



UNIVERSITY OF GOTHENBURG

MASTER THESIS IN  
EUROPEAN STUDIES

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# Accepting Homosexuality

Measuring and Explaining Levels of Perceived  
Discrimination among Lesbian, Gay and Bisexual  
People in the European Union

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19-05-2015

## Abstract

This thesis centers around levels of perceived discrimination among lesbian, gay and bisexual people (LGB) in the European Union and answers two main questions. The first aims to analyze the effects that different methods to survey the LGB population have on the validity and reliability of such surveys. To do this, the only two currently available attempts to cross-nationally measure levels of perceived discrimination are compared, using a.o. regression analysis. Comparing several waves of the Eurobarometer survey to the LGBT survey by the European Union Fundamental Rights Agency (EU FRA) reveals that, although it is not without problems, the latter constitutes the more reliable and valid way of surveying the LGB population on perceived discrimination. The findings stress the importance of carefully designing surveys among the LGB population, which is often neglected in the literature.

The second question then asks how variations in levels of perceived discrimination among LGB people in European Union countries can be explained. Studies on this topic have so far failed to include society-wide explanations. Using the country-level data from the EU FRA LGBT survey in a regression analysis, this thesis develops a theoretical framework for the inclusion of such country-level explanations. The results show that the social acceptance of homosexuality is crucial in explaining the extent to which LGB people perceive discrimination. Moreover, some evidence is found that the legal recognition of same-sex unions (marriages and registered partnerships) and the level of modernization, indirectly impact levels of perceived discrimination.

**Word count: 19 958**

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**Appendix 1**

**Appendix 2**

## List of abbreviations

ESS	European Social Survey
EU	European Union
EU FRA	European Union Fundamental Rights Agency
EVS	European Values Study
GDP	Gross Domestic Product
HDI	Human Development Index
LGB	Lesbian, Gay, Bisexual
LGBT	Lesbian Gay, Bisexual, Transgender
IHDI	Inequality adjusted Human Development Index
TQI	Transgender, Queer, Intersex
UNDP	United Nations Development Program

## Chapter 1: Introduction and question

The relatively recent increase in the acceptance of LGB<sup>1</sup> issues across many parts of the European Union constitutes a remarkable example of social change. Social scientists have so far approached this development from several angles. One important approach has been to look at public opinion on homosexuality (Lax & Phillips, 2009). Another has been to investigate the introduction of hotly debated policies and legislation like same-sex marriage (Fernández & Lutter, 2013; Kollman, 2009; Paternotte, 2008) and of course to study the LGB movement (Bernstein, 1995; Tremblay et al., 2011). Relatively few studies have focused on (improvements in) the living conditions, health and wellbeing of LGB people. One issue that has not received much attention, is whether these social changes impact experiences of discrimination among LGB people. This is surprising, since there is overwhelming evidence that perceived discrimination has a strong and negative impact on both physical and mental health (Almeida et al., 2009; Pascoe & Smart Richman, 2009). The few studies that have considered causes of perceived discrimination, have generally tended to only consider individual level explanations and not included cross-national comparisons. In spite of this, there is some evidence to suggest that there is considerable variation in the extent to which LGB people experience discrimination (European Union Agency for Fundamental Rights, 2013a, p. 15). This thesis presents a model that includes country-level mechanisms to explain such variation, using data on European Union member states<sup>2</sup>.

In addition to this, very little attention has been paid to the methodological problems that occur when surveying the LGB population. Especially when seeking to introduce a cross national perspective for the first time, this becomes very important. In order to address the lack of knowledge about these issues, this thesis compares the only two, currently available,

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<sup>1</sup> For several theoretical and methodological reasons, this thesis does not include TQI people. For a more extensive discussion of this choice, please see page 25.

<sup>2</sup> This thesis refers to all 28 countries that are members of the EU, when speaking about EU member states, even when some of the data come from a time when Croatia was not an EU member state.

cross-national efforts to measure levels of perceived discrimination among LGB people: several Special Eurobarometer waves and the EU FRA LGBT survey. That is why this thesis seeks to answer the following two research questions:

- 1. To what extent are the EU FRA LGBT survey and the Special Eurobarometer waves reliable and valid survey approaches to measure perceptions of LGB discrimination in cross-national studies?*
- 2. How can variations in levels of perceived discrimination among LGB people in European Union countries be explained?*

This study defines the discrimination of LGB people as an event in which an individual is treated differently on the basis of his/her sexual orientation. In the remainder of this thesis, the term discrimination will only apply to those instances of differential treatment in which the consequences of this treatment are (potentially) unfavorable for the discriminated individual. Perceived discrimination – in turn – occurs when an individual considers her/himself to have been treated differently on the basis of her/his sexual orientation. Of course, an individual that is discriminated against is also more likely to perceive discrimination. However, it is possible that two individuals perceive the same event (i.e. not being promoted at work) very differently.

Apart from contributing to the scientific understanding of surveying the LGB population *and* the effect of broader social developments on the perceived discrimination of LGB people, this study has important social and policy implications. The well-established negative health impact of perceived discrimination (Pascoe & Smart Richman, 2009), means that understanding its causes is very important. In addition to this, national governments, EU institutions and LGB interest groups are increasingly focusing on discrimination as a social problem. In this light, such institutions are launching data-collection efforts to gauge levels of perceived discrimination among LGB people. This thesis finds that different survey approaches can yield very different and sometimes very biased results. That is why policy recommendations about both data collection and anti-discrimination policies, are included on pages 64 – 65.

Furthermore, using regression models on the best *available* cross-national data, the results of this thesis indicate that several developments, such as modernization and the legal recognition of same-sex unions (same-sex marriage and registered partnerships) have indirectly impacted levels of perceived discrimination in EU countries. Most importantly, this thesis shows that the social acceptance of homosexuality has a strong impact on levels of perceived discrimination. This study makes the case that the dramatic changes in the social acceptance of homosexuality in many EU countries have constituted a substantial reduction of the amount of (perceived) discrimination that LGB people in Europe face.

## Outline of the thesis

This thesis seeks to answer two questions that are rather different in nature. The first is methodological, the second aims to explain an empirical phenomenon. Moreover, which data is used in answering the second question, is dependent on the answer to the first question. Reflecting this somewhat unusual combination of questions, this thesis does not follow the traditional theory-methods-results setup.

After this introduction, chapter two provides an overview of the existing literature. From this overview it becomes apparent that there is both an overall lack of studies on the causes of perceived discrimination and a lack of a country-level perspective in particular. The second part of the chapter provides a theoretical model that introduces several country-level explanations and hypotheses. In the chapter, a second problem is also identified in the literature: the fact that few studies pay much attention to the problems with surveying the LGB population.

To address latter this gap, chapter three seeks to answer the first research question - on the available cross-national data on perceived discrimination among LGB people. As such, it can almost be read as a study of survey methods among the LGB population in itself. Identifying the EU FRA LGBT survey as the best available source of data, the remainder of the thesis tests the hypotheses from chapter two using this data.



The fourth chapter thereafter discusses the operationalization of the different country-level variables and the usage of quantitative (regression) models. It also includes a note on the generalizability and scope of this study.

Chapter five presents the results from the regression model. Apart from finding that the hypotheses from chapter 2 are confirmed, it also reflects upon possible problems with the model.

The final chapter is the conclusion, in which both of the research questions are answered. It also provides remarks on the place that the findings of this thesis have in the larger body of literature on the perceived discrimination of LGB people. Finally, several policy recommendations are formulated, that are relevant for government institutions, EU institutions and LGB advocacy groups working on LGB issues.

## Chapter 2: Previous research and theory

This chapter presents and discusses the existing literature on perceived discrimination - both of LGB people and other groups. It starts with a discussion of the well researched negative mental and physical effects of experiencing discrimination. The chapter then moves on to present the relatively small literature that seeks to explain (variation in) levels of perceived discrimination. It should be noted that the discussion of previous research does not include academic work on the transformation of sexual norms, nor on other parts of the literature that focus on explaining the introduction of policies like same-sex marriage, or the decriminalization of homosexuality. Whilst these are interesting research fields, they are less relevant for answering the main question(s) in this thesis. Especially in cases where there were no studies on perceived discrimination among LGB people, this chapter does draw on studies of the (perceived) discrimination of ethnic minorities, where these provide relevant insights. Moving on from a discussion of the literature to the formulation of a theoretical model, country-level explanations that take into account the underlying social structures that shape experiences of discrimination among LGB people, are presented in a theoretical section. From this model, several hypotheses are derived. At the end of the chapter, an overview of the theoretical model and a note on why TQI individuals were not included in this thesis are presented.

### Previous research on (perceived) discrimination

Combating discrimination has been an important issue for many social movements that have strived for the emancipation or increased acceptance of different social groups. Groups that have often been treated by academics as possible targets of discrimination are (immigrant) ethnic minorities, women, the elderly and to a lesser extent LGB(T) individuals. Many studies choose to focus on perceived discrimination, rather than actual discrimination (for an overview, see: Pascoe & Smart Richman, 2009). The main reason for this is methodological –

it is less complicated to measure perceived discrimination than actual instances of discrimination.

### **The effects of perceived discrimination**

The vast majority of academic work done on perceived discrimination comes from psychological studies and uses perceived discrimination as an explanatory variable that impacts health outcomes (i.e. Mays & Cochran, 2001; Meyer, 2003; Pascoe & Smart Richman, 2009). A meta-analysis of 134 of such studies found that perceived discrimination among ethnic minorities and women increases stress levels. This in turn directly leads to a wide range of both mental and physical health problems (Pascoe & Smart Richman, 2009). Additionally, the study finds that as a consequence of perceived discrimination, individuals are more likely to engage in unhealthy behavior and at the same time less likely to engage in healthy behavior (ibid). The impact of perceived discrimination on both mental and psychical health is thus a very well established one. Moreover, a number of studies finds that this effect also holds for LGB people (Almeida et al., 2009; Birt & Dion, 2001; Mays & Cochran, 2001; Meyer, 2003).

A considerable amount of academic attention has also been paid to factors that mediate this relationship: scholars have suggested that individuals that come from more privileged social backgrounds, who stand up for themselves, and who have friends and family they can discuss their perceived discrimination with, are able to limit the amount of stress caused by perceived discrimination and are thus able to reduce its effects on their health or depressive symptoms (Noh & Kaspar, 2003; Pascoe & Smart Richman, 2009). However, the evidence on this is not as clear as that of the negative impact of perceived discrimination (ibid). The effect of these mediators is thus disputed, both among LGB people (Almeida et al., 2009) and other groups (Pascoe & Smart Richman, 2009).

Apart from an impact on health, scholars have also studied whether different levels of perceived discrimination affect levels of income. The argument behind this is that discriminated individuals will have fewer opportunities on the job market - which should

decrease their levels of income relative to the rest of the population. Most studies have so far failed to clearly demonstrate such an effect of levels of perceived discrimination on levels of income among LGB people (Arabsheibani et al., 2005 ; Plug & Berkhout, 2004). A meta review of studies on earnings of lesbian women and gay men, does find that gay men tend to earn somewhat less than their straight counterparts, where a similar effect cannot, conclusively, be established for lesbian women (Klawitter, 2015). If this link does not exist or is not very strong, then changing levels of perceived discrimination will probably not have an effect on earnings – even if they may still affect health outcomes among LGB people. A possible explanation of this dynamic could be that LGB individuals – unlike women or ethnic minorities – are relatively well placed to hide their minority status and may thus protect themselves by not disclosing their sexual orientation, if they feel this will impact their career opportunities. Even in a relatively accepting country like the Netherlands, many LGB respondents are not open about their sexual orientation – even if being afraid of negative reactions is not the most-mentioned reason for not being open (Sociaal Cultureel Planbureau, 2012, p. 50). Even if this strategy would allow LGBT people to limit the impact of discrimination on their income, it does not allow them to also reduce stress levels in the same way.

With so much attention for the effects of perceived discrimination, it is surprising that few studies have analyzed what causes perceived discrimination. In addition to the inherent problem that discrimination constitutes unfair treatment, the detrimental health effects of perceived discrimination make understanding its causes a pressing academic issue. The scant research that does address this is discussed in the section below.

### **Causes of perceived discrimination**

Due to the low number of peer-reviewed studies on the subject, this section also refers to reports by (academics working for) government institutions and LGB(TQI)-rights organizations, since they often produce the most comprehensive analysis of perceived discrimination among LGB people. A problem in the literature is that studies of what causes

discrimination do not constitute a coherent research field. Most studies either do not move beyond the empirical analysis of collected data, or only test partial theoretical frameworks that focus on a specific claim or element. In order to create a more coherent overview and identify ways in which the research field should be extended, this section first discusses the concept of perceived discrimination and then orders the literature along the lines of different 'kinds' of causes. It should be noted that in most cases, this division of the literature is made by the author of this thesis and not by the authors of the articles themselves. As such the structure is a hermeneutical device to structure the literature and set a research agenda. This structure follows a multilevel perception of individuals, to some extent following a study by Rose Ragins and Cornwell (2001).

Scholars have often rather simplistically used perceived discrimination as a proxy for actual instances of discrimination. This is probably because the effects of perceived discrimination and the ways in which these can be mitigated, were the main concern of most previous studies. The fact that perceiving discrimination is a cause of bad health outcomes, is the problem at the heart of such studies. This means that whether perceived discrimination is conflated with actual discrimination is less of a problem. When explaining its causes, however, it becomes important to conceptually separate actual discrimination from perceived discrimination. That is why this study *defines the actual discrimination of LGB people* as an event in which an individual is treated differently on the basis of his/her sexual orientation. *Perceived discrimination* – in turn – occurs when an individual considers her/himself to have been treated differently on the basis of their sexual orientation. Of course the two are closely related: an individual who experiences discrimination, is also more likely to perceive discrimination. In some cases, like not being invited for a job interview, it is much less clear whether discrimination played a role and perceptions may vary across individuals. The separation allows for a separate discussion of, on the one hand, factors that shape the ways in which different individuals may experience the same event as discriminatory (or not) and, on the other, the different factors that determine whether individuals actually experience discrimination.

