

Trends and Countertrends in Sexual Permissiveness: Three Decades of Attitude Change in The Netherlands 1965–1995

Using longitudinal data from 8 surveys on attitude change in the Netherlands, I tried to clarify trends in sexual permissiveness since the 1960s. In explaining these changes, time-period effects proved most important, whereas cohort replacement appeared to be of minor significance. Hence, changing attitudes toward permissiveness are best understood in terms of structural developments (period effects) through which everybody in society is affected. Furthermore, this study found that churches are successful in keeping their members from developing progressive opinions. With respect to age, the growing-conservative-when-growing-older argument also holds for sexual permissiveness. A description of gender-specific trends revealed that gender differences were relatively constant over time. Only with respect to 'sex before marriage in a stable relationship', was a convergence of the gap established.

The 'sexual revolution' is a much-used metaphor in discussions on social changes that have taken place since the late 1960s. This so-called revolution seems particularly meaningful in the expla-

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nation of changing attitudes on issues associated with the emancipation of sexuality. With regard to the United States, a large body of empirical studies on sexual permissiveness is available. Yet, although much research has been done on the subject, surprisingly little is known about how attitude change in sexual permissiveness should in fact be understood, and how socioeconomic, religious, and demographic characteristics affect a person's opinions. So far, research on sexual permissiveness often remained rather descriptive (King, Balswick, & Robinson, 1977; Robinson, Ziss, Ganza, Katz, & Robinson, 1991; Michael, Gagnon, Laumann, & Kolata, 1994; Thornton, 1989), and only few studies employed nationally representative samples (King et al., Robinson & Jedlicka, 1982; Thornton & Camburn, 1989). Recently, the prominent study of Michael et al. proved to be informative on present sexual practices and preferences in the United States. Despite its importance, the study did not address questions of social change, and the researchers did not apply multivariate techniques to unravel the social differentiation of normative orientations on sexuality.

A central issue in research on sexual permissiveness is the observation that opinions are subject to change over time (Petersen & Donnenwerth, 1997; Robinson et al., 1991; Smith, 1990; Thornton, 1989). Regarding premarital and extramarital sexuality, it may be stated that liberal opinions gained support over the last decades. At the same time, however, only few studies ac-

knowledge that two competing explanations of this trend can be conceived. Attitudes in society may change as a result of cohort replacement, time-period effects, or both (Alwin & Scott, 1996; Glenn, 1977). Cohort replacement involves the entrance in, or exit from, society of people with distinctive opinions (as a consequence of birth and death), whereas the time-period effect involves net shifts in attitudes among all individuals present at a certain time in society.

First, this study considers the attitude change in sexual permissiveness that has occurred in the Netherlands since 1965 and also addresses the question to what extent these changes can be attributed to cohort replacement on the one hand and to overall societal developments (period effects) on the other. To unravel the separate influences of cohort and period, I applied the method of specifying theoretical relevant indicators of cohort-specific experiences, as suggested by Rodgers (1990) and Menard (1991). In providing a proper test of both mechanisms of social change, I controlled for composition effects as well (Alwin & Krosnick, 1991; Firebaugh, 1989). Unlike previous research, which was rather limited in considering explanatory factors for the subscribing to liberal opinions on sexuality, this study includes several socioeconomic, religious, and demographic features.

Second, this study focuses on the gender-specific changes in sexual permissiveness. Generally, there is a substantial gap between men and women where sociopolitical attitudes are concerned (Beutel & Marini, 1995; Shapiro & Mahajan, 1986). Traditionally, women are more likely to subscribe to conservative norms in the fields of sexuality and birth control for teens. However, the universal trend toward less restrictive morals in the sexual domain seems to manifest itself increasingly stronger among women than among men (Robinson et al., 1991; Scott, 1998). An explanation for this male-female convergence in sexual permissiveness can be found in gender-specific cohort and period effects. The closing of this gender gap, however, may also be because the apparent differences in sociodemographic background of men and women have diminished over the last few decades (composition effects).

In this article, I will address these two issues by testing empirically several hypotheses using a nationally representative data set containing information about sexual permissiveness in the Netherlands (1965–1995). The Netherlands is an interesting country for studying modernization

processes. In the first half of the 20th century, it was characterized by divisions along religious and class lines. Since the 1960s, Dutch society has changed radically, particularly as a consequence of secularization, growing economic welfare, and individualization (Dekker & Ester, 1993). The explaining of trends in sexual permissiveness can therefore add to general knowledge on developments in sociopolitical attitudes.

THEORY AND HYPOTHESES

Explaining Social Change in Attitudes Toward Sexual Permissiveness: Time-Period Effects or Cohort Replacement?

To explain the changing of attitudes, two mechanisms are important, namely the time-period effect and cohort replacement. First, the time-period effect implies that the support for attitudes toward sexual permissiveness at a given time is affected by macrosocietal circumstances. People's attitudes are assumed to be responsive to changes in their immediate social and political environment (Alwin & Scott, 1996; Glenn, 1977). The time-period effect concerns events that affect all cohorts and age groups equally. As a consequence, this explanation assumes lifelong openness to change, in contrast to the notion of cohort replacement, which assumes stability after a certain age (Alwin, 1990; Alwin & Krosnick, 1991; Glenn, 1977).

