The impact of religious socialisation on the transition to the third child in the Netherlands

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1. Introduction

Do the Netherlands constitute a demographic exception within Western Europe? Coleman and Garsson have recently discussed this question (Coleman and Garsson 2002). Among the arguments put forth was the comparatively high fertility rate until the early 1960s. Only a few countries in Central and Western Europe exceeded or reached similarly high levels as the Dutch period Total Fertility Rate (TFR) of 3.12 in 1960: Ireland, Portugal, Poland and Slovakia (EUROSTAT 2007). In only one decade the picture reversed completely. The fertility rate nearly halved until the mid-1970s to well below the European average at that time. Currently the TFR stands compared to other European countries at a moderately high level of 1.72 despite a remarkably late age at childbearing.

The question whether the Dutch case is exceptional can also be raised with respect to religion. Until the mid-1960s belonging to a certain religious denomination markedly shaped everyday life in the system of 'pillarisation' (Dekker and Ester 1996; Bryant 1981). Starting at the end of the 19th century Dutch society had become increasingly segmented according to adherence to the Protestants, the Catholics or no religion at all, enforced by the vivid regional concentration of the different categories. Already primary socialisation was strongly framed by the accordant pillar as family and relatives were of the own kind due to the infrequence of marriages between disparate pillars, friendships were formed within the same denomination and school was run by a certain church. Later in life, belonging to different parties and trade unions, reading different newspapers and joining different associations discriminated the Protestants, the Catholics and the secular ones from one another. Coinciding with the drop in fertility rates, this system eroded rapidly in the mid-1960s, accompanied by an increase in the fraction of unaffiliated people. Indeed has the share of those without religion risen over the 20th century to about 40% (CBS 2000). This fact together with comparatively low levels of church attendance and decline in faith makes the Netherlands one of the most secularised countries in Europe and supposedly in the world.

Within the field of Demography, several theoretical concepts, among them most prominently the Second Demographic Transition (e.g. Lesthaeghe 1995; Lesthaeghe and Surkyn 1988), have emphasised the importance of cultural norms and values in explaining demographic behaviour. Taking up this idea this study is engaged with the relationship between fertility behaviour and religion in the Netherlands. Its focus lies on the progression to the third birth as this transition has witnessed a substantial decline, particularly in the birth cohorts between 1933 and 1947. Consequently it can be hypothesised that couples opting for more than the modal number of two children exhibit distinctive demographic and socio-economic features, among them presumably also a higher religiosity.

Differently from the United States where a large number of studies on the interrelations between fertility and religion exist, only few studies have deliberately addressed the association between religion and fertility for European countries. In general they agree on a positive correlation between religiosity and fertility ideals, intentions and actual fertility. Adsera (2006a), Brose (2006) and Heineck (2006) provide country-specific studies on Spain, Germany and Austria respectively. Frejka and Westoff (2008) report that the risk of having two or more children is associated with different measures of religiosity in different regions of Europe. In Southern Europe church attendance significantly determines progression to higher order births while the measure of the importance of religion is most relevant in Western Europe (p. 26). Adsera (2006b) investigates religious variables as a correlate of the ideal number of children across different countries, cohorts and sexes. She ascertains

that church attendance is a strong predictor of a higher ideal number of children for women and in most countries also for men and a stronger determinant for younger generations than for older ones. The relevance of affiliation can solely be confirmed for pluralistic societies as opposed to countries in which one religious organisation holds a monopoly. The effect of affiliation weakens for younger cohorts, more strongly so for women than for men. Philipov and Berghammer (2007), studying the impact of several religious measures on fertility ideals, intentions and behaviour in 18 European countries, confirm the significance of religiosity for fertility across countries. Church attendance turns out to be slightly more important than affiliation and self-assessed religiosity. Moreover, a stronger effect of religiosity on fertility ideals and behaviour than on intentions is discernible.