### *Individual characteristics that may lead an individual to perceive more discrimination*

There are some studies that discuss why individuals attribute certain negative life-experiences to discrimination. One study by Phinney et al. (1998), has looked whether 'mastery' – the extent to which an individual has the sense of being in control over his/her own life - influences levels of perceived ethnic discrimination, but only found an indirect effect on perceived discrimination. The same authors also argued that self-esteem and intergroup competence (being able to socially engage with individuals from other ethnic groups), were important in predicting levels of perceived ethnic discrimination (ibid). As the authors noticed themselves, however, they did not look at the impact of perceived discrimination on self-esteem. This makes their findings much weaker, especially given the overwhelming evidence that perceived discrimination impacts a host of different psychological factors, including self-esteem (for an overview: Pascoe & Smart-Richman, 2009).

In a similar but more convincing vein, a study by Maxwell (2014) found that levels of perceived discrimination are different across different institutional settings. Ethnic minorities in Britain are found to more quickly 'blame' discrimination as a cause of inequality in areas of life that they have little individual control over (like the representation of ethnic minorities in parliament), than in areas that they have more individual control over (like education or job applications).

### *Individual characteristics that may lead an individual to experience more discrimination*

In addition to the above mechanisms, there are several individual level characteristics that could influence the extent to which individuals experience discrimination. This is a different line of argument than that in the previous section, which looked at (psychological) differences among individuals that may lead them to interpret events in a given way. This section discusses elements that may render individuals more exposed to discrimination. An example of this are studies by both Maxwell (2014) and Phinney et al. (1998), which looked whether different ethnic minority groups reported different levels of perceived

discrimination. Such a finding may indicate that some ethnic minorities are discriminated against more than others. Neither study found evidence that such background characteristics mattered, however. Similarly, another study (Johnson et al., 2005), found that age and gender did not impact levels of perceived discrimination among retired LGB people.

Even if the general evidence that such background characteristics influence levels of perceived discrimination is mixed, there are some LGB-specific characteristics that do seem to matter. Both are related to the fact that - in contrast to women or ethnic minorities - LGB people are often able to hide their minority status when they fear discrimination. The extent to which LGB individuals are open about their sexuality thus becomes important. Individuals who are 'out', may be more likely to be identified as LGB and thus also more likely to experience and subsequently perceive discrimination. For example, Polish LGB individuals were least likely to perceive discrimination when they were not or less out about their sexuality (Makuchowska & Pawlega, 2012, p 46). Similarly, LGB individuals who indicate that they are less 'genderconform' (in the sense that they adhere less to traditional conceptions of masculinity and femininity), have also been found to report higher levels of perceived discrimination (Gordon & Meyer, 2008). In the Netherlands, it was found that LGB people who were less genderconform experienced more negative reactions to their sexuality in sports, from their parents, in public spaces and in school (Sociaal Cultureel Planbureau,, 2012). This could be caused by the fact that less gender conform individuals do not follow traditional norms and are less accepted, and/or because they are less able than other parts of the LGB population to hide their sexual identity when they fear discrimination. A field-experiment in which a large number of job applications was sent out (Patacchini et al. 2014), found that people in Italy who looked less gender conform received less responses to their job applications, than other (LGB) people. Another study using an experimental setup (Ahmed et al, 2011) in Sweden, found that lesbian women were more discriminated against (received lower response rates to applications) in traditionally feminine sectors, whereas gay men were mainly discriminated against in traditionally masculine sectors. Somewhat contrary to these findings, Weichelbaumer (2003) found that transgender people are

discriminated against less than LGB people in an experiment in Austria. Whether any of the above findings can be generalized across European countries, however, is unclear.

*Contextual factors that may influence levels of perceived discrimination*

Even less common than studies that consider individual characteristics as explanations of perceived discrimination, are studies that look at the extent which the immediate (social) contexts in which people live their lives influence levels of perceived discrimination. One report on perceived discrimination in the Netherlands found that individuals who live in cities generally experienced more negative reactions in the public space, than those living in rural areas (Sociaal Cultureel Planbureau, 2012, p 124).

One area of life that has received a bit more academic attention is the working environment. As was argued above, there is at least one experimental study that argued that there are different patterns of discrimination of LGB people in different economic sectors in Sweden (Ahmed et al, 2011). Other experimental studies that sent out job applications, found very different levels of discrimination in different countries (ibid; Patacchini et al., 2014; Weichelbaumer, 2004; Drydakis, 2008, 2011, 2014, 2015). Rose Ragins and Cornwell (2001) also found that LGB individuals who have a larger proportion of openly LGB co-workers, a manager who is LGB, or who work in a company with active anti-discrimination policies, perceive lower levels of discrimination. Generally, however, very little is known about the extent to which LGB people's direct environment impacts the levels of discrimination they perceive and experience.

Apart from the areas of work or the differences between rural and urban areas, there may also be variation across countries (or US states) that can explain differences in perceived discrimination. It seems that only three studies have studied the impact of the larger social and legal context in which LGB people live - and all three consider American states or counties. One such study found that bans of discrimination did not have a significant impact on earnings among LGB people (Klawitter & Flatt, 1998). The authors indicate that this



somewhat surprising finding may be explained by several methodological issues. However, the same author recently published a meta-analysis that indicated that there is no impact of levels of perceived discrimination on income among LGB people (Klawitter, 2015) - even if perceived discrimination does have a strong impact on both mental and physical health (Pascoe & Smart Richmann, 2009). A second study by Day and Schoenrade (2000) did not directly look at perceived discrimination, but rather focused on the effects of discrimination bans (and company-level policies), and found that both increased the job satisfaction of LGB employees.

Finally, only one other study has so far taken into account the multi-layered nature of the different causes of levels of perceived discrimination among LGB people. Rose-Ragins and Cornwell (2001) did a multi level analysis among LGB employees in different US states and found that having LGB co-workers, a LGB manager, and living in a state with a discrimination ban, all reduced levels of perceived discrimination. Their study should be commended for being the first to move beyond the usual empirically-driven analysis and present a theoretical model that sought to explain levels of perceived discrimination. In spite of this, their study does not pay a lot of attention to the impact of its measurement methods on the results.

Concluding, the literature on the *effects* of perceived discrimination is both large and well established. This makes it surprising that studies of its *causes* are relatively rare - especially where the (perceived) discrimination of LGB people is concerned. With some exceptions (Rose Ragins & Cornwell, 2001) most of these studies are relatively light on theory. This means that the existing studies tend to not build upon one another's work. As a consequence at least three problems can be identified in the literature. The first is that studies of the causes perceived of discrimination usually make no theoretical separation of perceived and actual discrimination. The second is that this lack of theory does not allow for separating the different (both country and smaller level) contexts in which individuals live their lives and which may impact levels of perceived discrimination. Thirdly, very little attention is paid to

the different ways in which perceived discrimination is measured and the extent to which this impacts the results of different studies. Given the large variation in ways that scholars have sought to measure (perceived) discrimination, this is a problem. In order to address these issues, the next section will present a (multi-level) theoretical model for explaining perceived discrimination. Limits in available data mean that this study will only test country-level variables, but since these have so far never been tested in studies of perceived discrimination among LGB people, this should in itself fill one of the many gaps in this body of research.

## Theory

This section draws upon the above discussion of previous research and presents a theoretical model that seeks to explain levels of perceived discrimination among LGB individuals. It departs from a multilevel conception of levels of perceived discrimination along the lines of the discussion of the previous research section. In the following section, this thesis draws on related academic fields to present several country-level variables that could explain differences in levels of perceived discrimination among LGB people in different countries. It should also be noted that fleshing out the model has the additional advantage that it allows for a (conceptual) separation of explanations of perceptions of discrimination among LGB people and other groups.

### **Explanations at the country level**

Studies that consider the societal or country level when explaining levels of perceived discrimination are rare and no such studies have been done on European countries. This is surprising as there are reasons to believe that, for example, changes in the acceptance of homosexuality in a country could reduce instances of actual discrimination and in turn levels of perceived discrimination. The following section draws upon two broad approaches from political science and sociology that have focused on explaining the dramatic changes in the acceptance and legal protection of homosexuality and LGB individuals in many Western countries, that have occurred over the last decades. In the final theoretical model, the

assumption is thus that – for different reasons – changes in many Western societies have increased the social acceptance of homosexuality, which is expected to decrease instances of actual discrimination and in turn bring down levels of perceived discrimination.

### *Modernization theory*

One such approach is based on modernization theory (Inglehart, 2008; Inglehart et al., 2002). Formulated by Robert Inglehart (2008), it offers a very broad explanation of fundamental and large structural shifts in many Western societies. These shifts find their origins in the decades following the second World War and the rapid increases in wealth in many Western Societies in that period. These rapid increases in income levels were combined with the rise of extensive welfare state regimes in many – especially European – countries. Inglehart (ibid) argues that this has had the important consequence that individuals started to feel increasing levels of economic security. This increased existential security means that individuals become less worried about economic issues and increasingly interested in other issues. Additionally, this economic security also means that individuals look less to religion for guidance on moral issues. This shift in attention was originally called a shift from modern to post-modern values – even though Inglehart later used the terms self-preservation values and self-expression values (ibid). Examples of such post-modern issues are the protection of the environment, abortion and gender equality. Homosexuality is another issue that has been argued to be an example of such post-modern issues and values. Inglehart has even reached the somewhat dubious conclusion that positive attitudes towards gender equality and homosexuality have become of such fundamental importance to many Western publics that they now constitute the “true clash of civilizations” between Western and Muslim societies (Inglehart & Norris, 2003).

Crucially for this study, modernization theorists argue that not all European countries have experienced the same shift from modern to postmodern value orientations: these shifts have been strongest in countries that are argued to offer most security for their citizens, like the Nordic countries, the Netherlands and Western-Germany (Inglehart, 2008). Recently, at least

some studies have argued that more postmodern European countries also had higher levels of public acceptance of homosexuality (Gerhards, 2010) and that they were more likely to introduce registered partnerships for same-sex couples (Fernández & Lutter, 2013). Both studies identified other factors that were at least as – if not more – important, however. Theoretically, the claims of modernization theory should thus also be able to explain why LGBT individuals in some countries report higher levels of perceived discrimination than in other countries. That is why the following hypothesis was formulated:

*H1. The higher the level of modernization in a given country, the lower the level of perceived discrimination among LGB people in that country*

#### *Legal recognition of same-sex unions*

A second strand of literature, which is more specifically aimed at LGB issues, has used a different kind of narrative to explain the social changes that have been at the start of the large improvements in the social acceptance and legal equality of LGB individuals. It has generally departed from work on social movements (McAdam et al., 2003; Tarrow, 1994). In this body of work, social movements that seek social and legal changes are faced with the structure of a society or political system. Through debates, agenda setting, influencing or shaping narratives and – crucially – through political opportunities in this structure, such actors sometimes manage to induce social change. Although not all authors have explicitly used the terminology used by social movement theorists, a large number of studies has documented the ways in which the LGBT-movement has sought to improve the social acceptance and legal equality of LGB people. Almost all of these identify the LGBT movement as a key actor in the large changes that have taken place in large parts of Europe. (Calvo, 2007; Calvo & Trujillo, 2004; Holzacker, 2012; Paternotte, 2008; Rydström, 2008, 2011; Tremblay et al., 2013). Ideally, this study would include both measures on the size of the LGB movement in a country and on the ‘openness’ of the government in that country. Comparable data on the size of the LGB movement in different European countries is not available at this moment, however. That is why this thesis cannot account for these factors.

Although it is not often made explicit, there seems to be a further assumption that legal changes (which are brought about through advocacy activities), like discrimination bans and same-sex marriage, have significant ‘side effects’. Not only for LGB people themselves, but for the entire population. The adoption of such policies and legislation could influence the social acceptance of LGB individuals and bring down levels of discrimination. Especially in the case of bans on discrimination, this is even the explicit objective of such legislation. So far, however, this strand of research has not considered these effects. Surprisingly, even if the domestic effects of the introduction of legislation on LGBT issues has generally not been studied by scholars working in this field, the effects of the introduction of – for example – same sex marriage and registered partnerships in one country, on the debates in other countries, have been the subject of a number of studies (i.e.: Ayoub, 2015; Friedman, 2012; Kollman, 2009; Paternotte & Kollman, 2013; Sluiter, 2012).

Studies from a related field, in which scholars seek to explain the social acceptance of homosexuality, have, moreover, gone where the social movement scholars have not: using data over time, there has been an argument that after their introduction, key policies like same-sex marriage send out a message and shape norms that increase the acceptance of homosexuality in the general population (Akker et al., 2012; Barron & Hebl, 2010; Hooghe & Meussen, 2013; Kuntz et al, 2014). There is - thus – a reciprocal relationship between levels of social acceptance and the introduction of policies. Higher levels of social acceptance increase the chance key policies are introduced, which in turn influences the social acceptance of LGB people (Hooghe & Meussen, 2013). The introduction of policies like same-sex marriage may well reflect the openness of the political system and the effectiveness of the LGB-movement in a country (for evidence on different countries, see: Calvo, 2007; Paternotte, 2008; Rydström, 2008; Tremblay et al., 2011; Waaldijk, 2001). In this line of argument, policies that receive large amounts of public attention - like same sex marriage or registered partnerships (same-sex unions, in short) - can be argued to be productive in bringing about changes in attitudes among the general public than specific and less salient policies. That is why the following hypothesis is introduced:

*H2. Levels of perceived discrimination among LGB people are lower in countries that legally recognize same-sex unions*

*Social acceptance of homosexuality*

Whilst social acceptance has largely been ignored in studies of the causes of perceived discrimination, there are studies of the causes behind the social acceptance of homosexuality. These studies tend to draw on a large number of somewhat comparable explanations. Generally, they find that processes that are similar to modernization as described above, are important driving forces behind changes in public opinion (Brewer, 2003). Apart from explanations that are important in the modernization literature, more individual-level factors like an individual's level of religiosity, religious denomination, age and gender are often included in such studies (Akker et al., 2012; Sociaal Cultureel Planbureau, 2014). Most of these studies do not explicitly link their findings to broader theoretical frameworks and seem to depart more directly from existing data, however. Moreover, as was argued above, there seems to be a reciprocal relationship between the introduction of same-sex unions and social acceptance (Akker et al., 2012; Barron & Hebl, 2010; Hooghe & Meussen, 2013; Kuntz et al, 2014)

Thus, this thesis adds a further explanation to the model. It assumes that changes at the societal level bring about changes in attitudes about homosexuality. This is expected to bring down the extent to which people discriminate against LGB people, which in turn reduces levels of perceived discrimination in a country. That is why the following hypothesis was also introduced to the conceptual model in this thesis:

