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ABSTRACT

In this article, we investigate changes in public opinion in the Netherlands toward two controversial issues: homosexuals and euthanasia. We find that a rapid decrease in opposition to both issues in the seventies and early eighties was followed by a period of a stable minority opposition. We identify relevant period and cohort indicators to test which characteristics are associated with the changes in the attitudes. We collected period and cohort characteristics that are applicable to both of the attitudes, but specific attitude-related circumstantial conditions as well. For both attitudes, it turns out that the changing composition of Dutch society with regard to religiousness accounts for the largest changes in public opinion. Furthermore, we find that the influence of religion on both the attitude towards euthanasia and the attitude towards homosexuals became stronger over time, whereas the influence of educational attainment weakened over time.

'Men cannot live with the horrors of Holland’, according to the American columnist and philosopher, John Mark Reynolds (2004). He is referring to Dutch regulations regarding euthanasia and he is no exception. Many more local newspapers, radio stations, and websites in the United States share his view on Dutch morality concerning life and death issues. But euthanasia is not the only issue on which the Dutch have extraordinary legislation. The Netherlands was the first country in the world to grant, in 2001, same-sex couples the right to marry. Political leaders in all modern countries have to deal with ethical issues. One way to cope is to ignore certain practices, another is to fight them. Currently, the typical Dutch way is, perhaps, to find pragmatic solutions that are rather liberal from a foreign perspective. This liberal way of dealing with ethical issues now applies to many issues.
in the Netherlands, such as prostitution and soft drugs but also to euthanasia and homosexual rights. Euthanasia and same-sex marriage have both been legalized recently. The liberalization of the legislation on these two issues has often been subject to criticism from the Vatican, as well as from Western conservative think tanks. We will investigate the changes in Dutch public opinion toward these two controversial issues. Although the recent legal changes concerning euthanasia and homosexual life are visible, from outside the country as well, less is known about the changes in Dutch public opinion toward euthanasia and homosexuals over the past decades. Van de Meerendonk and Scheepers (2004) showed increasing support for gay rights. This contribution aims to describe and explain the changes in aggregate attitudes toward euthanasia and homosexuality in the Netherlands since the early seventies. We will identify social developments that played a role in shaping Dutch attitudes to the two issues. Our first research question reads: How have attitudes toward euthanasia and homosexuality developed in the Netherlands over the period 1970–1998, and how can these changes be explained?

The second question we pose is to what extent influences of individual-level characteristics have changed over time. In previous research (e.g. Gill, 1998; Kelley, 2001; Van de Meerendonk & Scheepers, 2004), many individual attributes have been shown to relate to the attitudes under study. We will focus in particular on the predictors that have shown to be strongest in previous research: education and religion. Since we expect that the composition of both the religious and the lowly educated group in Dutch society has changed over time, for instance with regard to age and sex, we expect that the influences of religiousness and educational attainment have changed over time as well. We will investigate how the influences of religion and education on attitudes toward euthanasia and homosexuality have changed over the last 30 years? Legislation on both euthanasia and a homosexual lifestyle has become more tolerant and accommodating, and aggregated attitudes on these two topics show similar patterns over time. As not all readers will be familiar with our subject, we present a short overview of the history of euthanasia and homosexual life in the Netherlands, as well as the general trend in attitudes since 1970.

BACKGROUND OF THE TWO ISSUES

Euthanasia

It was not until after the Second World War that euthanasia was introduced in the Netherlands as a topic of debate. Partly because of the Nazi concentration camp practices, which were filtering through to a large audience, the general attitude toward euthanasia in those days was very negative.
The first court case in the Netherlands took place in 1952, when a physician stood trial for assisting in his tuberculosis-infected brother’s death. He was sentenced to one-year probation (Weyers, 2002). Between 1970 and 1984 the discussion intensified; a state committee was installed to research the pros and cons of euthanasia in 1982. In 1984, a bill was proposed by the MP Wessel-Tuinstra. But the general belief was that her proposal came too soon, as the state committee had not finished its research yet. On July 9, 1985, the state committee on euthanasia proposed to change legislation, in order to free health professionals from prosecution when they assisted in voluntary end-of-life decisions concerning terminally ill patients in unbearable need (Staatscommissie Euthanasie, 1985). However, the Christian Democrats in government were not willing to remove euthanasia from the penal law. In 1988, a government coalition of Christian Democrats and Liberals brought a bill to parliament in which euthanasia remained a criminal act, but individual physicians were freed from prosecution if they acted meticulously (Weyers, 2002). In 1991, Huib Drion, former vice-president of the Supreme Court, suggested a ‘suicide-pill’, which should be made available to all elderly Dutch citizens (Hollak, 2000). His suggestion led to a heated debate, with his supporters being in the minority. In 2002, euthanasia was removed from penal law by a government of Social-Democrats and Liberals. The process of legal change induced more public debate from 2000 until 2003. Currently, the debate flares up from time to time, on topics such as the right to self-determination of terminally ill children versus the rights of parents to decide on the lives of minors.