During the previous two decades a number of studies have examined the transition to the third birth in several European countries (Britain: Wright et al. 1987, Ní Bhrolcháin 1993; Turkey: Yavuz 2006; Sweden: Hoem and Hoem 1989, Heckman and Walker 1990, Murphy 1992, Berinde 1999) as well as comparatively for 15 countries (Callens and Croux 2005). These studies were interested in establishing the individual level characteristics that are conducive to the transition to the third birth, i.e., above the most common number of two children. Theories on the value of children claim that different values are attached to children of different birth order. When contemplating about having a third child, cost- and benefit considerations are increasingly important, as Fawcett asserts (1983: 444). Couples who decide in favour of a third child arguably award a high value to it, which is not offset by the accompanying costs, e.g., time demand, money expenses and foregone opportunities. Interpreted from the perspective of the Second Demographic Transition studies on third births aim to investigate the traits of parents who progress to a third child and thus give family life and bonds priority over individual autonomy and flexibility. On the other hand, being one more than the modal number two, three children is still not as deviant as four of five children would be.

Studies on third birth hazard that have included various measures of religiosity among the explanatory variables in general indicate a positive relationship between religiosity and the transition to the third child. Corman (2000) finds a significant effect of parent's religiosity on third birth intensities for Swedish men, but not for women. French men and women for whom religion was important at the age of 18 are also more likely to have a third child. Hoem et al. (2001) report a positive association between self-assessed religiosity and third birth risk for Austrian women, which is far stronger than for second births (Prskawetz and Zagaglia 2005: 152/153). A study on the Czech Republic provides evidence for a particularly large effect of church attendance on the transition to the third birth. The hazard of women attending church services at least once a week is double the one of those going less often (Pikálková 2003: 872).

This contribution specifically looks at the interrelation between religious socialisation and current religiosity and their impact on the transition to the third child. Since a number of studies have documented religious differences by sex (e.g. de Vaus and McAllister 1987; Walter and Davie 1998; Roth and Kroll 2007), I will undertake the accordant analyses for women and men separately and investigate how the religious effects differ. The study addresses the following questions:

(1) Which aspect of religion – religious upbringing or present religiosity – has a larger impact on the transition to the third child, given an effect can be observed at all? How does the interplay between past and current religiosity determine the probability to have a third birth?

(2) How do these effects differ by cohorts? Both, fertility levels and religiosity, have shown a strong change over the past decades, the latter, as has been demonstrated, can mainly be accredited to cohort change (Lesthaeghe and Surkyn 1988; Voas and Crockett 2005; Crockett and Voas 2006).

The investigation of the interrelations between religiosity and fertility are important for several reasons: firstly, differential fertility will ultimately change the size of the population groups under consideration provided that the flow between these groups does not counterbalance the fertility effects. In the case of religion, the expected higher fertility of some religious groups might be offset by conversion, or, more prominently in European countries, secularisation. These dynamics deserve attention, not at least due to an increasing number of migrants from high fertility countries that have not undergone a secularisation process.

Secondly, proponents of the Second Demographic Transition have depicted individualisation and secularisation as the most eminent factors in shifts in fertility and union formation behaviour (Lesthaeghe and Surkyn 1988). "Modern" claims for individual autonomy, equality between the sexes, geographical flexibility and self-expression in and out of partnerships are coupled with the acceptance of cohabitation, single parent families, divorce, low and late fertility. Churches constitute a potential counterforce of these developments. Overall they promote large families, durable relationships, the nurturing role of the mother and oppose premarital cohabitation and divorce. Given the decline of religiosity throughout the previous decades, it is a question of interest whether religious institutions or private religiosity are still able to exert an influence on couple's fertility decisions. As the religious trends in European countries have followed very different paths, the answers will turn out to be country-specific.

The data used for this analysis come from the first wave of the Netherlands Kinship Panel Study which was mainly conducted in 2002/03. The sample contains 8,161 respondents (4,741 women and 3,420 men) between 18 and 79 years. In the core part I include women and men who have experienced a second birth and are at most 65 years old at the time of the interview (2,091 women and 1,334 men). The method to be employed is event history analysis to model the risk of the occurrence of the third birth.

The outline of the paper is as follows. First, a concise illustration of the role of religion in the Dutch fertility transition and a presentation of the shifts in fertility that occurred from the post-war period onwards are provided. The next section discusses the reasons why religiosity can be assumed to bear an impact on people's fertility behaviour. Subsequently, the hypotheses to be tested in the empirical part are constructed. The empirical part is opened by a presentation of data and measures, followed by an introduction of the statistical method employed. Next, descriptive findings and results of the models are analysed and interpreted. A summary finalises this paper.