Empirical research on sexual permissiveness concentrates mainly on a description of time-period effects using repeated cross-sectional data. For the United States, it was established that, after 1965, there was a steady increase in liberal opinions on premarital sexuality (Petersen & Donnerwerth, 1997; Robinson et al., 1991; Scott, 1998; Smith, 1990). As for attitudes toward extramarital sexuality, a different picture emerged. After the late 1960s, a growing acceptance of extramarital sexuality was observed, but, since the mid-1980s, a countertrend toward growing disapproval has become apparent (Robinson et al.; Thornton, 1989). On the basis of the time-period perspective for the Netherlands, I expect that in the late 1960s and early 1970s remarkable shifts occurred toward more sexual permissiveness, because of major developments in macrosocial circumstances. Nonetheless, I also expect that because of the hazards of venereal diseases and knowledge of the negative consequences of divorce, renewed conservatism has gained ground since the mid-1980s (*Hypothesis 1a*).

Second, cohort replacement stresses the potency of a history-linked socialization that produces distinct normative orientations as a result of cohort membership (Alwin & Scott, 1996; Inglehart, 1981). As a consequence of one's year of birth, each person experiences a unique part of societal history during the so-called formative years. This period in young adulthood is decisive for the acquisition of normative beliefs; the values a person supports reflect the value climate and structural circumstances in society during these formative years (Inglehart). Moreover, it is assumed that cohort differences become resistant to change and crystallize into stable sociopolitical orientations (Alwin, 1990; Alwin & Krosnick, 1991; Glenn, 1977). Together these conditions explain social change through the 'natural' process of cohort succession (older cohorts are replaced by younger cohorts). Cohort replacement results in a process of gradual change in contrast to the period effect, which can also occur because of major social shifts.

Empirical research on cohort succession, explaining social change in attitudes toward sexuality, is relatively scarce. In a cross-national comparison of the United States and Britain, Scott (1998) concluded that most of the attitude change toward permissiveness is due to a slow process of cohort replacement. Yet, Davis (1996) reported that both processes seem about equally powerful in the General Social Survey data. Regarding the Netherlands, I expect that a gradual change will have occurred toward more liberal opinions on sexuality as a result of cohort succession (*Hypothesis 1b*). This process is due to the fact that each new cohort experienced more modern and individualistic societal circumstances during their formative years.

Disentangling Cohort, Period, and Age Effects

In repeated cross-sectional research, it is evident that there is no way to test whether attitude change is due to cohort replacement or time-period effects (DeGraaf, 1999; Firebaugh, 1989; Glenn, 1977). The crucial problem is that the effects of birth cohort, period, and age are linearly dependent and cannot be identified separately. In other words, when age and year of measurement are given, birth cohort cannot vary, because $\text{birth year} = \text{measurement year} - \text{age}$. An elegant solution to the identification problem lies in the specification and direct measurement of theoretical characteristics for which age, period, and cohort are only indirect in-

dicators (DeGraaf; Rogers, 1990). For instance, the identification problem may be solved by replacing birth cohort by a characteristic that measures certain social circumstances in a person's preadult years, such as prosperity or secularization. Because in principle there is no simple linear relation between age, period, and this measurement, I apply this method of substitution in the present study. More precisely, I aim to establish a simultaneous but separate test for both notions of attitude change, assigning relevant information on a person's formative years to the year of birth.

First, I consider cohort information on women's labor participation. The expanding number of women entering the labor force reflects a trend toward economic independence. It is likely that female economic independence affects attitudes, because it accentuates a trend toward more liberal opinions on the position of women. Second, I assume that attitudes toward sexual permissiveness may be influenced by the fact that certain people grew up in a time in which family relations became increasingly individualized. I employed cohort-specific divorce rates because these reflect the process of individualization in relationships. As mentioned earlier, I expect that sexual permissiveness would be found mostly among the younger cohorts, because for each new cohort in the 20th century women's independence had progressed further (measured by women's labor participation) and individualization in relationships had increased (measured through divorce rates).

Composition Effects Explaining Attitude Change in Sexual Permissiveness

In explaining social change, it is also important to deal with compositional differences between subsequent cohorts (Alwin, 1990; Alwin & Krosnick, 1991). The mere fact that younger birth cohorts are, for instance, on average more highly educated and less religious should not be accounted for in terms of cohort replacement. These changes are not a result of socialization practices but reflect a changing number of more educated or less religious people in the younger cohorts. Past empirical research suggests that at least three broad categories of determinants can be distinguished, namely, socioeconomic features, religious background characteristics, and sociodemographic features.

Socioeconomic Features

The impact of educational attainment on attitudes is well established. More educated people adhere

less to traditional values concerning moral issues than do less educated people (Davis, 1982; Vogt, 1997). Schooling is believed to increase one's general knowledge and expands one's frame of reference. Based on previous research, I think this argument holds for sexual permissiveness as well (Glass, 1992; Michael et al., 1994; Scott, 1998). The more educated will be more liberal on issues dealing with premarital and extramarital sexuality than the less educated (*Hypothesis 2a*). Next, one could presume that the higher income groups are relatively traditional on nonmaterial issues (Bourdieu, 1984). Yet most studies on sexual morals have revealed that higher income groups are just as conservative or progressive as lower income groups (Glass, 1992; Sherkat & Ellison, 1997). I therefore expect no significant relationship between attitudes on sexuality and household income in the Netherlands (*Hypothesis 2b*).

Religious Background Characteristics

It is clear that a person's religious involvement is relevant in predicting opinions on sexual permissiveness because most religions are concerned with the transmission of restrictive moral standards in sexuality (Dekker & Ester, 1993; Hertel & Hughes, 1987). First, participation in religious life, indicated by church attendance, stands for a person's high involvement in religious morals (Thornton & Camburn, 1989). Such a person will endorse church-supported norms to a greater extent than a person who is less involved. So, I expect nonchurch attenders to be more liberal on sexual issues than regular church attenders (*Hypothesis 3a*).

