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# Traditional Christian Belief and Belief in the Supernatural: Diverging Trends in the Netherlands Between 1979 and 2005?

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*Is there an ongoing decline in religious beliefs in the Netherlands? Using cross-sectional data from 1979 up to 2005, we focus on traditional Christian faith and belief in the supernatural; the literature suggests that they undergo diverging trends. We first describe these trends using the Social and Cultural Developments in the Netherlands surveys covering the 1979–2005 period. Explanations for the trends are formulated and tested using OLS regression models and a counterfactual simulation technique. Our findings indicate that during the 1979–2005 period both traditional Christian faith and belief in the supernatural declined, although the latter at a slower rate. Since church membership rates are continuously declining as well, belonging and believing still go hand in hand in the Netherlands. The most important explanation for both the decline in traditional Christian faith and the decline in belief in the supernatural is the slow but continuous replacement of older religious affiliated cohorts with younger nonaffiliated cohorts.*

## INTRODUCTION

Kepel (1994) identified an increasing attention to religion in the mid 1970s. One could then notice an increase in the influence of political Islam, a new élan in the Roman Catholic Church under leadership of Johannes Paulus II, and the expansion of fundamental Protestant groups in the United States and in South America. Interestingly, at the same time in Europe (Halman and Draulans 2006) and especially in the Netherlands there was abundant evidence for secularization: declining rates of church attendance, a rise in religious disaffiliation, and the closing of churches, as well as the declining authority of churches.

In the Netherlands, religion plays an increasingly marginal role and secularization at the individual level has been documented in detail (Becker and De Wit 2000; De Graaf, Need, and Ultee 2000, 2004; Need and De Graaf 1994; Te Grotenhuis 1999). Research has shown that both church attendance and religious affiliation declined considerably through the end of the past century. Nowadays, more than 75 percent of the Dutch population attends church less than once a month while less than 50 percent are religiously affiliated. However, this does not necessarily imply a decline in religious beliefs, since it is argued that a decline in church attendance and religious disaffiliation might be caused by the lack of competing churches that are therefore unable to satisfy the diverse religious needs of people (Finke and Stark 1988; Iannaccone 1997; Stark 1997; Stark and Iannaccone 1994).<sup>1</sup>

What might have happened in the Netherlands is an increase in the relative number of people who are less (or not-) religiously affiliated but who still uphold religious beliefs. That a decline in religious involvement does not necessarily imply a decline in belief has also been argued by Dutch scholars such as Dekker (1994) and Van Tillo (1994). Similarly, Davie (1994) argues that there is “believing without belonging” and this could mean that the proportion of believers does

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not change, but religious involvement may decrease. If we assume in accordance with supply side theory that religious demand is stable or that there is a universal form of religious commitment (Stark 1997:8), given the decrease in religious affiliation in the Netherlands, we should find an increasing gap between belonging and believing (Davie 1994, 2002).

The crucial assumption of rational choice theory or, rather, the supply side version of the rational choice theory,<sup>2</sup> is that people have a constant demand with respect to religious products. For instance, one of Stark's hypotheses holds: "In pursuit of rewards, humans will seek to exchange with a god or gods" (1999:270). He states: "Regardless of power, persons, and groups will tend to accept religious compensators for rewards that do not exist in this life. Here I noted that in some regards everyone is deprived and everyone has a motive for being religious—that since everyone faces death, doctrines of an afterlife appeal to all. We could call this the universal form of religious commitment" (Stark 1997:8). Stark and Finke (2002) state that the advantage of postulating stable preferences is that one is not tempted to explain every shift in religious life by a corresponding shift in public preferences. They therefore assume that "religious preferences are quite stable and form distinctive and durable niches" (2002:33) "because religion is the only plausible source of certain rewards for which there is general and inexhaustible demand" (Stark and Finke 2000:85). One could doubt whether the percentage of the population who really think religion is a plausible source for rewards is constant over time, but supply side theory predicts that when multiple religious providers emerge in an unregulated market, involvement in religious organizations will increase. This theory can therefore explain fluctuations in religious involvement and at the same time assume stable preferences.

According to Davie (2002), despite a decline in orthodox Christian beliefs people remain interested in the supernatural (cf. Glendinning 2006). Apparently, Davie (2002) also assumes, like Stark and Finke (2002), a stable demand. The implication of Davie's arguments is that this should show up in a stable level of belief in the supernatural. As for the Netherlands it seems also important to distinguish traditional Christian belief (i.e., belief in God) and belief in the supernatural, since research indicates that traditional Christian belief has declined (Becker, De Hart, and Mens 2006). Possibly, the stable religious demand is not so much reflected by a stable traditional belief in God, but by a stable belief in the supernatural. We therefore are going one step further by investigating whether believing and belonging might go different ways if we focus on belief in the supernatural instead of traditional Christian belief.

