



Does tolerance matter? A comparative study of well-being of persons in same-sex and mixed-sex unions across nine European countries

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ABSTRACT

In this study, we examine whether there is a well-being gap between persons in same-sex and mixed-sex unions. We consider the possible role that tolerance of homosexuality plays in the size of this gap by comparing these union types across nine European countries with varying levels of normative and legal tolerance (informal and formal institutional contexts, respectively). For social well-being, results indicate that the well-being gap indeed depends on both the informal and formal institutional contexts in a country. In intolerant societies, persons in same-sex unions have lower social well-being than persons in mixed-sex unions, whereas they fare slightly better in tolerant societies. We found that the normative dimension of tolerance matters more for the social well-being gap than the legal dimension. In line with our hypotheses, findings also show that men in same-sex couples are more affected by differences in the informal institutional context than women in same-sex couples. For depressive feelings, no significant joint effect of union type for either measure of tolerance was found. Overall, we demonstrate the theoretical usefulness of treating tolerance at the contextual level as a predictor of well-being by empirically testing the link between tolerance and well-being. We suggest considering intolerance also as a social problem on the country level, which is distinct from intolerance on the interpersonal level.

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1. Introduction

Research examining differences between same-sex and mixed-sex couples often focuses on comparing relationships from a psychological angle (e.g. Kurdek 2005) or on the demographic composition of the couples (e.g.

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Andersson *et al.* 2006; Verbakel and Kalmijn 2014). Yet, differences in well-being between these union types, be it in terms of happiness, self-expression or social connectedness, remain understudied. This is surprising, since there is plenty of research examining well-being differences among different heterosexual unions (e.g. Diener *et al.* 1999; Wilson and Oswald 2005; Soons and Kalmijn 2009). A few studies have shown that there is a higher prevalence of both physical and mental health problems among lesbians and gay men than among heterosexuals (e.g. Lewis 2009). Yet, the scarcity of studies explicitly focusing on the presence of well-being (as opposed to the absence of psychological and physical ill-being) makes it difficult to link this research to well-being differences between union types. Particularly, the social aspect of well-being, which is recognized as crucial for individuals' general health (Larson 1993), remains largely unexplored for lesbians and gay men (for an exception, see Kertzner *et al.* 2009).

One often-considered aspect that could challenge the well-being of lesbians and gay men is (in)tolerance towards homosexuality. While usually included when theorizing about the well-being of lesbians and gay men, the link is often not examined empirically. Instead, tolerance towards homosexuality is commonly researched as an outcome in sociology, and its individual and macro-level sources are the focal point of investigation (Kuyper *et al.* 2013). When consequences of (in)tolerance are examined explicitly, this is never done across larger contexts, such as countries. This is related to the scarcity of data, which allows such a design. Moreover, this link is usually studied based on convenience samples, and often without taking a heterosexual comparison group into account. The selective inclusion in convenience samples can result in highly biased outcomes and a lack of comparison makes it hard to put findings into perspective. Only recently a small body of work is emerging where the consequences of sexual stigma on lesbian, gay and bisexual persons are examined using probability-based data sets (Hatzenbuehler *et al.* 2010; Hatzenbuehler & McLaughlin 2014). These studies do, however, retain a strong focus on psychiatric disorders and mortality.

To fill the above-described gaps, the present study is among the first to use nationally representative survey data to examine to what extent a gap in well-being between persons in same-sex and mixed-sex couples can be explained by differences in the normative and legal contexts regarding tolerance towards homosexuality. We examine two dimensions of well-being, namely social well-being (in nine countries) and depressive feelings (in five countries). The latter allows us to connect to the existing literature

about lower levels of psychological well-being among lesbians and gay men; the former allows us to extend this literature by including indicators of positive social relationships and feelings of belonging. It is important to note that we do not focus on sexual orientation per se, but on differences between persons in same-sex and mixed-sex couples. The data stem from the first wave of the Generations and Gender Programme (GGP; 2002–2011) and include Austria, Belgium, Bulgaria, the Czech Republic, France, Germany, the Netherlands, Norway and Poland. The cross-national design containing a large number of persons in same-sex couples allows us to explicitly link differences in tolerance across countries to well-being outcomes. Moreover, the findings of this study are generalizable to the population of partnered individuals in these countries. By partnered individuals, we refer to people who are living with a partner and people who have a steady partner for at least 3 months with whom they do not share a household. That renders it possible to view intolerance also as a social problem on an aggregate level, as opposed to isolated incidents that occur predominantly on the interpersonal level.