Second, I expect that a distinction between religious denominations is useful. For the United States, empirical research by Petersen & Donnerwerth (1997) and Hoffmann & Miller (1997) established substantial differences among church communities. In the Netherlands, a trend toward more individualism in moral issues was observed among Catholics and Protestants (Dekker & Ester, 1993). In contrast, the Reformed church still imposes restrictive normative standards on its members. On the basis of these notions, I hypothesize that among the religious in the Netherlands, the Catholics and Protestants will be more supportive of sexual permissiveness than the Dutch Reformed (*Hypothesis 3b*).

Third, I believe that a socialization in religion makes a difference. Religious parents transmit conservative moral values particularly during the formative years of their children. This parental in-

fluence may continue even after the period of adolescence (Cornwall, 1988; Thornton & Camburn, 1989). So, my expectation is that people who grew up in religious families are more conservative on sexual issues than people who grew up in nonreligious families (*Hypothesis 3c*).

Sociodemographic Features

A person's marital status is likely to affect attitudes that stress the desirability of a traditional relationship (Trent & South, 1992). Premarital and extramarital sexuality can be seen as a threat to such a bond. Unmarried people are probably less inclined to disapprove of sexuality outside marriage simply because there is no direct link to a relationship of their own. Recent research by Michael et al. (1994) on the United States indeed showed that married men and women hold more conservative opinions on sexuality than those who are not married (also Plutzer, 1988; Scott, 1998). I hypothesize that unmarried people are more liberal on sexual issues than married people (*Hypothesis 4a*).

Age is related to a person's attitude on sexuality because older individuals generally hold more traditional views than do the young (Glenn, 1977). I expect therefore that the young are more liberal on sexual issues as well (*Hypothesis 4b*). This expectation, however, is derived from studies that nearly always confounded age, period, and cohort effects (Glass, 1992; Michael et al., 1994; Trent & South, 1991). As I have already mentioned, I apply here the method of replacing birth cohort by indicators of cohort-specific experiences to avoid this confounding.

The Gender Gap in Attitudes on Sexual Permissiveness

Probably the most important sociodemographic factor to consider with respect to sexual permissiveness is gender. Indeed, early descriptive research by King et al. (1977) and Robinson and Jedlicka (1982) showed that men seem to hold more liberal attitudes on sexuality than do women. Nonetheless, current research still arrives at statistically significant gender differences (Michael et al., 1994; Petersen & Donnerwerth, 1997; Trent & South, 1992). To explain this gender gap in sexual permissiveness, conservatism of women is often associated with a lack of resources (Howard, 1988); men and women are not equal in terms of education, social status, and religious commit-

ment. To control for this resource gap, empirical research should include explicit measures of these resources. Another aspect that explains gender differences is the so-called "double standard" (Michael et al.; Robinson et al., 1991). Women often associate sexuality with commitment and relationships. Because of this, sexuality is preserved for marriageable partners, and permissiveness is seen as an unappealing alternative. In contrast, men do not necessarily associate sexuality with marriage or love (Michael et al.). Therefore, my expectation is that men are more liberal on sexual issues than are women (*Hypothesis 5a*).

Here, I want to explain changes in the gender gap over time. Recent empirical research indicates that men and women increasingly express similar opinions on sexuality; the upward trend to more liberal morals is stronger for women than for men (Robinson et al., 1991; Scott, 1998). Until now, however, researchers did not investigate separately if this convergence is due to time-period effects or cohort replacement. Consequently, explaining group-specific trends confounds both mechanisms of social change. Moreover, compositional changes in the resources of men and women may also account for the fact that the gender gap has become smaller. Here, I will deal with male-female convergence in sexual permissiveness through the interacting of gender with cohort-specific information and with measurement year (time period), controlling for composition effects.

Until now, studies on gender differences in sexual permissiveness mostly concentrate on gender gap changes over time periods. This method presumes that macro sociodemographic and economic circumstances have had the same implications for all women at the time. It is expected that men are also affected but to a lesser extent because economic independence and individualism for men began earlier. I presume that, since the 1960s, differences between men and women in sexual permissiveness have diminished as a result of time-period effects (*Hypothesis 5b*).

Convergence in attitudes can also be due to gender-specific cohort replacement. In the cohort explanation of social change, macrosocietal circumstances influence people in their preadult years. Regarding sexual permissiveness, it may be said that growing economic independence and individualization characterizes particularly the birth cohorts raised after the late 1960s. Women from these birth cohorts will probably be more liberal than women from the older cohorts. Because men are less affected by these developments, conver-

gence in sexual permissiveness across cohorts may be expected. I thus hypothesize that the gap between men and women in sexual permissiveness is reduced over time because of cohort replacement (*Hypothesis 5c*).

METHOD

Data and Research Strategy

To answer these research questions, I used eight waves of the Cultural Change in The Netherlands data (CCN) from the Social and Cultural Planning Office (SCP, 1996). These longitudinal data were collected in face-to-face interviews in 1965, 1970, 1975, 1980, 1985, 1986, 1991, and 1995 ($N = 15,490$). All of these surveys employ representative samples of the Dutch adult population and are comparable with respect to background characteristics and attitude measurements. I selected six attitude measures on sexual permissiveness that were comparable over a long period of time. Three items indicated tolerance toward premarital sexuality, and three items tolerance toward extramarital sexuality. The scores on all items were recoded in such a way that a high score refers to a positive attitude toward sexual permissiveness.