In this study, we will investigate the trends in both traditional Christian belief and belief in the supernatural with data spanning 26 years, using repeated cross-sectional surveys from the "Social and Cultural Developments in the Netherlands" project (SOCON). These surveys were done in 1979, 1985, 1990, 1995, 2000, and 2005. Another aim of this article is to explain the observed trends in religious beliefs. For this purpose, we will use theoretical models and a simulation technique, which will enable us to answer to what extent the trends are a consequence of compositional changes in the Dutch population and, in particular, the replacement of older cohorts with younger cohorts.

## THEORY AND HYPOTHESIS

### Trends in Religious Beliefs: Expectations

In *The Sacred Canopy*, Berger (1967) stated that religion is no longer prominent in daily life. When interpreting phenomena that occur in this world, individuals use religion less and less as a reference. Berger coined this form of secularization subjective secularization. According to Berger, objective secularization is the declining influence of the churches in daily life. In this article, we will focus on subjective secularization, despite the fact that scholars such as Stark and

Finke (2000) claim that secularization theory is empirically not supported and even Berger does not support his earlier theoretical work anymore. The reason is that we simply cannot ignore the abundant empirical findings that the process of secularization has been going on for several decades in the Netherlands (Need and De Graaf 1996; Te Grotenhuis 1999; cf. Becker, De Hart, and Mens 2006), but also in other European countries such as Britain (Crockett and Voas 2006; De Graaf and Need 2000; Norris and Inglehart 2005).

To investigate subjective secularization we will use various religious beliefs or conceptions that are connected to the religious interpretation of the world as well as to one's own existence. First of all, we will investigate the trend in traditional Christian belief in the Netherlands. Traditional Christian belief assumes explicitly the existence of a personal God. This conception is, not surprisingly, strongly related to church membership (Felling, Peters, and Schreuder 1991), which is also in decline (Felling, Peters, and Scheepers 2000). One of the advantages of our cross-sectional data set is the possibility of investigating whether the declining trend of traditional Christian belief encountered a bottom effect in recent years. If the Dutch indeed increasingly construct their own private conception of belief and if it is indeed true that the demand for religion does not change over time (Stark 1997; Stark and Bainbridge 1985, 1987), then we should find no decline in nontraditional religious conceptions. Hence, our two trend hypotheses are that traditional Christian belief is in decline (Hypothesis 1a) while belief in the supernatural is more or less stable (Hypothesis 1b). These hypotheses will be tested using a representative sample of all Dutch excluding those with a non-Christian affiliation. The hypotheses will also be tested for Catholics, liberal and orthodox Protestants, former church members, and nonmembers separately.<sup>3</sup>

### **Trends in Religious Beliefs: Explanations**

For an explanation of why people vary in their religious beliefs, we make use of the theoretical distinction Need and De Graaf (1994, 1996) have made for church leaving. Beyond supply side approaches, two theories provide explanations for religious behavior and attitudes. The first is a theory of rationalization (also known as the modernization theory), which originates from the work of Weber (1920). The second is a theory of social integration, which is rooted in the work of Durkheim (1897). An overview of these theories can be found in De Graaf, Need, and Ultee (2004).<sup>4</sup>

A classical explanation for secularization is the process of rationalization. The basic argument is that technologically advanced societies, building on scientific-based knowledge, (in-)directly undermine the foundations of religious faith. A well-known indicator for the process of rationalization is educational attainment (De Graaf and Luijkx 1992). We will investigate to what extent religious belief is affected by (a) one's own education and (b) the general educational level of one's environment. With respect to individual educational attainment we expect that a higher level of education will lead to a weakening of traditional Christian belief (Hypothesis 2a). If, however, religious demand is stable and people remain interested in the supernatural (Davie 2002), we expect the influence of education on belief in the supernatural to be weak, if not absent (Hypothesis 2b).

Besides individual educational attainment, the average educational level of a society, as a contextual indicator of rationalization, may negatively affect the extent to which one has a world view in which God plays an active role (Te Grotenhuis 1999). The influence of contextual characteristics was already suggested by Tschannen (1991) and has successfully been tested several times on Dutch data (Need and De Graaf 1994; Te Grotenhuis and Scheepers 2001). An important question in explaining trends is whether differences in religious belief are caused by differences in rationalization trends during one's upbringing. There is considerably more rationalization since World War II in the Netherlands and since it increased especially beginning

in the 1960s, we expect the following cohort effect: a higher level of rationalization during one's early socialization is associated with weaker traditional Christian beliefs (Hypothesis 3a). With regard to belief in the supernatural we expect the influence of rationalization to be weak or absent (Hypothesis 3b), since religious demand is assumed to be constant.