The general trend in the attitude toward euthanasia shows a declining resistance over time, although the pattern fluctuates somewhat (Figure 1). Since the early nineties, the proportion of Dutch citizens who oppose euthanasia seems to have been stable at about 10 percent.

**Homosexual Lifestyles**

Since the introduction of Napoleonic laws in 1811, church and state have been separated in the Netherlands, leaving homosexuality morally unwanted and condemned, but legally allowed. Homosexuals led a secretive life, usually from within a heterosexual marriage (Hekma, 2004). However, the Dutch Christian-Democrat Minister Regout sharpened the Indecency Act in 1911 by adding a minority clause. Sexual acts for same-sex couples were henceforth considered criminal if one of the partners was younger than 21, while for opposite-sex couples, the legal age was set at 16. Homosexuals were persecuted from this point on, with a sad height during Nazi occupation.

In 1946, the Scientific-, Cultural-, and Relaxation-Shakespeare Club (WCOSC) was founded as a meeting body for homosexuals. Until the early sixties, the members of the WCOSC led a hidden life, but from 1962 onwards,
the club began to openly promote integration of homosexuals into mainstream society (Duyvendak, 1994). In 1964, the WCOSC changed its name into the ‘Dutch Society for Homosexuals COC’. They fought for the abolition of article 248bis, the minority clause, and for equality (Hekma, Kraakman, Van Lieshout, & Radersma, 1989). In 1971, article 248bis was abandoned, and in 1973 the COC received royal recognition.

In the 30 years, after 1971, homosexuals in the Netherlands have gradually emancipated, through a combination of segregation and integration (Duyvendak, 1994). More radical homosexual organizations were erected in the late sixties and in the seventies, organizations proud of their individuality and struggling, not for acceptance in mainstream society, but for the establishment of their own culture. In 1982–1983, after incidents on ‘Pink Saturday’, a homosexual event, an anti-discrimination bill was instated, recognizing the rights of (among others) homosexuals not to be discriminated against. The AIDS-epidemic in the eighties led to a renewed focus on the particularities rather than the ordinariness of homosexuals, especially males, since they seemed to be particularly vulnerable to the virus, leading to a temporary break in COC’s integration efforts. In 1997, same-sex couples were granted the right to live in so-called registered partnerships, which were very similar to civil marriage. In 2001, civil marriage and the right to adopt Dutch children was extended to include same-sex couples (Staatsblad, 2001). However, homosexuals still experience individual discrimination or opposition, mostly from strict Protestants and Muslims. In 2004, the government evaluated the emancipation of homosexuals and concluded that although legal emancipation was near completion, social acceptance was wavering (Ross, 2004).

The attitude toward homosexuals rapidly became less negative in the seventies, and has been more or less constant ever since, as can be seen in Figure 1. Since 1986, only about 7 percent of the Dutch have felt that homosexual lifestyles should be opposed.

THEORETICAL CONSIDERATIONS

COHORTS AND COMPOSITION

A macro trend toward more cultural progressiveness in the Western world is often explained in terms of cohort replacement. For Inglehart (1977, 1990) socialization in different eras, by which he means the difference between post- and pre-World War II periods, offers an explanation for the macro trend toward more post-materialist values. According to him, the age differences often found in value orientations reflect the differences in socialization in different circumstances and with different influences. Subsequent birth cohorts were socialized in different eras and are therefore expected to have
different attitudes. In this tradition, change in the aggregate attitudes of the population is explained by the rise of new generations and the disappearance of the older one. One could regard this as a change due to contextual circumstances, although Inglehart’s theory also contains a compositional component.