The first selected item on premarital sexuality was formulated as "Do you think sexual intercourse is acceptable between people who want to get married?" Possible answers were *unacceptable* (1), *unacceptable but understandable* (2), and *acceptable* (3). The second and third items stated, respectively, "A girl is allowed to have full sexual intercourse when she cares for a boy" and "A girl is allowed to have full sexual intercourse when she hardly cares for a boy", with answers ranging from *disagree totally* (1) to *agree totally* (5).

Opinions on extramarital sexuality were measured first through the item "A single affair can do no harm to a good marriage", with answer categories from *disagree totally* (1) to *agree totally* (5). The second and third items referred to scores on the statements "Do you think unfaithfulness indicates a bad marriage?" with answers *yes* (1) and *no* (2), and "Do you think it is acceptable for a married man to have an affair?" with possible answers *unacceptable* (1) and *under certain conditions acceptable* (2). To employ the last two bivariate items in an ordinary least squares (OLS) regression, I constructed a three-category measure through adding the scores (subtracting two).

Table 1 describes the trend in sexual permis-

TABLE 1. DESCRIPTION OF TRENDS IN ATTITUDES TOWARD PREMARITAL AND EXTRAMARITAL SEXUALITY IN THE NETHERLANDS, 1965-1995

	Percentage With Positive Attitude Toward Sexual Permissiveness							
	1965	1970	1975	1980	1985	1986	1991	1995
Attitudes Toward Premarital Sexuality								
Item A								
Do you think sexual intercourse is acceptable between people who want to get married?	21.0	58.2	57.1	70.1		74.3	82.5	
Item B								
A girl is allowed to have full sexual intercourse when she cares for a boy		44.3	41.5	48.4			68.6	
Item C								
A girl is allowed to have full sexual intercourse when she hardly cares for a boy		8.8	12.3	18.5	23.2		22.3	
Attitudes Toward Extramarital Sexuality								
Item A								
A single affair can do no harm to a good marriage	18.3	45.2	33.8	27.1			27.8	19.4
Item B ^a								
Do you think unfaithfulness indicates a bad marriage? (-)	30.7		49.8			53.0	52.5	48.0
Item C								
Do you think it is acceptable for a married man to have an affair?	19.9		48.8			37.7	38.9	39.1

Note: Data are from the Cultural Change in the Netherlands survey (survey years 1965, 1970, 1975, 1980, 1985, 1986, 1991, and 1995).

^aItem B is stated negatively. Percentages here represent a positive attitude toward permissiveness.

siveness for the six items between 1965 and 1995. It is clear that liberal morals on premarital sexuality gained support among the Dutch over the last 3 decades. The approval of sexual intercourse when people want to get married increased by 62%, from 21% in 1965 to 83% in 1991. Nowadays, it seems that nearly everyone condones sexual intercourse before marriage. Next, the trend reflected by the statement that a girl is allowed to have sex with a boy when she is in love points in the same direction; in 1970, 44% of the population agreed with this (two highest answer categories); in 1991 this figure had risen to 69%. A different picture arises for sexuality of girls when there is only limited commitment. In line with the general trend, approval of "sex without love" has risen from 9% in 1970 to 22% in 1991, but this permissiveness among the population seems less widespread. Moreover, the increase stopped after 1980 (at 23%), whereas, for both previous items, there was progress until the 1990s.

The attitudes toward extramarital sexuality as

presented in Table 1 reveal a somewhat different picture. The statement that a single affair does not harm a good marriage, gained support primarily between 1965 and 1970; a rise of 27% in approval was observed in these 5 years (two highest answer categories). So, the analogy with a revolution in the sexual domain is not too far-fetched. Yet, after 1970, there was a steady decrease in the approval of extramarital sexuality. In 1995, it had dropped to 19%, which is the approval level measured in 1965. The second and third item on extramarital sexuality show a similar picture. Acceptance of extramarital sex increased particularly between 1965 and 1975. Since 1975, however, there has been a small decline in the approval of sexuality outside marriage.

Measurement of the Explanatory Variables

To explain attitude change in sexual permissiveness, time-period effects were represented by eight dichotomous variables indicating the year of

survey (0/1). Assessing the six attitudes was not possible in every CCN survey year. Consequently, in analyzing the six attitudes different survey years were employed. To represent cohort replacement, birth cohort was replaced by information on societal circumstances at the age of 20, the age at which most cohort members will be confronted with sexuality issues inside and outside relationships. The cohort-specific divorce rate was quantified as the number of divorces in a cohort per 1,000 women and runs from 1.1 in 1915 to 9.9 in 1996. Cohort-specific women's labor participation was measured as the percentage of women above 14 years of age that were active in paid labor in a certain cohort (26% in 1915 and 42% in 1996). The values were divided by 10 to facilitate interpretation of the unstandardized OLS coefficients for both cohort-specific contexts.

Educational attainment was coded in four broad categories, ranging from primary education (0), lower secondary/vocational education (1), higher secondary/vocational education (2), to university education (3). Yearly household income was treated as a relative indicator of wealth in a survey year. Household income was therefore standardized for each year separately, and percentile scores were calculated, ranging from 0 to 100. I subtracted 50, and because of that, unstandardized OLS coefficients could be interpreted in terms of deviations from the mean income in a certain year. Missing observations on yearly household income were replaced, calculating the regression on income of education, age, urbanization, and gender separately for each survey year.

A person's church attendance was measured as the number of church visits per year, ranging from 0 to 52. Again, I divided by 10 to facilitate interpretation. Religious denomination was represented with five dummy variables indicating a person's adherence to the Catholic, Protestant, or Dutch Reformed faith, some other religion (Islam, Judaism, or Hinduism), or no religion at all. Socialization in religion was coded discretely; a religious socialization in a person's youth was coded 1, and no religious socialization was coded 0.