The theory of social integration contains a very general hypothesis about norm-regulated behavior: the more people are integrated into a social group, the more they will comply with any norm of that group (Stark 2004). With regard to traditional Christian belief, people will believe more strongly, the more they are integrated into a religious group. Research demonstrates that in the Netherlands, the religious denomination one is affiliated with is strongly correlated with one's traditional Christian belief. The highly integrated orthodox Protestants (i.e., those with the highest church attendance rates) endorse traditional Christian belief more strongly than Catholics and the liberal Protestants (Felling, Peters and Schreuder 1991) who are less integrated. Furthermore, those who left the church are even less integrated in a religious community and are less traditionally religious than those who are a member of a church. Finally, those who have not been raised as Christians (i.e., nonmembers) are the least integrated and have only a very weak traditional Christian belief.

Because of these well-known differences in traditional Christian belief between church members, former members, and nonmembers, we will investigate whether the impact of rationalization is equally strong for all denominations. One might expect that the orthodox Protestants, because of their well-known strong integration in their religious community, will be less sensitive to processes of rationalization than Catholics and liberal Protestants who are less integrated. Therefore, we hypothesize that the extent to which rationalization (measured by individual educational attainment and the average educational level in society during one's upbringing) will negatively affect traditional Christian belief and the effect will be weaker for orthodox Protestants compared to Catholics and liberal Protestants (Hypothesis 4).

### **Trends in Religious Belief Explained by Compositional Changes in a Population**

Our hypotheses provide an explanation for trends in religious belief. Trends such as the decline in religious belief might (partly) be caused by compositional changes within the Dutch population. In the Netherlands, there has been a longitudinal shift toward an increasing number of highly educated individuals. If Hypothesis 2a is corroborated, that is, higher educated individuals uphold traditional Christian belief less strongly compared to the lower educated, then the shift toward more a highly educated population will inevitably lead to a decline in traditional Christian religious belief in the Netherlands. With the help of simulation models we will investigate to what extent compositional changes within the Dutch population explain trends in both traditional Christian belief and belief in the supernatural.

### **METHOD**

The data that are used are from the SOCON surveys. These multiple cross-sectional surveys were held in 1979 ( $n = 1,003$ ), 1985 ( $n = 3,003$ ), 1990 ( $n = 2,384$ ), 1995 ( $n = 2,019$ ), 2000 ( $n = 1,008$ ), and 2005 ( $n = 1,375$ ). All surveys are representative of the Dutch population (excluding those with a non-Christian affiliation) aged 18–70 with regard to age, marital status, and gender. For details about the design, nonresponse, and how representative the surveys are we refer to Eisinga et al. (1992, 1999, 2002, 2008). From this longitudinal data set we selected the following variables that were based on identical questions in all surveys.

## Measurement

### *Dependent Variables*

For the measurement of traditional Christian belief three statements were used:

1. There is a God who concerns Himself with every individual personally.
2. There is a God who wants to be our God.
3. For me, life has only meaning because of the existence of a God.

For the measurement of belief in the supernatural we use two statements:

4. There is something like a supernatural force that controls life.
5. I believe in the existence of a Supreme Being.

Respondents were given six response categories: agree entirely, agree, don't agree/don't disagree, don't agree, don't agree at all, never thought about. Respondents who choose this last category (between 3 percent and 5 percent) were left out of the analysis. With the help of factor analysis the two sets of dependent variables were reduced to two interval variables with a mean of zero and identical standard deviations (95).<sup>5</sup> The correlation between the two scales was 0.67.

### *Individual Characteristics*

Educational attainment was measured using seven categories: (1) primary education; (2) lower vocational; (3) lower secondary; (4) secondary vocational; (5) O levels/A levels; (6) higher vocational; and (7) university. Denomination was measured using a two-stage question. Respondents were first asked whether they considered themselves a church member and if yes, they were asked to which denomination they were affiliated. Denomination was coded into Catholic, orthodox Protestant, and liberal Protestant. We expect individuals who have never been affiliated with a religious denomination to differ from people who have been affiliated. Therefore, we distinguish between nonchurch members and former members using a question about former church membership. Finally, an age variable was constructed using both year of survey and year of birth. Because preliminary analyses showed severe multicollinearity between the original age variable and average educational attainment of the population at age 15, the age variable was recoded. All respondents older than 45 were coded as 45. This recoding is based on the empirical finding that religious beliefs tend to level off strongly from age 45 onward (Te Grotenhuis, De Graaf, and Peters 1997). After recoding, we found the estimates obtained in Tables 1–4 were not affected by collinearity.