Alwin (1990) stressed the importance of distinguishing between two types of generational replacement: One where subsequent birth cohorts have experienced a different socialization in a different context and another one due to changing numbers of individuals with certain individual attributes in society. As cohorts differ in the degree to which certain individual characteristics are represented, the changing relative number of individuals with a certain characteristic in society leads to macrolevel changes. One of the clearest examples is educational level, as later birth cohorts are, on average, much more highly educated than earlier birth cohorts. And educational level, as we shall argue in the next section, is one of the more important predictors for liberal socio-cultural attitudes. As relatively more highly-educated individuals make up a society due to cohort replacement, the socio-cultural attitude associated with a higher education will be more prevalent on a macrolevel.

Cohort replacement, however, cannot explain all changes in socio-cultural attitudes. The process of the changing composition of a society is a slow one and does not account for some of the more rapid changes in average socio-cultural attitudes. One would need very large differences in attitudes between

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**Figure 1** Trends in aggregate attitudes towards euthanasia and homosexual lifestyles in the Netherlands, 1970–1998

- Opposing euthanasia
- Opposing homosexuality

*Question wording:* ‘Suppose a doctor can end someone’s suffering on this person’s own request by giving a shot. What do you think the doctor should do?’ and ‘Do you think that homosexuals should be allowed as much as possible to live their own lives or should they be discouraged?’

*Source: Cultural Changes in the Netherlands, various years*
the extreme cohorts to account for any significant change in the overall average (Heath & Martin, 1996). Heath and Martin (1996) presented evidence against the idea that older people are more resistant to attitude change. They found that older generations, born before the Second World War, show at least as big a shift toward a more liberal view on abortion as did some of the younger generations. Alwin and Scott (1996) found that the growth of profeminist attitudes during the 1970s and early 1980s was primarily operating through intra-cohort factors, rather than inter-cohort replacement, which is why others have emphasized the effects of periodical circumstances (e.g. Kraaykamp, 2002). Periodical circumstances affect all individuals alive and of age at a specific time, so different cohorts should undergo the same changes. Previous research provided strong evidence for the existence of both period and cohort explanations of changes in attitudes toward homosexuals (Van de Meerendonk & Scheepers, 2004).

The change in socio-cultural attitudes is related to the general age-period-cohort identification problem. Identification of period- and cohort-effects is in itself not meaningful because of their mutual dependency. De Graaf (1999) argues that ‘(...) to know whether a generation (...) effect exists, gives less information than knowing if the characteristics specified (...) indeed affect the development of (...) values.’ In this article, a more theoretical approach will therefore be applied by replacing periods and cohorts as historical times with more theoretically relevant indicators. Period effects will be replaced by societal conditions and coalitions in government. Cohort effects will be interpreted in terms of changing composition (for example, the changing level of education in the population) or by differences between cohorts in socialization with or without Christian led governments.

**HISTORIC CIRCUMSTANCES**

In theories on public opinion, a central assumption is that elites have influence on individuals’ attitudes (Converse, 1964; Zaller, 1990). The idea that elites—such as government leaders and the like—determine what and how the public thinks, is highly accepted in public opinion research. In particular, when people do not have strong attitudes, they are likely to apply the attitudes kept by dominant institutions one is either member of or identifies with (Zaller, 1992). Individuals or institutions with moral authority not only tell people what is right and what is wrong, but offer an organized belief system of attitudes not biting each other (Zaller, 1990). For some, the church may provide this moral leadership, while others might turn to the dominant political ideology for their opinions. The stances of these institutions will be mirrored in the differences between members or identifiers versus non-members and non-identifiers. However, the theoretical approach on this subject holds that the influence goes beyond individual membership. When an
intermediate group is more dominant, it is expected to affect non-members as well as members, especially when the subject is not directly salient to everybody.

Over the course of the twentieth century, the Netherlands have seen a decline in church membership that intensified from the 1960s onwards (Scheepers, Te Grotenhuis, & Bosch, 1999; Wolters & De Graaf, 2005). Fewer people are thus likely to depend on normative leadership from the churches. Christian doctrine condemns both euthanasia and homosexuality. Although some Dutch churches allow some freedom for homosexuals, most oppose equal rights for this group (Hekma, 2004). With advancing secularization, the churches have gradually lost a large proportion of their influence on public debate and politics. Although churches still lobby, there is less attention from the media for their points of view. Thus, as secularization progresses, negative attitudes toward euthanasia and homosexuals diminish, as was shown in Figure 1.