2. Theoretical and empirical literature

As indicated, we examine two aspects of well-being, namely depressive feelings and social well-being. While studying depressive feelings has a long-standing tradition in well-being research (Diener *et al.* 1999), social well-being has attracted attention only in the past few decades. In this context, scholars have referred to different components of social well-being, ranging from close relationships and their quality (Larson 1993), over loneliness (Pinquart 2003), to social integration and participation at the community and societal levels (Keyes 1998). In either understanding of social well-being, a general sense of embeddedness in the immediate and/or wider social environment is central, whereas social and emotional isolation and loneliness constitute the opposite. We work with the loneliness scale by De Jong-Gierveld and Van Tilburg (2006), which combines positively worded items about the presence of close relationships with negatively worded items about the absence of feelings of belonging. While De Jong-Gierveld and Van Tilburg focus on the negative side of the coin by calling their concept loneliness, we would like to stress the broader relevance of social embeddedness in the overall state of well-being by calling the concept social well-being. The overall scale is a hybrid measure between the absence of ill-being, or belonging, and the presence of well-being, or social embeddedness.

2.1. National-level tolerance

Recent studies suggest that the well-being of persons in different union types partially depends on the wider social context. These studies have shown that the negative effect of divorce on well-being is larger in countries that have strong norms against divorce (Kalmijn 2009; Verbakel 2012) and that the well-being gap between married and unmarried cohabiting couples is smaller in countries where cohabitation is more accepted and more prevalent (Soons and Kalmijn 2009). These findings suggest that valuable insights into the well-being of individuals in varying union types may be gained by examining the institutional contexts of countries. When studying the well-being of persons in same-sex couples, the level of tolerance towards lesbians and gay men is an obvious starting point.

When considering the level of tolerance at the national level, two different dimensions of tolerance can be differentiated: an informal and a formal one. The informal institutional context refers to tolerance as a normative concept, denoting public acceptance of variations in appearances, lifestyles, personalities or beliefs. It is distinct from the (dis)approval of individuals as it refers to commonly shared values and standards that govern the realm of the accepted within societies at large. In intolerant societies, homosexuality lies outside of this delineated norm due to the pervasiveness of conflicting values. Religious and political affiliations, the prevalence of traditional family and gender values, and gender equality are thought to influence (Kuyper *et al.* 2013) or in fact constitute (Oswald *et al.* 2010) tolerance of sexual diversity on the country and/or community level. Since this is a macro-perspective on tolerance, it is important to remember that there is heterogeneity within countries. Relatively intolerant countries are merely made up of more people holding intolerant views than tolerant views, and vice versa in tolerant societies.

In countries where the majority of people disapprove of homosexuality, and where the environment is encoded with a general message of rejection (Oswald *et al.* 2010), persons in same-sex couples may internalize negative stereotypes about themselves, develop a tendency to retreat from social interactions and grow lonely. Moreover, research has shown that being a member of a devalued social group can be problematic (Katz *et al.* 2002). This might be the case since social approval is central to an individual's well-being (Ormel *et al.* 1997). It is necessary for developing feelings of belonging and embeddedness which are generally gained through compliance with prevailing norms in communities and society at large. In intolerant societies, the threshold for verbal or even physical assault

may be lower, creating an unsafe environment which fosters alertness and tension. This is particularly relevant for persons who live together with their same-sex partner, since a shared home entails visibility. Overall, these mechanisms may cause individuals with same-sex partners to experience depressive feelings at an increased rate as well as prevent them from achieving social well-being, either by exclusion through others or because of a tendency to 'hunker down'. Against this background, we hypothesize that in the presence of a well-being gap between persons in same-sex and mixed-sex couples, the gap should be smaller in countries where the informal institutional context is more supportive of homosexuality (hypothesis 1a).

Within this normative perspective on tolerance, it is useful to make a distinction between women and men in same-sex couples since previous research suggests that people, in particular heterosexual men, tend to express more discomfort with gay men than with lesbians (Herek 2002; Monto and Supinski 2014). If, on the one hand, men are more often the target of anti-gay sentiments and actions, and, on the other hand, are also more often the ones holding and expressing anti-gay sentiments towards their (male) peers, it is reasonable to expect that the well-being of men in same-sex couples is more susceptible to differences in the informal institutional context than the well-being of women in same-sex couples. Therefore, we assume that in the presence of a well-being gap between persons in same-sex and mixed-sex couples, the impact of differences in the informal institutional context is larger for men than for women (hypothesis 1b).

Turning to tolerance as a formal institution, we consider the legal context, or in other words the degree to which individuals in same-sex unions are permitted and supported in living their lives as they wish. Enabling laws, such as being able to marry or adopt children, are often subject of heated public debate. In the USA, for example, concerns for child well-being are often raised in combination with these rights (Stacey and Biblarz 2001). A lack of enabling laws within a country can effectively limit the extent to which individuals in same-sex unions are able to lead equally autonomous lives as individuals in mixed-sex unions. Particularly, the right to establish formal legal ties has consequences for inheritance, child custody or medical emergencies, including life and death decisions. Some countries have addressed this by establishing civil unions or registered partnerships, allowing same-sex couples to gain marriage-like rights. However, often there are substantial differences between countries in the degree to which such rights are available, and in

the legal consequences that are factually attached to such a status. It has been suggested that legal tie formation has a similarly positive effect on well-being among same-sex couples as it has among mixed-sex couples (Riggle *et al.* 2010).