### *Contextual Characteristics*

In order to measure the cohort or socialization effect of rationalization, we use the average educational level of all graduates who entered the labor market in the province where the respondent lived at the time he or she was 15 years of age. The data originate from Central Bureau of Statistics (CBS) data sets, the 1966 Census, the labor count data set 1977 and 1985, and the survey of the labor force 1992.

## Analyses

To test our hypotheses we use linear regression models. In the first model, the trends in religious beliefs for all five groups (i.e., Catholics, liberal Protestants, orthodox Protestants, former church members, and nonmembers) were estimated. Because we expected bottom effects

**TABLE 1**  
**OLS-ESTIMATES (STANDARD ERRORS) FROM LINEAR REGRESSION ANALYSES**  
**ON TRADITIONAL CHRISTIAN BELIEF (MODEL 1)**

	All Groups	Catholics	Liberal Protestants	Orthodox Protestants	Former Church Members	Nonmembers
Independent variable						
Intercept <sup>a</sup>	20.11 (1.80)	58.07 (2.55)	81.15 (5.17)	117.03 (3.56)	-26.97 (4.85)	-50.77 (4.42)
Year (lin)	-1.91 (0.13)	-1.90 (0.19)		-0.82 (0.26)		
Year (log)			-7.55 (2.22)		-7.80 (1.94)	-5.36 (1.71)
<i>N</i>	9,358	2,419	1,029	871	2,329	2,710

<sup>a</sup>Intercept denotes average score in 1979.

for former church members and nonmembers, we present log linear parameters instead of linear parameters if the former provided a better fit of the data. In a second model, education, average level of education, and age were added in order to explain the trends.

## FINDINGS

### Traditional Christian Belief

For the sample as a whole (all groups taken together), we found a substantial linear decline in traditional Christian belief (Table 1) as indicated by the negative sign of the year parameter (-1.91). This clearly supports Hypothesis 1a. If we consider each group separately we notice, as expected, that in 1979 orthodox Protestants had the highest average score on traditional Christian belief (117.03; cf. Table 1), while former church members and nonmembers had the lowest average scores (-26.97 and -50.77). Liberal Protestants and Catholics were to be found in between these extremes (81.15 and 58.07, respectively). Despite these vast differences, in all groups there has been a decline. This decline appears to be approximately linear among Catholics (-1.90) and orthodox Protestants (-0.82). We interpret the stronger decline among the Catholics as a confirmation of the integration theory, since Catholics attend church less often than orthodox Protestants, consequently are less integrated, and therefore more likely to become less religious. The estimated decline for liberal Protestants, former members, and nonmembers is curvilinear: traditional Christian belief declines but the rate gradually slows down over time. This is probably due to a bottom effect, especially for former members and nonmembers, because their traditional Christian belief was already relatively weak in 1979.

Next, we included education, average educational level, and age (as a control variable) in the model. We test to what extent these variables have an effect on religious beliefs and as a consequence may explain the estimated trends (cf. Table 2). As hypothesized, a higher educational level tends to weaken traditional Christian belief (Hypothesis 2a). However, this negative effect differs across groups. The effect is strongest among former members and nonmembers (-9.17 and -9.46, respectively), less strong among orthodox Protestants (-4.40) and liberal Protestants (-3.80), and lowest (and nonsignificant) among Catholics (-0.72). These findings do not support Hypothesis 4; the effect of education was expected to be stronger among Catholics and liberal Protestants compared to orthodox Protestants. In accordance with Hypothesis 3a, average educational level, as an indicator of rationalization, has a negative effect on traditional Christian belief; again the effect differs by group. According to Hypothesis 4 we expected the effect of average level of

**TABLE 2**  
**OLS-ESTIMATES (STANDARD ERRORS) FROM LINEAR REGRESSION ANALYSES**  
**ON TRADITIONAL CHRISTIAN BELIEF (MODEL 2)**

	Catholic	Liberal Protestants	Orthodox Protestants	Former Church Members	Nonmembers
Independent variables					
Intercept <sup>a</sup>	40.18 (3.58)	77.67 (5.27)	108.3 (5.02)	-33.35 (4.17)	-58.43 (5.70)
Year (lin)	-0.90 (0.27)		-0.15 (0.38)ns		
Year (log)		-6.30 (2.86)		-3.30 (2.60)ns	-1.47 (2.39)ns
Education	-0.72 (0.83)ns	-3.80 (1.27)	-4.40 (1.14)	-9.17 (0.87)	-9.46 (0.80)
Average educational level	-43.24 (6.49)	-1.03 (9.72)ns	-17.68 (9.84)	-11.56 (7.33)ns	-2.29 (6.40)ns
Age <sup>b</sup>	-0.19 (0.38)ns	0.00 (0.56)ns	-0.60 (0.52)ns	0.12 (0.39)ns	-0.11 (0.32)ns
N	2,419	1,029	871	2,329	2,710