*H3. The higher the level of social acceptance of homosexuality in a given country, the lower the level of perceived discrimination among LGB people in that country*

In this light it becomes possible to further refine the theoretical model. Rather than having a direct effect on levels of perceived discrimination among LGB people, some societal-level changes can be assumed to move through the social acceptance of homosexuality. In this thesis, both increasing levels of modernization and the legal recognition of same-sex unions

are expected to directly impact the social acceptance of homosexuality. This increased acceptance should then reduce the extent to which discrimination occurs in a given country and finally bring down levels of perceived discrimination. To capture this effect, the following hypothesis was formulated:

*H4. The effects of modernization and the legal recognition of a same-sex union on levels of perceived discrimination among LGB people, are reduced when controlling for social acceptance*

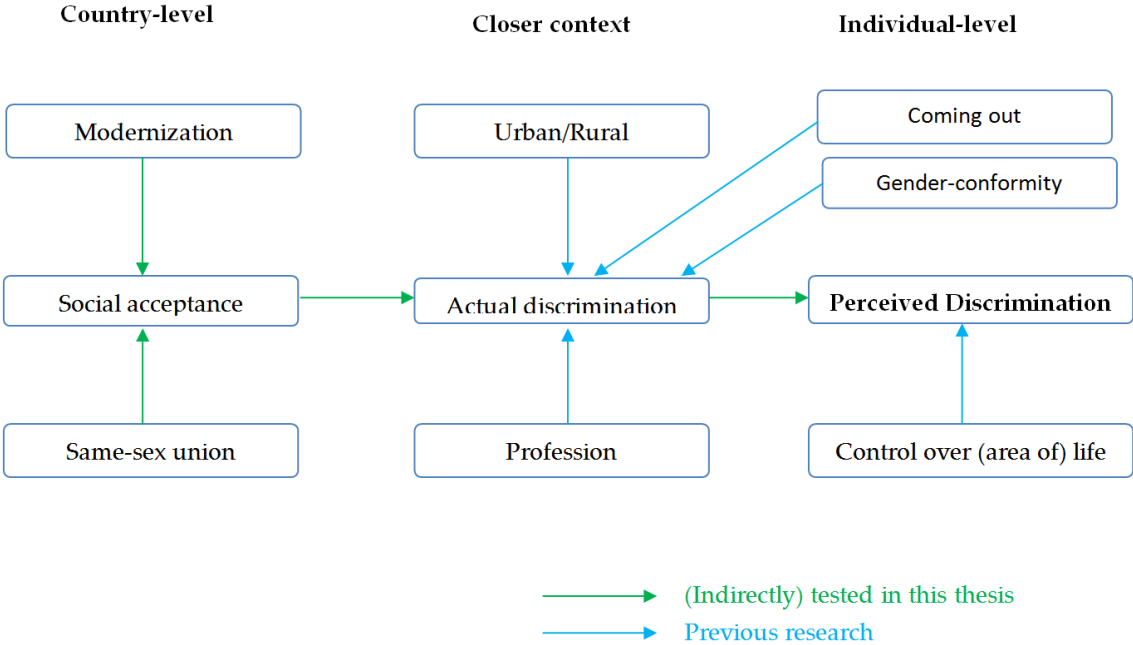
## Outline of the research problem

The theory that is presented above assumes that (LGB) individuals live their lives in different social contexts in which they are more or less likely to experience discrimination. This study focuses on country level differences and the extent to which these impact levels of perceived discrimination across countries. As will be discussed in chapter 3, this is in part due to the fact that there is at this point no available data that could support a multilevel model, which could incorporate explanations at different levels. That is of course a limitation of this study. An overview of the model that is tested in this thesis is presented in figure 1. Chapters 4 and 5 present the operationalization of this model and the results of the subsequent analysis, respectively.

Another issue in the literature that has been mentioned briefly, but is not addressed in the model in figure 1, is that very little is known about the effects of using different ways of measuring perceived discrimination. This is an especially pressing issue, because the sampling of the LGB population (on a sensitive issue), is no mean feat. Such methodological concerns become even more important in cross-national studies where large variations in the acceptance of homosexuality persist. With this in mind, chapter three will provide an analysis of the only two currently available cross-national data sources on perceived discrimination among LGB people. Doing this should help scholars to better design surveys in the future and increase our understanding of the different results that are found in the different 'previous research' section above. Moreover, given the general lack of academic attention to these issues, critically analyzing the different data sources is a necessary step on the way to introducing a country-level analysis.



Figure 1. Conceptual model to explain levels of perceived discrimination



This thesis introduces a model that is only applied to LGB individuals - and thus excludes TQI individuals. One reason for this, is that this study formulates theory on the relations between public opinion, modernization, legislation and perceived discrimination. At this point, very little is known about whether these dynamics are similar for the discrimination of TQI people. For example, discrimination bans on the grounds of sexual orientation - or indeed marriage equality - will probably not have the same effects for TQI people, as for LGB people. Similarly, a lack of awareness about queer and intersex (and to some extent, transgender) issues among the general public may mean that social acceptance plays a very different role for TQI people. Especially for the queer and intersex groups, moreover, cross-national data on both social acceptance and perceived discrimination is non-existent. It should be noted that treating TQI people as a unitary group would also lead to problems for many of the reasons cited here. TQI people were thus not included in this study, but future academic work would, both for this subject and in general, do well to extend its scope beyond LGB individuals and pay more attention to TQI people, issues and rights.

## Chapter 3: Surveying LGB individuals in a cross-national perspective: evaluating existing data

The previous chapter clarifies that there is a need for the inclusion of country-level factors into the study of perceived discrimination among LGB individuals. At this point in time there are only two data sources, both created by EU institutions, that contain the kind of cross-national data that would be required for such a study: (the combination of) three special waves of the Eurobarometer and the EU FRA's LGBT Survey. The fact that both these datasets were compiled using very different methods, allows for a useful comparison of the two. This chapter sets out to offer such a comparison by providing an answer the following question:

*To what extent are the EU FRA LGBT survey and the Special Eurobarometer waves reliable and valid survey approaches to measure perceptions of LGB discrimination in cross-national studies?*

This thesis defines reliability as the extent to which the survey's methods and estimations are reliable. Substantially, this is interpreted in the sense that the same results would be obtained if the same methods would be applied to study the same phenomenon (Carlson & Hyde, 2003, p. 160). Validity is divided into two kinds. External validity concerns the extent to which the results of the surveys can be generalized across the entire population. This is a tricky issue with a relatively elusive population like LGB people. Internal validity, moreover, concerns the extent to which the survey items measure what they seek to measure. (Gerring, 2007, p. 43).

This chapter can almost be read as a study in itself: after a brief discussion of the very limited literature on surveying the LGB population (on issues of discrimination), this chapter moves on to analyze and evaluate the both the Special Eurobarometer waves and the EU FRA LGBT survey separately. The different methods that were used in both surveys warrant such a separated discussion - as each survey is likely to be affected by different aspects. For each of these two analyses, the used methods are presented throughout the actual evaluation.

Finally, the two surveys are compared and the conclusion is drawn that the EU FRA LGBT survey is far from perfect, but also clearly the better of the two available survey options.

### Literature on surveying the LGB population (on discrimination)

Whilst conventional wisdom has it that up to ten percent of the population is LGB, there is currently no hard evidence on the number of LGB people – and existing estimates put the number much lower (i.e. Gates, 2011)<sup>3</sup>. As a group that is rather often the subject of social stigma, LGB individuals are not always likely to reveal their sexual orientation in surveys - which makes it very hard to know their exact number. As such, studies that have sought to survey the LGB population have generally either targeted specific groups - such as elderly people living in dedicated care homes (Johnson et al., 2005) or the work force (Rose Ragins & Cornwell, 2001), LGB youth in schools (Almeida et al., 2009), or used online surveys (Social Cultureel Planbureau, 2012; Tacáks et al, 2008). All of these are interesting ways of sampling a population about which very little is known, but all accept certain trade-offs where the representativeness of the sample is concerned. So far, many studies of the LGB population have not seriously considered the bias that may have been introduced because of such sample designs - at least in part because not enough is known about the population they are drawn from.

One exception to this rule is a conference paper by researchers who are tied to the Dutch Social and Cultural Planning Bureau (Ferneer & Keuzenkamp, 2011). It compares the results of a panel data survey of Dutch respondents who indicated they were LGB, with responses to an internet survey on perceived discrimination among LGB people in the Netherlands. Generally, the authors find that panel data resulted in much lower levels reported of

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<sup>3</sup> Defining who is LGB is less straightforward than it seems. This thesis assumes that the LGB categories are culturally constructed and treats those who self-identify as LGB as the subject of this thesis. Others have argued that sexual activity between people of the same sex is also prevalent among people who do not self-identify as LGB and that this warrants a different definition. For a republication of a classic text on this, see Kinsey et al. (2003).

perceived discrimination. The authors concluded that online survey methods were likely to lead to an overestimation of the actual level of perceived discrimination, possibly because individuals who have experienced discrimination are more likely to participate in a survey. One would expect a similar pattern to be visible in the two surveys under scrutiny in this study, since one is internet based, and the other on a large sample of the entire population.

Another exception is a recent PhD-dissertation by Stange (2014), which is fully dedicated to examining ways in which to survey the LGB population. The author was allowed to add questions to two separate waves of the same survey, enabling him to compare the number of respondents as a percentage of the total population of a state in the US, when different strategies were used. Stange found that when the design of the survey is more LGB-inclusive (featuring a gay couple on the cover page), the 'detected' percentage of LGB people as a part of the population increases compared to when such a design is not used. The author reported that such an effect could not be found when questions were phrased in an LGB-inclusive way (for example by adding answering options such as "in a registered partnership" to a question asking whether respondents were married). One would expect this to translate into a higher response rate in the EU FRA LGBT survey, which was very clearly aimed at the LGB-population, whereas the Eurobarometer waves were not. Since different methods of data collection were used for the two surveys, however, it is impossible to assess whether this played a role for these surveys by comparing the two.

A third study by Meyer and Wilson (2009) provides a more theoretical discussion of sampling methods that can and have been used for the LGB population. The authors divide survey strategies into probability and non-probability samples. The first are those that sample a large part of the general population to find a sub-sample of LGB respondents. Meyer and Wilson indicate that this approach tends to be very costly, because of the high number of respondents required to achieve a satisfying sub-sample. They do not reflect upon the extent to which such a sub-sample is really representative of the LGB population, however. Evaluating the outcome of the Eurobarometer survey, which follows such an

approach should help to shed light on this. Non-probability samples, on the other hand, rely on targeted efforts (such as recruiting respondents in LGB community venues, or – for example- gay men who have contracted HIV) to reach out to the LGB population. The authors argue that such studies tend to have obvious problems with the representativeness of the achieved samples. They do argue that web-based surveys are a relatively effective non-probability approach – even though the part of the LGB population that does not have internet access may be different from the part that does not. The EU FRA LGBT survey is an example of such a web-based approach and analyzing it should help shed light on some of these issues.

The three studies that are presented above deserve credit for being among the first to not just mention, but explicitly analyze the problems with surveying the LGB-population. A drawback of the first two studies, however, is that they only feature data on one European country or an American state, respectively. Whilst this allowed them to compare either the composition of the sample (Ferneer & Keuzenkamp, 2011) or the response rate (Stange, 2014), it did not enable them to analyze the role of social acceptance of homosexuality (and the stigma that may be a result thereof), nor the extent to which using different survey approaches can mitigate or exacerbate this effect. By comparing the only available cross-national studies on perceived discrimination among LGB people, this study hopes to shed more light on this.

## Evaluating the Eurobarometer Survey

The goal of this section is to analyze the extent to which several waves of the Eurobarometer surveys can be used to reliably and validly survey the LGB population and determine levels of perceived discrimination across Europe. In order to do this, the survey is briefly discussed and an overview of its results is provided. Then, an analysis is presented that seeks to gauge the amount of bias in the data.

Eurobarometer is an EU program that holds biannual, face to face survey waves among 500 to 1000 respondents in all EU countries (for an overview: European Commission, 2015). As such, it is one of the largest survey efforts in Europe. Apart from a number of survey items that reoccur in every wave, Eurobarometer has also conducted three special waves (waves number EB69.1 in 2008, EB 71.2 in 2009 and EB 77.4 in 2012) in which respondents were asked about their experiences with discrimination on different grounds. The waves include an item that inquires whether or not respondents experienced discrimination on the grounds of sexual orientation. Additionally, an item was included that asked if people belonged to different groups, one of which was the group of LGB people. This means that the datasets can be split to obtain a sample that only includes people who self-identify as LGB. Each wave had over 26 000 respondents, but only .6 (2008), .7 (2009) and 1.1 (2012) percent indicated that they were LGB - which is very low when compared to similar survey strategies in the US (Stange, 2014). In order to obtain a larger number of respondents, the LGB sub-samples of each of the three waves were combined into one dataset. Since Eurobarometer draws a random sample of the general population for each wave, the chance that any of the 658 LGB respondents in this new combined dataset were surveyed twice is very low<sup>4</sup>. The responses by these 658 LGB respondents were combined to estimate the number of respondents from each EU country who had experienced discrimination on the grounds of sexual orientation. Table 1 shows the number of respondents per country and the proportion of respondents in each country who indicated that they experienced discrimination on the grounds of their sexual orientation.

It should be remarked that in the original waves, the total number of surveyed individuals was the same in all countries (1000 per wave). The exceptions to this were Cyprus, Luxembourg and Malta, where instead of 1000, only 500 individuals were surveyed in each wave. In these countries the number of LGB respondents was multiplied to correct for this.

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<sup>4</sup> Moreover, TNS, the company that executes the survey on behalf of Eurobarometer, provides a unique respondent number for each surveyed individual. Since none of these numbers occurred twice, we can be sure that no respondent was included twice in the final sample.

Similarly, the surveys for Germany included a sample of Western Germany (1000) and Eastern Germany (500) - and the UK included an additional sample for Northern Ireland (300). The number of found LGB respondents for these countries was also adjusted so that the scores represent a (theoretical) sample of 1000 individuals for each wave.

