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Identifying same-sex couples in cross-national survey data

A comparison of same-sex couples' demographic and socio-economic traits in six European countries

Mirjam M. Fischer

There are many challenges associated with studying same-sex couples in survey data, which were not explicitly designed for this purpose. In this chapter, I systematically review demographic and socio-economic characteristics of same-sex couples in two data sources: the European Social Survey (2002-2012) and the Generations and Gender Programme (2002-2010). This comparison is aimed at providing a first check on the quality of these data. While there is much encouraging evidence, a number of country-specific inconsistencies emerge. The chapter concludes by giving relevant recommendations to survey providers.

Introduction

In recent years, the number of social scientific studies on same-sex couples has augmented steadily. Same-sex unions have gained increased visibility in Western societies and there is an ever-growing interest to know more about this union type (e.g. BPB, 2010; Keuzenkamp & Ross, 2010; Kurdek, 2005; Steenhof & Harmsen, 2003). That is particularly true given the rapidly evolving changes in the legal and normative institutional frameworks regarding same-sex relationships in Western countries. While the study of same-sex couples and lesbian, gay, and bisexual persons in general has a strong tradition in qualitative methodological approaches, quantitative scholars have continuously made efforts to overcome methodological challenges associated with studying this population (Umberson, Thomeer, Kroeger, Lodge & Xu, 2015). Quantitative studies often aim at studying observations that are representative of larger populations. In the case of same-sex couples this has often been done using officially registered partnerships in census and register data. Yet, the range of phenomena that we can study based on these data is often limited compared to social surveys, which cover larger thematic areas.

Moreover, there are large differences across countries in the way same-sex unions are measured by the respective register or census bureaus. Even the officially registered unions of same-sex couples are not as easily compared across national borders, because there are substantial differences between countries in the degree to which union formation rights are available to same-sex couples, and in the legal consequences that are factually attached to such a status (Waaldijk, 2005). This cross-national incomparability is a major drawback if we accept the classic sociological premise that institutional contexts matter for behaviors and attitudes of social actors. Particularly when studying non-traditional unions such as same-sex couples, the normative and legal institutional context can be an important source of inequalities in all life domains, rendering issues related to same-sex couples particularly eligible for cross-national comparative research.

To date, there are only two social surveys which allow for the identification of persons in same-sex unions in data that is both cross-nationally comparable and based on probability sampling strategies: the European Social Survey (2002-2012) and the Generations and Gender Programme (2002-2010). To date, the potential of these data sources has remained largely untapped by scholars interested in studying same-sex unions in and across European countries. Besides the potential that lies in these data, there are certainly also challenges associated with studying same-sex couples using data which were not specifically designed for this purpose. As same-sex couples make up only a small fraction of the population, their small numbers are easily inflated, for example, by erroneously recorded data. Moreover, the total share of same-sex couples and lesbian, gay, and bisexual persons within a given population is unknown. This makes it impossible to create a proper probability-based sampling frame that yields a sample representative of all same-sex couples. Therefore, information about same-sex couples relies on common survey data in which their possible underrepresentation can neither be detected for certain nor can it be corrected. Despite these challenges, the potential of these data to study same-sex couples should not be dismissed entirely. Instead, we can make an effort to check the quality of these data to the best of our abilities. In this chapter, I make a first attempt of performing such a check by comparing the data sets to each other following a logic of convergent validity. In other words, by comparing various demographic and socio-economic properties of same-sex couples in both surveys, I expect to find similar distributions (i.e. the same relative distance between same-sex and mixed-sex couples). This is primarily a descriptive exercise as convergent results cannot provide ultimate proof that the data are sound. However, such a check can be viewed as a minimum requirement when it comes to an evaluation of the correct capturing of same-sex couples in surveys.

I have selected six countries for the comparison of the relative gap in demographic and socio-economic characteristics between same-sex and mixed-sex couples across the two surveys: Belgium, the Czech Republic, Germany, France, the Netherlands, and Norway. The countries were selected because they are available

in both surveys and allow for the identification of sufficient same-sex couples per country. I handle a minimum of 30 couples per country, which refers to the countries in the first wave of the Generations and Gender Programme (GGP) and to the pooled data across six waves of the European Social Survey (ESS). In the following sections, I briefly explain the method of comparison and the logic behind it. I then introduce both data sources in more detail, and describe the identification of the union types within these data. After that I present the results of the comparison differentiating between socio-demographic characteristics that are directly related to the labor market and those which are not. I conclude by reflecting on my observations in the light of typical challenges associated with studying same-sex couples in survey data, and by giving recommendations to survey providers.

The logic and method of comparison

At the heart of these comparisons stand expected gaps in demographic and socio-economic characteristics between the union types, such as the average age or levels of labor market participation. Based on previous research, which has often but not exclusively relied on census and register data, we know that same-sex couples tend to differ in many aspects from mixed-sex couples. For example, persons in same-sex couples are often younger and higher educated compared to persons in mixed-sex couples (Australian Bureau of Statistics, 2013; Gates, 2013; Verbakel & Kalmijn, 2014). Sometimes differences in life courses, value-orientations, and institutional contexts are assumed to drive 'true' differences between the union types; sometimes there are suspicions of selection mechanisms that are specific to same-sex couples, e.g. a reluctance to report same-sex partners due to fear of stigmatization (Janssens, Elling & van Kalmthout, 2003). Regardless of the underlying drivers of such differences, I capitalize on the fact that they are often observed, and I expect to detect similar distributions in the two cross-national data sets. Accordingly, I focus this comparison on those demographic and socio-economic characteristics for which I expect differences based on the existing literature. I apply a logic in line with the principle of data triangulation; that is, the combination of knowledge originating from more than one data source within a logic of convergent validity (see e.g. Bryman, 2004; Mathison, 1988). Existing knowledge about same-sex couples in the literature serves as one such data source. The other data sources serving as basis for this comparison are the ESS and the GGP surveys. Concretely, I answer two questions for each examined characteristic: First, *do we observe a gap in the respective socio-demographic trait between the union types, which is in line with previous research?* And second, *is this observed gap between the union types stable across the two surveys in terms of size and direction?*

In order to answer the first question, I estimate a regression whereby union type (0 = mixed-sex couple, 1 = same-sex couple) and survey (0 = ESS, 1 = GGP) are regressed on each socio-demographic trait. I start the analyses with samples

where I pool all the countries together. Since I expect country differences, this analysis is subsequently repeated for each country separately. The regression function has the following form:

$$y = b_0 + b_1 \text{ union type} + b_2 \text{ survey} + \varepsilon \quad \text{(M1)}.$$

The main effect of union type (b_1) answers the first question, whether there is a gap between the union types in terms of a certain characteristic, regardless of which survey is examined. The main effect of survey (b_2) functions as a control variable accounting for baseline differences between the surveys that might arise due to different sampling strategies. Where applicable, I account for variation in the survey year, and the pooled analysis includes country dummies. Moreover, a gender control variable is included since men and women are known to differ in some of their demographic and socio-economic characteristics. For continuous variables I use a linear OLS estimation and for binary outcome variables a logistic estimation method.

In a second model, I include an interaction effect between union type and survey in order to see whether the gap between the union types differs across surveys. This regression function provides the answer to the second question:

$$y = b_0 + b_1 \text{ union type} + b_2 \text{ survey} + b_3 \text{ (union type * survey)} + \varepsilon \quad \text{(M2)}$$

whereby b_3 shows whether the size of the gap differs across surveys. In other words, a non-significant interaction effect would suggest that the analysis provides converging evidence across surveys with regard to the relative gap between the union types. In practice, I cannot solely rely on the interpretation of the significance-level since several challenges to the significance tests are encountered in this design. The first challenge is an increased likelihood of committing a type-1 inferential error. As I estimate a large number of regression models on the same data, it gets likelier that I find a significant result by chance. This is a problem referred to as multiple comparison fallacy (for a short discussion of the issue see Feise, 2002). Therefore, I always examine coefficients in addition to the test statistics, regardless of their significance. The second challenge that arises is a heightened risk of type-2 inferential error. It occurs due to the fact that same-sex couples make up a very small fraction of the sample, generally around 1%, which may not provide sufficient statistical power to produce significant results. To address this issue, I initially pool all six countries together for the analysis, so that the number of same-sex couples remains as high as possible. Yet, as I am ultimately interested in country differences I also estimate the regressions for each country separately. Due to the fact that the number of same-sex couples is reduced drastically when analyzing each country separately, I mainly focus on the coefficients. I do so in the form of margins plots as the visualization of the interaction term helps the

interpretation. Moreover, I refrain from analyzing male and female same-sex couples separately, in order to maximize the size of the same-sex category. Instead, a control variable for the gender of the respondent is included. Finally, I take advantage of the fact that I have all basic socio-demographic information not only for the respondent but also for their current partners. This allows me to include the partners and their demographic information as additional respondents. Due to this strategy the number of same-sex couples increases from 985 (1.22%) to 1,966 (2.41%). This allows for a more conservative test of differences between the surveys, as I considerably increase statistical power. Since it can no longer be assumed that the observations are independent in the sample, I cluster the analyses on the couple-level in order to avoid overestimating the similarity of observations. Naturally, this is only possible for characteristics on the individual-level; analyses concerning household or couple-level traits are done using the original number of observations.