Protective laws can prevent persons with homophobic attitudes from acting upon their beliefs, even though laws cannot always prevent incidents from happening. They can, however, give victims of physical and other discrimination legal ground to seek justice. There is a symbolic dimension to them signifying that lesbians and gay men are considered worthy of the state's protection. In some cases, where these laws may only be implemented in order to gain access to the European Union, this symbolic dimension is irrelevant. In most countries, however, the presence of protective rights communicates a supportive attitude of official institutions towards its gay citizens. Therefore, we assume that in the presence of a well-being gap between same-sex and mixed-sex unions, the gap is greater in countries where the formal legal context is intolerant towards homosexuality, compared to countries with more supportive legislation (hypothesis 2).

The lines between the formal and informal dimensions are not entirely clear-cut, since both aspects of tolerance on the country level are closely intertwined and mutually influencing, so that a clear separation is difficult. Yet, a failure to separate the dimensions would conceal the fact that there are divergent patterns present in the European context; that is, a country has high informal tolerance but low formal support, or vice versa. In the present study, therefore, both approaches are employed in a complementary fashion to evaluate the impact of varying levels of tolerance across countries.

3. Data, operationalization and method

3.1. Data

The advantage of the present study is that we are able to identify same-sex couples in nationally representative data from multiple countries (see below). The data come from the first wave of the GGP; the countries included in the present study are selected on the basis of the availability of the dependent variables and under the condition that individuals in same-sex unions can be identified: Austria (2008–2009), Belgium (2008–2010), Bulgaria (2004), the Czech Republic (2004–2005), France (2005), Germany (2005), the Netherlands (2002–2004), Norway

(2007–2008) and Poland (2010–2011). The GGP offers the distinctive opportunity to identify persons with same-sex partners who live either together in a household or apart; both types of relationships are included in this study. This yields 518 persons in same-sex couples and 66,883 persons in mixed-sex couples. Across the nine countries, same-sex couples make up 0.78% of the sample on average, 0.95% when using weights.¹ This is similar to the percentage found in other sources.² The application of standardized, country-specific population weights barely changes the means of the variables of interest (see Table 1), so we use unweighted data for the analysis. Missing data were deleted list-wise under the assumption that the information is missing at random since no nested patterns could be identified. The number of missing values for individual-level variables did not exceed 2%, with the exception of the depression scale, which is unavailable for Germany, the Netherlands, Austria and Poland. Since an exclusion of these countries would mean a loss of valuable data, we decided not to exclude them from our analysis of social well-being. In Norway, 28% of respondents did not respond to the depression items as a result of non-response to paper-and-pencil questionnaires administered by mail. Since no further information about potential selectivity is known, the data are treated as randomly missing and the cases are excluded from the analysis.

We notice fewer same-sex couples in less tolerant countries, which may point towards selectivity. It is possible that only those who are rather open, confident and happy may be self-assured enough to reveal their situation in an environment where they are not accepted, implying that those with the lowest levels of social well-being and high levels of depressive feelings are not captured in this survey. This does, however, not create a substantive problem for our analysis, since the size of the effect of tolerance on the well-being gap in less tolerant countries would be underestimated, if that were indeed the case. While selection is certainly a plausible process, the lower numbers of couples in less tolerant countries might also reflect reality. While it is unlikely to assume that there are fewer lesbians and gay men in these countries, there might very well be fewer couples choosing to live together openly. We emphasize that our results cannot be generalized to the entire population of persons with a same-sex sexual attraction.

¹Germany (1.72%, $N = 114$), the Netherlands (1.82%, $N = 96$), France (1.08%, $N = 77$), Belgium (1.22%, $N = 67$), Norway (0.80%, $N = 62$), Czech Republic (0.46%, $N = 27$), Bulgaria (0.32%, $N = 29$), Austria (0.34%, $N = 13$) and Poland (0.07%, $N = 8$).

²European Social Survey (1.00%); partnered lesbians (0.62%) and gay men (0.71%) in the USA (Black et al. 2000).

Table 1. Descriptive statistics of the sample.