*Table 1. An overview of the number of respondents and levels of perceived discrimination in the Eurobarometer surveys by country.*

Country	N	Percentage perceived discrimination	Country	N	Percentage perceived discrimination
Austria	92	22.9	Latvia	4	.0
Belgium	51	19.2	Lithuania	6	16.7
Bulgaria	3	.0	Luxembourg	26	23.1
Cyprus	2	.0	Malta	12	33.3
Czech Rep.	19	.0	Netherlands	46	26.1
Denmark	37	32.4	Poland	16	12.2
Estonia	6	33.3	Portugal	27	18.5
Finland	19	15.8	Romania	11	18.1
France	24	16.7	Slovakia	20	5.0
Germany	24	22.2	Slovenia	15	.0
Greece	10	30.0	Spain	36	28.5
Hungary	13	7.7	Sweden	35	17.1
Ireland	9	33.3	UK	26	16.2
Italy	62	29.0			

Data from: Eurobarometer waves EB69.1, EB 71.2 and EB 77.4)<sup>5</sup> (European Commission, 2008, 2009, 2012a).

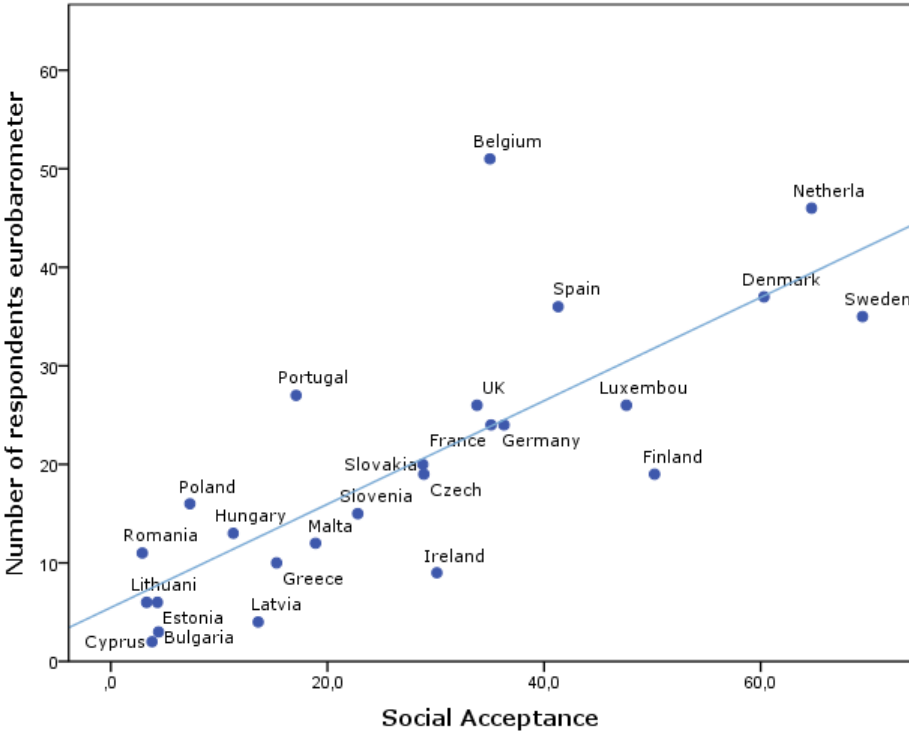
A first examination of this table immediately gives cause for concern. In six countries, surveying 3000 individuals led to less than ten respondents who indicated that they were LGB. In a further five countries, no LGB individuals who indicated that they experienced discrimination in the year preceding the survey were found. That these countries are all in Central and Eastern European countries suggests that there may be serious bias in the sample. Moreover, the number of respondents in Austria is exceptionally high (also in each

<sup>5</sup> Croatia was excluded from this table, as it was not included in two of the survey waves.

of the three individual waves)- which suggests that somewhat different survey methods may have been employed there.

Eurobarometer is a face-to face-survey. Given the social stigma that many LGB people still face across Europe, they may be less likely to reveal their sexual identity, when stigma is high. In order to see whether this is the case, figure 2<sup>6</sup> charts the correlation between the number of LGB respondents in the Eurobarometer survey waves per country, and the level of social acceptance of LGB individuals in that country in 2008. Social acceptance is defined as the percentage of individuals in a country who indicated that homosexuality is ‘always justifiable’. The data on social acceptance comes from the European Values Study (EVS, 2011) and a full discussion of the operationalization can be found on page 49.

Figure 2. The correlation between social acceptance and the number of LGB respondents in the Eurobarometer survey

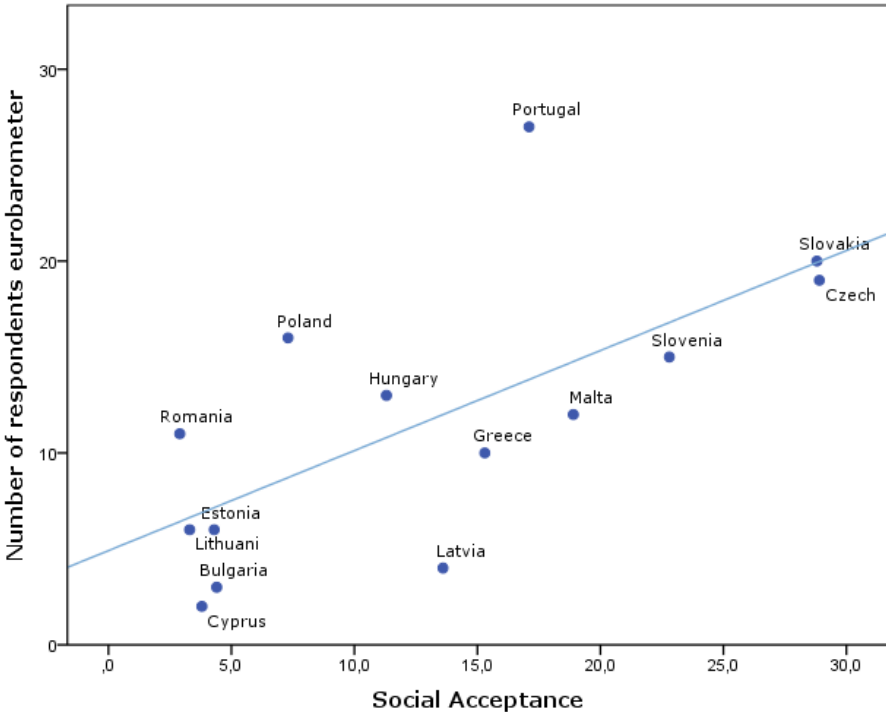


<sup>6</sup> Since the number of respondents in Austria was so high, it constituted an outlier that distorted the model and was thus removed from the analysis. No data on public opinion was available for Italy, so it too was excluded (EVS, GESIS, 2013, p. 552). Croatia was not included in two of the Eurobarometer waves and constitutes an additional missing case.



The plot already suggests that there is a rather strong correlation between the number of LGB respondents and social acceptance in a given country. Since the variable on the number of respondents is strongly skewed (and logistic transformation did not solve the problem), a Spearman’s Rho coefficient (Field, 2013, p. 275 - 277), which treats scores as ranks, was calculated and a strong and a significant correlation (Spearman’s Rho = .804 | p = .000 | N = 25), was found. There seems to be heteroskedasticity in the model, however. Countries that have higher levels of social acceptance deviate much further from the line than those with lower levels of social acceptance. This suggests that this simple model may not be the best way to capture the relationship between social acceptance and the number of respondents. That is why the sample was split into countries with low (<30 percent) levels of social acceptance and high levels of social acceptance (>30 percent). Figures 3 and 4<sup>7</sup> display the correlations between the two variables for each group of counties.

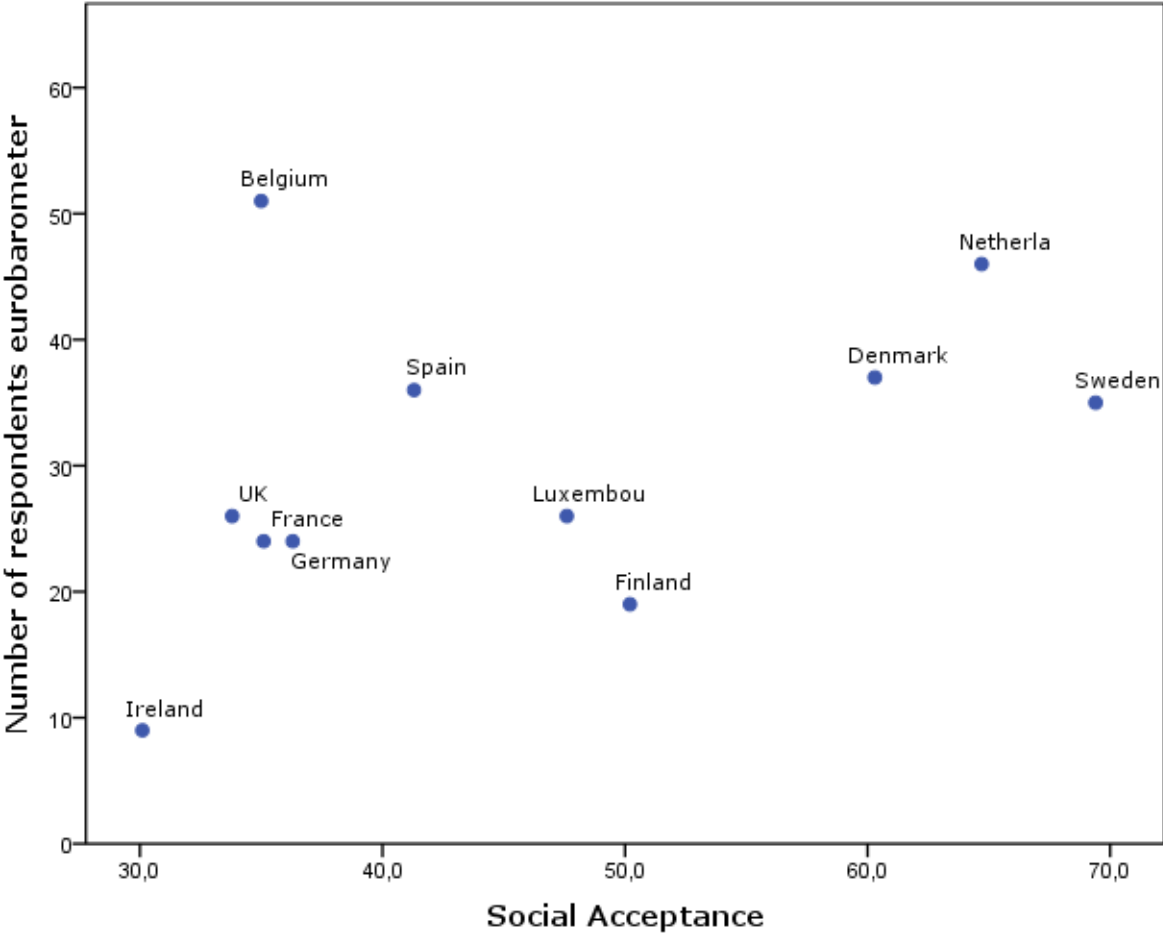
Figure 3. The correlation between social acceptance and the number of LGB respondents in the Eurobarometer survey, in countries with low levels of social acceptance



<sup>7</sup> Throughout this thesis, lines are only fitted to graphs that demonstrate a statistically significant correlation

There is a clear and significant correlation between social acceptance and the number of respondents in the Eurobarometer survey in countries with low levels of social acceptance (Spearman' Rho = .667 | P = .009 | N = 14). When looking at the same correlation in countries with high levels of social acceptance, the relationship becomes both much weaker in substantive terms, and is no longer statistically significant (Spearman's Rho = .374 | P = .257 | N = 11). This means that social acceptance may not have the same problematic impact on the number of respondents in countries that are more accepting of homosexuality. It seems that after a certain threshold is reached, social acceptance no longer influences the extent to which LGB people are willing to reveal their sexuality to interviewers.

Figure 4. The correlation between social acceptance and the number of LGB respondents in the Eurobarometer survey, in countries with high levels of social acceptance



Even if these latter two models only include a relatively small number of countries, they reveal that the results of the Eurobarometer survey are clearly biased by the social acceptance of homosexuality. This suggests that respondents are less likely to reveal their sexual orientation when the social stigma about homosexuality in their country is higher. Since the survey seeks to ask individuals about their experiences with discrimination (and experiencing discrimination could increase the sense of being stigmatized), this is problematic. This effect plays less of a role when the social acceptance of homosexuality has passed a certain threshold - as the correlation between social acceptance and the number of respondents flattens and is no longer significant in countries with higher levels of social acceptance.

All in all, the approach followed in the Eurobarometer survey waves is not a valid way of surveying either the LGB population, nor levels perceived discrimination. It does not seem to provide much more than an indirect measure of the extent to which LGB individuals feel comfortable about revealing their sexual orientation. The approach may be more valid in countries with high levels of social acceptance. For the time being, however, such countries are too few in number for a statistical cross-country comparison. Moreover, the odd outliers with an extremely high number of respondents (Austria, and to some extent Italy) reduce confidence in the reliability of the approach. Additionally, that levels of perceived discrimination for six countries are based on less than ten interviews suggests that a repetition of the surveys could lead to very different results. If only one or two respondents gave a different answer, the estimated level of discrimination in a country could change substantially - which indicates further problems with the reliability of the survey. Finally, the fact that in order to obtain these very weak results, over 85 000 people have been interviewed in 27 countries means that further increasing the number of surveyed individuals to obtain larger LGB subsamples is hardly realistic.

## Evaluating the EU FRA LGBT survey

This paragraph analyses the EU FRA LGBT Survey as a means of surveying the LGB population in general and perceived discrimination in particular. To do this, it first describes the survey and gives an overview of its composition and findings. Several variables are then used to assess the extent to which different explanations have influenced the sample. These are then combined in a regression analysis. At the end of the paragraph the conclusion is drawn that although it is far from perfect, the EU FRA LGBT survey is a relatively valid and reliable means of surveying the LGB population – especially for the purpose of assessing levels of perceived discrimination. A slightly different setup and approach is followed than in the section about the Eurobarometer survey, largely because the EU FRA LGBT survey used a very different methodology and therefore also has different potential issues that could compromise its reliability and validity. It should also be noted that at the time of writing, only the aggregated, country-level data was available. This, of course, limited some of the possibilities for analysis.