EXPECTATIONS: TIME MATTERS

TIME MATTERS: CHANGING COMPOSITION

There is abundant empirical evidence that individual characteristics influence the attitudes people have on a wide range of topics, including euthanasia (Leinbach, 1992; Gilman, Merrill, & Reid, 1997) and homosexuals (Kelley, 2001; Van de Meerendonk & Scheepers, 2004). As the composition of Dutch society has changed over the last 30 years, with regard to some of these individual characteristics, part of the change in attitudes toward these issues might be explained in terms of this changing structure of the population.

Religion and education were found to be particularly important predictors of both attitudes under study. Individual religiosity influences attitudes toward homosexuality (Kelley, 2001) and euthanasia (Leinbach, 1992; Gilman et al., 1997) negatively. Religious individuals are more exposed to the opinions of the church, and they attach more value to these opinions, than non-religious individuals do. Since all denominations in the Netherlands are opposed to euthanasia and homosexual behavior to at least a certain degree, all Dutch citizens who belong to a religious denomination are more likely to have negative attitudes toward euthanasia and homosexuals. Education was found to be an important predictor for ‘homosexual tolerance’ as has been shown by Persell, Green, and Gurevich (2001). Educational attainment is considered to represent conceptual complexity and sophistication of the reasoning process, necessary for developing the willingness and ability to extend civil liberties to non-conformist groups by a ‘sober second thought’ (Bobo & Licari, 1989). This sober second thought should then lead to more tolerance for those who differ from the norm, and the higher educated are thus expected to have less
negative attitudes toward homosexuals. A possible explanation for the empirical finding that the higher educated are less opposed to euthanasia, is the increased sense of control the higher educated have over life. Because of their decreased level of fear, higher educated will be less opposed to euthanasia.

Having outlined two of the most important predictors of our attitudes under study, it is clear that changes in the composition of a society with respect to these characteristics may explain some of the macrolevel changes: The changes over time in attitudes toward euthanasia and homosexuals can be explained by the changing composition of society with respect to educational attainment and individual religiosity (Hypothesis 1).

TIME MATTERS: SPECIFIC CIRCUMSTANCES FOR SPECIFIC ATTITUDES

It can be argued that individual attitudes are influenced not only by moral leadership from the churches, but by another source of moral leadership as well, namely the government. People are influenced by visible others, such as ministers who appear on television. Although it is sometimes reasoned that the people determine the political agenda (Lipset, 1981), Heath, Jowell, Curtice, and Evans (1990) present evidence that new ideas are often spread top down. It is the politicians who, to a considerable extent, affect attitude change in the general population. The Christian parties take an outspoken position in the Dutch political climate concerning euthanasia and homosexuals (Weyers, 2002). The Christian Democrats are—obviously—more opposed to euthanasia and homosexuality, whereas the Liberals and Social Democrats emphasize individual freedom in sexual and life-and-death decisions resulting in a positive attitude toward both euthanasia and homosexuals. The policies and decisions the government makes may influence the attitudes of the public: The more Christian Democrats in government, the more the public is opposed to a) euthanasia and b) homosexuals (Hypothesis 2).

From generation theory (Mannheim, 1952), it follows that the circumstances during one’s formative years are of overriding importance on attitudes in later life. This socialization assumption has been adopted by many social scientists (Inglehart, 1990; Alwin & Scott, 1996; Heath & Martin, 1996). The notion of persistency of attitudes over the life course can be used to derive hypotheses on socio-cultural attitude change from a different angle. From this viewpoint, changes in public opinion are due to cohort succession: the disappearance of earlier cohorts and the rise of later cohorts, socialized in different eras. We expect that the government, as a source of moral leadership we identified, has an influence on the formation of attitudes during the socialization period: Individuals socialized in times with more Christian Democrats in government have more negative attitudes toward a) euthanasia and b) homosexuals (Hypothesis 3).
Changes in attitudes toward euthanasia and homosexuals are not only expected to be the results of the influence of changing governments, but of specific changes related to questions regarding euthanasia and homosexuals as well. With regard to euthanasia, it is obvious that medical developments can increase or decrease demand. With progressing medical knowledge, life-expectancy increases. This may entail that, while living longer even with serious illnesses, people may live with a decreased quality of life. If people are confronted with an increasing possibility of a long and slow process of dying, the demand for euthanasia might increase, as most people prefer a quick and painless death. We consider nursing homes to be the typical institutions dealing with long and slow deathbeds. In spite of the discussion on the quality of these homes in the Netherlands, people may fear a long period of low quality of life as well as helplessness. We acknowledge the fact that governments may try to influence the number of nursing-home beds for reasons of budget cuts, resulting in a decrease in beds without the accompanying decrease in people living with serious illnesses. However, we still expect that the more nursing-home beds are available in Dutch society (relatively speaking), the more people visit family and friends in these institutions and are confronted with patients in helpless and dependent situations. For some, this prospect may be so gruesome that they consider euthanasia for themselves a viable alternative to ‘vegetating’. In times, with relatively more nursing-home beds, attitudes toward euthanasia are less negative than in times with relatively fewer nursing-home beds (Hypothesis 4).