The marital status of a respondent was represented by four dummy variables, indicating a married, divorced, widowed, or single status. Age was considered continuously, ranging from 21 to 70. Again, for reasons of interpretation, it was divided by 10. Gender was coded 1 for women and 0 for men. As a control, urbanization was a dichotomous variable, indicating if a respondent was living in one of the three major municipalities of the

Netherlands (Amsterdam, The Hague, and Rotterdam). In these analyses, I will not discuss the results of urbanization because they are only of limited importance to the research subject.

RESULTS

The first research question deals with attitude change in sexual permissiveness in Dutch society. To answer this question, I present estimates of two OLS regression models for these attitudes in Tables 2 and 3. The coefficients I report are unstandardized, which enables us to interpret changes in a dependent variable in terms of the scale in which an independent characteristic is measured. For each attitude, Model I displays the influences of time-period effects and cohort replacement only, whereas Model II includes all other relevant characteristics. By doing so, it may become clear whether social change with respect to sexual permissiveness is due to cohort replacement or time-period effects, and if so, how these effects are confounded with age and can be interpreted by composition effects.

Attitudes on Premarital Sexuality

Table 2 shows estimates for the opinions on premarital sexuality. The three attitudes can be ranked according to the strictness of the norms they reflect. Item A considers the acceptance of sexuality before marriage in a serious relation. Next, Item B addresses premarital sex for a girl who is in love, and Item C refers to the acceptance of a girl having sex without being in love.

Model I shows that, for all three items, the acceptance of premarital sexuality has risen because of period effects. For item A, the rise between 1965 and 1970 is most prominent. After this sudden shift, there was still a growing tolerance but of a lower magnitude than before. In the case of item B, the results revealed a steady rise of the acceptance of premarital sexuality. This does not reflect a 'sexual revolution', but a linear trend toward more liberal morals. For item C, which is the most far-reaching, a different picture emerged. Although, sexuality without love became more accepted during the 1960s and 1970s, a countertrend is observed after 1985.

Indeed, Model I indicates that cohort replacement is relevant in explaining attitude change because both cohort measures show significant effects. With respect to divorces in society at the age of 20, the conclusion must be that a higher

TABLE 2. REGRESSION OF ATTITUDES TOWARD PREMARITAL SEXUALITY ON SURVEY YEAR, COHORT-SPECIFIC MEASURES, AND OTHER SELECTED CHARACTERISTICS, UNSTANDARDIZED COEFFICIENTS

	Attitudes Toward Premarital Sexuality					
	Item A		Item B		Item C	
	I	II	I	II	I	II
Time aspects						
Year of survey						
1965	ref.	ref.				
1970	.502*** (.025)	.591*** (.023)	ref.	ref.	ref.	ref.
1975	.474*** (.025)	.524*** (.023)	.031 (.048)	.041 (.044)	.303*** (.043)	.311*** (.041)
1980	.582*** (.026)	.628*** (.024)	.237*** (.049)	.273*** (.047)	.593*** (.044)	.623*** (.043)
1985					.629*** (.046)	.711*** (.047)
1986	.564*** (.027)	.658*** (.026)				
1991	.660*** (.028)	.734*** (.028)	.587*** (.056)	.782*** (.059)	.397*** (.048)	.494*** (.052)
Cohort-specific divorce rate	.077*** (.005)	.005 (.006)	.157*** (.012)	-.031* (.015)	.123*** (.009)	-.014 (.012)
Cohort-specific labor force participation rate of women	-.053*** (.005)	-.012* (.005)	-.066*** (.010)	-.003 (.011)	-.022* (.009)	.015 (.010)
Socioeconomic features						
Educational attainment (0-3)		.024** (.008)		.014 (.022)		.089*** (.018)
Household income (/10)		.013*** (.002)		-.009 (.007)		-.002 (.005)
Religious background						
Church attendance (/10)		-.120*** (.004)		-.158*** (.010)		.075*** (.008)
Religious denomination						
No religion		ref.		ref.		ref.
Catholic		.023 (.020)		-.212*** (.049)		-.216*** (.040)
Protestant		-.007 (.022)		-.324*** (.053)		-.305*** (.045)
Dutch Reformed		-.048 (.030)		-.511*** (.072)		-.402*** (.060)
Other religion		-.269*** (.041)		-.072*** (.094)		-.322*** (.080)
Socialization in religion (0-1)		-.034* (.017)		-.030 (.042)		-.039 (.035)
Sociodemographic features						
Age (/10)		-.081*** (.007)		-.204*** (.016)		-.130*** (.014)
Women (0-1)		-.059*** (.013)		-.211*** (.032)		-.255*** (.026)
Marital status						
Single		ref.		ref.		ref.
Married		.018 (.019)		-.322*** (.049)		.430*** (.041)
Divorced		.085* (.039)		.356*** (.097)		.400*** (.078)
Widowed		.071 (.037)		-.220* (.092)		-.336*** (.077)

TABLE 2. CONTINUED.

	Attitudes Toward Premarital Sexuality					
	Item A		Item B		Item C	
	I	II	I	II	I	II
Urbanization (0-1)		.007 (.018)		.230*** (.046)		.225*** (.039)
Constant	3.156*** (.118)	2.781*** (.113)	4.139*** (.258)	4.689*** (.254)	1.870*** (.221)	2.492*** (.226)
R ² adjusted	16.7%	35.7%	8.6%	25.2%	8.2%	19.0%
Number of observations	9,292	9,292	6,649	6,649	8,301	8,301

Note: Data are from the Cultural Change in the Netherlands survey (survey years: 1965, 1970, 1975, 1980, 1985, 1986, 1991, and 1995). Standard errors are in parentheses.