The EU FRA LGBT survey is a web-based survey that was conducted in the first half of 2012. It is the first cross-national survey that was solely aimed at measuring levels of perceived discrimination and, after advertisements in local media and on several LGBT (dating) websites, achieved a total of 93 079 responses. (European Union Agency for Fundamental Rights, 2013b). Such an internet based approach is rather common in national-level surveys by LGBT interest groups and government institutions and has the advantage of avoiding some of the problems that may be caused by the stigma surrounding people’s sexual orientation (Meyer & Wilson, 2009). With the exception of the study by Fernee and Keuzenkamp (2011), it seems that no study has yet sought to systematically examine the extent to which such data is biased. To get an overview of the survey, table 2 includes the number of respondents to the survey by country and the percentage of LGB respondents who indicated that they experienced discrimination during the twelve months preceding the survey (European Union Agency for Fundamental Rights, 2013b).

Table 2. An overview of the number of respondents per country levels and of perceived discrimination in the EU FRA LGBT survey

Country	N	Percentage perceived discrimination	Country	N	Percentage perceived discrimination
Austria	2543	48	Italy	13255	54
Belgium	2901	35	Latvia	501	48
Bulgaria	1033	53	Lithuania	821	61
Croatia	1197	60	Luxembourg	318	33
Cyprus	265	56	Malta	358	51
Czech Rep.	2469	36	Netherlands	3175	30
Denmark	1710	31	Poland	2790	57
Estonia	374	44	Portugal	2125	51
Finland	3439	38	Romania	1260	54
France	8375	41	Slovakia	1000	52
Germany	20271	46	Slovenia	636	53
Greece	2760	48	Spain	6388	38
Hungary	2267	47	Sweden	2464	35
Ireland	1625	47	UK	6759	44

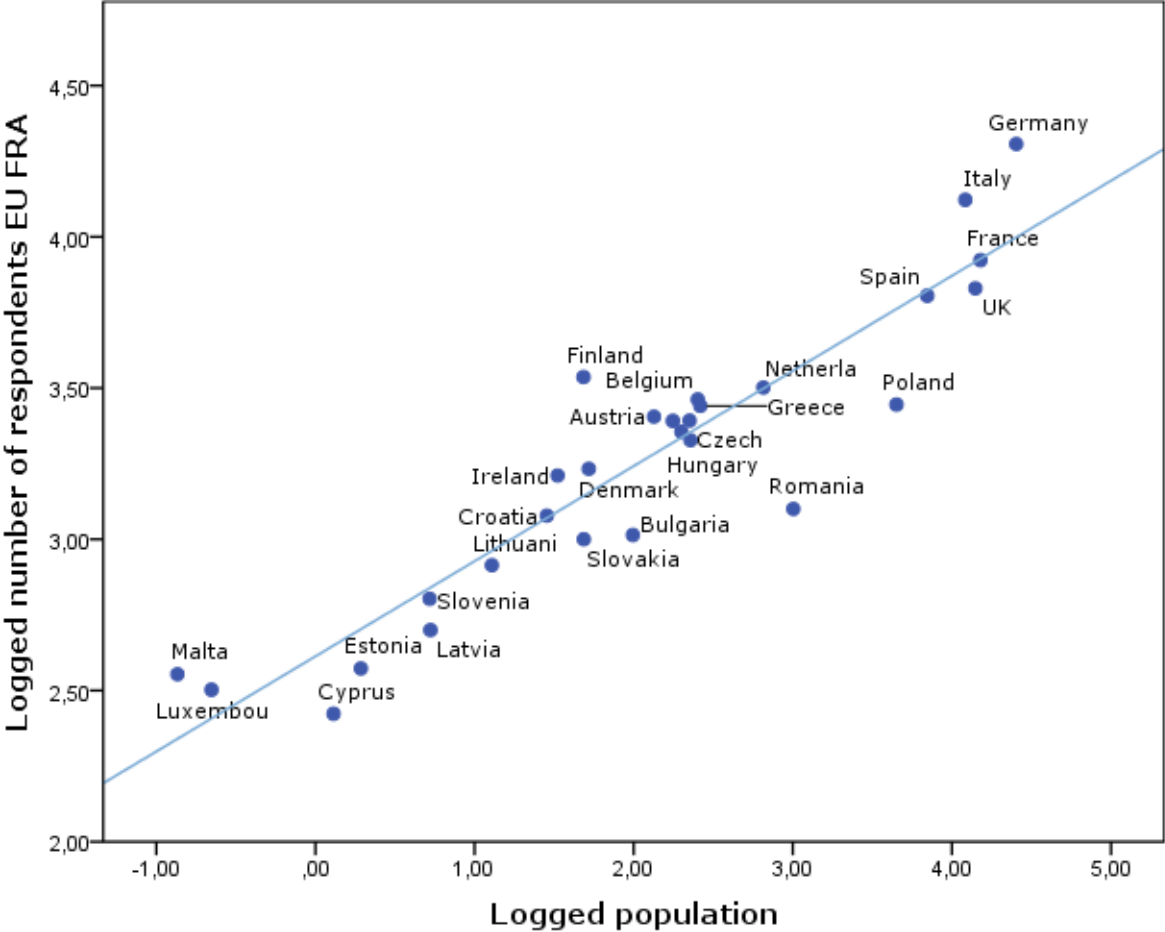
Data from: EU FRA LGBT Survey, 2013.

At a first glance, the estimates of the levels of perceived discrimination do not show odd scores or outliers - and are all based on a decent number of respondents. However, there are large differences between the number of respondents per country, which ranges from 265 (Cyprus) to 20271 (Germany). Contrary to the Eurobarometer survey, this is not a sub-sample of a larger sample. So differences between countries are not necessarily problematic. The question becomes what can explain the variation in the number of respondents across the different countries. Below, three possible explanations are explored: the population of the countries, the social acceptance of homosexuality and internet access.

To start with the population of the country, it may be a very good sign of the quality of the data if one of the main predictors of the number of respondents, is the population of a

country. This would suggest that using the same advertisement method in all countries<sup>8</sup> led to a similar proportion of the LGB population that filled in the survey. In order to analyze this, figure 5 shows the correlation between the number of people living in a country in 2011 according to the World Bank (2015), and the number of respondents to the survey. Both variables were strongly skewed and logistically transformed to obtain a normal distribution (and to make a graphic display meaningful).

Figure 5. The correlation between the logged number of respondents in the EU FRA LGBT survey and the logged population

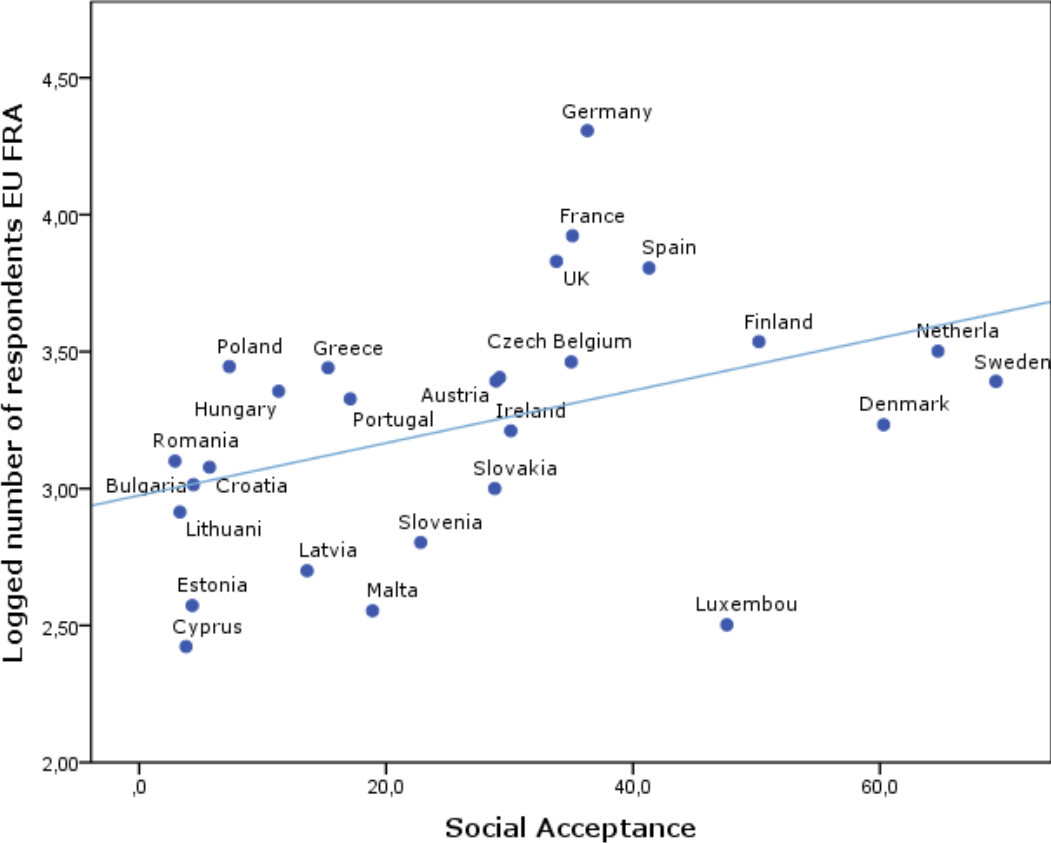


<sup>8</sup> The EU FRA did increase the intensity of the advertizing in several countries where the number of respondents initially was relatively low (European Union Agency for Fundamental Rights, 2013b, p 47).

The correlation between both variables is exceptionally strong (Pearson's  $R^2 = .926$  |  $P = .000$  |  $N = 28$ ). This bodes well for the representativeness of the survey.

Concluding that there was no bias in the survey would be too simplistic, however. There is a possibility that, even online, LGB(T) people in less accepting countries are less likely to be willing to participate in a survey about perceived discrimination. Figure 6 shows the correlation between the logged number of respondents in a country and the level of social acceptance of homosexuality in that country. The operationalization of social acceptance is the same as elsewhere in this study and can be found on page 49.

Figure 6. The correlation between the logged number of respondents in the EU FRA LGBT survey and social acceptance



<sup>9</sup> Since both variables are normally distributed, the correlation can be captured using Pearson's R, rather than Spearman's Rho which is used in the previous part of the chapter and below.

Once again, there is a significant correlation (Spearman's Rho: .531 | P = .004 | N = 27), between social acceptance and the logged number of respondents to the survey. From the graph in figure one might suspect that the relatively high level of acceptance in a few extremely large countries (Germany, France, UK, Spain), with high response numbers, and low acceptance in a number of small countries (Malta, Cyprus, Luxembourg), with low numbers of responses may influence the results. Removing these cases, however, hardly changes the correlation (Spearman's Rho: .568 | P = .009 | N = 20). Moreover, there is no significant correlation between the logged population and levels of social acceptance (Spearman's Rho: .274 | P = .166 | N = 27).

Another aspect that may be problematic with an online survey like the EU FRA LGBT Survey, is that internet access varies widely across the European Union (for a discussion of this issue, see: Meyer & Wilson, 2009). It seems plausible that in countries where less people have access to the internet, less people responded to the survey. To assess whether this is the case, a correlation was run between internet penetration and the number of respondents in the EU FRA LGBT Survey. Data comes from the European Commission's "Digital Scoreboard" and measures the percentage of people who regularly (once a week or more) use the internet in a given country (European Commission, 2012b). This should give a good indication of internet penetration, as especially people who are regular internet users may be likely to come across a survey like this, feel comfortable enough with the internet to share personal information through such a survey, and have the kind of cheap broadband connection that is needed to fill out a 30 minute online survey. However, there is no statistically significant bivariate correlation between internet penetration and the logged number of LGB respondents in a country (Spearman's Rho:.221 | P = .269 | N = 28). The effect may have been reduced somewhat by the efforts of the survey conductors to boost the number of responses in some countries with relatively few respondents (European Union Agency for Fundamental Rights, 2013b, p. 47).



In order to further analyze the interplay between the three variables that are discussed above, table 3 presents the results of a regression analysis of the logged number of respondents in the EU FRA LGBT survey, that includes the three variables that were discussed above. More information on regression analysis as a research method is presented on page 46.

*Table 3. The effect of logged population, the social acceptance of homosexuality and internet penetration on the logged number of respondents per country in the EU FRA LGBT survey*

<b>Model</b>	<b>1</b>	<b>2</b>	<b>3</b>
<b>Variable</b>	B (S.E.)	B (S.E.)	B (S.E.)
Logged population	.316*** (.025)	.286***	.297*** (.024)
Medium social acceptance		.181**	.065 (.101)
High social acceptance		.221**	.039 (.132)
Internet penetration			.007* (.004)
Constant	2.613*** (.062)	2.552*** (.059)	2.150*** (.225)
N	27	27	27
R-square	.858	.893	.909

\*p < .1 \*\*p < .05 \*\*\*p<.001

The variable measuring social acceptance was recoded into three groups – with low (<20 percent), medium (>20, <40) and high social acceptance (>40). The low acceptance group was taken as the reference category. This was done to assess whether social acceptance follows a

similar pattern as it did in the Eurobarometer survey. If this is case, then there should be a significant difference between the low and medium group, but this difference should not be bigger for the high social acceptance group.

From the results it becomes, once again, apparent that the population of a country is the most important predictor of the number of respondents in the EU FRA LGBT survey. It is significant throughout the models, and the introduction of other variables only marginally increases the very high R-square from .858 in the first to .909 in the third model.

More surprising, however, is that countries in the high and medium social acceptance categories do not have a significantly higher level of logged respondents than countries with low levels of social acceptance, when internet penetration is introduced in the model. This suggests two things. The first is that the number of respondents does not seem to be biased by the social acceptance of homosexuality. The second is, that when controlling for logged population and social acceptance, internet penetration does have a statistically significant effect on the logged number of respondents. So access to internet may have indeed somewhat biased the number of respondents. Looking at the standardized Beta in model three, it is found that logged population (Beta = .896) has more explanatory power than internet penetration (Beta = .206) and the two social acceptance variables (medium social acceptance Beta = .067; high social acceptance Beta = .035). Finally, the model meets the criteria for regression analysis. For a discussion of this, see appendix 1.

The fact that internet access seems to have somewhat influenced the results, would make it interesting to further assess the extent to which individual level factors could reveal bias, but at the time of writing, such data is unavailable. Still, the EU FRA does provide some information in its technical report (European Union Agency for Fundamental Rights, 2013b) and - for example - indicates that a larger of number gay men responded to the survey, compared to lesbian women or bisexual men or women. Since so little is known about the LGB population, however, it is not possible to determine whether this reflects the composition of the actual LGB population, or is a consequence of the surveying strategy.