We also hypothesize that specific periodical circumstances might influence attitudes toward homosexuals. The emancipation of homosexuals started in the 1960s, when the organization for homosexuals (COC) began to openly promote the integration of homosexuals into mainstream society. Although the emphasis switched between integration and segregation, COC has been a constant factor in homosexual life in the Netherlands. COC was a very successful organization compared to similar organizations in other European countries, and was even involved in the foundation of some of these (Warmerdam & Koenders, 1987). The more members the COC had over the years, the larger their influence could be on public opinion toward homosexuals. Some might argue the other way round, that a tolerant climate would increase the number of COC memberships. We agree that a more tolerant climate would increase the proportion of openly gay individuals and homosexuals coming out of the closet. However, fears of disclosure as a homosexual by becoming a member of the COC were probably not very likely, as the membership was anonymous, with the exception of board members. If anything, we would expect the membership counts of this interest group to decrease when there is less opposition in society. And although tolerance
toward homosexuals is widely spread in Dutch society, COC is not experiencing any increase in memberships, but rather the opposite. We thus expect that the volume of individuals represented by the COC enlarges the influence the COC had on public opinion: The more members the COC has, the less negative attitudes toward homosexuals (Hypothesis 5).

In the eighties, AIDS affected the homosexual community in particular. The seriousness and seeming exclusiveness of this disease may have led to more negative attitudes toward homosexual lifestyles. A large body of research investigated the relationship between fear of AIDS and homophobia. Although the emphasis was more on the effects of homophobia on fear of AIDS or support for discrimination of AIDS patients, evidence for correlation was strong and consistent in all studies (Kunkel & Temple, 1992; Price & Hsu, 1992; Magruder, Whitbeck, & Ishii-Kuntz, 1993). We consider it very convincing that the causality between fear of AIDS and homophobia should work both ways: The stronger the growth in the number of AIDS infections, the more negative are the attitudes toward homosexuals (Hypothesis 6).

**Time Matters: Changes of Individual Level Effects Over Time**

Concentrating on the two main predictors of attitudes toward euthanasia and homosexuality—education and religion—(Coleman, 1980; Kelley, 2001), we expect altered effects over time. As educational chances increased for all classes, the lowly educated became a more homogeneous category of people with fewer skills and fewer opportunities (Gesthuizen, 2004). In earlier periods, people from lower backgrounds did not go through secondary and tertiary school, as they had to start working, no matter how talented they were. At present, almost all children have some sort of secondary education as they are of school age until they reach 16. The difference in capacities between the lowly and highly educated has increased. Lowly educated today are therefore expected to differ more strongly from the more highly educated in their attitude toward euthanasia and homosexuality than before, even if the lost exclusivity of a higher education lowered the tolerance of people in this latter category. Similarly, we expect that religious people today are a more selective group than they used to be, so that religious people nowadays are ‘more religious’ than before. Those with more religious doubts, or who felt less at home in the church were the first to leave the church, when this became more widely accepted in Dutch society. In other words, now that 50 percent of Dutch citizens do not consider themselves members of a religious community, the effect of religion will increase; that is, religious people today differ more strongly from non-religious people in their attitude toward euthanasia and homosexuals than before: The effects of individual religiosity and education on attitudes toward euthanasia and homosexuals have increased over time (Hypothesis 7).
DATA

The data set we used to test our hypotheses consisted of several waves of the survey ‘Cultural Changes in the Netherlands’, conducted by the Dutch Social Cultural Planning Office (SCP). Each of these waves is considered to be representative of the Dutch population in the period the survey was held and consists of 2,000 respondents on average. The item on euthanasia was included 15 times in the ‘Cultural Changes’ questionnaire in the period 1975–1998 and the item on homosexuals was included nine times in the period 1975–1997. A similar 1970 data set on cultural and economic conservatism, which comprises nearly all variables we are interested in, was added as well.1 The cross-sectional samples have been combined into two pooled datasets: for euthanasia and for homosexuals, of 28,776 and 16,863 respondents aged 18–93 years, respectively.