With respect to the possible outcomes of these analyses and their interpretation, I expect to observe differences between the union types in line with the existing literature. Also, I expect that the examined gaps do not vary too much across the surveys in terms of size. As mentioned previously, if those two outcomes can be observed, this is no definitive proof for good data quality. However, they provide us with a minimum level of confidence in the data sets. If differences in the size or direction of the gap across surveys appear, I take this as reason to examine the surveys in more detail. If the gaps merely differ in size, but generally point into the same direction, I consider this still a reasonably good outcome as the substantive implications are similar. Such differences can arise due to the fact that the survey's sampling frames are not explicitly designed to capture same-sex couples, and might therefore capture different sub-sets of the same-sex couple population. If the surveys, however, differ in terms of the direction of the gap, this clearly indicates that there might be quality issues in one of the surveys. Even though it is difficult to decide on which survey is more credible in such a case, it is a useful exercise in and of itself to document such discrepancies and to bring attention to them. Finally, I do not apply weights to the analyses, since I am interested in the relative difference or gaps (as opposed to absolute difference) between the union types across surveys.

Data

To my knowledge, the ESS and the GGP are the only social science surveys to date which allow for the identification of same-sex couples in data that is comparable across countries. Their design is very similar and they both aim at national representativeness. The ESS collects data among all non-institutionalized persons aged 15 and over, regardless of their nationality, citizenship, or language. The sample is collected by multi-stage random probability sampling, whereby

sampling frames of individuals, households, and addresses may be used (European Social Survey, 2012b). Respondents within a household are selected randomly from all household members aged 15 and older and are interviewed face-to-face. In order to maximize comparability between the surveys, I limit the age range to 18 – 80 years which corresponds to the age range in the GGP. The sample sizes per country and wave have always a minimum of 1,500 observations (800 for smaller countries). The GGP is a panel study that maps demographic changes in European countries and collects detailed data on intimate and family relationships. Unlike the ESS, not the entire survey is conducted face-to-face, but all variables that are compared were part of the face-to-face section. The GGP targets the non-institutionalized population in a country between the ages 18 and 80. The sampling guide recommends a random probability sampling method to all participating countries (Simard & Franklin, 2005). According to the country-specific study documentations, all six countries have adhered to this standard. The description of the sampling procedures is not equally detailed for all countries making it difficult, for example, to assess the exact procedure for the Czech Republic. The GGP has relatively large sample sizes, on average 9,000 per country in wave 1 (United Nations, 2005), which is beneficial for the investigation of numerical minorities such as same-sex couples.

Identifying same-sex couples

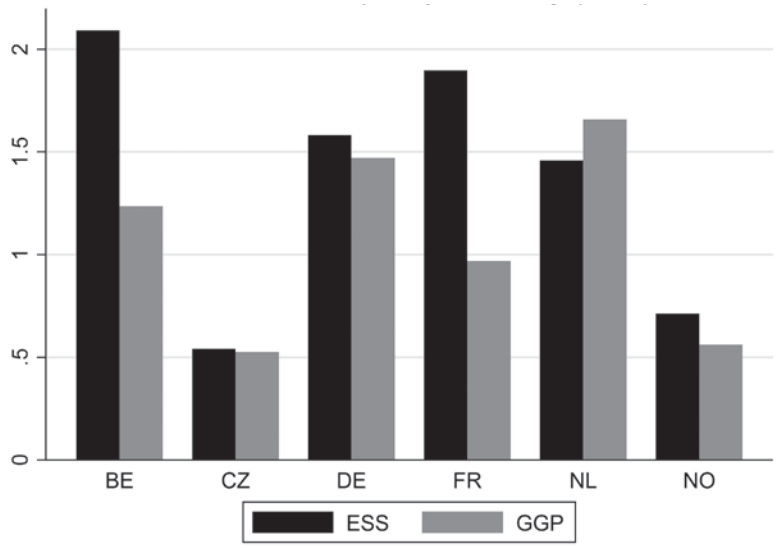
In both surveys the identification of same-sex couples rests on the willingness of respondents to report their relationship with each household member and each household member's gender. I combine this information with the gender of the respondent to identify the type of couple (mixed-sex or same-sex). In the ESS, the respondents are firstly asked to indicate the number of persons living in the household. The interviewers are instructed to then record information on all household members in a grid in descending order of age (oldest first). A tip is included that it 'may be useful to add the names or initials of each household member' (European Social Survey, 2012a) to avoid confusion, but the interviewer is not required to note down the names. The first piece of information to be completed is the gender of a household member. Since there appears to be no formulated standard question to inquire about the gender of each household member in the questionnaires, I assume that it is up to the interviewers to formulate such a question. Or, perhaps, interviewers determine the gender without asking a question only on the basis of names. The exact procedure does not become clear from the questionnaire. After that, the type of relationship is determined by asking 'What relationship is he/she to you?'. A show card is presented, whereby 'husband/wife/partner' is the first of six possible options.

In the GGP surveys, the introductory sentences to the household grid reads: 'To begin, I would like to ask you about all persons who live in this household. Who are they? To help me keep track of your answers, please tell me their first

names and how they are related to you' (United Nations, 2005a). The interviewer then writes down all the names of household members, and presents the respondent with an extensive show card of possible relationships. The first option is 'partner or spouse', followed by 16 other detailed possibilities to report biological and non-biological family members. The interviewer proceeds to record the age, gender and employment status of the respondent him/herself, before s/he finally returns to the list of names and asks for every household member 'Can I just check, that [name] is male/female?'. On the one hand, it is good that there is a clearly formulated question (as opposed to the ESS questionnaire). On the other hand, respondents might feel exposed by having to admit explicitly to living in a same-sex couple and may take this chance to purposefully change a correct answer to something incorrect. The recording of the household composition constitutes the first section in all the GGP surveys, while the ESS records the household composition at the end of the core interview. There is some evidence that the early placement of demographic questions increases their response rate (Teclaw, Price & Osatuke, 2012), yet some have suggested that it may not be best practice to begin with questions that are potentially sensitive (e.g. Trochim, Donnelly & Arora, 2015). In the GGP, respondents can also report a partner with whom they do not share a common household. For the purpose of comparability, however, only partnerships of persons living together will be considered. As a consequence, I only include couples which are identified in the exact same manner as in the ESS, namely via the household grid.

Overall, I am able to identify 602 same-sex and 42,027 mixed-sex couples in all countries and pooled waves of the ESS. In other words, 1.41% of all unions in the ESS are between two persons of the same sex. In the first wave of the GGP there are 383 same-sex and 37,565 mixed-sex couples; the proportion of same-sex couples lies at 1.01%. Estimates around 1% are commonly observed, therefore these numbers seem adequate (Black, Gates, Sanders & Taylor, 2000; Jaspers & Verbakel, 2013). Respondents who reported living with more than one partner in their household (N = 229 in ESS, N = 11 in GGP) or who reported partners under the age of 14 (N = 7 in ESS, N = 8 in GGP) were omitted. In the ESS, 131 respondents did not report the gender of their partner. In the GGP, this was the case for 49 respondents. These observations were also excluded from the analysis. Figure 1 illustrates the proportion of couples which are between partners of the same sex in each of the eight countries and for each survey. Given the similar design of the two surveys, I would expect that they produce roughly the same numbers. Therefore, it is striking that the relative number of same-sex couples is consistently larger in the ESS in all countries except the Netherlands. Particularly for France and Belgium, the proportion of same-sex couples is almost twice as high in the ESS as in the GGP. In the Netherlands, the GGP shows a somewhat larger proportion of same-sex couples than the ESS. For the rest of the countries (the Czech Republic, Germany, and Norway) the numbers are comparable.