Moreover, Fernee and Keuzenkamp (2011) have indicated that online surveys about perceived discrimination may over-estimate the levels of perceived discrimination. They argue that people who have experienced discrimination are more likely to respond to such a survey than those who have not - and that this explains the higher levels of perceived discrimination in their online survey when it is compared to a survey using panel data. However, with the available data, it is not possible to further investigate this finding.

All in all, the EU FRA LGBT Survey is not without problems. Even if the study seems reliable (repeating it would probably lead to similar results), there are some concerns about the validity of the survey. The fact that the size of a country is a good predictor of the number of respondents to the survey and not influenced by internet penetration, gives some hope with regards to the representativeness (external validity) of the survey. However, the fact that internet access is correlated with the number of respondents in a country, indicates that this survey also has problems with drawing a truly random sample. Finally, some other issues that could reveal bias in the survey design, could not be investigated as the individual level data was not available at the time of writing.

### **Conclusion: comparing the surveys**

Both the Eurobarometer survey and the EU FRA LGBT survey suffer from methodological issues. The Eurobarometer results, however, are very problematic in many ways and simply do not meet any criteria of either reliability or validity. This is not to discredit the general Eurobarometer surveys, which are among the best EU wide survey data collection efforts - and apt at surveying the general population. Notwithstanding, the approach seems needlessly costly and, more importantly, unable to survey the LGB population - or indeed gauge levels of perceived discrimination among LGB people.

The EU FRA LGBT survey also has its problems, but at least the number of respondents per country is not affected by social acceptance (when controlling for other factors), like it is in the Eurobarometer waves. Moreover, the strong correlation between a country's population

and the number of respondents suggests that the EU FRA LGBT survey draws a more similar sample from each country. Notwithstanding, internet access seems to have influenced the number of respondents to the survey. Even if little is known about the differences between LGB people with and without internet access, this could be a possible source of bias. Moreover, there may still be problems with this sample at the individual level, but it is not possible to further assess these possible issues: firstly because the individual level data is not available and secondly, because still (too) little is known about the target population of LGB people in the European Union.

Surveying the LGB population is and will remain a difficult (academic) undertaking. This chapter shows, however, that it is not impossible to compare different survey strategies and make some claims about the validity and reliability of different survey approaches. It also shows that some survey strategies are more suited than others for surveying LGB people. The lack of attention to these issues in many academic studies is thus very problematic.

Since the EU FRA LGBT survey is the best *available* cross-national source of data on levels of perceived discrimination, the following two chapters will present a country level-analysis of levels of perceived discrimination, testing the hypotheses that were presented in chapter 2. This thesis first continues with a presentation of the methods that were used (chapter 4) and then presents the results (chapter 5).

## Chapter 4: Methods

Having established that, at least at this point in time, the EU FRA LGBT survey is the best available source for a cross-national analysis of perceptions of discrimination in the EU, this chapter presents the other methodological aspects of constructing such a model for analyzing the hypothesized country-level explanations of differences in perceived discrimination among LGB people. It first provides a short note on the scope of the theory that is applied. Subsequently, a discussion of the overall linear regression model and method is presented. Finally, the operationalization of the different variables is discussed.

### Scope of the study

The analysis in this thesis is primarily aimed at EU member states. This choice is largely determined by the fact that all currently available cross-national data on perceived discrimination on the grounds of sexual orientation, comes from EU institutions and thus only covers EU (candidate) member states. In addition to these practical reasons, EU member states provide a theoretically interesting test bed. Even though all EU member states have bans on discriminations in place as part of the *acquis communautaire*, there is large variation on all relevant country-level factors in this study. Especially with regard to experiences of discrimination among LGB individuals, the legal recognition of same-sex unions and public opinion concerning homosexuality, there is large variation across EU member states. Even the extent to which countries are postmodern varies across the EU.

Simultaneously EU member states are all democratic countries with market economies. This means that the theoretical frameworks that are introduced in chapter two should apply to similar countries outside the EU. Examples of such countries can be found in North and South America, non-EU member states in Europe, several countries in Oceania and Japan and South Korea. Especially the interplay between public opinion, policy introductions and their effects - as well as the impact on politics of modernization, may be very different in non-democratic countries.

## Chosen method of analysis: linear regression

As was argued in Chapter 2, a quantitative, cross-national approach is the most suitable way to directly compare the impact of several country-level elements on perceptions of discrimination among LGB individuals. That is why this study employs Ordinary Least Squares (OLS) regression, in order to explain variations in (average) levels of perceived discrimination among LGB people in European Union countries. Using average levels of perceived discrimination in EU member states, as found in the EU FRA LGBT survey, as the dependent variable, this should allow for an assessment of the hypothesized relationships that are the subject of this thesis.

OLS regression is a statistical method, which seeks to fit the best possible linear model to the data. It does this by estimating the model in which the squared residuals of the model are minimized (Allison, 1999, chapter 1; Field, 2013, chapter 8). More simply stated, OLS regression is a method to fit a line between variables that best approaches to the observed data. As such, the model that is investigated in this thesis can be presented as follows:

$$Y_i = (b_0 + b_1X_{1i} + b_2X_{2i} + b_3X_{3i}) + e_i$$

In which:

$Y_i$  = level of perceived discrimination in a country

$b_0$  = constant

$x_{1i}$  = level of modernization in a country

$x_{2i}$  = legal recognition of same-sex unions in a country(yes/no)

$x_{3i}$  = level of social acceptance of homosexuality in a country

$e_i$  = error term

In this model,  $b_0$  (the constant) indicates the expected level of perceived discrimination in a country when all other variables have score '0' - so it can be thought of as the 'baseline' level of perceived discrimination among LGB people in a country. In order to further analyze the level of perceived discrimination in a country, the effects of modernization, the existence of same-sex union legislation and the social acceptance of homosexuality are estimated. Finally, an error term is included in the model to account of the difference between the estimated value and the actual observed level of discrimination among LGB people in a given country.

## Operationalization of the variables and data

The following section presents the operationalization of the variables included in the analysis in this thesis.

### **Dependent variable: the level of perceived discrimination among LGB people in a country.**

As was described in chapter 3, the data used to measure this variable comes from the EU FRA LGBT survey (European Union Agency for Fundamental Rights, 2013b). It is based on a survey item that asked whether respondents had experienced discrimination on the basis of their sexual orientation during the twelve months preceding the survey. The survey was held during the first half of 2012. Since the individual level data was not available at the time of writing, the publicly available country level averages were used to obtain the percentage of LGB respondents in a given country, who indicated that they did experience discrimination during this time period. As such, the values range from 30 percent (Netherlands) to 61 percent (Lithuania).

### **Independent variable: modernization**

Largely following the example of Fernández & Lutter (2013), the level of modernization in a country is captured by the 2011 score for the Inequality adjusted Human Development-Index (IHDI) by the UNDP (2011). The Human Development Index (HDI) measures a composition of GDP per capita adjusted for purchasing power parity, life-expectancy and average years spent in school. As such, the index measures the state of the economy, the healthcare system and education system in a given country. A high score on this index should thus give an indication of the extent to which individuals in a given country experienced material security. The UNDP also publishes a version of the HDI that is adjusted for income inequality (Alkire & Foster, 2010), which was used for this study. Citizens in countries with lower levels of income inequality are likely to be even less preoccupied with materialist issues (since it is less problematic to end up at the 'bottom' of the income distribution in a more equal society, individuals in more equal societies should be less worried about

materialist issues). The variable theoretically ranges from 0 (no development) to 1 (highest human development). All EU member states, with the exception of Bulgaria and Romania, fall in the 'very high human development' category, but there is still enough variation across the EU to include the IDHI as a variable, with scores ranging from .683 (Bulgaria and Romania) to .851 (Sweden).

Values were taken for the year 2011, as this was the earliest year for which the inequality-adjusted version of the HDI was available. Ideally, this study would have used data from 2010 - so that data on the IDHI would precede any reported incidents of perceived discrimination. The fact that IDHI does not vary dramatically from year to year in any of the EU countries (after 2011) means that this should not have a strong impact on the final results, however.

An alternative measure could be an item from the European Values Study, which looks at the kind of topics that people consider important in politics (EVS, GESIS, 2008, p. 468): countries where people prioritize more post-materialist issues could then be deemed more post-materialist. However, modernization theory itself predicts that changes in economic security produce changes in values (i.e. homosexuality) and priorities. Taking a predicted consequence of such economic changes as an indicator would constitute a rather circular measurement of the level of modernization, which is why the IDHI was chosen.

### **Independent variable: legal recognition of same-sex unions**

Although an effort to produce an academic and cross-nationally comparable index of LGB(TQI) rights is currently being undertaken (Lee Badgett et al., 2014), such data are not available at present. That is why this study employs a different measure: the legal protection of LGB-individuals is measured by a dummy variable that indicates whether same-sex relations were recognized legally in 2010. Theoretically, this makes sense because the causal argument is that legal protection shapes norms in society. As such, the LGB issue that is by far the subject of the most intense public debate (the legal recognition of same-sex unions),



should also have the strongest impact on the social acceptance of homosexuality. Therefore this thesis includes a dummy variable that measures whether (1) or not (0) a country had a law in place that recognized same-sex unions in or before 2011.

### **Independent variable: social acceptance of homosexuality**

The social acceptance of homosexuality was measured using data from the 2008 European Values Study (EVS, 2011). This survey was chosen, since it is the only comparable survey that provides information on the social acceptance of homosexuality on most countries in this study. The European Social Survey (ESS, 2015), the only comparable alternative, only included 22 out of the 28 EU member states in its 2010 wave. That would mean a large loss of the number of countries in the analysis, which would have been problematic given the already low number of cases. The European Values Studies is a cross-national survey of a random sample of around 1000 individuals in each participating country on a range of issues. It asked respondents in all countries (except Italy) to indicate whether they agreed with the statement that 'homosexuality is always justifiable'. Respondents could answer on a scale ranging from 1 ('never') to 10 ('always'). In order to achieve a country average, the appropriate weights were applied (EVS, 2014). Respondents with a score of 8-10 were coded as those with a positive view on homosexuality - and finally the proportion of the sample for each country that answered within this 8 - 10 range was used to create a score on the social acceptance of homosexuality in each country. This relatively high threshold was chosen since the theoretical model in this thesis assumes that acceptance only matters when it is translated into a change in action (not discriminating) - and a strict definition of who is accepting of homosexuality is thus most suited to capture this. The variable has a range of 2.9 percent in Romania to 69.4 percent in Sweden. Finally, Italian respondents were asked about their opinion on 'homosexual behavior', rather than homosexuality. This renders the answers incomparable and is why Italy was not included in the final analysis (EVS, GESIS 2013, p. 552). To address this and to increase the robustness of the results, a second measure of social acceptance was found by employing an item in the EVS that asks whether people do or do

not 'like homosexuals as neighbors'. The proportion of people who indicated that they would not like homosexuals as neighbors in each country (ranging from most accepting 5.4 in Spain to least accepting 66.7 in Lithuania), was taken as a second measure of the social acceptance of homosexuality. Note that a high score on this variable constitutes a less accepting country, which is the inverse of the primary measure.

## Chapter 5: Results and analysis

This chapter presents the results of the statistical country-level analysis of levels of perceived discrimination among LGB people in EU member states. It first presents and discusses the different models that were run to explain levels of perceived discrimination in different European countries. The chapter then moves on by more substantially interpreting these results. Since this part of the thesis hinges on one analysis of a small number of countries, possible issues with the models are discussed.

### Results

Table 4 presents the results of a linear regression analysis that describes the relationship between different variables and levels of perceived discrimination among LGB people in the EU. In total, four models were run. In models one through three, a new variable was added for each new model. It should be noted that the explanatory power increased across the first three models increases. The overall fit of the models is good, moreover. Starting with an r-square of .409 in model one, to an r-square of .741 in model three. That suggests that the third model explains roughly 74% of the total variation in levels of perceived discrimination among LGB people in EU member states. As was discussed previously, data on the dependent variable came from the EU FRA LGBT survey. Since data on social acceptance were missing for Italy, a final model (4) was added, which included a different operationalization of social acceptance to increase confidence in the robustness of the results. It should be noted here that although the overall explanatory power of the model is somewhat lower (r-square goes from .741 to .639), the direction of the effects and significance remains the same in this final model. This increases confidence in the robustness of the results. Using models one through three, the three hypotheses on country level effects that were formulated are discussed and subsequently the hypotheses about the indirect effects of modernization and the legal recognition of same-sex unions, through public opinion on perceptions of discrimination are examined below.

Table 4. The effect of modernization, the legal recognition of same-sex unions and the social acceptance of homosexuality on levels of perceived discrimination among LGB individuals in European countries

Model	1	2	3	4
Variable	B (S.E.)	B (S.E.)	B (S.E.)	B (S.E.)
Modernization	-119.508*** (25.389)	-66.552* (36.234)	20.878 (34.808)	-10.245 (36.618)
Same-sex union		-7.204* (3.691)	-3.483 (2.293)	-4,098 (3.504)
Social acceptance			-.365*** (.087)	
Dislike as neighbors				.272** (.110)
Constant	139.447*** (19.932)	102.304** (26.821)	41.266 (25.239)	48.986 (30.083)
N	27	27	27	28
R-square	.470	.542	.741	.639

\*p < .1 \*\*p < .05 \*\*\*p < .001

### The effect of modernization on levels of perceived discrimination among LGB people

In chapter two, the argument was made that as societies become more modernized, the public's attention shifts from materialist issues to more post-materialist issues. One of these issues is the social acceptance of homosexuality, which was expected to decrease actual and thus perceived discrimination, which is why the following hypothesis was formulated:

*H1. The higher the level of modernization in a given country, the lower the level of perceived discrimination among LGB people in that country*

In model one, which includes only the level of modernization, there is a significant negative effect of the level of modernization in a country on levels of perceived discrimination. This provides evidence in support of the hypothesis. The effect remains significant (at the .1 level), when the legal recognition of same-sex relationships is included. In the third model, however, there is no negative nor significant relationship between the level of modernization and levels of perceived discrimination. This means that the picture is more nuanced and that there is no *direct* relationship between the level of modernization and the level of perceived discrimination among LGB people, when social acceptance is controlled for.