<sup>a</sup>Intercept denotes average score in 1979 (education, average educational level, and age are grand mean centered). ns = nonsignificant deviation from 0;  $\alpha = 5$  percent (two-tailed test ( $t = 1.96$ ) for age, one-tailed test ( $t = 1.645$ ) for year, education, and average educational level).

<sup>b</sup>Age has been recoded (i.e., 45 and older are coded "45").

education to be stronger among Catholics and liberal Protestants than among orthodox Protestants. This expectation only holds for the Catholic-orthodox Protestant contrast. The effect is  $-43.24$  for Catholics and  $-17.68$  for orthodox Protestants, which is significantly different (tested with equality constraint in a structural equation model,  $\alpha = 0.05$ ). The effect of average level of education is not significantly present for the liberal Protestants. Among former members and nonmembers the effect is also moderate and nonsignificant. Finally, the age effect turns out to be nonsignificant for all groups.

After the inclusion of education, average level of education, and age the estimated trends are substantially reduced for all groups (cf. the difference in the year parameter in Table 2 compared to Table 1). Note that for orthodox Protestants, former members, and nonmembers the trend becomes nonsignificant.

### **Belief in the Supernatural**

We estimated the trends in belief in the supernatural as well. The first column of Table 3 shows that for the whole sample there is a significant and substantial linear decline ( $-1.51$ ), although somewhat less compared to traditional Christian belief in God. This finding does not support Hypothesis 1b predicting no significant change in belief in the supernatural. Table 3 also shows that in 1979, Catholics had the highest average score on belief in the supernatural (56.18), closely followed by liberal Protestants (53.32) and orthodox Protestants (48.87). Former church members and nonmembers had the lowest average scores ( $-18.37$  and  $-37.32$ , respectively). Unexpectedly, the adherence to belief in the supernatural is falling among all groups, with the exception of the orthodox Protestants. This means that in general Hypothesis 1b, stating that belief in the supernatural is stable, is not supported by the empirical results. Among former members and nonmembers the decline is not particular strong ( $-0.57$  and  $-0.78$ ). However, in



**TABLE 3**  
**OLS-ESTIMATES (STANDARD ERRORS) FROM LINEAR REGRESSION ANALYSES**  
**ON BELIEF IN SUPERNATURAL (MODEL 1)**

Independent variable	All	Liberal	Orthodox	Former Church	Nonmembers	
	Groups	Catholics	Protestants	Protestants		Members
Intercept <sup>a</sup>	17.04 (1.81)	56.18 (2.73)	53.32 (5.98)	48.87 (5.81)	-18.37 (3.63)	-37.32 (3.35)
Year (lin)	-1.51 (0.13)	-1.63 (0.20)		0.22 (0.42)ns	-0.57 (0.25)	-0.78 (0.21)
Year (log)			-4.69 (2.56)			
<i>N</i>	9,603	2,478	1,024	867	2,435	2,799

<sup>a</sup>Intercept denotes average score in 1979.

ns = nonsignificant deviation from zero;  $\alpha = 5$  percent (one-tailed,  $t = 1.645$ ).

**TABLE 4**  
**OLS-ESTIMATES (STANDARD ERRORS) FROM LINEAR REGRESSION ANALYSES**  
**ON BELIEF IN SUPERNATURAL (MODEL 2)**

Independent variables	Catholics	Liberal	Orthodox	Former Church	Nonmembers
		Protestants	Protestants	Members	
Intercept <sup>a</sup>	40.28 (3.83)	55.62 (8.02)	42.41 (6.12)	-23.36 (4.91)	-39.40 (4.57)
Year (lin)	-0.77 (0.28)		0.72 (0.46)ns	0.06 (0.39)ns	-0.51 (0.35)ns
Year (log)		-6.34 (3.31)			
Education	3.32 (0.88)	-0.80 (1.47)ns	-6.62 (1.86)	-4.35 (1.01)	-5.53 (0.94)
Average educational level	-46.29 (6.91)	7.64 (11.21)ns	-6.74 (15.92)ns	-24.87 (9.50)	-2.80 (8.72)ns
Age <sup>c</sup>	-0.07 (0.40)ns	1.23 (0.65) <sup>b</sup>	-0.67 (0.84)ns	-0.03 (0.51)ns	0.13 (0.44)ns
<i>N</i>	2,478	1,024	867	2,435	2,799

*Note:* <sup>a</sup>Intercept denotes average score in 1979 (education, average educational level, and age are grand mean centered). ns = nonsignificant deviation from 0;  $\alpha = 5$  percent (two-tailed test ( $t = 1.96$ ) for age, one-tailed test ( $t = 1.645$ ) for year, education, and average educational level).