	N	Min.	Max.	Weighted mean	Unweighted mean	Standard deviation
Mixed-sex unions						
Well-being	65,688	1	3	2.67	2.68	0.39
Depressive symptoms	35,151	1	4	1.27	1.28	0.45
Living together	66,883	0	1	0.88	0.90	0.30
Child in household	66,883	0	1	0.53	0.55	0.50
Relationship duration	66,883	0	66	19.93	20.34	15.09
Female	66,883	0	1	0.51	0.54	0.50
Age	66,883	17	85	46.09	46.25	14.91
Education						
High	66,883	0	1	0.26	0.27	0.27
Average	66,883	0	1	0.49	0.52	0.50
Low	66,883	0	1	0.25	0.21	0.41
Unemployed	66,883	0	1	0.07	0.07	0.06
Migration background	66,883	0	1	0.15	0.11	0.31
Same-sex unions						
Well-being	503	1	3	2.71	2.71	0.38
Depressive symptoms	262	1	4	1.32	1.34	0.54
Living together	518	0	1	0.77	0.76	0.42
Child in household	518	0	1	0.27	0.26	0.44
Relationship duration	518	0	58	14.38	13.93	13.79
Female	518	0	1	0.41	0.46	0.50
Age	518	18	80	43.37	44.19	14.03
Education						
High	518	0	1	0.37	0.43	0.50
Average	518	0	1	0.44	0.40	0.50
Low	518	0	1	0.19	0.17	0.38
Unemployed	518	0	1	0.06	0.06	0.06
Migration background	518	0	1	0.17	0.13	0.34
Country level						
Informal institutional context	9	-1.81	1.58		-0.09	1.10
	5	-0.87	1.58		0.33	0.97
Formal institutional context	9	2	6		3.25	1.43
	5	2	6		3.54	1.43

3.2. Operationalization

3.2.1. Dependent variables

The first dependent variable is *social well-being*, which is measured by a shortened version of the loneliness scale developed by De Jong-Gierveld and Van Tilburg (2006). This includes 3 items about having meaningful relationships ('there are plenty of people that I can lean on in case of trouble', 'there are many people that I can count on completely' and 'there are enough people I feel close to') and 3 items about feelings of belonging ('I experience a general sense of emptiness', 'I feel rejected' and 'I miss having people around'). The answer categories included 'no', 'more or less' and 'yes'. The final scale ranges from 1 (low social well-being) to 3 (high social well-being) and shows adequate internal consistency ($\alpha = 0.74$). The scale was also found to be reliable and valid for cross-cultural comparisons (De Jong-Gierveld and Van Tilburg 2010).

The second dependent variable is depressive feelings, measured by a shortened version of the Center for Epidemiologic Studies Depression Scale (CES-D). Respondents indicated how often in the last week they experienced seven aspects of depressive mood ('last week: I felt that I could not shake off the blues even with help from my family or friends; felt depressed; thought my life had been a failure; felt fearful; felt lonely; had crying spells; felt sad'). Respondents indicated whether they experienced each of these symptoms 'seldom or never', 'sometimes', 'often' or 'most or all of the time'. The index is created from the average score on these items and shows a high internal consistency ($\alpha = 0.89$). The items are coded reversely so that a high score denotes more depressive symptoms, and a positive effect on depressive feelings must be interpreted as adverse for well-being.

3.2.2. Main predictors

The main predictor on the individual level is union type distinguishing same-sex and mixed-sex couples. This distinction is generated by combining answers to direct questions about the current partner and the gender of the partner. This allows the identification of different couple types, who live together and those who do not. On the national level, we include two measures of tolerance. The *informal institutional context* (normative tolerance dimension) in a country is an index that contains four measures. The first measure is the aggregated mean score on a single-item measure of attitudes towards homosexuality ('Should gays and lesbians be free to live their own life as they wish?' recoded into 1 disagree strongly to 5 agree strongly). The second measure is the level of gender equality, specifically, the Gender Empowerment Measure (GEM, 0 perfect inequality – 1 perfect equality).³ The third measure is composed of three items mapping the average religious involvement in a country ($\alpha = 0.96$). We used the standardized mean scores of 'How religious are you' (recoded 0 very religious, 10 not at all religious), 'How often do you attend religious services apart from special occasions' (recoded, 0 every day, 6 never) and 'How often do you often pray apart from religious services' (recoded, 0 every day, 6 never). The fourth measure is the aggregated mean score on 10 items measuring traditional views on family and gender roles ($\alpha = 0.74$). We used standardized average scores on the following items: 'working mother can have warm relationship with children', 'husband

³GEM data used: AT (2008), BE (2008), BG (2006), CZ (2004/06), FR (2004/06), DE (2004/06), NL (2002/06), NO (2006/08) and PL (2008). Source: <http://hdr.undp.org>.

and wife should both contribute to household income', 'a job is the best way for women to be independent', 'fathers are as well suited to look after children as mothers', 'pre-school child suffers with mother working', 'women really want home and children', 'being housewife is as fulfilling as paid job' (agree strongly – disagree strongly), 'children need both parents to grow up happily' (0 disagree, 1 agree), 'women need children to be fulfilled' (0 no, 1 yes), 'a woman wants to have a child as a single parent, but she does not want a stable relationship with a man' (1 disapprove, 2 depends, 3 approve).⁴ All items are recoded so that a higher score indicates more liberal family and gender values. The final resulting index is the average of these four standardized measures and shows great internal consistency on the country level ($\alpha = 0.82$).