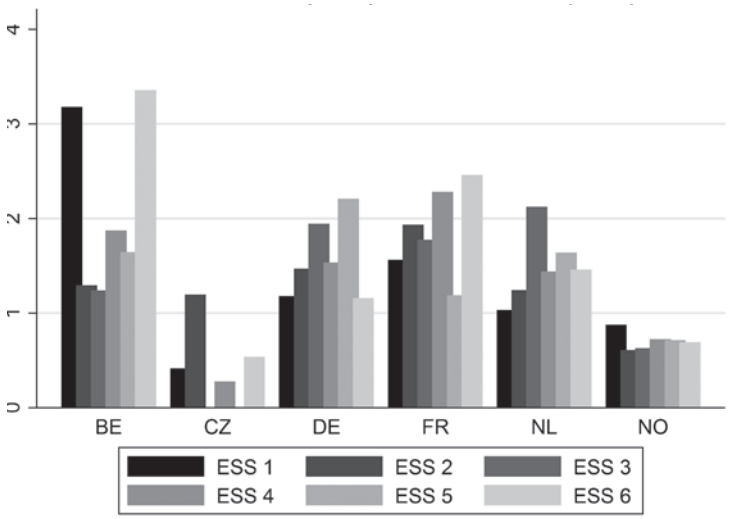
Figure 1 Proportion of unions between persons of the same sex per survey and country



Source: ESS rounds 1-6 and GGP wave 1

Perhaps, these observed cross-national differences can be linked to the fact that the ESS covers a time span of ten years with six repeated measurements, whereas the GGP surveys were conducted within a range of one to three years as part of one wave. On the one hand, the likeliness to capture members of this small population incidentally increases with repeated survey waves. On the other hand, a longer time span also gives room for processes such as increased acceptance of homosexuality to unfold, which could render more people confident to report a same-sex relationship. Yet, the observed differences in the proportion of same-sex couples might also indicate that the ESS numbers are more plagued by inflation of wrongly coded mixed-sex couples, at least in Belgium and France. Figure 2 shows the proportion of same-sex couples for the ESS broken down for each country and survey wave. There are large country differences in the numbers. Norway shows the most consistency over the years. Belgium displays the largest variation in the number of same-sex couples per survey wave and the highest proportions (3.18% in ESS1 and 3.34% in ESS6). Yet unlike suspected, no clear time trend towards larger proportions of same-sex couples in later waves is visible. Belgium, Germany, France, and the Netherlands each show numbers around the 2% mark in some of the survey years. These numbers appear too high compared to other estimates. However, I am not able to assess whether we are dealing with inflation by merely looking at these numbers. Instead, in the following section I move on to taking a closer look at who these couples are in order to shed some more light on these issues.

Figure 2 Proportion of same-sex unions per country and ESS round



Source: ESS rounds 1-6. CZ did not participate in round 3

Results

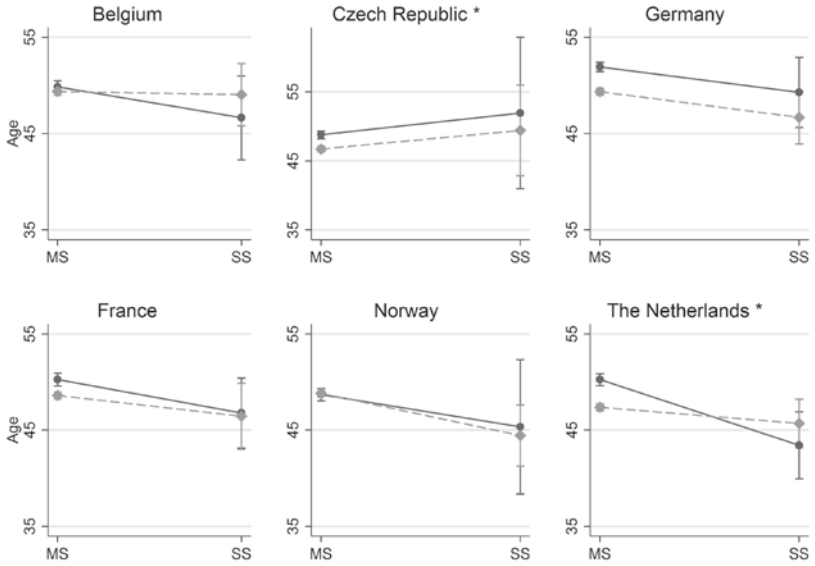
Socio-demographic differences between the unions types

I begin by comparing gaps between same-sex and mixed-sex couples in demographic characteristics that are not directly related to the labor market. As previously introduced, I proceed in two steps: First, I compare observations from the two surveys to existing knowledge in the literature. Formally, the existence of a gap between the union types is investigated by examining the main effect of being in a same-sex union in Model 1. After that, I compare the size and direction of such a potential gap across the two surveys by interacting survey and union type in Model 2. The coefficients for the pooled-country analysis are reported in the text, the estimates for each country separately are presented in figures. The subscripts next to the country name demark significant estimates in the following conventional manner: † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$. The analyses for age and education are conducted on the individual-level where I also treat partners as respondents; on the couple-level I examine the age difference between the partners, whether their education differs and whether they have at least one child living in the household.

Age. In the existing literature on same-sex couples it is often observed that persons in same-sex couples are on average younger than persons in mixed-sex couples. Verbakel and Kalmijn (2014) report that men in same-sex relationships are on average 3.4 years younger than men in mixed-sex relationships in the Dutch

Labor Force Surveys 2001 – 2007. Gates (2013) finds an age gap of 5 years between same-sex and mixed-sex couples in the US Census Bureau's American Community Surveys 2005 – 2011. It has been suggested that this might be due to the fact that particularly older lesbians and gay men are more reluctant to reveal their situation in an interview setting because homosexuality remains less accepted among older generations (Janssens et al., 2003). In the country-pooled regression analysis there is evidence for this age gap, when looking at all countries combined and holding the effects of gender, year and survey constant. On average, persons in same-sex unions are 2.5 years younger than persons in mixed-sex unions (b = -2.541, p < .001, M1). When looking at survey differences, I find a significant interaction effect between union type and survey (at the 10%-level), suggesting that the size of this age gap is somewhat larger in the GGP (b = 1.476, p < .10, M2). Figure 3 shows the interaction effect between union type and survey for each country separately.

Figure 3 Mean age per union type and survey



Source: ESS rounds 1-6 and GGP wave 1. Dashed line GGP, solid line ESS

Overall, same-sex couples tend to be somewhat younger in most countries, even though the effect is rather small and does not occur in all cases. For instance, there is no age difference between the union types in the Belgian GGP and almost no difference in the German ESS data. In France and Norway, both surveys agree on the direction of the age gap, and we only see some variation in the size. The significant effect in the Netherlands is caused because the size of the gap differs somewhat across surveys, yet substantially they both suggest that same-sex couples are

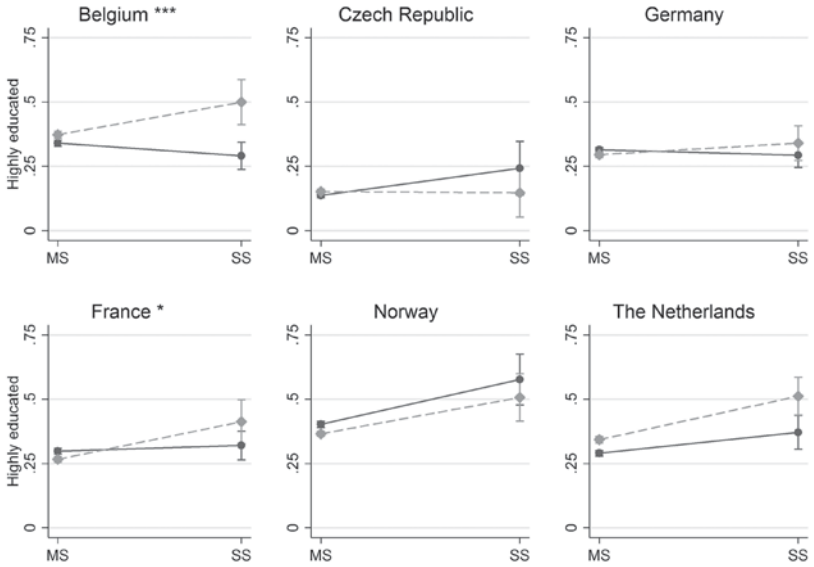
younger. The most striking disagreement between the two surveys can be found for the Czech Republic. Whereas the ESS shows a younger age among same-sex couples, the GGP suggests that same-sex couples are older than mixed-sex couples. In the light of such opposing evidence, it becomes clear that rather serious issues in one of the surveys can be suspected. And since the remaining countries either present the gap as expected or no difference between the union types, it is reasonable to assume that the GGP data is least credible in the Czech case.