<sup>b</sup>Nonsignificant at  $\alpha = 5$  percent, but significant at  $\alpha = 10$  percent (two-tailed,  $t = 1.645$ ).

<sup>c</sup>Age has been recoded (i.e., 45 and older are coded "45").

1979 belief in the supernatural was already very weak among former members and nonmembers. The weak decline among former members and nonmembers is probably due to a bottom effect.

Again, we included education, average educational level, and age in the model (cf. Table 4) to measure their effect and to estimate the impact on the trends reported in Table 3. Among Protestants, former members, and nonmembers a higher educational level tends to weaken belief in the supernatural. This contradicts Hypothesis 2b. Exceptions are the positive effect of

education among Catholics (3.32) and the nonsignificant effect among liberal Protestants ( $-0.80$ ). The effect of average educational level reaches a significant level only among Catholics ( $-46.29$ ) and among former church members ( $-24.87$ ). Finally, the age effect is nonsignificant for all groups except for liberal Protestants, in which case the effect is positive and significant ( $\alpha = 0.10$ ). Although the variables added to the model on average do not have very substantial effects, the original (significant) trends are reduced for Catholics, former members, and nonmembers.

### Simulations

The focus of this article is not so much on the effects of education, average level of education, and age but on the extent to which these variables can explain the trends reported in Tables 1 and 3. We already mentioned that the trends are less strong after inclusion of education, average level of education, and age. This reduction may occur for three reasons. First, in the 1979–2005 period, the relative number of individuals with a high level of education rose sharply and this resulted in lower levels of traditional Christian belief as well as lower levels of belief in the supernatural. This is so because individual educational achievement is negatively related to both beliefs. This first effect is a composition effect due to changes in the distribution of education at the individual level.

The second explanation for the reduction is the replacement of older cohorts by younger cohorts who experienced a different type of socialization. The number of older people who *grew up* while the average level of education of their co-citizens was low decreases over the 1979–2005 period, while at the same time the number of younger people who grew up while the average level of education of their co-citizens was high increased. Since the average educational level is negatively related to belief in God and belief in the supernatural, the level of religious beliefs would decline over time. This second effect is a composition effect due to changes in the macro-context in which people live.

The third explanation for the reduction is the process of religious disaffiliation. In the 1979–2005 period, the relative number of Catholics and Protestants dropped considerably. Since there are differences in the level of religious beliefs between affiliated and nonaffiliated people, religious disaffiliation therefore obviously has to be partly responsible for the downward trend. This expectation runs counter to some scholars who argue that belonging and believing are increasingly different phenomena and religious disaffiliation cannot explain much of the trends, especially the trend in belief in the supernatural.

Age turned out to be inversely, but nonsignificantly, related to religious belief. Furthermore, the average age did not increase much in the Netherlands between 1979 and 2005, which is also reflected in our data set. Therefore, we expect little or no impact of age.

To test the *relative* impact of average educational level, individual educational achievement, and disaffiliation we performed a counterfactual simulation analysis known as “purging” (Clogg 1978; Te Grotenhuis, Eisinga, and Scheepers 2004).<sup>6</sup> In this analysis, we simulated the distribution of individual educational achievement from 1979 to be constant for subsequent years (i.e., we imposed the 1979 distribution of individual education upon the data from 1985 to 2005) and calculated the average score on both traditional Christian belief and belief in the supernatural. By doing so, we answer the question: “What would be the trend in religious beliefs, *if individual* educational levels in the Netherlands did not change after 1979?” To assess the contextual impact of average educational level during childhood we set the average educational distributions to be constant as well. With this simulation we are able to answer the question: “What would have happened to the trend in religious beliefs *if* there would be no contextual change of rationalization?” In other words we simulated no inflow of individuals who have been socialized while the average educational level was high, and no outflow of individuals who have been socialized while average educational level was much lower in the 1979–2005 periods. Finally, it is of