The attitude toward euthanasia was measured with the question in which the wording followed the way most people spoke about euthanasia, as ‘a shot given by a doctor’. The question was: ‘Suppose a doctor can end someone’s suffering on this person’s own request by giving a shot. What do you think the doctor should do?’ Answer categories were ‘give a shot’, ‘it depends’ and ‘not give a shot’. For the analyses, we used a dummy variable with which we compared explicit objection to euthanasia to the two other categories. The attitude toward homosexuals was measured with the item: ‘Do you think that homosexuals should be allowed as much as possible to live their own lives or should they be discouraged?’, with answer categories ‘allowed’ and ‘discouraged’. This item has recently been included in international comparative surveys as well. Correlations with other measurements on homosexuality that were less often included in the surveys are strong. In the pooled datasets, individuals opposed to euthanasia and homosexual lifestyles form a minority. Only 12.5 percent of all respondents over the years explicitly opposed to euthanasia and a mere 9.6 percent felt that homosexual lifestyles should be discouraged.

INDIVIDUAL LEVEL DATA

Education was measured as the highest completed educational level of the respondents in seven categories. Having a child, marital status, and daily activity were included as controls for age effects. Daily activity was divided into one category for the employed and six categories for other activities, such as housekeeping or schooling. Respondents were asked to name the denomination they belonged to, if any, whether they were raised religiously

and how often they attended church. In the models, we included whether respondents were religious or not, whether or not they had had a religious upbringing, and how often they attended church per year (ranging from 0 to 52). Sex and degree of urbanization are included as control variables. The wave from 1978 did not include frequency of church attendance, so respondents in this year were given the average score on church attendance per denomination of the wave in 1979. Degree of urbanization was not measured in 1970, so respondents were given the average score on urbanization in 1975.

NATIONAL LEVEL DATA

Contemporary circumstances (period characteristics) were operationalized for all analyses combined, as well as for the two issues separately. For the analyses on attitude toward euthanasia, we included time series on the growth in the number of nursing-home beds per 1,000 inhabitants (Centrale Raad voor de Volksgezondheid, 1972; CBS 1980; CBS 1983; CBS 1986; CBS Statline 2005). For the analyses with regard to homosexuality, we used the change in the number of AIDS-infections per year (CBS Statline, 2005) and the change in the membership counts of the Dutch Gay and Lesbian Organization COC (COC, 2005), divided by 1,000. For both analyses, we included the percentage of Christian Democrats in government. We divided the number of CDA—or her predecessors CHU, ARP and KVP—ministers by the total number of cabinet posts (Parlement & Politiek, n.d.).

For circumstances during formative years—cohort characteristics—we calculated the average scores for the time the respondent was 15 through 18-years old, using the same calculation method for the average percentage of Christian Democrats in government.

RESULTS

To answer our research question on the predictors of attitude change, we estimated three models for both attitudes separately. We used logistic regression as an estimation method, and present the logits, the standard errors and the odds \([\text{exp.} (B)]\). All models were checked for multicollinearity problems, as some of the period and/or cohort predictors are strongly correlated. In few cases this resulted in the exclusion of a predictor from the model. For each dependent variable, we started with a model containing only the year of survey and birth cohort. In the second model, we then included individual characteristics, to identify composition effects. In the third and final model, we include macro level characteristics. For the third model only, we will present Wald statistics. Results can be found in Tables 1 and 2 for the attitudes toward euthanasia and homosexuals, respectively. To answer the question regarding the change in the effects of education and religion, we
included interaction terms of these two variables and year of survey. Results of these estimations are presented in Table 3.