Level of education. In both, survey and census data, it is often observed that lesbians and gay men are on average higher educated than their heterosexual peers (Gates, 2013; Schwartz & Graf, 2009; Verbakel & Kalmijn, 2014). Again, there is a commonly shared suspicion that this may be due to selection effects. Research on the acceptance of homosexuality has shown repeatedly that persons with a lower educational background tend to be less tolerant of homosexuality (Ohlander, Batalova & Treas, 2005). As a result, lower educated lesbians and gay men may have more difficulty in being open about their sexuality due to stigma in their immediate social environment or due to internalized homonegativity. Yet, since I look at persons living with a partner it can also be that open cohabitation might indeed be a less frequent occurrence among the lower educated because cohabitation arguably entails some visibility. Regardless of the mechanisms behind this education gap, I expect to observe that persons in same-sex couples are more often higher and less often lower educated compared to persons in mixed-sex couples. Concretely, I examine the proportion of persons, who have completed a form of tertiary education (ISCED 5-6) and those who have not received formal education above the lower secondary level (ISCED 0-2).

In the pooled-country analysis, I observe that persons in same-sex unions are 31% more likely to have completed tertiary education than persons in mixed-sex unions (odds ratio = 1.311, $p < .001$, M1). This is in line with previous findings. The interaction effect between union type and survey is positive and significant (OR = 1.503, $p < .01$, M2) indicating that the education gap is larger in the GGP. In both regressions, the age of the respondent is controlled for. These results can also be observed in figure 4. In the GGP, the evidence aligns with the expectations based on the literature in almost all countries; but in Germany and the Czech Republic there is almost no difference between the union types in the GGP. The ESS seems only accurate in Norway and the Czech Republic, in the remaining countries there is no gap or even opposing evidence (in Belgium). Now, turning to the lower end of the education spectrum, there is a similar mix of results. In the pooled-country analysis, I find no significant difference between the union types when it comes to being in the lowest education category (OR = 0.872, n.s., M1). The coefficient of the main effect does, however, point into the expected direction. It indicates that same-sex couples are 13% less likely to be in the lowest education category compared to mixed-sex couples, at least in this sample. This gap is again somewhat larger in the GGP (OR = 0.698, $p < .10$, M2). Figure 5 shows the reason why there is no significant main effect: the surveys divert so much into different directions that the net effect of the pooled-country analysis is cancelled out. In four countries

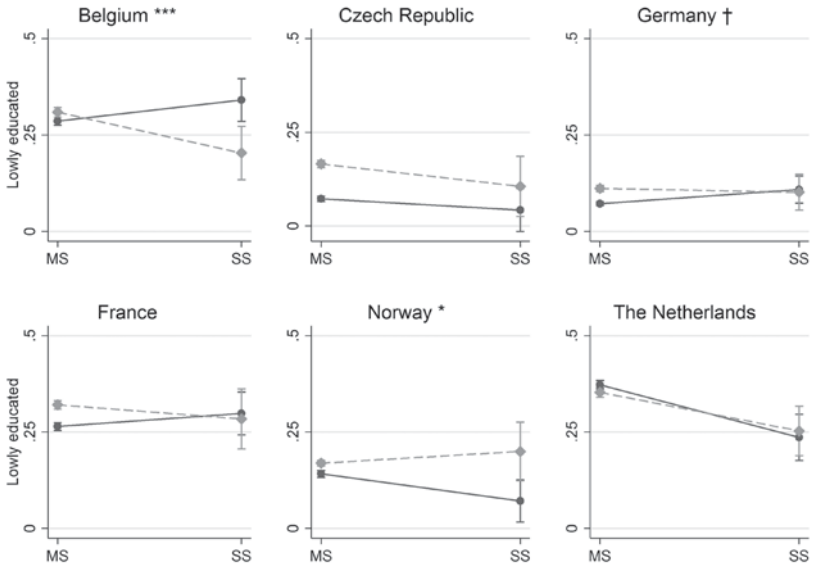
(Belgium, Germany, France, and Norway), I find entirely opposing evidence in the surveys. Sometimes the GGP points into the expected direction, and sometimes the ESS. In the Czech Republic, there is almost no difference between the union types; and the Netherlands shows the gap as expected in both surveys.

Figure 4 Proportion of highly educated persons per union type and survey



Source: ESS rounds 1-6 and GGP wave 1. Dashed line GGP, solid line ESS

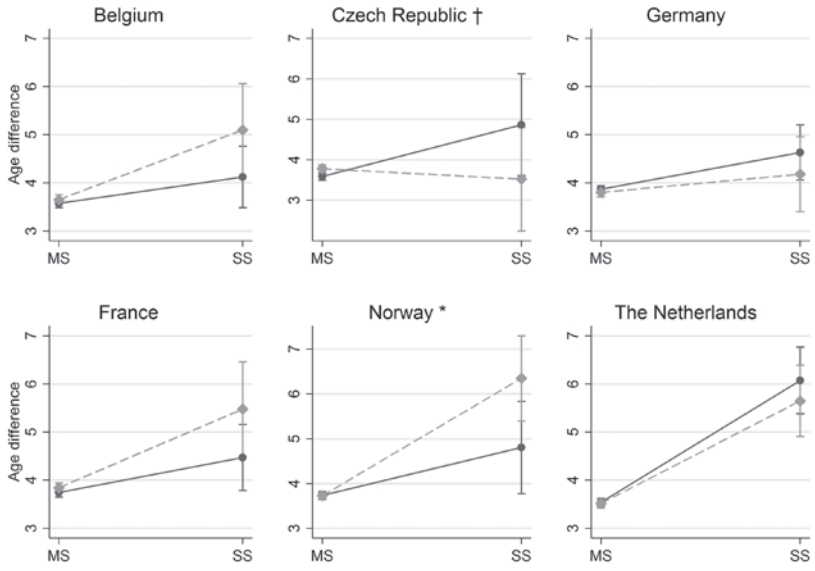
Figure 5 Proportion of lowly educated persons per union type and survey



Source: ESS rounds 1-6 and GGP wave 1. Dashed line GGP, solid line ESS

Assortative mating. I now turn to socio-demographic characteristics on the couple-level. A considerable amount of literature has been published on partner preferences for heterosexual couples, and also same-sex couples are increasingly studied from such an angle. Among studies from the US and Europe, there is agreement that assortative mating is less prominent among same-sex couples than among mixed-sex couples when it comes to non-labor market traits such as age, education, and race (Andersson, Noack, Seierstad & Weedon-Fekjær, 2006; Ciscato, Galichon & Gousse, 2014; Jepsen & Jepsen, 2002; Verbakel & Kalmijn, 2014). I therefore expect that partners in same-sex couples, on average, have larger age differences and differ more often in their level of education than mixed-sex couples. This is confirmed by the pooled-country analysis which reveals significantly larger age gaps among same-sex couples ($b = 1.205$, $p < .001$, M1). The interaction effect in model 2 is not significant, which means that this gap does not vary across the two surveys ($b = 0.361$, n.s., M2). If we examine the within-couples age differences for each country separately, we can see that the surveys mostly show convergent evidence as almost all estimates suggest larger age differences in same-sex couples. The only exception is the GGP in the Czech Republic, which suggests that the age differences among same-sex couples are in fact smaller. It is also striking that the ESS shows age gaps that are considerably smaller than in the GGP in half of the countries. Given that the literature agrees on the fact that the age differences within same-sex couples are often quite large, this could be a sign of data being partially inflated by wrongly coded mixed-sex couples in the ESS.

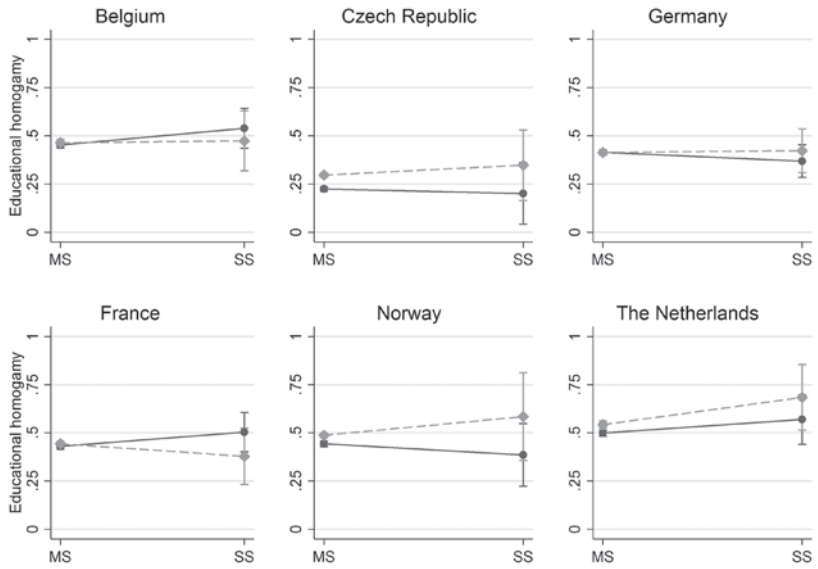
Figure 6 Mean within-couple age difference per union type and survey



Source: ESS rounds 1-6 and GGP wave 1. Dashed line GGP, solid line ESS

As far as the partner's levels of education is concerned, I expect there to be more similarities among mixed-sex couples than among same-sex couples. I created a measure of educational homogamy that describes the partners' distance across three possible education categories: lower secondary (ISCED 0–2), post-secondary non-tertiary (ISCED 3–4) and tertiary education (ISCED 5–6). If both partners are in the same category their distance is zero; if they are in neighboring categories their distance is one; and if one person is in the highest category and their partner in the lowest, or vice versa, their distance is two. The pooled-country analysis shows that there are barely any within-couple differences in education levels in either union type (b = 0.029, n.s., M1). This finding does not vary across the two surveys as I find no significant interaction effect (b = -0.008, n.s., M2). Not surprisingly, then, the country-specific analyses show barely any differences. Only the GGP in Norway and the Netherlands, and the ESS in Belgium, France, and the Netherlands, show slightly larger distances among the same-sex partners than among mixed-sex partners. This scarcity of findings is possibly related to the crudeness of the used education measures as it aggregates different education levels together into three large categories. Unfortunately, this is the most refined manner of coding this variable given the need to harmonize the data for two surveys, eight countries, and multiple survey waves.