**TABLE 5**  
**ORIGINAL TREND AND SIMULATED LINEAR TRENDS IN RELIGIOUS BELIEFS**

	Dependent Variable:			
	Traditional Christian Belief		Belief in Supernatural	
	Trend	Reduction	Trend	Reduction
Original trend (cf. Table 1/3)	-1.91		-1.51	
Simulated trend while average educational level is held constant on 1979 level	-1.69	11%	-1.21	20%
Simulated trend while individual educational level is held constant on 1979 level	-1.73	9%	-1.43	6%
Simulated trend while relative size of all five groups is held constant on 1979 level	-1.09	43%	-0.83	45%
Simulated trend while average educational level, individual educational level, and relative size of all five groups are held constant on 1979 level	-0.51	73%	-0.36	76%

importance to investigate to what extent the decrease of the relative number of Catholics and Protestants, and the increase of the relative number of former members and nonmembers, affected the downward trends. So, we simulated no religious disaffiliation since 1979 to answer the question: "What would be the trend in religious beliefs if the relative number of Catholics, Protestants, former members, and nonmembers did not change after 1979?" The results are reported in Table 5.

The original average trend in traditional Christian belief is  $-1.91$ . The simulated trend if the average educational level would not have changed amounts to  $-1.69$ , which implies a reduction of 11 percent. The simulated trend is  $-1.73$ , assuming the individual educational level to be constant since 1979, implying a reduction of 9 percent over the original trend. These reductions are somewhat different for belief in the supernatural, that is, 20 percent and 6 percent, respectively. Next, we simulated a trend assuming no changes in the number of Catholics, orthodox Protestants, liberal Protestants, former church members, and nonmembers since 1979. In this simulation 43 percent of the trend in traditional Christian belief and 45 percent of the trend in belief in the supernatural is interpreted. In a final simulation, with no compositional change at all, 73 percent of the trend in traditional Christian belief and 76 percent of the trend in belief in the supernatural is explained.

In the Netherlands almost everyone who is a nonmember or a former member will remain so over the lifecycle (Need and De Graaf 1994, 1996). Furthermore, among older cohorts the risk of disaffiliation seems much lower compared to people from more recent (younger) cohorts (Te Grotenhuis and Scheepers 2001). Our counterfactual simulations indicate that the replacement of older cohorts (with a relatively large number of affiliated people) by younger cohorts (consisting of large numbers of nonmembers and former members) is mainly responsible for the downward trend in traditional Christian belief and belief in the supernatural in the Netherlands.

## CONCLUSIONS

With the six repeated cross-sectional surveys in the Netherlands we had the opportunity to investigate religious changes over a period of 26 years using identical measures. More tests for other nations with a similar time perspective are required in order to know whether our results generally apply. Of course, these surveys have their weaknesses. An important one is that we do not make any claim concerning the approximately 900,000 Muslims (about 6 percent of the population) who live in the Netherlands. To investigate the extent to which Muslims are influenced by the modern Dutch context would provide a unique opportunity to put secularization theory to the test (De Graaf 2002). Phalet and Haker (2004) concluded using Dutch data that Muslims are indeed influenced by rationalization. Although their data cover a shorter time span than in this study, they concluded that the Muslim identity is still very strong, but young Muslims are on average clearly less strict with respect to their religious duties than older Muslims. Phalet and Haker realized that it is difficult to disentangle lifecycle- and cohort-effects properly in their data, but they claim that the most plausible interpretation of their data is that cohort effects are present. Their conclusion is in accordance with our findings on Christian religions.

Many scholars in the sociology of religion field agree that traditional indicators like church attendance and church membership are in decline throughout Europe, but suspect people increasingly retain private conceptions of religious belief. In other words, a process of religious individualization has taken place. Consequently, people still believe or have conceptions that are somehow connected to a religious interpretation of the world. In this study, we tested whether this is indeed the case. For this purpose, we distinguished between traditional Christian belief and belief in the supernatural. First of all, for both traditional Christian belief and belief in the supernatural we find in general a significant decline over the 1979–2005 period, although the decline in belief in God is clearly greater than the decline in belief in the supernatural. Since traditional Christian belief and belief in the supernatural decline at different rates, and effects of educational achievement, age, and average education differ. Traditional Christian belief and belief in the supernatural are related but are distinct. Interestingly, the correlation between the two religious beliefs is highest among Catholics, former church members, and nonmembers (0.61, 0.66, and 0.67, respectively) while lower among liberal Protestants (0.49) and especially among orthodox Protestants (0.23). Apparently, the latter consider both beliefs to be much more different than the former. Interestingly, the same pattern holds for conservative and evangelical Protestants in the United States. So counterintuitive as it may seem, because of the growing number of former members and nonmembers in the Netherlands the distinction between traditional Christian belief and belief in the supernatural most likely will probably become less strong in the future.