* $p < .05$. ** $p < .01$. *** $p < .001$.

divorce rate apparently leads to more permissive attitudes. The norm of a single sex partner in life is probably deflated by a social environment in which broken relationships have become more accepted. High labor participation of women in a person's preadult years seems to result in more conservative attitudes. Apparently, the growth of women's economic independence does not imply more tolerance toward premarital sexuality.

In Model II the additional explanatory aspects are included. This changes the story slightly. For all three items, time-period effects seem more profound, whereas most of the cohort-context effects are driven into insignificance. The conclusion must therefore be that social change in attitudes toward premarital sexuality occurs mainly through a change in the opinions of all individuals in society, regardless of cohort. The macrosocietal circumstances at the time of a person's upbringing hardly affect opinions on sexuality later in life, when composition effects are controlled for and the confounding of period, cohort, and age effects is adequately dealt with.

Model II in Table 2 also shows that educational attainment influences a person's tolerance as predicted. For two of the three items (A and C), more highly educated individuals are significantly more inclined to approve of sex before marriage than are less educated. In line with earlier research, the analysis confirms that income is of little weight in explaining moral issues. The higher income groups only subscribe to a larger extent that sex before marriage is acceptable.

Religion plays a pivotal role in explaining attitudes toward premarital sexuality. Engagement in religion as indicated by church attendance causes more restrictive responses on all three items. The differences between the religious denomina-

tions appear relatively small, however. Sexuality before marriage, as implied in Item A, seems to be accepted in almost all religious affiliations in the Netherlands; hardly any variation can be observed. For items B and C, on sexuality without a serious relation, church affiliates clearly show more disapproval than nonchurch affiliates. Although the differences are small, affiliates from conservative churches, such as the Dutch Reformed, and Jews, Muslims, and Hindus are slightly more opposed to premarital sexuality than are members of the Catholic and Protestant churches. Next, socialization in religion is of little weight in predicting attitudes toward premarital sexuality. Familiarity with a religious doctrine in a person's youth hardly seems to have long-lasting effects on sexual permissiveness.

Age has the expected negative effect on sexual permissiveness. For all of the three items it was established that older people respond more negatively to premarital sexuality than do younger people. To truly evaluate this effect, one has to keep in mind that these analyses control cohort and period effects to deal adequately with the problems associated with the confounding of age, period, and cohort. Next, the two most far-reaching items (B and C) clearly reveal that singles are more liberal than married, divorced, or widowed persons. Singles tend to place less value on the bonds of love in having sex. Nonetheless, an exception is observed for item A. No substantial differences between singles and married can be detected in the tolerance toward premarital sexuality in a serious relation, with the exception of the divorced. Finally, a gender gap in attitudes toward premarital sexuality was established; women are more conservative on matters of premarital sexuality

TABLE 3. REGRESSION OF ATTITUDES TOWARD EXTRAMARITAL SEXUALITY ON SURVEY YEAR, COHORT-SPECIFIC MEASURES, AND OTHER SELECTED CHARACTERISTICS, UNSTANDARDIZED COEFFICIENTS

	Attitudes Toward Extramarital Sexuality			
	Item A		Item B/C	
	I	II	I	II
Time Aspects				
Year of survey				
1965	ref.	ref.	ref.	ref.
1970	1.107*** (.053)	1.151*** (.053)		
1975	.861*** (.053)	.872*** (.053)	.463*** (.035)	.461*** (.035)
1980	.757*** (.054)	.755*** (.054)		
1986			.345*** (.037)	.326*** (.039)
1991	.630*** (.059)	.607*** (.064)	.357*** (.038)	.286*** (.042)
1995	.252*** (.058)	.207** (.065)	.317*** (.038)	.213*** (.044)
Cohort-specific divorce rate	.014 (.010)	-.045*** (.013)	.028*** (.006)	-.010 (.008)
Cohort-specific labor force participation rate of women	-.024*** (.007)	-.023** (.008)	-.023*** (.005)	-.022*** (.005)
Socioeconomic features				
Education attainment (0-3)		.098*** (.018)		.141*** (.014)
Household income (/10)		.004 (.006)		.014*** (.004)
Religious background				
Church attendance (/10)		-.084*** (.009)		-.060*** (.008)
Religious denomination				
No religion		ref.		ref.
Catholic		-.007 (.046)		.028 (.034)
Protestant		-.154** (.050)		-.138*** (.037)
Dutch Reformd		-.299*** (.068)		-.135** (.052)
Other religion		-.239** (.090)		-.178** (.068)
Socialization in religion (0-1)		.009 (.038)		.022 (.027)
Sociodemographic features				
Age (/10)		-.045** (.015)		-.025* (.012)
Women (0-1)		-.234*** (.029)		-.079*** (.021)
Marital status				
Single		ref.		ref.
Married		-.305*** (.044)		-.125*** (.032)
Divorced		-.004 (.085)		.020 (.057)
Widowed		-.148 (.084)		-.029 (.062)
Urbanization (0-1)		.099* (.041)		.144*** (.030)

TABLE 3. CONTINUED.

	Attitudes Toward Extramarital Sexuality			
	Item A		Item B/C	
	I	II	I	II
Constant	2.384*** (.180)	3.140*** (.194)	1.042*** (.125)	1.313*** (.139)
R ² adjusted	7.1%	12.8%	4.5%	13.0%
Number of observations	9,859	9,859	6,683	6,683

Note: Data are from the Cultural Change in the Netherlands survey (survey years: 1965, 1970, 1975, 1980, 1985, 1986, 1991, and 1995). Standard errors are in parentheses.