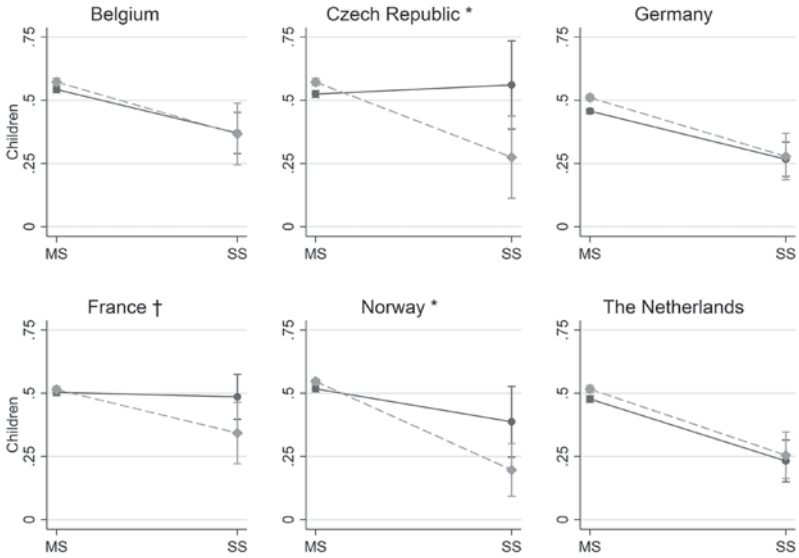
Figure 7 Degree of educational homogamy within couples



Source: ESS rounds 1-6 and GGP wave 1. Dashed line GGP, solid line ESS. Range of the homogamy measure: 0 (perfect homogamy) – 2 (maximum difference)

Children. Finally, I investigate the proportion of couples who have at least one child living in the household. For obvious reasons, same-sex couples are far less likely to have children than mixed-sex couples. Often, they have legal difficulties accessing reproduction services and they can encounter stigmatization by their environment for wanting to raise children. Moreover, there is a large gender gradient in the number of same-sex parents. Yet, there are quite some couples who do have children since the possibilities are getting better, and acceptance is gradually increasing. Occasionally, persons in same-sex unions also have children from previous heterosexual relationships. Records of same-sex couples with children vary between 17% and 34% for female same-sex couples, and between 1% and 24% for male same-sex couples (Andersson et al., 2006; Black et al., 2000; Bos & Van Gelderen, 2010; Ciscato et al., 2014; Gates, 2013; Steenhof & Harmsen, 2003; Verbakel, 2013). The pooled-country analysis confirms this parenting gap between the union types (OR = 0.463, $p < .001$, M1). Roughly one in three same-sex couples appear to be parents compared to half of all mixed-sex couples. These numbers are somewhat higher than expected, but they are also not too far removed from to the ones that Gates (2013) reports from the American Community Surveys 2005 -2011, for example. A significant negative interaction effect signals that the parenting gap between the union types is considerably larger in the GGP compared to the ESS (OR = 0.619, $p < .01$, M2). A look at the country-specific analysis in figure 8 reveals that this effect is driven by the Czech Republic, France, and Norway; there the ESS estimates of same-sex parents are relatively high. Notably in all three countries, the same-sex couples who have children are somewhat more often male than female in the ESS. In the GGP, this is only true for France. In the literature we saw that female same-sex couples more often have children than male same-sex couples. Therefore, this could points towards possible data issues in these countries. The remaining countries show strikingly similar estimates of same-sex parents, which is encouraging evidence. In both surveys, the balance between male and female same-sex parents leans more towards female parents in Belgium and the Netherlands, and more towards male parents in Germany. In the section that follows, I will examine labor-market related characteristics of couples, whereby the role of children is an important one to consider.

Figure 8 Proportion of couples with children per union type and survey

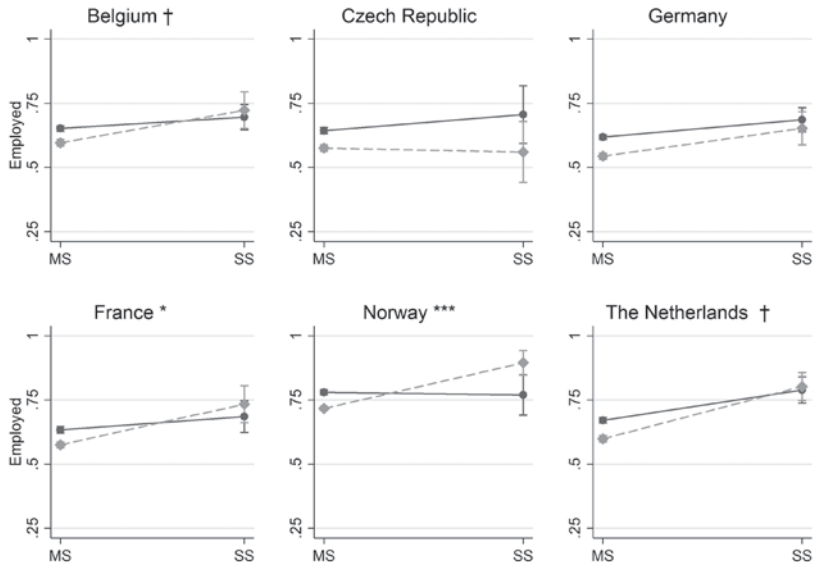


Source: ESS rounds 1-6 and GGP wave 1. Dashed line GGP, solid line ESS

Labor-market related characteristics

Labor force participation. Turning now to labor-market related traits of couples, I start by looking at the labor-force participation of individuals. Gates (2013) has suggested that persons in same-sex couples are somewhat more likely to be employed than persons in mixed-sex couples: 82% of the identified same-sex couples in the American Community Surveys 2005-2011 are actively participating in the labor force compared to 69% of persons in mixed-sex couples. Such differences could partly be linked to the fact that children are less often present and/or anticipated in same-sex relationships. Given the large body of literature that links female labor-force participation to the presence of children (see Matysiak & Vignoli, 2008 for a review), differences can be expected between the union types. In the present analysis, everyone who is in paid labor, including self-employed persons, is considered employed. The country-pooled analysis reveals that persons in same-sex unions are indeed 25% more likely to be employed than persons in mixed-sex couples (OR = 1.252, $p < .001$, M1). This effect increases to over 60% when I control for the presence of at least one child in the household (OR = 1.633, $p < .001$, M1). Given the parenting gap between the union types, I continue with the model that accounts for the presence of one or more children. When comparing the surveys to each other, the employment gap between the union types appears to be larger in the GGP than in the ESS (OR = 1.505, $p < .01$, M2). Looking at the country-specific analyses, figure 9 illustrates that this result holds for five out of the six countries. In Norway, the ESS suggests that there is no employment gap between the union types. The GGP suggests the same for the Czech Republic.