The *formal institutional context* in different countries is measured by a continuous variable counting supportive laws for lesbians and gay men (ranging from 0 to 7). Information for this variable was assembled from the 'State-sponsored Homophobia' reports (2008–2014) by the International Lesbian, Gay, Bisexual, Trans and Intersex Association. Countries can gain six points on the scale by having the following laws in place: the prohibition of discrimination based on sexuality in the workplace, constitutional prohibition of discrimination based on sexuality, the prohibition of incitement to hatred, the recognition of hate crimes based on sexual orientation as aggravating circumstances, administering an equal age of consent for homosexual and heterosexual acts between consenting adults and having adoption rights for same-sex couples. The final point is awarded if marriage is open to same-sex couples. This point is weighted. Three different legal situations are taken into account regarding union formation – full marriage equality, having most rights equal to marriage and having some rights equal to marriage⁵ – each constitute one-third of this final point. They are treated hierarchically, meaning that if a country has (iii) full marriage equality, then the points for the previous levels of having (i) some or (ii) most rights available are also awarded – the country then gains the full point.⁶

⁴European Values Study waves used: AT (4), BE (4), BG (3 & 4), CZ (3 & 4), FR (3 & 4), DE (3 & 4), NL (3), NO (4) and PL (4)

⁵Source: <http://ilga.org>.

⁶For both, the informal and formal institutional contexts, we rely also on additional data sources which are always matched with the exact years or the year coming closest to the year of data collection of the GGP. If the GGP data collection falls in between two available time points, the average is used. This also holds for some countries in the GGP where multiple survey years are available. The Netherlands implemented the law that considers hate crimes based on sexual orientation an aggravating circumstance in 2003, which falls into the middle of the GGP data collection span for the Netherlands (2002 – 2004). Therefore, half a point was awarded to the Netherlands for this law.

3.2.3. Controls

Besides the contextual factors, there are a number of individual-level factors that need to be taken into account. One such factor is whether couples live together (0 no, 1 yes) as it entails visibility and openness for same-sex couples. We also consider whether a couple has children living in the house (0 no, 1 yes, including non-biological). Relationship duration refers to the duration of living together or the length of the relationship for those who live apart. With regard to education, we distinguish lower secondary (ISCED 0–2) from post-secondary non-tertiary (ISCED 3–4) and tertiary education (ISCED 5–6 tertiary). We also include a dummy whether one is unemployed or not (which includes the employed, students, the retired and stay-at-home parents; 0 no, 1 yes) as this may differ between the union types. A binary variable indicates whether a respondent is born outside the country, or at least one of their parents, to account for possible multiple minority statuses. We control for gender and both linear and non-linear effects of age.

3.3. Method

The relationship between well-being and union type is explored by estimating several ordinary least squares (OLS) regression models. First, a baseline model with the union type as the sole predictor is estimated (M1). Then, control variables on the individual level are introduced as well as country dummies to adjust for country differences in well-being (M2). Since there are only nine countries in total, a multilevel design cannot be applied. Our interest in the well-being gap between same-sex and mixed-sex couples is explored by including interaction terms between the union type and the two tolerance measures (M3 and M4). The main effects of the tolerance measures are omitted from all models, since this effect is already captured by the country dummies. Moreover, the interaction terms between being in a same-sex union and the two measures of tolerance are included in separate models due to their correlation and theoretical overlap. Models M1a–M4a are estimated with social well-being as the outcome variable; models M1b–M4b are regressed on depressive feelings.

4. Results

4.1. Describing well-being and tolerance

Before looking at the regression results, it is useful to examine the measures of interest descriptively. There appear to be very few differences

in the distribution of the two well-being variables between the union types. [Figure 1](#) shows a plot of both dimensions of tolerance at the country level. They correlate moderately ($r = .67$ both when $N = 9$ and when $N = 5$), empirically confirming their conceptualization as two distinct but inter-related dimensions of tolerance. Moreover, we can see that most countries with many supportive laws also appear liberal in terms of their informal institutional context. Yet, at the lower end of the legal scale, there is a cluster of countries – for example, Austria and Poland – which have only few laws in place, while differing strongly on the normative dimension. This illustrates the usefulness of distinguishing the two dimensions. It is noteworthy that Norway, as the most tolerant country in a normative sense, is in the middle of the cluster on the legal dimension suggesting that legal tolerance might be lagged behind public opinion.