2. Fertility in the Netherlands

Like in many other Western European countries, the Dutch fertility transition started in the 1880s (Coale and Treadway 1986: 131; Dyson and Murphy 1985: 401/402). However, fertility decreased strikingly slowly over the following decades and high fertility rates prevailed until the 1960s. As a matter of fact, the Netherlands stood out as the only Western country whose TFR did not fall below replacement level during the Great Depression and World War II (Van Nimwegen et al. 1993: 5). Already at that time the factors that could account for this peculiar development have been sought. Van Heek (1956) and Buissink (1971) suggested that the exceedingly high fertility levels of Catholics were the main drivers behind the Dutch exception. Using more suitable data Van Poppel (1985) and Engelen and Hillebrand (1986) were able to confirm the important role of Catholic fertility.
Reflections on the reasons for the outstandingly high Catholic birth rates point to the minority situation of the Catholics in a nation that defined itself as Protestant. The Catholics were not particularly small in numbers, mildly rising from 35% of the total population in 1899 to 40% in 1960 (CBS 2000), but Protestants were socially and economically better off and politically more influential until well into the 20th century. This fact together with the vigour of the Dutch Catholic Church, their partial adoption of Calvinist strictness, regional concentration and predominantly rural residence enforced the observance of religious norms, particularly their forceful opposition against the use of contraception (Van Heek 1956: 132). Social control was, for instance, exerted through the compulsion to confess "adverse" sexual behaviour and through house visits of priests (Somers and Van Poppel 2003: 74, 79).
However, in the course of time fertility levels converged and denominational differences had virtually disappeared by the time of the fertility decline from around 1965 (Somers and Van Poppel 2003: 57).

Figure 1 displays the trend in the Dutch period and cohort TFR. The former is marked by a steep fall, which accelerated between 1970 and 1975, to a level a good deal below the European average at that time (1975: Netherlands 1.66, EU-25 countries 2.02). Starting after 1995 the TFR increased from 1.53 to 1.75 in 2003, and nowadays it stands at the moderately high level of 1.72 above the EU-25 average.

As for the cohort TFR, a reduction in the number of children per woman started already in the cohorts born from 1920 onwards. This decrease gained momentum for the birth cohorts 1933 to around 1947 and the fertility level became fairly constant henceforth (Beets 1993). Only the most recent cohorts beginning with those born from 1961 that have (nearly) completed their fertility show signs of decline.[1]

Figure 1:   **Total fertility rate: period 1950-2006 and cohorts 1925-1965 (lagged for 29 years)**
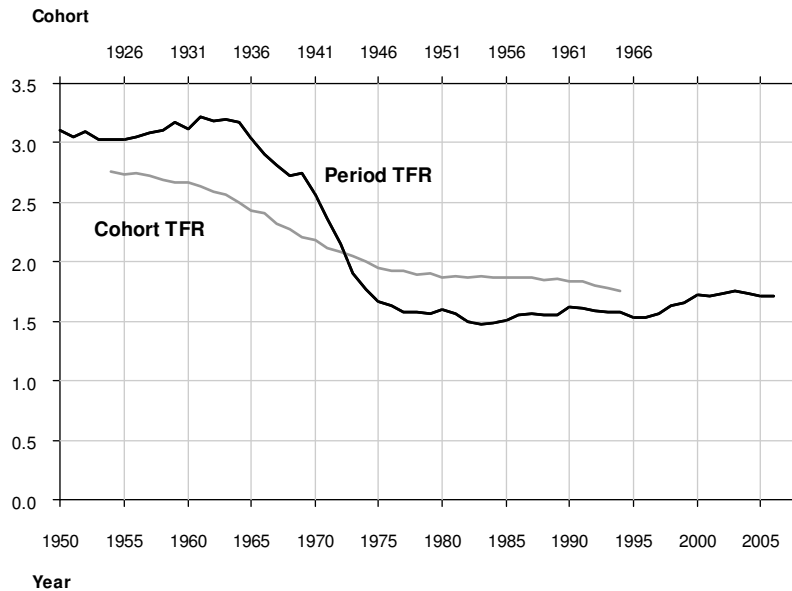

Data sources: Period TFR: CBS 2007, Cohort TFR: 1925-1934 Festy 1979, 1935-1965 own computations based on EUROSTAT 2007 and CBS 2007