**The Attitude towards Euthanasia**

In Model 1, in Table 1, we include year of survey and birth cohort, to see whether periods and cohorts differ in their attitudes toward euthanasia. We find a decrease in negative attitudes toward euthanasia over historic time, as well as over birth cohort. Respondents born earlier are more often opposed to euthanasia than those born in later years. In the second model, we include individual characteristics to control for the composition of society. We find that a higher education decreases the likelihood to be opposed to euthanasia. Being religious, and attending the church more frequently increases the likelihood to be opposed. Above current religiosity, religious upbringing adds to opposition to euthanasia as well. The estimated chances to be opposed to euthanasia when one is most religious in terms of membership, church attendance, and upbringing (at an average education, and in the reference categories of the other variables) is 40 percent, opposed to 4 percent when one is not religious, does not attend church and had no religious upbringing. These percentages increase when one has a lower education, is a man, is either divorced or married, and when one has children. In this second model, the effects of year of survey and birth cohort both diminish. This means that part of the trend we identified is explained by changes in the composition of society. The changes in individual religiosity appear to be most important in this respect.

In Model 3, we include the relevant periodical circumstances that might explain the trend toward less negative attitudes toward euthanasia. We find a small but significant effect from the growth in the number of nursing-home beds. The stronger the growth in the relative number of nursing-home beds in the Netherlands, the less opposition to euthanasia. We, however, find no effects from the percentage of Christian politicians in government, either as a period or a cohort characteristic. The effect of the year of survey diminishes a little further when we take the nursing-home beds into account, but the birth cohort effect remains the same.

**The Attitude towards Homosexuals**

In Table 2, we present our results for the attitude toward homosexuals. In the first model, we again include year of survey and birth cohort, to identify trends. We again find that opposition toward homosexual lifestyles diminishes both over time and over generations. In the second model, we include all individual characteristics. Both year of survey and birth cohort become less important as predictors for opposition when we control for the composition
Table 1 Logistic regression models for explicit opposition to euthanasia (N = 28,776)

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<th>Model 1</th>
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<tr>
<td>Intercept</td>
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<tr>
<td>Question wording:</td>
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<td>'Suppose a doctor can end someone’s suffering on this person’s own request by giving a shot. What do you think the doctor should do?'</td>
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| Source: Cultural Changes in the Netherlands, various years.
### Table 2 Logistic regression models for opposing homosexuals (N = 16,863)

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<tr>
<th></th>
<th>Model 1</th>
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<td>.003</td>
<td>.993</td>
<td>-.007</td>
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<td>Average percent Christian Democrats in government at respondent age 15–18</td>
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<td>.684***</td>
<td>.083</td>
<td>1.981</td>
<td>.679***</td>
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<tr>
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<td>Housekeeping</td>
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<td>1.329</td>
<td>.288**</td>
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<td>WAO (disability benefits)</td>
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<td>Pensioner</td>
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<td>.216**</td>
<td>.115</td>
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### Table: Religious Indicators

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<tr>
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<th>Coefficient</th>
<th>Standard Error</th>
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<th>95% Lower Limit</th>
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<td>1.522</td>
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<td><strong>Religious indicators</strong></td>
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<tr>
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<td>.334 ***</td>
<td>.093</td>
<td>.716</td>
<td>-.333 ***</td>
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<td>Religious upbringing</td>
<td>-.060</td>
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<td>.942</td>
<td>-.066</td>
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<td>Church attendance</td>
<td>.029 ***</td>
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<td>.029 ***</td>
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<td>Urbanization</td>
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<td>.020</td>
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<tr>
<td>Intercept</td>
<td>-.496</td>
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</table>

-2 log likelihood         | 9,969.036   | 8,866.786      | 8,853.971       |
Degrees of freedom        | 2           | 18             | 21              |
Model Chi-square          | 673.505     | 1,775.755      | 1,788.569       |
Nagelkerke $R^2$          | .084        | .214           | .215            |

*p < .10; **p < .01; ***p < .001; ref = reference category

**Question wording:** ‘Do you think that homosexuals should be allowed as much as possible to live their own lives or should they be discouraged?’

**Source:** Cultural Changes in the Netherlands, various years.
of society. The decrease in the explanatory power of birth cohort is the largest. Again, as with attitudes toward euthanasia, the changing composition with respect to individual religiosity is largely responsible for the interpretation of historic trends. But the changing level of education is more important in explaining the trend toward less opposition to homosexual lifestyles than to euthanasia. The model reveals that most of the individual-level effects are comparable in direction and significant to the effects found in the model explaining euthanasia. Religious upbringing has no additional effect on the attitude toward homosexuality, whereas it did so on the attitude toward euthanasia.