4.2. Regression estimates for social well-being

First, we examine the main effect of being in a same-sex union on social well-being. [Table 2](#) shows that the coefficient is not significant, suggesting that there is no overall difference between the union types (M1a and M2a). Nonetheless, variations across countries may be present that could be revealed by interacting the union type with our country-level tolerance measures. The interaction coefficient between the informal institutional context and the type of union, indeed, is

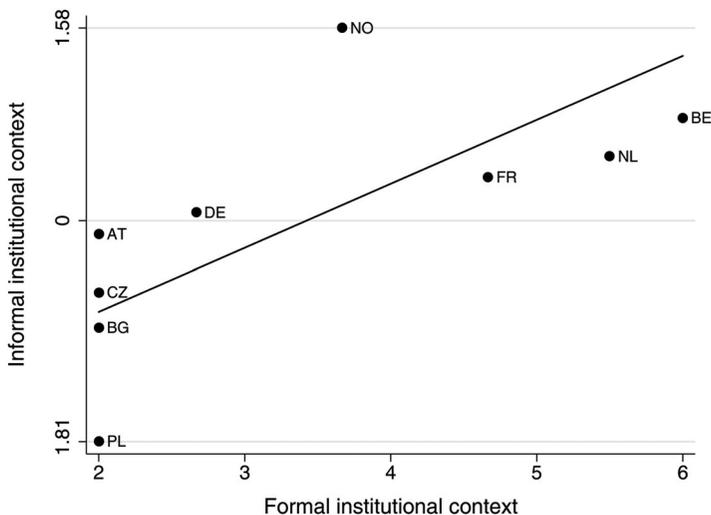


Figure 1. Country-level correlation between the tolerance measures.

Table 2. Regression results for social well-being and depressive feelings: unstandardized b-coefficients.

	Social well-being						Depressive feelings			
	M1a	M2a	M3a	M3a men	M3a women	M4a	M1b	M2b	M3b	M4b
<i>Main predictors</i>										
Same-sex union (1 = yes)	0.026 (0.017)	0.004 (0.016)	-0.023 (0.019)	-0.003 (0.025)	-0.042 (0.028)	-0.094 [†] (0.048)	0.057* (0.028)	0.067* (0.027)	0.075* (0.033)	0.138 (0.086)
Same-sex * IIC			0.067** (0.023)	0.082** (0.031)	0.044 (0.036)				-0.016 (0.034)	
Same-sex * FIC						0.024* (0.011)				-0.017 (0.019)
<i>Controls</i>										
Female (1 = yes)		-0.009** (0.003)	-0.009** (0.003)			-0.009** (0.003)		0.157*** (0.005)	0.157*** (0.005)	0.157*** (0.005)
Other controls	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Country dummies	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Constant	2.682*** (0.002)	2.831*** (0.014)	2.831*** (0.014)	2.904*** (0.021)	2.780*** (0.020)	2.831*** (0.014)	1.281*** (0.002)	1.269*** (0.023)	1.269*** (0.023)	1.269*** (0.023)
Observations	66,191	66,191	66,191	30,820	35,371	66,191	35,413	35,413	35,413	35,413

Note: Standard errors in parentheses.

[†] $p < .100$, * $p < .050$, ** $p < .010$, *** $p < .001$.

Source: GGP wave 1.

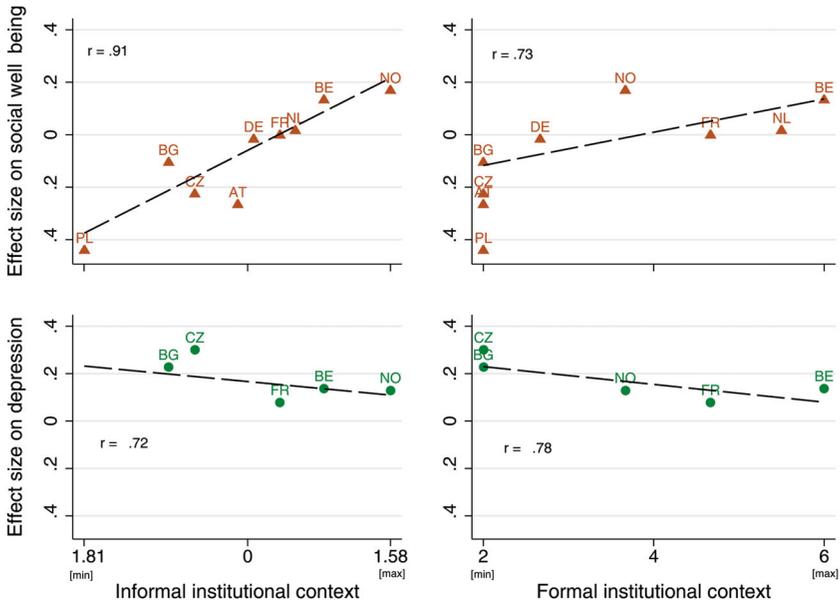


Figure 2. The relation of the effect size of being in a same-sex union on well-being with tolerance on the country level.

significant ($b = 0.067$, $p < .01$), implying that the informal context affects same-sex couples differently than their mixed counterparts. Concretely, we see that there is a gap in social well-being between the union types, and it is smaller in more tolerant societies. Figure 2 illustrates how strongly associated the effect size of being in a same-sex union on social well-being is with the informal institutional context ($r = .91$).⁷ Effect sizes range from -0.44 in the least tolerant climate to $+0.17$ in the most tolerant climate, indicating that an intolerant climate has a large negative impact on the well-being of same-sex couples. The change in sign reveals that a more supportive normative climate not only entails a closing of the well-being gap, but in fact a reversal. Based on this, our hypothesis 1a is clearly supported.