Figure 2 depicts the cohort parity distribution from 1935 to 1965. Up to and including the birth cohort 1938 at least 40% of Dutch women had three or more children and thereby exceeded the share of two-child mothers. From the birth cohort 1939 two children became more frequently than children of parity three or higher. Families with three and more children diminished to the lowest values of 22.3% for cohorts 1947-49, increased by a few percent over the next decade and slightly decreased again from the birth cohort 1958. A similar trend emerged for the parity progression ratio to the third birth. In the birth cohort 1935 half of the two-child mothers continued childbearing and this fraction declined sharply to about 30% in the cohorts born in the late 1940s. The progression to third births subsequently rose again mildly up to 38% and resumed a gentle drop thereafter. Summarising this picture we can infer that the decline in the TFR is virtually due to a drastic downturn in higher order births, rendering them an important study object.

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[1] Data on lifebirths were available until 2005, those born in 1965 are 40 years old by then.

Figure 2: Cohort parity distribution and parity progression ratio, birth cohorts 1935-1965
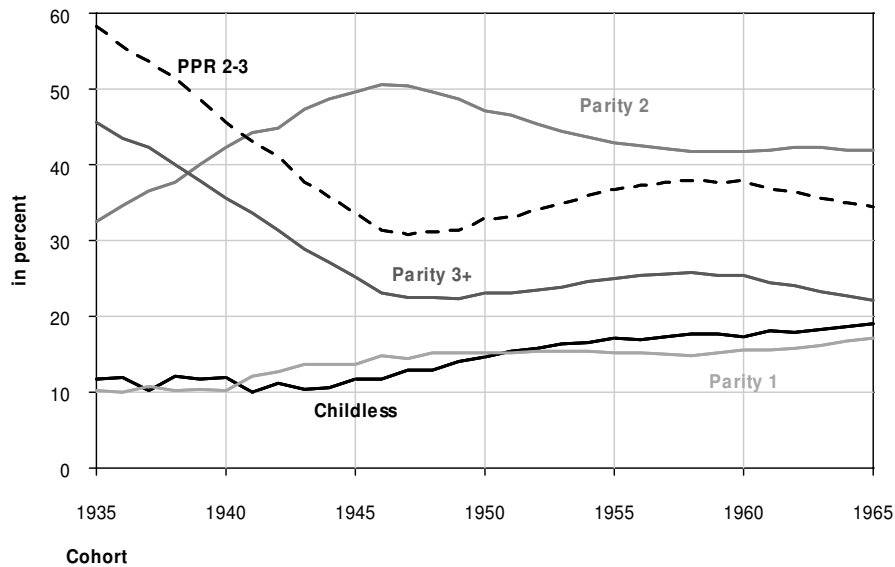
Data sources: Own computation based on EUROSTAT 2007 and CBS 2007

3. Religion and fertility

The question on the reasons why religion and fertility are linked has been repeatedly addressed (McQuillan 2004; Chatters and Taylor 2005; Philipov and Berghammer 2007). The following considerations are best suited for the Christian religion to which, due to the small number of adherents to other religions in the dataset, also the empirical analysis confines itself[2].

The starting point is frequently made about the pronatalist and pro-family Christian teaching, which is well documented in the Bible and other texts. The existence of an explicit teaching on children and family related behaviour has been described as a precondition, yet as not exhaustive, for a religious influence on fertility. It is, however, not advisable to discard this approach altogether. McQuillan (1999) argues that religious teachings are a crucial component of a general religious world view which means that "a distinctive demographic pattern may be a part of a quite different orientation to social life even though specific teachings relating to marriage, sexuality, or contraception are either absent or ignored" (p. 8). Such a world view contains, most notably, gender relations and parent-child-relationships. McQuillan has extended these deliberations by postulating that a teaching becomes most relevant for human behaviour provided that some conditions are fulfilled. To begin with, a religious organisation needs resources to communicate its teaching to its members and to enforce fulfilment, or to punish the failure to carry out the rules. In addition, belonging to a certain church must be central for the identity of a person. This, as McQuillan has abundantly illustrated, most likely applies in the case of competition or conflict between (religious) groups (McQuillan 1999, 2004).