### **The effect of the legal recognition of same-sex unions people on levels of perceived discrimination**

Similarly, the theoretical expectation was formulated that higher levels of legislative protection would not just be a product of changing public opinion on homosexuality, but that such legislation would in itself reinforce more accepting norms about homosexuality. As such, the legal recognition of arguably the most salient LGB-related policies of same sex unions, are especially likely to have this effect and bring down levels of perceived discrimination. To test this, the following hypothesis was formulated.

*H2. Levels of perceived discrimination among LGB people are lower in countries that legally recognize same-sex unions*

In model two, we find that in countries that do legally recognize same-sex unions have 7.2 percent-point lower levels of perceived discrimination among LGB people – and that the difference is significant at the .1 level. This provides evidence in favor of the hypothesis. In the third model, however, the difference between countries that do and do not legally recognize same-sex unions is reduced to only 3.4 percent-point and is no longer statistically significant. Like in the case of levels of modernization, there is thus no *direct* effect of the legal recognition of same-sex unions

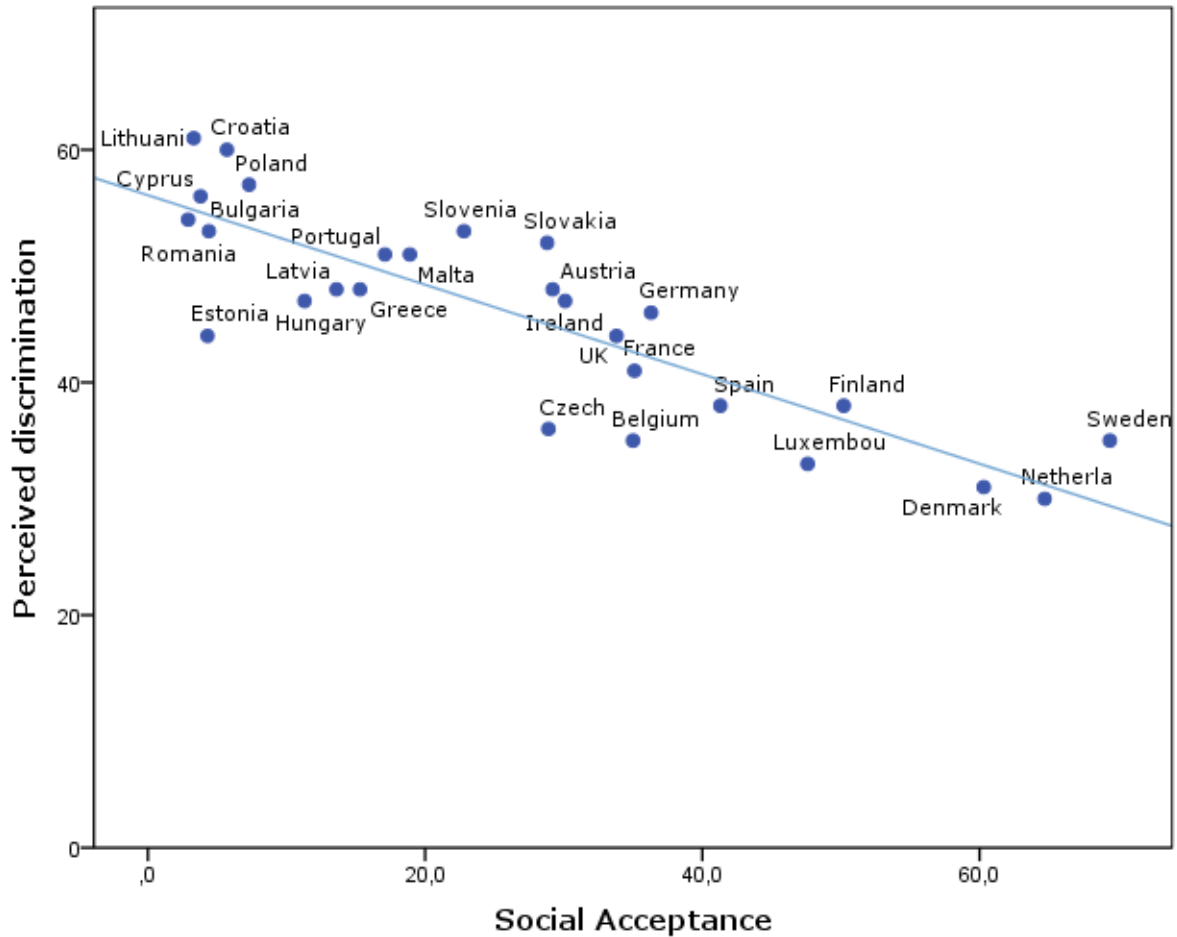
### **The effect of social acceptance on levels of perceived discrimination**

Concerning the social acceptance of homosexuality, the idea was formulated that as social acceptance increases, people would discriminate less against LGB individuals. As instances of discrimination decrease, so should instances of perceived discrimination. That led to the following hypothesis:

*H3. The higher the level of social acceptance of homosexuality in a given country, the lower the level of perceived discrimination among LGB people in that country*

Unlike the other variables, the effect of social acceptance on perceived discrimination is both in the expected direction and statistically significant (at  $p < .001$ ) in model three. This constitutes strong evidence for the hypothesis. Moreover, the effect is very strong in substantive terms. For every one percent-point increase in social acceptance, levels of perceived discrimination are lowered by .37 percent-point. This means that an increase in level the social acceptance of homosexuality by 20 percent-points (and this is by no means an unrealistic percentage, given the large changes over the course of the last decades), could reduce levels of perceived discrimination by as much as 7.3 percent-points. The r-square of .741 suggests that model three explains 74 percent of the total variation in perceived discrimination, which is a good overall fit. Figure 7 shows the bivariate relationship (without controlling for levels of modernization or the legal recognition of same-sex unions) between social acceptance and levels of perceived discrimination. It illustrates visually just how strong this connection is.

Figure 7. The correlation between social acceptance and the level of perceived discrimination among LGB people in European countries



#### The indirect effect of modernization and the legal recognition of same-sex unions on levels of perceived discrimination

In chapter two, the expectation was formulated that the effect of levels of modernization and legislative protection on levels of perceived discrimination are not just direct. Rather, both of these factors were assumed to influence levels of social acceptance - which should in turn bring down instances of actual discrimination and, finally, levels of perceived discrimination. That is why the following hypothesis was formulated:

*H4. The effects of modernization and the legal recognition of a same-sex union on levels of perceived discrimination among LGB people, are reduced when controlling for social acceptance*

The mechanism described by this hypothesis seems even stronger than expected. The effects of modernization and the legal recognition of same-sex unions are statistically significant in models one and two, but are no longer statistically significant when social acceptance is introduced in model three. So the strength of the effects of these variables is not just reduced, but completely disappears when social acceptance is introduced into the model. This could indicate that deeper social changes like modernization and the legal recognition of same-sex relationships are two structural elements that drive changes in attitudes about homosexuality. That these results are consistently corroborated by other studies that explain such attitudes, further reinforces this conclusion (Akker et al., 2012; Barron & Hebl, 2010; Hooghe & Meussen, 2013; Kuntz et al, 2014). Of course, social acceptance may also influence the chance that a government introduces legislation that legally recognizes same-sex unions, but recent and sophisticated temporal studies show that the effect goes both ways (ibid).

### Assessing the model

The above discussion has not addressed possible problems with the statistical model. Given the low number of cases and the fact that a large part of the analysis depends on the modeling of proportions, a discussion of some possible problems with the model is warranted. The importance of meeting the assumptions of linear regression is further reinforced by the fact that this part of this study hinges on the regression analysis in model three.

The first possibly problematic issue is that correlations with a proportional dependent variable are usually not linear, but rather assumed to be s-shaped. Such a distribution is usually linear between the .2 and .8 values, however (Grace-Martin, 2015). Moreover, a simulation study indicates that whilst this distinction may be of theoretical importance, logistic modeling is used for such variables hardly influences the estimated equations (Hellevik, 2007). Since levels of perceived discrimination range from 30 to 60 percent, a linear model may thus be appropriate. The correlation between social acceptance and perceived discrimination displayed in figure 7 suggests that a linear model can approximate the



relationship effectively. In other words, the assumption of a linear effect holds up to closer scrutiny. A second problem with fitting a linear model to proportional data, is that a linear model has no theoretical boundaries, where a proportion (or percentage) has a clear range. This means that models may produce non-sensical predictions (for example 140 percent) (Hellevik, 2007). At first glance, this seems to be the case in model one, which has a baseline level of perceived discrimination of 119 percent. Substantially, this would mean that we depart from a point in which 119 percent of all LGB people have perceived discrimination in the year preceding the survey - which makes no sense. The negative coefficient of modernization, and the fact that all modernization scores fall between .683 and .851, however, means that in practice the model predicts values between 0 and 100 for all countries. The same holds for models 2 through 4, where the model consistently predicts levels of perceived discrimination within the 0 to 100 percent range.

Secondly, a first glance at the residuals in model three suggests that there may be some linear heteroskedasticity in the model (see appendix 2). This could be a problem as it suggests that a linear model would not be the most-efficient way of analyzing the data. A Breusch-Pagan test of the relationship between the residuals and the (combined) independent variables, however, produces a chi-square value of 1.296. This means that there is no significant (linear) heteroskedasticity in the model (Breusch & Pagan, 1979; following recommendations by Broms, 2013). Additionally, the errors were - even if not perfectly - rather close to normally distributed. The absence of perfect normality may produce some bias in the estimation of the p-values (significance), but the fact that the effect of the social acceptance on perceived discrimination among LGB people has very low p-values, suggests that it would remain significant even if there is some inaccuracy in its estimation (Allison, 1999, p. 131).

Thirdly, the fact that the independent variables were assumed to affect one another, could lead to problematic multicollinearity. All VIF values in the third model were between 2.4 and 3.6, which means this was not a problem.

Fourthly, there is another issue that could bias the results. One may expect that in countries where the legal protection and social acceptance of homosexuality is high, LGB people are more likely to perceive an incident (for example, name calling) as discriminatory. This might increase levels of perceived discrimination in countries with high levels of social acceptance, thus suppressing the effect of social acceptance on perceived discrimination. Once again, the strong effects that were found suggest that this has either not influenced the results - or if it has - that the effect is even stronger than suggested here. When looking at the results in figure 7, this mechanism may have a role in explaining why LGB people in Sweden (the most accepting country) and Czech Republic (a moderately accepting country), report very similar levels of perceived discrimination - even if this is a rather speculative assertion on the basis of the data presented here.

Finally, there are no large differences between models three and four. The fact that the relationships are all still in the expected direction when another measure for social acceptance is used and when Italy is included in the analysis, indicates that the results are rather robust.

All in all, the models presented in table 4 hold up well to further scrutiny and seem to meet the assumptions of linear regression. This increases confidence in the results that were found here.

## Chapter 6: Conclusion

This final chapter first provides an explicit answer to the methodological research question and discusses its academic implications. Subsequently, an answer is given to the second research question. This answer is then connected to the existing literature and several possible directions for future research are outlined. The conclusion then moves on to give several policy recommendations, which are important for national government institutions, EU policy and anti-discrimination programmes and LGB advocacy groups working on (combating) discrimination among LGB people.

### Answers to the research questions and future research

This thesis set out with two separate-but-related goals and corresponding research questions. The first was about surveying the LGB population in cross national surveys, the second used the results of this question to perform a cross-national analysis. The first research question was the following:

- 1. To what extent are the EU FRA LGBT survey and the Special Eurobarometer waves reliable and valid survey approaches to measure perceptions of LGB discrimination in cross-national studies?*

Answering this question for the Special Eurobarometer waves is relatively straightforward: it is in no way a valid or reliable way to measure levels of perceived discrimination among LGB people in the EU. The number of people who indicated that they were LGB in a country strongly correlated with the social acceptance of homosexuality, which indicates that in countries where there is more bias against homosexuals (and where more discrimination is to be expected), less people are more likely to report discrimination. As such, there is a high likelihood that there are problems with the internal validity of this approach, as its attempt to measure levels of perceived discrimination, is disturbed by other factors. That the correlation between social acceptance and perceived discrimination disappears after a certain level of social acceptance, does suggest that this less of a problem in some countries. Moreover, no discriminated individuals were found in several countries - all of which were

in Eastern Europe, which does not bode well for the external validity (generalizability) of the survey's findings. Combined with the very low number of respondents in some countries and the high number of respondents in others, it also raises questions about the reliability of the survey approach. Asking one or two other people who did perceive discrimination could strongly impact the found level of perceived discrimination in many countries, if the study was repeated. This raises the question whether future waves of the Eurobarometer survey should continue to include these survey items – since they cannot be used for meaningful analysis.

In comparison, the EU FRA survey performs much better. Apart from the practical fact that it constitutes a much more (cost) effective way of reaching a substantial number of LGB respondents, there is no relationship between social acceptance and the number of respondents, once other factors are controlled for. The (anonymous) internet-based approach may be at the heart of this. The significant impact of internet access in a country on the number of respondents in that country, does indicate that there are some problems with the survey's internal validity (do people without internet have the same experiences with discrimination as those with internet?) and external validity (can findings on people with internet access be generalized to those who do not?). The fact that internet access had a relatively weak effect when compared to the population of a country, suggests that although there is a problem, it is not very large. The population size of a country is very highly correlated to the number of responses in each country. This indicates that a similar sample was reached in each country. In spite of this, there may still be some problems with the validity of the survey in the sense that these samples may still be biased at the individual level. Since so little is known about the LGB population and because the individual level data was not available at the time of writing, however, it is not possible to further assess this. Finally, repeating the survey is, in part due to the large number of responses in each country, likely to lead to very similar outcomes - an indication that the survey is reliable.

All in all then, the EU FRA LGBT survey is not without validity issues, but is clearly the better of the two surveys that were investigated in this thesis. Especially the finding that the approach of (face to face) surveying the entire population leads to few LGB respondents and a very biased composition of the sample, is important. Future academic studies should be much more sensitive to the effects that the chosen research methods have on their results – as not doing so could seriously damage the quality of the analysis. A way to further increase our insights in the merits of different methods, and to compare levels of discrimination in different countries, may be to perform cross-national field-experiments that send out large numbers of job applications and comparing response rates between LGB and non-LGB groups. Such approaches are becoming increasingly popular in national studies and find that discrimination is indeed much lower in countries like Sweden (Ahmed et al, 2011) and the UK (Drydakis, 2015), than in Austria (Weischelbaumer, 2003), Italy (Patacchini et al., 2014) , Greece (Drydakis, 2011), and Cyprus (Drydakis, 2015). Since these studies do not use fully comparable methods, one should be careful in comparing them, however. Even with one approach for all countries in a larger effort, differences in the composition of labor markets, the overall economic situation and translation issues make such an experimental approach much more complicated than it may seem at first glance.