* $p < .05$. ** $p < .01$. *** $p < .001$.

than are men. Particularly when commitment is low, this gender gap is profound.

Attitudes on Extramarital Sexuality

In Table 3, I present the models explaining two attitude measures on extramarital sexuality. Item A concerns the tolerance toward an affair in a stable marriage. The second measurement indicates the tolerance toward persevering promiscuity (Item B/C).

Again, Model I shows that the tolerance toward extramarital sexuality has grown since the 1960s as a result of time-period effects. For Item A, a notable shift in sexual permissiveness occurred between 1965 and 1970. For measurement B/C, there was a rise in acceptance in the same period but of a somewhat lower magnitude. Although both measurements indicate growing tolerance toward extramarital sexuality since 1965, this rise did not continue for after the 1970s. After this "sexual revolution", a countertrend began to manifest itself. Probably because of the negative side effects of extramarital sexuality (such as venereal diseases and broken families), free sexuality has not gained long-lasting support among the Dutch population. Model I also reveals that cohort replacement is relevant. Particularly, the measure of women's labor participation at the age of 20 shows negative effects; the increased economic independence of women resulted in a more conservative moral on sexuality. For measurement B/C, I concluded that a higher divorce rate in people's adolescent years did indeed increase their tolerance toward extramarital sex.

Model II indicates that with respect to the cohort replacement principle, some refinements had to be made. After inclusion of the other explanatory aspects, both cohort-specific measurements proved important in explaining the tolerance to-

ward a single love affair (item A). Here, in contrast to Model I, a higher divorce rate in a person's youth resulted in more restrictive opinions on extramarital sexuality. Possibly the confrontation with the consequences of broken marriages slightly modifies a person's attitude toward sexual liberties. Next, a high number of women in paid labor in people's preadult years also seems to lead to less progressive attitudes. Women's growing orientation toward the world outside the household has increased the value of the unique bond between spouses. These results support my preliminary conclusion that attitude changes toward growing approval of extramarital sexuality are mainly caused by period effects; the effects are more substantial. Moreover, the cohort replacement mechanism appears mainly responsible for an observed countertrend toward more restrictive morals on extramarital sexuality.

Educational attainment is relevant for explaining opinions on extramarital sexuality; more educated individuals are far more progressive than are less educated. Moreover, the effects of education are of more substance here than in the case of premarital sexuality. This leads us to conclude that distinctions between educational groups are more profound when attitudes are more radical in nature. Just as for premarital sexuality, income is of minor importance in explaining extramarital sexuality; only with respect to Item B/C do the higher income groups express a somewhat greater tolerance than the lower income groups. The significant negative effects of church attendance indicate, as expected, that church members disapprove of extramarital sex. The differences between denominations appear relatively small, however. Similarity was found for Catholics and nonchurch affiliates. People from all other denominations are likely to reject extramarital sexuality to a larger extent.

Age had the predicted negative effect; the

young have more permissive morals on extramarital sexuality than do older people. Again, this age effect was established controlling for cohort and period effects and several composition effects. There were considerable differences between the married and unmarried, especially when comparing attitudes toward premarital sexuality. Single, divorced, and widowed people were clearly more tolerant toward extramarital sexuality than were married people. I conclude therefore that the marriage bond is likely to be appreciated more by those in a committed marriage than by those without a partner. It is also clear that a large gender gap exists when it comes to tolerating extramarital sexuality; men tolerate promiscuity more than women.

The Gender Gap in Attitudes Toward Sexuality

In the previous section, I established that a gender gap existed with respect to attitudes toward both premarital and extramarital sexuality. Although the analyses provide information on the existence of a gender gap in the period 1965–1995, they do not make clear whether the gap changed over time, and, if so, how. The second research question deals with this issue. In Table 4, I present estimates of five OLS regression models in which gender is interacted with measurement year and the two cohort-specific contexts. For the sake of convenience I only report the effects of measurement year, the cohort measures, gender, and their interactions (see note in Table 4).

Table 4 makes it clear that the gender gap in sexual permissiveness has practically not changed since 1965; almost none of the interactions are significant. A major exception, however, is Item A on tolerance toward sex before marrying. For this attitude, the outcome showed a reversal of the gender gap; women became increasingly more progressive compared with men. As a result, women were more liberal toward premarital sex than men in 1991 ($b = -.016 + .144$). Nonetheless, one has to keep in mind that these results apply to the situation in which men and women score equally on all other aspects in the model. As for the interactions of gender with the specific cohort information, only one significant effect was found, namely, for Item C. It appears that growing up in a situation in which large numbers of women participate in the labor market leads to more tolerance toward premarital sexuality (Item C) among women than among men ($b = .041$). Given the gender difference in 1965 ($b = -1.356$), this

only leads to a minor reduction of the gap over time, however.

DISCUSSION

This article addressed the issue of changing attitudes toward sexual permissiveness of the Dutch population between 1965 and 1995. The first research question concerned the explanation of trends in sexual permissiveness. To explain a growing tolerance toward liberal morals in sexuality, I focused on time-period effects and cohort replacement. It was found that time-period affects sexual permissiveness the most. People in Dutch society have become more tolerant toward permissiveness predominantly through the confrontation with macrosocietal developments. Particularly with regard to extramarital sexuality, a substantial shift toward more liberal morals was observed between 1965 and 1975. After 1975 a countertrend occurred. These findings correspond with American studies that reported on declining support for extramarital sexuality after the 1980s (Smith, 1990; Thornton, 1989). In contrast to Scott (1998), I found only minor indications for cohort replacement explaining attitude change. Moreover, when cohort replacement appeared relevant, it could be held responsible for countertrends toward more restrictive opinions. First, women's growing orientation toward the labor market seems to have increased the value of the unique bond between spouses because it leads to more negative opinions on sexual permissiveness. Next, growing up in a time in which individualization has made divorces more accepted also seems to lead to slightly more negative attitudes, especially toward extramarital sexuality.