Secondly, the regular gathering of the community has been inherent to the Christian faith from its very beginning. Church networks are relevant for childbearing in at least two ways. First of all, members of church networks exchange emotional, tangible, informational and spiritual support (Krause et al. 2001: 638-639). Studies in the U.S. have provided evidence of a positive association between religiosity and both, network size and frequency of received support (Ellison and George 1994; Taylor and Chatters 1988; Chatters et al. 2002). Several other studies confirm the relevance of social support for fertility decisions (Schoen et al. 1997; Bühler and Philipov 2005; Philipov et al. 2006). Secondly, the plausibility of shared Christian norms and values is continuously affirmed through communication with co-religionists, collective rituals and pastoral indoctrination (Berger 1969). For example, the high

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[2] Among the non-Christian religions in the Netherlands, the most numerous adherents are Muslims, composing about 5.8% of the population in 2005, and Hindus, who amount to about 0.6% (Becker and De Hart 2006: 34).

appreciation of motherhood and a high value attached to children are sustained through collective recognition and accordant action. A larger number of children becomes more likely and, especially when the model family is highly regarded, in turn serves as an example affecting the fertility behaviour of other couples. Procedures of social regulation and control further promote compliance.

Next to religious teaching and communal embedding, religious coping is presented as the third factor accounting for a relationship between religion and fertility. One of the functions assigned to religion consists in assisting believers to cope with uncertainty and life stress. This ability is understood as a crucial component of psychological well-being (Diener et al. 1999: 285-286). The methods of religious coping are numerous, ranging from actively dedicating one's situation to God's control through getting comfort and reassurance through God's love and care to redefining a difficult situation as possibly beneficial (Pargament et al. 2000). Research on religious coping frequently deals with illness and has as yet widely neglected family events. Ventura and Boss's (1983) study on the coping strategies of families who have a baby of two or three months constitutes an exception. The authors distinguish being religious, thankful and content as one coping strategy.
Recent research points to the decisiveness of considering subjective well-being (Philipov et al. 2006) and uncertainty as factors in understanding union formation and fertility. Uncertainty takes different forms, be it economic uncertainties (Mills and Blossfeld 2005; Adsera 2005; Kohler et al. 2002) or other uncertainties such as instability of a partnership or not being able to live up to expectations in childrearing (Fliegenschnee 2006).

The "characteristics hypothesis" (e.g. Goldscheider and Uhlenberg 1969) proposes an alternative explanations for religious fertility differentials. It posits that belonging to a certain faith and practising particular rites are a mere reflection of distinctive socio-economic traits, such as age, education or growing-up in a rural versus urban context. Hence, religious differences in level and timing of childbearing are produced by different socio-economic characteristics rather than by religion as such. To rule out this possibility in the empirical testing of the hypotheses, a number of variables that control for social characteristics are included in the models.

4. Hypotheses

As compared with other parts of Europe, the Netherlands scores among the lowest in various religious indicators. It is notorious for its very high level of non-affiliated people, amounting to around 40% of the population (Statistical Yearbook of the Netherlands 2007: 116). Knippenberg suggested that as a consequence of the raised conscience in religious matters due to different denominations living side by side, the Dutch would sooner than other nations proclaim they are not adherent of any church, because "even apostasy is a serious act, that should be registered somehow" (Knippenberg 1998: 210). Although the nominal indicator of belonging to a church has its merits, the actual religious vitality is better pictured by measures of religious practice, like church attendance[3]. In 1970, the Dutch Reformed Church exhibited a comparatively low level of 50% of their members attending church at least every second week while Catholics stood at 70% and the conservative stream of the Protestant churches, the Calvinists[4], at 90% at that time (Becker and Vink 1994 cited in Lechner 1996: 256). Quitting regular attendance had taken place already earlier among the Dutch Reformed. There was some further decrease of church attendance among the Dutch Reformed between 1970 and 2000 but it was clearly less pronounced than among the Catholics. The Calvinists are the most successful in attracting their members to church. The data of the Netherlands Kinship Panel Study reveal,

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[3] It is a well documented fact that the level of church attendance is overestimated in surveys (e.g. Hadaway et al. 1993; Marler and Hadaway 1999). The numbers are nevertheless useful for a comparison between the denominations and for tracking of the general trend.
[4] The Dutch Reformed Church (Nederlandse Hervormde Kerk) was the main church that originated from the reformation in the 16th century. Two important secessions of conservative streams took place in the 19th century. Most of the secessionists confederated and founded the Reformed Churches in the Netherlands (Gereformeerde Kerken in Nederland) in 1892, further denoted as Calvinists.

comparable to other surveys, that around 20% of the Catholics attend church at least monthly which contrasts to 36% of the Dutch Reformed and 73% of the Calvinists[5].