Having concluded that the EU FRA LGBT Survey is - at least for the time being - the most appropriate approach for measuring levels of perceived discrimination among LGB people, this thesis went on to answer a second research question.

*2. How can variations in levels of perceived discrimination among LGB people in European Union countries be explained?*

In short, the results of this study indicate that social acceptance is a key - and thus far ignored - element in explaining the extent to which LGB people perceive discrimination in different countries. This study shows that social acceptance has a very strong impact on average levels of perceived discrimination in Europe. Moreover, it is very likely that higher levels of social acceptance reduce the amount of actual of discrimination that LGB people

face in a country - which in turn reduces levels of perceived discrimination. In addition to this there are indications that both the level of modernization in a country and the legal recognition of same-sex couples, indirectly contribute to reducing levels of perceived discrimination *through* the social acceptance of homosexuality. It should be noted that the findings of this study may only partially extend to parts of the LGB population that do not have internet access – even if it seems likely that the causal mechanisms in this thesis apply equally across the entire LGB population in a country. Moreover, the relatively low number of cases, combined with the unavailability of individual-level data, means that other possible factors that influence social acceptance were not included in this study. So even if a short answer to the research question is that social acceptance is a very (if not the most) important element in explaining average levels of perceived discrimination among LGB people in European Union countries, such an answer is necessarily somewhat incomplete. Especially individual level factors may also play a role that could not be examined in the present thesis.

The strong support that was found for the importance of social acceptance further suggests that country-level factors are important causes of levels of perceived discrimination - and that they merit more academic attention. In order to discuss possible ways of doing this, the following section connects these findings to the academic debate and provides some directions for future research.

A first thing that becomes apparent is that - especially for a group that has been and continues to be stigmatized - there are society-wide mechanisms that play a key role in understanding differences in levels of perceived discrimination across countries. This thesis' finding that social acceptance is such a key element, means that the many studies that have sought to explain social acceptance, (Akker et al., 2012; Barron & Hebl, 2010; Hooghe & Meussen, 2013; Kuntz et al, 2014) immediately become relevant for explaining levels of perceived discrimination among LGB people. Future studies of social acceptance would thus do well to further expand their scope to the impact on the levels of perceived discrimination among LGB people.

This thesis illustrates the benefits of more substantially applying theoretical frameworks to the analysis of perceived discrimination. With a few exceptions (Rose Ragins & Cornwell, 2001), most studies have only tested one or two causal arguments, or simply departed from the empirics. One direction for future research could follow the setup in this thesis by developing multilevel models of levels of perceived discrimination. As more cross-nationally comparable survey data becomes available in the future, such multilevel (statistical) models would be able to capture and further shed light on the different contexts in which LGB people experience discrimination. Especially if such models continue to conceptually separate the difference between actual and perceived discrimination, this could provide a significant improvement in our understanding of the dynamics around perceived discrimination.

Another element that this thesis did not address, is the possible impact of legislation that is aimed at banning discrimination. In part, this was done because all European Union countries have bans on discrimination on the grounds of sexual orientation in place and variation in the sample was thus very limited. The legal and policy frameworks around LGB (TQI) issues are different in different European countries (ILGA Europe, 2015) - and the impact of this variation would constitute an interesting venue for future research. In this light, it is interesting to not just look at countries that have different anti-discrimination policies in place, but also policies like those in Lithuania and Russia where legislation was introduced that bans the 'promotion of non-traditional families' (Russia) or the 'promotion of other family compositions than those outlined in the constitution' (Lithuania) among minors. Similarly, no scholarly attention has - yet - been paid to the effectiveness of the EU's role in combating discrimination among LGB people, even though it is an EU competence. Although such policy and legislation-related elements should be further investigated in future studies, the findings of this study can be translated into several policy recommendations, which are presented below.

Finally, this thesis did not analyze the experiences of TQI individuals. This is an omission that is present in most academic work on all kinds of issues. As such, the academic world (and this thesis) is currently largely ignoring parts of the population. Investigating whether the mechanisms that were found in this study (and other studies) also apply to TQI people would begin to address this very pressing gap in the literature.

## Policy recommendations

This section presents two kinds of policy recommendations. The first are recommendations for professionals who want to use or gather data on perceived discrimination among LGB people for policy purposes. This thesis shows that surveying the LGB population is difficult, but can be very useful in understanding the discrimination of LGB people. The choice of data-collection method is crucial for the quality of the data. The second are recommendations for those who develop and implement programmes that seek to combat both discrimination and stigma concerning homosexuality.

### Recommendations for data-collection

- There are country-level mechanisms that impact the daily lives of LGB people. [Prioritizing the collection of cross-national data](#) is thus important for policy makers on all levels – as national level surveys do not capture all relevant aspects.
- [Internet based surveys constitute a relatively effective way of performing such surveys](#). They limit the amount of bias, when compared to face-to-face surveys. More attention should be paid to the extent that such surveys may over-estimate levels of discrimination, however (see also: Fernee & Keuzenkamp, 2011).
- Using large face-to-face surveys of the entire population to achieve a sub-sample of the LGB population is [not an effective strategy](#).
- Future efforts should [explore alternative research methods](#). One example are field experiments with job applications. It is paramount that the results of new data collecting efforts are compared to existing data to analyze the value of new and existing data.



## Recommendations for policy makers

- Efforts to fight discrimination should target social acceptance. Programmes that increase social acceptance bring down perceived discrimination and thus increase the health of LGB people.
- This thesis shows that the effects of anti-discrimination programmes (i.e. in schools, companies) can be made evidence-based if perceived discrimination is measured accurately.
- Salient policies like same-sex unions do not only constitute a more equal treatment of LGB people in themselves, but seem to have a society-wide effect on the acceptance of homosexuality. Through the subsequent reduction of perceived discrimination, they contribute to an improvement of the health of LGB people.
- Increasing the social acceptance of homosexuality and thus bringing down perceived discrimination could be a cost-effective strategy. Since perceived discrimination has a clear and negative impact on both physical and mental health, reducing discrimination could reduce health care costs and include more LGB people in the labour market. Of course, this argument does not replace normative reasons for reducing discrimination as much as possible.

## Concluding remarks

On a final note, this thesis demonstrates the need for further efforts - both methodological and theoretical, to understand an important societal issue. In many parts of Europe, LGB people still face much stigma and discrimination, which impacts both their physical and mental health. Learning how to reduce this stigma and discrimination is a key element in improving the lives of LGB people across the European Union. This thesis demonstrates the importance of addressing the social acceptance of homosexuality and the value of a more theory-driven, cross-national approach to explaining different levels of perceived discrimination across countries. It also shows that the rapid changes in public opinion about homosexuality have probably had a very positive impact on the lives of people in large parts of Europe. One can only hope that trend will continue.

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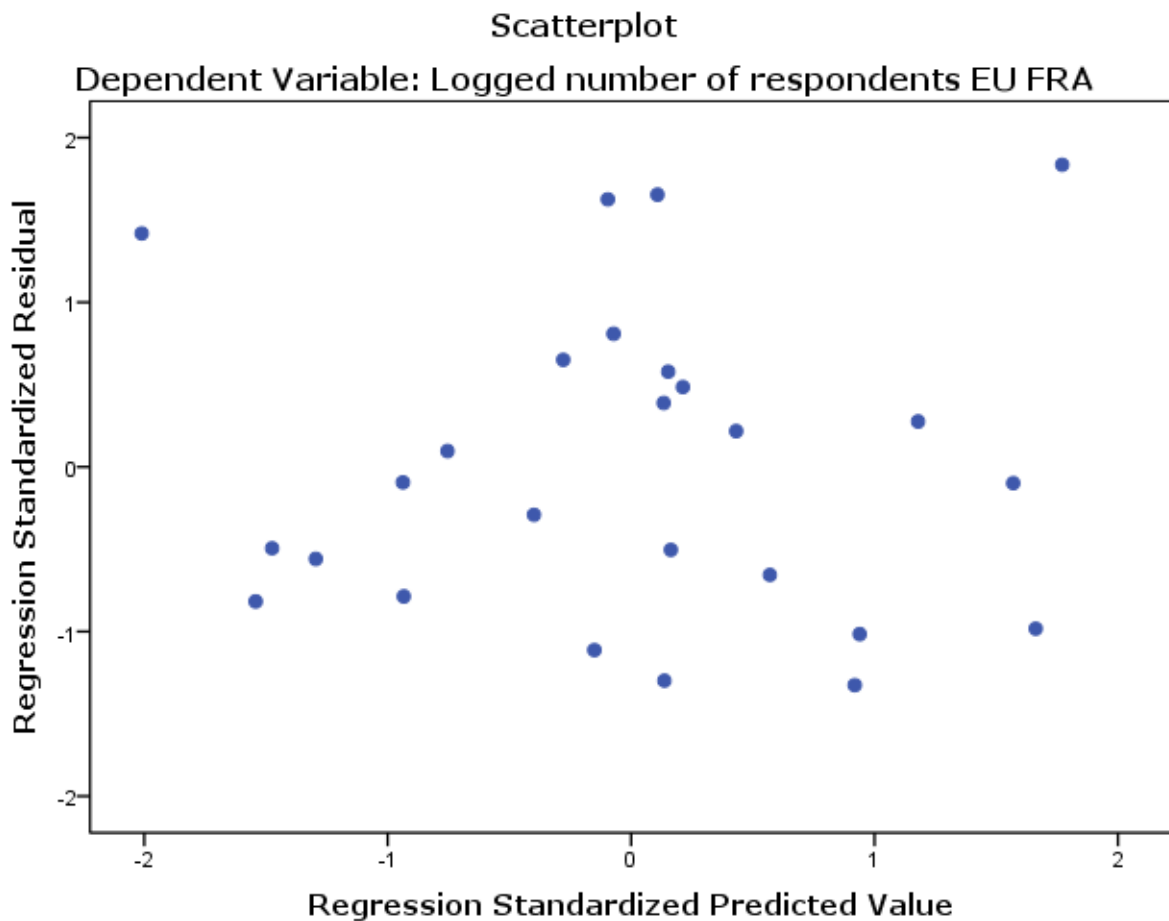
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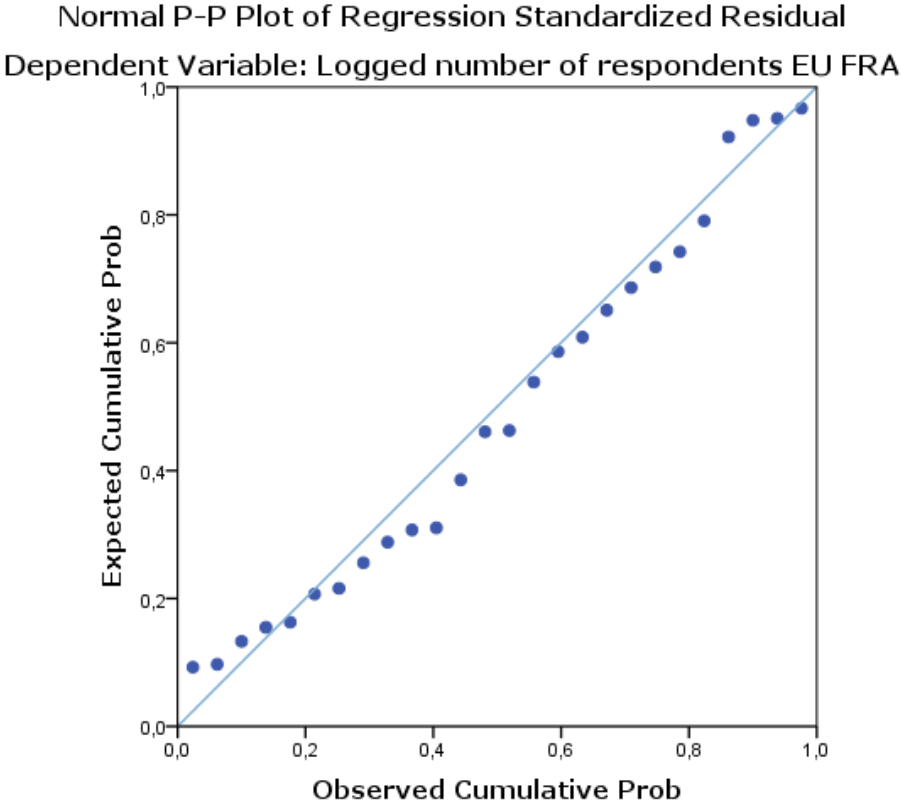
## Appendix 1

This appendix discusses the extent to which the third regression model of the effect of (logged) population, the social acceptance of homosexuality and internet penetration on the (logged) number of respondents to the EU FRA LGBT survey, meets the assumption of linear regression. The first thing that should be noticed is that with all VIF values between 2.850 and 3.392, there is no problematic multicollinearity in the model.

Furthermore, the scatterplot of the regression standardized residuals against their predicted values for this regression model does not indicate the presence of heteroskedasticity in the model.



Moreover, in order to test the normal distribution of the residuals, the P-plot below charts the standardized residuals on the dependent variable, against their predicted value if they were normally distributed. The more the dots (standardized residuals per case) follow the line, the closer they are to a normal distribution. Although there is some divergence from the line, the general distribution seems normal. Moreover, a non-normal distribution of the errors mainly impacts the significance of the findings. The fact that the variables in the model (especially logged population and social acceptance) tend either have very high or very low P-values, suggests that this is not problematic for the interpretation of the results (Allison, 1999, p. 131; Field, 2013, pp. 348 – 350).



## Appendix 2

Below is a scatterplot of the regression standardized residuals against their predicted values. Based on a regression of the effects of modernization, the legal recognition of same-sex unions and the social acceptance of homosexuality, on levels of perceived discrimination in EU countries. That cases seem to be spread out more across the Y-axis, as the values on the X-axis increase, this could indicate linear heteroskedasticity. A Breusch-Pagan test revealed that this was not the case, however.