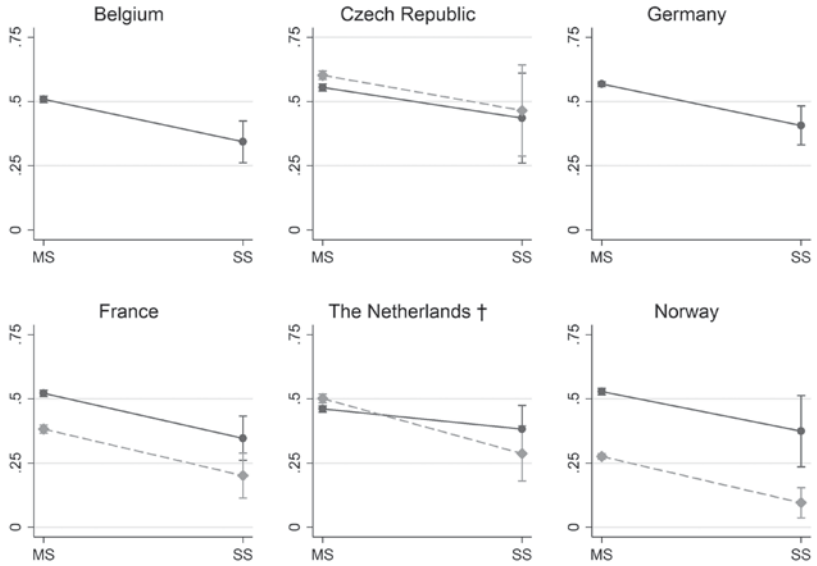
Figure 9 Proportion of labor-market participants per union type and survey



Source: ESS rounds 1-6 and GGP wave 1. Dashed line GGP, solid line ESS

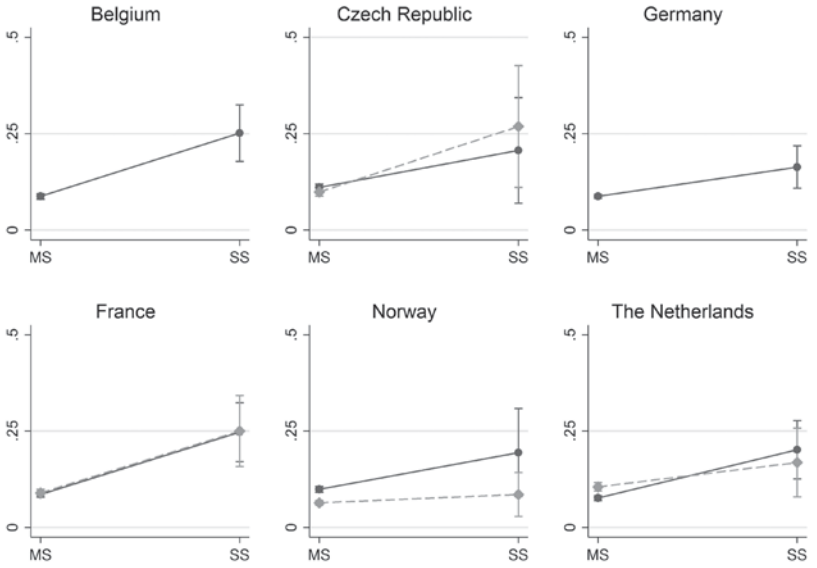
Occupational fields. Beyond mere labor-force participation, it is also interesting to ask how persons in same-sex couples fit into the landscape of gendered occupations. To my knowledge, the only record of someone mentioning any numbers in regards to this topic is a study by Black et al. (2007), where the authors provide an overview of the lesbian and gay population in the United States. They recorded the mean proportion of women in the respondents' occupation and show that gay men and lesbian women less often work in fields that are dominated by persons of their own gender. On average, gay men had about 9% more women working in their field than heterosexual men; lesbian women were on average surrounded by 5% fewer women in their occupation than heterosexual women (Black et al., 2007: 67, table 7). I constructed a measure that distinguishes between working in a field that is dominated by individuals of the same sex as the respondent, working in a field dominated by persons of the opposite sex, and working in a 'gender-neutral' field. The categories have been created based on all respondents in the ESS data (not only couples) and I handle a cut-off point of 70% to determine whether an occupation is dominated by men or women (for more details see table 1 in the appendix). The pooled-country analysis reveals that persons in same-sex couples are indeed 50% less likely to work in an occupational field that is dominated by their own gender (OR = 0.502, $p < .001$, M1) and more than twice as likely to work in a field that is dominated by the opposite gender (OR = 2.653, $p < .001$, M1) than persons in mixed-sex couples. Both these observations do not differ considerably across the surveys (own gender OR = 0.704, $p < .10$, M2; opposite gender OR = 0.840, $p < .10$, M2). Figures 10 and 11 show both the agreement with the

Figure 10 Working in a field dominated by one's own gender per union type and survey



Source: ESS rounds 1-6 and GGP wave 1. Dashed line GGP, solid line ESS. No estimate available for the GGP in Belgium and Germany

Figure 11 Working in a field dominated by the opposite gender per union type and survey

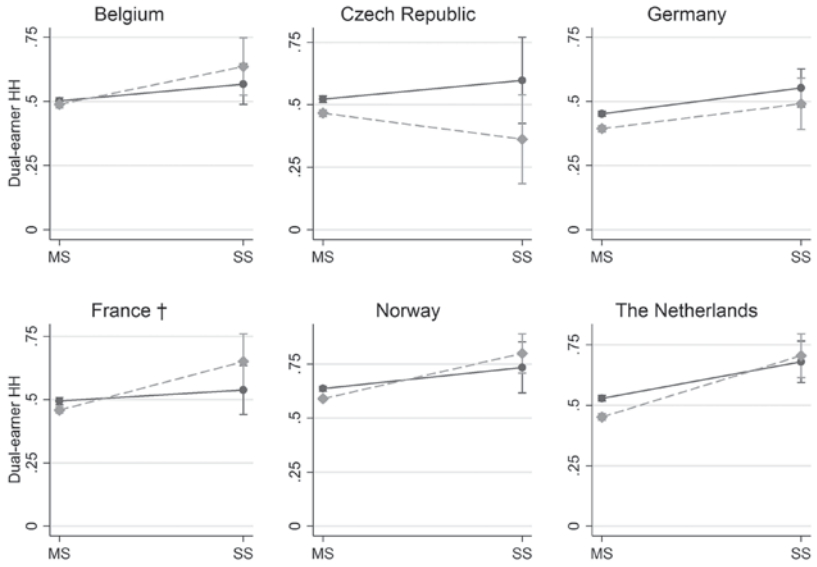


Source: ESS rounds 1-6 and GGP wave 1. Dashed line GGP, solid line ESS. No estimate available for the GGP in Belgium and Germany

literature and the convergence between both the surveys. There is only occasional disagreement on the size of the gap, e.g. in the Netherlands (figure 10 & 11) and the Czech Republic and Norway (figure 10). Note that the variation across surveys in M2 was only tested for the Czech Republic, France, the Netherlands, and Norway since appropriate data for the two remaining countries was not available in the GGP. Hence, figures 10 and 11 only have an estimate for the ESS in Belgium and Germany [1].

Household specialization. Finally, I turn to examining labor-market participation on the couple-level. Much scholarly attention has been given to the phenomenon of specialization in market and domestic spheres within heterosexual couples over the years. In married heterosexual couples there is often a clear division between paid labor and work within the home, particularly when the couple has children (e.g. Dalmia & Sicilian, 2008; Verbakel, 2010). In a recent study on the division of labor in US American couples, Giddings et al (2014) have shown that same-sex couples have a lower tendency to specialize than mixed-sex couples. A comparison between same-sex and mixed-sex couples in the Dutch Labor Force Surveys 1994 – 2007 by Jaspers and Verbakel (2013) makes the same finding. The authors also report that dual-earner households are a far more frequent occurrence among same-sex couples compared to mixed-sex couples (Jaspers & Verbakel, 2013: 341). In the ESS and GGP data, I am not able to explicitly distinguish between (involuntary) unemployment and domestic work. Instead, I examine the ratio of dual-earner households per union type as proxy for non-specialization. The reference category includes those households where one or none of the partners is in paid work. As expected, the ratio of dual-earner households is larger among same-sex couples than among mixed-sex couples (OR = 1.697, $p < .001$, M1), regardless of whether at least one child is present in the household [2]. This specialization gap is somewhat larger in the GGP than in the ESS (OR = 1.371, $p < .05$, M2). Figure 12 shows that both these findings are true for all countries, except Germany and the Czech Republic. In Germany, the size of the specialization gap is exactly the same in both surveys. In the Czech Republic, on the other hand, the surveys differ to a large degree. The GGP suggests there that the gap is entirely reversed, which is the opposite to what was expected and disagrees with the evidence we see in all the other countries. This evokes the idea that something might be wrong with the GGP data in this case. Moreover, the fact that the gap is consistently smaller in the ESS in four out of six countries might again signal possible inflation by misrecorded mixed-sex couples in the ESS surveys.