Most organized religiosity provides a structure of constraints that builds an individual's attitude toward sexuality. These analyses indeed indicate that churches are successful in keeping their members from developing progressive opinions on sexuality. Furthermore, the results show that the more educated adopt more progressive attitudes toward sexuality. It is not clear whether this is caused by a status-based motivation of educated individuals to present themselves as more liberal or by their broader frame of reference. Another important conclusion is that the young are more liberal on issues dealing with sexuality than are older individuals. This is a meaningful result because it has been established by dealing adequately with the analytic problems of a confounding of age, period, and cohort. The unstandardized estimates make

TABLE 4. REGRESSION OF ATTITUDES TOWARD SEXUALITY ON SURVEY YEAR, COHORT-SPECIFIC MEASURES, TIME-GENDER INTERACTIONS AND OTHER SELECTED CHARACTERISTICS, UNSTANDARDIZED COEFFICIENTS

	Attitudes on Sexual Permissiveness ^a				
	Premarital Sexuality			Extramarital Sexuality	
	Item A	Item B	Item C	Item A	Item B/C
Time aspects					
Year of survey					
1965	ref.			ref.	ref.
1970	.543*** (.032)	ref.	ref.	1.179*** (.075)	
1975	.469*** (.032)	-.004 (.063)	.292*** (.059)	.836*** (.075)	.491*** (.049)
1980	.566*** (.033)	.195** (.065)	.567*** (.061)	.702*** (.077)	
1985			.689*** (.064)		
1986	.583*** (.036)				.355*** (.054)
1991	.659*** (.038)	.727*** (.080)	.480*** (.071)	.587*** (.088)	.338*** (.058)
1995				.178* (.089)	.246*** (.058)
Cohort-specific divorce rate	-.001 (.008)	-.052** (.019)	-.015 (.015)	-.042* (.016)	-.012 (.011)
Cohort-specific labor force participation rate of women	-.008 (.007)	-.004 (.015)	-.007 (.013)	-.031** (.011)	-.025*** (.007)
Gender					
Women (0-1)	-.016 (.210)	-.411 (.472)	-1.356*** (.419)	-.643 (.350)	-.200 (.240)
Time-gender interactions					
Year of survey × Women					
1965 × women	ref.			ref.	ref.
1970 × women	.093* (.044)	ref.	ref.	-.055 (.103)	
1975 × women	.107* (.045)	.093 (.087)	.037 (.082)	.070 (.104)	-.059 (.067)
1980 × women	.122** (.045)	.155 (.089)	.110 (.083)	.103 (.105)	
1985 × women			.046 (.086)		
1986 × women	.143** (.047)				-.055 (.072)
1991 × women	.144** (.049)	.113 (.102)	.030 (.091)	.042 (.115)	-.010 (.073)
1995 × women				.060 (.114)	-.063 (.073)
Cohort-specific divorce rate × women	.010 (.008)	.037 (.022)	.002 (.016)	-.006 (.019)	.004 (.012)
Cohort-specific labor force participation rate of women × women	-.007 (.008)	-.005 (.019)	.041* (.017)	.015 (.014)	.006 (.010)
Constant	2.758*** (.160)	4.827*** (.360)	3.104*** (.319)	3.357*** (.268)	1.387*** (.190)
R ² adjusted	35.8%	25.3%	19.1%	12.8%	13.0%
Number of observations	9,280	6,636	8,288	9,846	6,676

Note: Data are from the Cultural Change in the Netherlands survey (survey years: 1965, 1970, 1975, 1980, 1985, 1986, 1991, and 1995). Standard errors are in parentheses.

^aAll models include control variables as specified in Tables 2 and 3, and therefore must be interpreted as an extension of the full model.

* $p < .05$. ** $p < .01$. *** $p < .001$.

clear that age is often more substantial in explaining sexual permissiveness than cohort. This leads us to conclude that the "growing-conservative-when-growing-older" argument also holds in the sexual domain.

With the second research issue, I focused on gender differences with respect to sexual permissiveness. The results indicate that men are still more liberal than women. Surprisingly, these gender differences appeared to be relatively constant over time. Only for the item dealing with sexuality before marriage was convergence of the gender gap over time established. Because this refers to a currently accepted situation of cohabitation, I believe that the former differences between men and women in this respect have disappeared. An international comparison of gender gaps may help to reveal whether this stable gap is a particularity for the Netherlands, or whether this stability in the gender gap is a worldwide phenomenon. Studying such trends in sexual morality may be especially interesting because all Western countries go through modernization processes as reflected in attitudes toward moral issues. It therefore can provide relevant information on the position of women in current postindustrial society.

A challenge for future research may also be found in studying the family background. It is well documented that attitudes are affected by the family in which a person is raised (Thornton & Camburn, 1989; Trent & South, 1991). Not only are socioeconomic features relevant here, but the family structure and culture in person's childhood (single mother, divorce) is also likely to affect one's attitudes toward sexuality.

In conclusion, it is important to stress that one has to take period and cohort effects into account when studying trends in sociopolitical attitudes. In doing so, I was able to examine more precisely which mechanisms are responsible for social change. These results clearly indicate that both processes with respect to sexual permissiveness do not point to the same direction. The period effects are mainly responsible for a trend toward more tolerance in issues of sexuality, whereas most cohort measurements indicate a countertrend toward more restrictive morals.

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