Furthermore, we expected that men in same-sex unions would be more susceptible to differences in the informal institutional context than women. When estimating the interaction effect for men only, the coefficient indeed increases compared to the full sample ($b = 0.082$, $p < .01$, M3a men only).

⁷The effect sizes in Figure 2 stem from individual regression models that were estimated per country. In those models we use standardized versions of the dependent variables so that coefficients can be interpreted as effect sizes. The main predictor of being in a same-sex union and all individual level control variables are included.

When looking at women only, the interaction coefficient has halved in size and is no longer significant ($b = 0.044$, $p > .05$, M3a women only). In line with our expectation, it is mostly gay men's social well-being that appears to be dependent on the informal institutional context. This is also reflected in the effect sizes of being in a same-sex couple on social well-being. For men, they range from a large negative effect in an intolerant climate (-0.47) to a moderate positive effect in a tolerant climate ($+0.30$). The effect size of an intolerant climate (while insignificant) is smaller for women (-0.34) and absent in a tolerant climate ($+0.04$). Overall, these findings indicate that hypothesis 1b is supported as well.

When looking at the formal dimension of tolerance, we also find a significant interaction effect ($b = 0.024$, $p > .05$, M4a), showing that the gap also depends on the formal dimension. In a context with the least supportive laws, same-sex couples on average score 0.05 points less on the social well-being scale than their peers in mixed-sex unions. When the maximum number of supportive laws is in place, individuals in same-sex unions fare slightly better on average (0.03 points). Even though the legal dimension is less strongly associated with the effect size of being in a same-sex couple than the normative dimension ($r = .73$, see [Figure 2](#)), the estimates overall confirm hypothesis 2.

As these are positive findings for our hypotheses, we continue by evaluating the robustness of the joint effects of both tolerance measures and union type on social well-being. We do this by excluding different subgroups of the sample to see whether one particular group drives the estimates. If that were the case, the effect would change substantially or even disappear under the exclusion of the respective subgroup. First, we exclude one country at a time, since with our limited number of macro-units, the interaction could depend on just one country. However, the effects persist under the exclusion of each country in turn, showing that this is not the case. After that, we estimate the models under the exclusion of those who indicated that they do not live together, in order to obtain a more homogeneous sample. Again, the interaction effects remain significant with a slightly higher coefficient (the small number of individuals who do not live together does not allow to execute the test vice versa). Hence, both interaction effects are robust ([Table 3](#)).

4.3. Regression estimates for depressive feelings

Being in a same-sex union has a positive effect on depressive feelings ($b = 0.057$, $p < .05$, M1b), meaning that it increases the level of depressive

Table 3. Robustness analyses of different subgroups: unstandardized b-coefficients.

Subgroup	N	Same-sex * IIC		Same-sex * FIC	
		Coefficient	SE	Coefficient	SE
excluding AT	62,325	0.0655**	0.0238	0.0234*	0.0118
excluding BE	60,703	0.0629**	0.0240	0.0227 [†]	0.0135
excluding BG	57,101	0.0726**	0.0254	0.0234*	0.0117
excluding CZ	60,311	0.0619*	0.0247	0.0205 [†]	0.0120
excluding DE	59,563	0.0680**	0.0243	0.0280*	0.0132
excluding FR	59,083	0.0676**	0.0232	0.0252*	0.0115
excluding NL	60,915	0.0677**	0.0236	0.0306*	0.0132
excluding NO	55,492	0.0850*	0.0334	0.0266*	0.0117
excluding PL	54,035	0.0623*	0.0259	0.0218 [†]	0.0118
Living together	59,604	0.0874**	0.0275	0.0272*	0.0131
Full sample	66,191	0.0673**	0.0234	0.0244*	0.0114

Note: [†] $p < .100$, * $p < .050$, ** $p < .010$, *** $p < .001$.