Figure 12 Proportion of dual-earner households per union type and survey



Source: ESS rounds 1-6 and GGP wave 1. Dashed line GGP, solid line ESS

Robustness check

In this section, I shortly examine the last two waves of the ESS separately. Even though there is no clear increase over time apparent in the number of same-sex couples per ESS round (see section on identifying same-sex couples), the pooling of the ESS waves should not go entirely unexamined. The acceptance of homosexuality and the awareness of challenges associated with the measurement of same-sex couples may have increased over this period of ten years, which could positively affect the quality of the data being recoded. Therefore, I repeated the comparisons between the surveys using only the two most recent survey waves of the ESS from 2010 and 2012. For most estimates there are barely any changes. Occasionally, the ESS estimates are corrected slightly into the expected direction, namely for the estimate of being lowly educated (ISCED 0-2) in Belgium, France, and the Netherlands. In Norway, the estimate for working in a field that is dominated by persons of the own gender changes into the 'wrong' direction. All in all, most estimates do not change and can therefore be considered robust. The estimates which are affected most by this check are those for the Czech Republic. Yet, as the number of same-sex couples is extremely low in the last two waves (N = 9), these changes should not be interpreted. The detailed results of these additional analyses can be obtained upon request.

Discussion and recommendations

In recent years, there has been a growing interest in studying same-sex unions from a quantitative angle. This chapter contributes to the field by systematically reviewing the selected demographic and socio-economic characteristics of same-sex couples in two data sources, which provide unique opportunities for studying same-sex couples in cross-national comparison. I focused the comparison on those characteristics for which I expect differences based on the existing literature in an attempt to replicate these findings. Moreover, I make use of the opportunity presented by having two surveys, which are very similar in their design, to see whether they produce convergent results. To guide this investigation, I formulated two questions that were answered for each of the ten demographic characteristics. The first question asked whether previously observed gaps between the union types can be confirmed in the ESS and the GGP. This was examined by looking at the country-pooled samples. The second question asked whether the observed gaps are stable across both surveys in terms of their size and direction. For this question, I examined each of the six countries in more detail.

With respect to the first question, expectations based on previous findings have been largely confirmed. Only for two out of the ten examined variables, educational homogamy and education (lower secondary and below), I found no significant gap between the union types in the pooled analyses. As briefly discussed earlier, for educational homogamy this may be connected to the crudeness of the measure. For the measure that captures the proportion of lowly educated persons per union type, no significant difference between the union types was found because the surveys showed such mixed results. All in all, most of the expected gaps can be replicated with both surveys; this speaks for the quality of these data. For the second question, where I compared these gaps across the two surveys, the evidence is more mixed. Seven out of the ten comparisons between surveys produced a significant interaction effect (at the 10%-level) suggesting variations in the examined gaps between the two surveys. In most cases, however, this was caused due to variations in the size of the gaps, while they still pointed into the same direction. There are four characteristics – the proportion of couples with children, the labor-market participation of both individuals and couples and being highly educated – where the surveys divert significantly in the size of the gap (at the 5%-level). In these cases, the GGP data appear to be more in line with what the literature suggests. As mentioned before, this might indicate a possible inflation of the same-sex sample in the ESS by erroneously recorded mixed-sex couples. As the robustness checks showed, the more recent ESS data from 2010 and 2012 shows somewhat more accurate estimates, at least for the most problematic variable (low education, ISCED 0-2). However, this does not imply that the GGP is more accurate for all the examined characteristics. Particularly in cases where we only see minor diversions, the GGP occasionally opposes the existing literature.

Moreover, there are a number of country-specific issues where it is hard to say which survey does perpetually better. One of the most prominent observations is perhaps the fact that the Czech Republic often showed the largest degree of disagreement between the surveys. Thereby, the ESS usually indicates the gap as expected, whereas the GGP shows entirely opposing evidence. This is true for five of the ten examined variables. For the proportion of children, on the other hand, the GGP appears far more credible in the Czech Republic than the ESS. Some of this Czech exceptionalism might be related to the fact that the data collection was outsourced to an independent data collection agency (United Nations, 2005b), which implies less oversight during the data collection process by the GGP management. Next to the Czech Republic, Norway and the Netherlands also showed some disagreement between the surveys; yet mostly in size. So it is not possible to point out which survey is consistently more credible. In Belgium and France, I sometimes observe opposing evidence in the two surveys, whereby the GGP often, but not always, showed more evidence in line with the literature. Finally, Germany showed the most agreement between the surveys. It is noteworthy that Germany also showed the least differences between the union types in general and often suggested no gap at all. On the one hand, such evidence might point towards a common weakness of these surveys in the German context. Perhaps the same-sex couple samples are equally inflated by erroneous data in both surveys. An explanation for this could be that a general lack of awareness about same-sex couples during the interviewing. If same-sex couples are not perceived as 'common', their specific measurement problems are also not taken into account. On the other hand, this can mean that we have gained new insights from these data. Much of the literature that has been referred to used data from the US, Norway, Sweden, and the Netherlands. Perhaps, then, the surveys accurately document country-differences in the demographic and socio-economic traits of same-sex couples. As previously mentioned, those can reflect 'true' differences or (country-specific) selections effects. Taking all the results into account, I find that the comparisons yield a satisfactory amount of convergent evidence, particularly with the existing literature. However, when I compare the two surveys to each other in terms of the size and direction of the gaps, more discrepancies become apparent. It becomes obvious that it is extremely difficult to detect data issues in hindsight and it is not possible to point out one of the surveys to be dependably more accurate.

The lessons that can be learned from the comparisons made in this chapter are directly related to this inconclusive evidence. The mixture of results when it comes to comparing the two surveys to each other certainly originates from the fact that same-sex couples cannot be included in the design of the sampling frame. As a result, different parts of the population are captured and some disagreements between the surveys can be expected. The question whether there is an underrepresentation of same-sex couples due to same-sex union-specific selection effects cannot be addressed without the knowledge of the entire population. Whereas

there is no remedy for the lacking knowledge on the same-sex couple population, I want to conclude the discussion by focusing on one aspect that can be improved, namely the issue of inflated same-sex couple numbers caused by faulty data. Since such inflation of the same-sex sample cannot be proven in retrospect, preventing errors should be the first priority. I would like to conclude this chapter by discussing five matters which should be considered carefully when collecting survey data that can be used to identify same-sex couples. Taking these recommendations into consideration can greatly improve the quality of these data for researchers interested in studying same-sex couples in cross-national comparison.

- *A clear, standardized interviewing procedure for the household grid*. As I have shown in this chapter, there are different practices when it comes to recording the relationship and the gender of household members. It is crucial to the quality of the data on same-sex couples that there are standardized, clearly spelled-out questions for both these items. Interviewers who are not specifically sensitized to the possibility of same-sex partnerships may unconsciously stir the respondent towards reporting a different-sex partner, for example, by asking: "Your partner is female, I suppose?", as opposed to asking: "What is the gender of your partner?". Perhaps such faulty data might also be recorded after assuming a different-sex partner instead of explicitly asking. The manner in which this data is collected should under no circumstances vary between countries, let alone between individual interviewers, to ensure the comparability of these data.

- *Training of the interviewers.* Same-sex couples make up a very small fraction of society and even very few recording errors can greatly distort their numbers in survey data. It is therefore important to sensitize interviewers to this risk. The consequences of such mistakes should be made understood and appreciated. Depending on the social context, homosexuality might be a taboo subject for many people. Awareness of the fact that a relationship can also be between two persons of the same sex should be made explicit during the training. This can minimize the distortion of data by automatisms and assumptions on the side of the interviewer.

- *Treating the recording of the household composition as potentially sensitive questions.* The standard procedure of recording the household composition of respondents in the surveys can turn into a sensitive matter when respondents are required to admit to a partner of the same-sex. Recording these information without regard for the potential sensitivity may increase the risk of error. It might be advisable, for example, to include an introductory sentence that emphasizes the anonymity of the survey despite the fact that everybody's names are recorded. If we accept the household grid as sensitive information, the

placement within the survey can also become relevant. It has been suggested that sensitive questions should not be asked to early as interviewers should get a chance to build a rapport with the respondent first. There is a large body of literature dealing with the many issues that arise with surveying sensitive issues (for a review see Krumpal, 2013). Such practices might prove useful to increase correct measurement of non-traditional living arrangements in general.

- *Careful consideration of the survey mode.* While there are good reasons to choose for personal interviewing in long and complex surveys, it might be worth considering self-administered (computer-assisted) modes for the household gird, where possible. On the one hand, this increases privacy and caters to the issue of sensitivity. On the other hand, this might prevent accidental recording errors by the interviewers. As a study by DeMaio, Bates and O'Connell (2013) has shown, there was less measurement error for the relationship and gender question in self-administered surveys compared to interviewer-administered ones.

- *Transparency of the full data collection cycle.* Having access to detailed descriptions of all steps involved in designing, collecting, and processing survey data is known to be imperative for data quality. Transparency about these processes is essential for data users to assess the scope and quality of statements they can make based on these data. In the light of the findings in this chapter, it becomes apparent that not all information desired by the end users is available on freely accessible (online) platforms. It is therefore desirable that the widely accepted imperative of transparency, which is supported and strived for by many survey providers, continues to be high on the agenda.