In the final model, we include specific historic circumstances at the macrolevel. We find that government coalitions during socialization have no effect. We could not include the measure of Christians in government during the year of survey, due to multicollinearity problems. We find a very small, slightly significant effect of growth in the number of AIDS-infections per year. However, this effect is in the opposite direction than expected. A positive change in the number of members of the COC is associated with fewer people opposing homosexual lifestyles. Part of the trend toward less opposition to homosexuals is interpreted by this effect.

**EFFECTS OF EDUCATION AND RELIGION OVER TIME**

In Table 3, we present the changes in effects of being religious and educational attainment for both attitudes over time. We found differences between the predictors for the two attitudes. With regard to opposition to euthanasia it appears that the positive influence of being religious has increased over time, and the same holds true for the attitude towards...
homosexuals. However, for the reference year 1970, we do not find a significant effect of religiosity.

The effects of educational attainment differ between the two attitudes under study. The effect of educational attainment on the attitude toward euthanasia does not change over time. The effect of educational attainment on the attitude toward homosexuals is significantly weaker in the later years of survey than in 1970, contradicting our hypothesis. The negative effect of educational attainment on the unfavorable attitude toward homosexuals has decreased to $(-0.360 + 27 \times 0.010 =) -0.090$. With every year, the negative main effect of educational attainment becomes $0.010$ smaller. This implies that lower and higher educated people differed stronger from each other in their attitude toward homosexuals in the 1970s than in the 1990s.

CONCLUSION

So, if Holland is a place of horror, it has been since the early nineties. Although more tolerant legislation came about in the nineties, public opinion already accepted euthanasia and homosexual lifestyles in the years before. Both the attitude toward euthanasia and the attitude toward homosexuals do not seem to undergo much more change, despite the increased media attention for these topics. In previous research, it was demonstrated that the variance in homosexual tolerance in the Netherlands is nowadays much more visible in attitudes toward same-sex marriages and adoption of children by same-sex couples (Van de Meerendonk & Scheepers, 2004) than in the general attitude toward homosexuals. The trend in attitudes toward euthanasia had not been investigated previously for the Netherlands.

We formulated seven hypotheses. Our first hypothesis was confirmed. The trend in opposition toward both euthanasia and homosexuals can partly be explained by a changing composition of society, most notably in the level of religiosity of consecutive birth cohorts. Our second and third hypotheses were not corroborated by our results. The percentage of Christian Democrats in Government, be it contemporary or during socialization, did not effect attitudes toward both subjects. Our fourth, fifth, and sixth hypotheses concerned specific circumstances varying in time, for which we obtained mixed results. Our final hypothesis on the increasing effects of individual level effects over time was confirmed for religiosity, but had to be refuted for educational attainment.

As was presented earlier, the level of secularization affects both attitudes. Religion turned out to be the most important factor in explaining both the attitudes and the changes in attitudes over all. Specific period indicators for the attitudes were also of importance, but not always in the expected direction. Increases in the number of AIDS-infections were negatively correlated with a
negative attitude toward homosexuals. Perhaps in the Netherlands, the
tries by the COC to resist the image of AIDS as the gay disease were
successful. Although we identified some important period indicators for
explaining attitude change, other indicators, such as media attention for
specific issues might do better.

Men turned out to be more opposed to euthanasia and to homosexuals
than women. Educational attainment influenced both attitudes as well, as we
expected. We found that the effect of educational attainment did not grow
stronger over time. Instead, it stabilized for the attitude towards euthanasia,
and weakened for the attitude towards homosexuals. We have to refute our
hypothesis that the effect of educational attainment has become stronger due
to an increased homogeneity of the category of the lowly educated. Since an
overwhelming majority of Dutch citizens does not object to homosexuals,
this result might be due to a ceiling effect or to some sort of spill over,
whereby the highly educated successfully spread their norms through the
community. The difference between religious and non-religious individuals
in their attitudes towards both euthanasia and homosexuals has increased,
as we expected. Both groups seem unable to spread their norm to the
other group.

For the attitudes toward euthanasia and homosexuals, the cohort effects
operate mainly through the changing composition of society with regard to
religiousness. When we control for the composition of society by including
individual characteristics in our models, the period effects do diminish, but
they do not completely disappear. More research into the causes of the
dramatic drop in opposition toward euthanasia and homosexuality should be
encouraged.

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285–308.
Den Haag: Staatsuitgeverij.
Den Haag: Staatsuitgeverij.


**BIOGRAPHICAL NOTES**

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