Szemle,* 22 (1): 61–88.

Takács, Judit, and Szalma, Ivett (2013a): European Attitudes on Same-Sex Adoption – Paper presented at the "Crisis & Contingency: States of (In)Stability" – 20th International Conference of Europeanists at the University of Amsterdam on June 26, 2013.

Takács, Judit, and Szalma, Ivett (2013b): Az azonos nemű párok általi örökbefogadással kapcsolatos attitűdök Magyarországon [Attitudes towards Adoption by Same-Sex Couples in Hungary]. *SOCIO.HU*, 7: 1–33. Available from http://www.socio.hu/7pdf/1takacs_szalma.pdf. (Accessed 10.6.2013).

Young, Iris M. (1990): *Justice and the Politics of Difference*. Princeton: Princeton University Press.

Wilchins, Riki (2004): Queer Theory, Gender Theory. An Instant Primer. Los Angeles: Alyson Books.

Authors' data:

PhD Judit Takács
MTA TK SZI, H-1250 Budapest, P.O. Box 20
e-mail: *takacs@policy.hu*

PhD Ivett Szalma
Université de Lausanne, CH-1015 Lausanne, Switzerland
e-mail: *ivett.szalma@unil.ch*