To conclude, only a minority of the population has remained religious in the Netherlands. It therefore suggests itself that those who declare belonging to a church or even following religious practices stand against a vigorous countertrend and they should exhibit particular behaviour in other domains of life too, presumably also with respect to childbearing. In countries where mass secularization has only recently set in, such as in Italy or Spain, the contrast between religious and non-religious people should be much less decisive. There, the religious still constitute a highly heterogeneous group. Confirming this interpretation, Adsera found for Spain that while religion did not bring about a difference in childbearing among the older cohorts it did so among the younger ones (Adsera 2006a). For the Netherlands, this selection has been going on for many decades now, giving reason to hypothesise that a differential fertility between religious and non-religious people persists.

My main interest consists in dissecting the interplay between religious socialisation and present religiosity regarding their impact on the transition to the third child. Various studies corroborate the substantial impact of parent's religiosity on their children's religious trajectory. The literature offers two main explanations for the transmission of values and behaviour from parents to children: social learning and status similarity (Barber et al. 2002: 54-56; Moen et al. 1997: 282-283; Glass et al. 1986: 686; Grusec et al. 2000). Social learning occurs as parents serve as role models for their children who learn from their parents' behaviour and verbalised attitudes. This effect can yet be supported by active parental efforts to impose their behaviour and views on their children through affirmation and negative sanctions. Secondly, similarity between parent's and children's socio-economic status, i.e., ethnicity, education, occupational status and economic resources, facilitate the transmission of values and behaviour across generations. In this context Kalmijn et al. (2006) stress the significance of opportunity structures which children can be integrated into. Children who get embedded in a church community become familiar with the rituals, form friendships and potentially find a marriage partner there (p. 1348).

The intergenerational transmission of religious values and behaviour is obviously not complete in all cases. Its success depends on various factors such as the quality of the relationship between the parents, the quality of the parent-child relationship, weather both parents are biological ones as well as on traditionalism of the family structure (Myers 1996; Hoge et al. 1982), denomination (McAllister 1988), sex of the parent and the child (Flor and Knapp 2001; Acock and Bengtson 1978). For the Netherlands, Need and De Graaf (1996) found that young adults were frequently leaving the church in their late teens and early twenties, afterwards church leaving is very rare (p. 93 and 96). Te Groitenhuis and Scheepers have confirmed this finding (2001: 602) and additionally found that a diminution in church attendance usually happens between ages 14 to 26 with a strong peak around 18/19 (p. 597). On the other hand, very rarely do people who were not exposed to a religious parental home adopt religious views and activities themselves (Voas and Crockett 2005: 21-22). We can therefore expect that currently religious people form a subgroup of those who were socialised in a religious way. They are selected along certain characteristics and still subject to church influences. *Hence, I anticipate that the impact of actual religiosity on third birth intensities exceeds that of religious socialisation (Hypothesis 1).*

The dataset at hand offers three measures of present religiosity: affiliation, frequency of attending religious services and membership in a religious or church association. Albeit most crucial in the decades before, denominational fertility differences have become by and large negligible from around the mid-1960s (Somers and Van Poppel 2003). Indicating a religious affiliation can be solely nominal. The share of nominal Christians seems to be highest among the Dutch Catholics, who declared the lowest portion of churchgoers. It might seem surprising that so many who are not regular church goers nevertheless declare to be Catholic, but we can speculate that the roots lie in their former minority status and that Catholicism therefore is an important marker of their cultural identity.

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[5] More credible estimates, obtained with other methods, allude to around 8% regular churchgoers among the Catholics (KASKI 2007) and 21% among adherents to the Protestant Church in the Netherlands, a fusion of the Dutch Reformed and the Calvinists (Becker and De Hart 2006: 32).