Notes

1 The graphs for Belgium and Germany were created by estimating the regression function only for the ESS survey, including a control variable for gender.
2 If I control for children below schooling age (younger than 7 years), the gap closes somewhat. Same-sex couples are then only about 40% more likely to be dual-earners compared to mixed-sex couples (OR = 1.378, $p < .001$, M1). The estimates in the country-specific analyses barely change.

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Appendix

Table 1 Coding of the variables

Variable	Coding/range	
Individual-level variables		
Age	*18 - 80*	
Tertiary education	0 no, 1 yes	ISCED 5 - 6
Up to lower secondary education	*0 no, 1 yes*	ISCED 0 - 2
Labor-force participation	*0 no, 1 yes*	Participating = currently employed, self-employed or working for a family business
Gender-dominated occupational field	*-1 male-dominated, 0 gender neutral, 1 female-dominated*	Gender prevalence in an occupational field is established based on the proportion of females in an occupation. I converted the occupation variable (ISCO08) in ESS round 6 back to ISCO88 using the conversion table by Harry Ganzenboom. I then cut the last digit of the code to arrive at 3-digit version to ensure greater numbers of respondents in each occupational category. I handle a cut-off point of 70%, meaning I consider a field with 70% or more women as female-dominated and a field with 30% or less women as male-dominated. At least 20 persons make up the pool to decide if a category is gender-dominated. If fewer than 20 observations are in one category, missing values are assigned. This calculation is based on all respondents in the survey, not only couples. Partners in the ESS and both respondents and partners in the GGP assume the classifications based on the respondent in the ESS. Unfortunately, it was not possible to harmonize the occupation variables for Germany and Belgium in the GGP data into this format.
Couple-level variables		
Age difference		Absolute difference between the age of the respondents and their partner.
Educational homogamy	0 no difference, 1 small difference, 2 maximum difference	0 no difference (R and partner in same education category), 1 small difference (R and partner are in neighboring categories, e.g. R in the low and the partner in the average category), 2 maximum difference (one in the high and one in the low category).
Children	*0 no, 1 yes*	Constructed by the ESS using the household grid. In the GGP, author's own recoding or the household grid, including all (non-)biological children.
Dual-earner household	0 no, 1 yes	Both partners are currently employed, self-employed or working for a family business. Reference category includes if one or both of the partners is not in paid work.

Table 2 Weighted descriptive statistics per survey and union type

	Union type	European Social Survey (rounds 1-6)			Generations and Gender Programme (wave 1)		
		N	Mean	SE	N	Mean	SE
Individual-level variables							
Age	MS	42,027	49.410	0.210	37,565	49.032	0.354
	SS	602	47.127	0.625	383	47.406	0.984
Education							
tertiary	MS	41,891	0.302	0.008	37,198	0.327	0.017
	SS	600	0.348	0.022	379	0.440	0.035
≥ lower 2ndary	MS	41,891	0.194	0.007	37,198	0.217	0.019
	SS	600	0.190	0.019	379	0.169	0.023
Labor market participation	MS	39,980	0.662	0.005	37,487	0.629	0.009
	SS	565	0.696	0.020	382	0.682	0.027
Occupation							
≥ 70% own gender	MS	40,147	0.527	0.004	16,608	0.313[a]	0.014
	SS	578	0.367	0.020	165	0.213[a]	0.047
≥ 70% opposite gender	MS	40,147	0.090	0.002	16,608	0.073[a]	0.004
	SS	578	0.220	0.017	165	0.079[a]	0.031
Couple-level variables							
Age difference	MS	41,829	3.672	0.020	37,481	3.692	0.028
	SS	598	4.544	0.246	379	5.005	0.348
Educational homogamy	MS	41,405	0.417	0.004	35,317	0.455	0.005
	SS	576	0.465	0.026	303	0.437	0.034
Children	MS	42,027	0.498	0.006	37,565	0.536	0.011
	SS	602	0.349	0.020	383	0.292	0.030
Dual-earner HH	MS	39,440	0.514	0.006	37,383	0.501	0.008
	SS	552	0.553	0.022	379	0.536	0.032

Source: ESS rounds 1-6 and GGP wave 1

Note: No weights were available for the Czech GGP data. SE = Linearized standard errors. SS = same-sex couples, MS = mixed-sex couples. [a] Excluding Belgium and Germany due to a lack of data

Table 3 Regression outcomes country-pooled analysis: Socio-demographic variables (non-labor related)

	Age		Tertiary education (OR)		Up to lower secondary education (OR)	
	M1	M2	M1	M2	M1	M2
Main predictors						
Union type SS = 1	-2.541*** (0.431)	-3.117*** (0.550)	1.311*** (0.089)	1.116 (0.099)	0.872 (0.079)	1.008 (0.114)
Survey *GGS = 1*	-1.180*** (0.151)	-1.215*** (0.151)	1.034 (0.025)	1.023 (0.025)	1.337*** (0.037)	1.348*** (0.038)
Union type * survey		1.476† (0.883)		1.503** (0.208)		0.698† (0.130)
Control variables						
Female	-3.578*** (0.100)	-3.578*** (0.100)	0.820*** (0.013)	0.820*** (0.013)	1.472*** (0.028)	1.472*** (0.028)
Age			0.983*** (0.001)	0.983*** (0.001)	1.041*** (0.001)	0.041*** (0.001)
Constant	50.993*** (0.228)	51.013*** (0.228)	1.129** (0.050)	1.137** (0.051)	0.049*** (0.003)	0.049*** (0.002)
N total	81,554	81,554	81,040	81,040		81,040
N same-sex	1,966	1,966	1,955	1,955	1,955	1,955
Df	16	17	17	18	17	18

Source: ESS rounds 1-6 and GGP wave 1
Note: All models include country and year dummies. Df = degrees of freedom. SS = same-sex unions
The coefficients of the two education variables are reported as odds ratios (OR). Standard errors in parentheses
† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 4 Regression outcomes country-pooled analysis: Labor market-related characteristics

	Labor-force participation (OR)		Occupation own gender (OR)		Occupation opposite gender (OR)		Dual-earner household (OR)	
	M1	M2	M1	M2	M1	M2	M1	M2
Main predictors								
Union type SS = 1	1.633*** (0.102)	1.378*** (0.110)	0.502*** (0.038)	0.550*** (0.048)	2.653*** (0.230)	2.792*** (0.287)	1.697*** (0.117)	1.491*** (0.134)
Survey *GGS = 1*	0.790*** (0.020)	0.783*** (0.020)	0.635*** (0.021)	0.638*** (0.021)	0.855** (0.047)	0.859** (0.047)	0.874*** (0.021)	0.870*** (0.021)
Union type * survey		1.505** (0.191)		0.704† (0.129)		0.840 (0.161)		1.371* (0.192)
Control variables								
Female	0.607*** (0.010)	0.607*** (0.010)	1.559*** (0.027)	1.560*** (0.027)	0.513*** (0.016)	0.513*** (0.016)	1.085*** (0.016)	1.085*** (0.016)
Child	3.784*** (0.061)	3.788*** (0.061)					3.118*** (0.047)	3.119*** (0.047)
Constant	1.096* (0.041)	1.102* (0.042)	0.963 (0.033)	0.961 (0.033)	0.139*** (0.008)	0.138*** (0.008)	0.472*** (0.017)	0.473*** (0.017)
N total	79,357	79,357	57,601	57,601	57,601	57,601	77,754	77,754
N same-sex	1,886	1,886	846	846	846	846	931	931
Df	17	18	15	16	15	16	17	18

Source: ESS rounds 1-6 and GGP wave 1
Note: All models include country and year dummies. Df = degrees of freedom. SS = same-sex unions
All coefficients are odds ratios (OR). Standard errors in parentheses
† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$

	Age difference		Educational homogamy		Children (OR)	
	M1	M2	M1	M2	M1	M2
	1.205***	1.065***	0.029	0.032	0.463***	0.557***
	(0.119)	(0.151)	(0.019)	(0.024)	(0.032)	(0.048)
	0.039	0.035	0.023***	0.023***	1.167***	1.173***
	(0.040)	(0.038)	(0.006)	(0.006)	(0.025)	(0.025)
		0.361		-0.008		0.619**
		(0.243)		(0.040)		(0.089)
	-0.331***	-0.331***	-0.005	-0.005	1.190***	1.190***
	(0.026)	(0.026)	(0.004)	(0.004)	(0.017)	(0.017)
	3.715***	3.717***	0.452***	0.452***	1.087**	1.084*
	(0.059)	(0.059)	(0.009)	(0.009)	(0.035)	(0.035)
	80,287	80,287	77,601	77,601	80,577	80,577
	977	977	879	879	985	985
	16	17	16	17	16	17