Source: GGP wave 1.

feelings by 0.057 points on average. This effect persists when controlling for other individual-level covariates and when holding country characteristics constant ($b = 0.067$, $p < .05$, M2b). Even though the effect size is small (Cohen's $d = 0.12$), there appears to be a difference between the union types. Yet, opposed to the findings on social well-being, the interaction effects between the type of union and the measures of tolerance are not significant. This is also not the case when splitting the sample between men and women. Possibly, the smaller sample size when looking at only five countries may cause these estimates not to be significant. Therefore, it is at least interesting to examine the direction of the coefficients and the implied association in the sample. Both the coefficient for the combined effect of union type and the informal context ($b = -0.016$, $p > .05$, M3b) and the combined effect with the formal context ($b = -0.017$, $p > .05$, M4b) imply that there is a trend towards a closing of the gap with increasing tolerance (see Figure 2). However, the effect sizes of being in a same-sex union on depressive feelings are relatively small, ranging from 0.08 in the least tolerant to 0.30 in the most tolerant climate. Overall, both hypotheses 1a and 2 remain formally unsupported for depressive feelings.

5. Discussion and conclusions

The current study is novel in that it applied nationally representative data to examine how a possible well-being gap between same-sex and mixed-sex couples depends on national-level tolerance towards homosexuality. In the GGP data, about 500 same-sex couples are identified and compared to mixed-sex couples within the same country. A selection of nine

European countries, where differences in tolerance prevail, provides the diverse landscape in which we explore these relationships. For social well-being, we find that the effect of being in a same-sex couple indeed depends on the wider social and legal context in a country. For depressive feelings, such evidence is not found.

For social well-being, the applied cross-national comparative design reveals the gap by letting the level of tolerance vary across countries. This is in line with evidence from qualitative literature, where feelings of isolation of lesbians and gay men living in a heteronormative society have been highlighted (Flowers and Buston 2001; Harper and Schneider 2003). Our approach improves upon these earlier studies by systematically comparing well-being differences in different settings. The examination of the effect sizes of being in a same-sex union on social well-being in relation to our tolerance measures nicely illustrates that for differences in social well-being the informal institutional context matters more than the formal context. This is not entirely surprising, since it is called into question by feminist and queer theorists whether certain laws regarding lesbians and gay men do in fact align with the needs and wishes they have from the state, especially when it comes to marriage rights (Josephson 2005). In addition, we see that the effects are large in intolerant climates, suggesting that same-sex couples compromise feelings of social embeddedness and connectedness when the larger social environment is intolerant towards homosexuality. Smaller effects in the most tolerant climates can imply that, once a minimum level of tolerance is achieved, social well-being is less dependent on the larger social environment and possibly more on personal and interpersonal factors. However, this could also be due to the fact that our data do not cover the 'full' range of supportive societies for larger effect sizes to unfold. Future research including a greater range of countries is needed to explore this finding in more detail.

We also find interesting gender differences. The gap in social well-being between the union types depends more strongly on the context for men than for women. This aligns with the expectations we formulated based on research on gender differences in attitudes towards homosexuality. The interaction effect for women is no longer significant when splitting the analysis by gender. Again, future research with greater sample sizes and possibly a wider range of countries in terms of tolerance are required to further explore this issue. While it is expected that the gap is less dependent on tolerance for women, it seems fairly unlikely that it does not depend on tolerance at all.

For depressive feelings, we found no significant joint effect of union type and either measure of tolerance. We suggest two explanations for this negative finding. On the one hand, depressive feelings can be considered a private aspect of well-being, whereas social well-being explicitly refers to its relationship with the social environment and is inherently social. For social well-being, understood as having positive relationships as well as feelings of embeddedness and belonging, the dependency on the congruence of one's own views and values with the values of the wider community or society at large is very apparent. Depressive feelings, as a private aspect of well-being, are perhaps influenced more strongly by individual and personality characteristics as well. On the other hand, it is also possible that a larger sample of countries is required to uncover relationships between depressive feelings and tolerance. For practical reasons, our analysis of depression was based on five countries, whereas our analysis of social well-being was based on nine countries.

Overall, we have demonstrated that it is of utmost importance to account for the wider social context when analysing well-being, particularly for persons in non-traditional living arrangements such as same-sex couples. While a small gap in depression between the union types is immediately visible, the differences in social well-being were only revealed due to the comparative design because it depends in part on the varying contexts. In addition, we have illustrated the theoretical usefulness of treating tolerance on the country level as a predictor of well-being. While many studies have examined predictors of tolerance, especially at the contextual level, we have statistically shown some of the consequences of (in)tolerance. Our approach of focusing on the consequences of national-level tolerance also shows the necessity to distinguish isolated occurrences in specific settings from intolerance as a social problem. We would like to conclude this study with a call for targeted efforts to include same-sex couples in large cross-national surveys, by, for instance, means of explicit items inquiring about the type of union in terms of gender composition and living arrangement. Such data are needed in order to advance our knowledge on the nature of the well-being gap between same-sex and mixed-sex couples.

Disclosure statement

No potential conflict of interest was reported by the authors.

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