Among the Catholics and orthodox Protestants, we found a roughly linear decline in traditional Christian belief between 1979 and 2005. This decline is strongest among the Catholics. Among the liberal Protestants, former church members, and nonmembers, we noticed a nonlinear decline in traditional Christian belief suggesting a bottom effect among former members and nonmembers. For belief in the supernatural, we find a significant nonlinear decline among the liberal Protestants and a significant linear decline among Catholics, former members, and nonmembers. These results suggest that the process of secularization is still going on albeit in some cases at a somewhat slower rate.<sup>7</sup>

Our results clearly show that traditional Christian belief and belief in the supernatural is in decline. Since the number of church members is declining as well, believing and belonging go hand in hand. This indicates that there is not much believing without belonging, although the somewhat slower decline in believing in the supernatural suggests somewhat diverging trends, that is, an increasing gap with traditional Christian faith.

What will the near future look like when it comes to religion in the Netherlands? Our findings suggest that the decline of religious beliefs will continue due to cohort replacement, albeit at a slower rate due to bottom effects. Crockett and Voas (2006) found a decline of religious belief

in Britain, which was also caused by cohort replacement. Interestingly, both in the Netherlands and in Britain there are no signs that due to an aging effect people become more religious. Life course data revealed that nonmembers and former members in the Netherlands will remain so during their whole lifecycle (Need and De Graaf 1994, 1996; Te Grotenhuis and Scheepers 2001). We therefore conclude that in the Netherlands for the years to come, a continuing “silent secularization revolution” in which both religious belief and religious affiliation decline is the most likely longitudinal trend and not a large-scale religious revival.

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#### NOTES

1. Lechner (1996) is of the opinion that after the depillarization in the Netherlands, the Dutch became real consumers in a religious economy. In other words, individuals should have become more influenced by the religious market. However, the structure of that religious market, according to Lechner, hardly changed in the decades after the depillarization.
2. The label “supply side theory” is a phrase introduced by Finke and Iannaccone (1993) in order to make a distinction with the traditional approach, which interpreted religious developments mainly as a change in the demand for religion. Scholars quite often assume that the supply side theory is the only rational choice theory of religion (Halman and Draulans 2006). There are, however, other versions that do not make the assumption about a stable demand. The work of Sherkat and Wilson (1995) and the recent work of Stolz (2006) are examples. Furthermore, although we are using the label “rational choice” it is of interest to note that Stark and Finke in their later work clearly object to being identified as rational choice theorists because, as they judge it, it bears the danger of being identified as “crypto economists unable to deal with the subtleties of religious realities” (2000:41).
3. In the Netherlands, there are various Protestant denominations that can be grouped into orthodox Protestants and liberal Protestants (officially labeled as “Rereformed” Protestants and “Reformed” Protestants). The former interpret the Bible’s content more literally and are much more conservative than the latter. This schism in the Dutch Protestant church occurred around 1834 and only recently (2004) liberal and orthodox Protestant churches were officially reunited, although the differences in attitudes and conduct are still pregnant.
4. The recently adjusted secularization theory by Norris and Inglehart (2005) in which existential security is the driving force behind secularization has not been used in this article, since in the 1979–2005 period the security level guaranteed by the welfare state did not change substantially in the Netherlands. Furthermore, if there was a change it was directed downward: the welfare state became too expensive and consequently people became less protected by social security measures in the past decade. Interestingly, and in contrast to Norris and Inglehart’s prediction, secularization is still going on.
5. We conducted a factor analysis with two factors (rotation: direct oblimin) to test whether both sets of variables cluster into different dimensions. This indeed turned out to be the case (see table below), although the dimensions are highly correlated (correlation 0.67). The reliability coefficients (Cronbach’s alpha) are 0.89 for traditional Christian belief and 0.79 for belief in the supernatural. Metric scales were constructed on the basis of a regression technique.

Item	Traditional Christian belief	Belief in the Supernatural
1. There is a God who concerns Himself with every individual personally	0.851	0.052
2. There is a God who wants to be our God	0.850	0.077
3. For me, life has only meaning because of the existence of a God	0.815	−0.059
4. There is something like a supernatural force that controls life	−0.057	0.826
5. I believe in the existence of a Supreme Being	0.189	0.699

6. We also run simulations to measure the impact of age but, as expected, the reduction was close to zero. Because the age parameters were almost all nonsignificant, any reduction of the trend by age is highly questionable. For that reason, we left these results out of this article.
7. In the international literature there is a lively discussion on secularization. For example, Stark and Finke (2000) are of the opinion that secularization is simply not going on, especially if one would consider a time range of several centuries. However, we cannot ignore the strong trends in the Netherlands and other Western countries over the past decades (cf. Norris and Inglehart 2005).

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