Church attendance, by contrast, involves active participation which only a subgroup of affiliated persons is willing to undertake. Several publications hint that church attendance is more predictive of fertility ideals and behaviour than affiliation in European countries (Adsera 2006b; Philipov and Berghammer 2007). Respondents who agree on the question of being a member in a religious or church association can be thinking of a range of different groups or organisations. Presumably, due to this large variation, those who hold membership will not behave very distinctively from those who do not belong to any religious or church association and this measure is assumed to be less determining for the transition to a third birth than church attendance. *Therefore, I expect that church attendance is a stronger predictor of progression to third birth than religious affiliation or membership in a religious or church association (Hypothesis 2).*

The third hypothesis is based on the argument that religious upbringing continues to have a bearing on fertility behaviour even if religious participation has been abandoned. Internalization of values in the formative years may take deep roots. Furthermore, parents might still impose control on their grown-up children (Axinn and Thornton 1993) and childhood friends and acquaintances may exert an influence. *Thus, religious socialisation wields an influence even in the case of no actual religious activity (Hypothesis 3).*

With regard to gender differences, the data of the NKPS confirm findings from other surveys that indicated a higher percentage of non-affiliated and non-churchgoers among men (CBS 2000: 14-15; Becker and De Hart 2006). This gap in religiosity is, however, not reflected among parents with two children in the NKPS. *I expect this pattern to continue for the third child and hypothesise that all aspects of religiosity have a stronger effect for men than for women (Hypothesis 4).*

The same argument of selectivity also pertains to birth cohorts. The impressive magnitude of the religious decline is reflected in their religious socialisation over time. As religiosity has eroded over the last decades and has left the religious an increasingly select group, it seems reasonable to expect a differential influence on transition to the third birth. Especially since having three children has become less common. *Past and current religiosity are more salient predictors of third births for younger than for older cohorts (Hypothesis 5).*

5. Data and Method

5.1. Netherlands Kinship Panel Study

The data used here originate from the first wave of the Netherlands Kinship Panel Study (NKPS) which was conducted between 2002 and 2004 (Dykstra et al. 2005). It is a random sample of 8,161 individuals (4,741 women and 3,420 men) living in private households in the Netherlands. The respondents are between 18 and 79 years old.

The data collection process was conducted in two stages. The respondents were first interviewed using Computer Aided Personal Interviewing (CAPI) and then they were given a self-completion questionnaire. The dataset contains complete fertility and relationship histories and a wide range of socio-economic variables. It is also particularly rich in questions on religiosity. These items have been part of the self-completion questionnaire designed to minimise response bias. Information has been obtained on religious denomination, frequency of church attendance, membership in a religious or church organisation and importance of religion and the church at the age of 15. Additionally, the respondents have been asked which religious denomination their mother and father belonged to when they were 15 years old.
The NKPS is a panel study. The data for the second wave were collected in 2007. The low response rate of 45%, comparable to other Dutch surveys, is partly explained by high male non-response. Of all respondents participating in the study 92% have returned the self-completion questionnaire.

5.2. Questions pertaining to religion

In the following paragraphs, wording of and supplementary thoughts about the four questions on religion are presented. The first question asks about the respondent's religious affiliation. The same question is posed for collecting information about the respondent's mother's and father's affiliation: *"Do you count yourself as belonging to a particular faith, religious denomination or church? If so, which one? No religion, Roman Catholic, Dutch Reformed Church, Calvinist (synodal), Other Calvinist denominations (e.g. Christian Reformed, Dutch Calvinists, Reformed Community), Evangelical church denominations (e.g. Full Evangelical church, Pentecostal church, Baptists, Community of the Moravian Brethren), Other Christian church denominations, Islam, Judaism, Hinduism, Other"*.

Eisinga and Felling (1990), examining 40 Dutch surveys, have convincingly shown that the percentage of respondents ticking the "no religion" box significantly differs by the way the question is presented. If it takes the form of a two-stage question, i.e., before surveying the actual denomination a question is inserted asking as to whether the interviewee belongs to any denomination at all, the percentage of non-affiliated is much higher. Increasing over the previous 25 years, the difference amounted up to almost 20% in 1985. The wording of the question in our data set, explicitly offering the alternative of not belonging to any denomination, lies between these alternatives, and has been termed a "one-and-a-half-step question".

Affiliation to a certain religion is inspected in a cross-sectional way just as the other religious variables. Thus, I am restrained to treating this variable as time-constant which does not seem to be a drawback. In fact, there is evidence for the Netherlands that changes in religious affiliation follow a cohort rather than an age-path (Need and De Graaf 1996: 93 and 96; Te Groitenhuis and Scheepers 2001: 602).

For use of this variable in the statistical analysis the following levels are constructed: *no religion, Roman Catholic, Dutch Reformed, Calvinist (synodal), Calvinist (orthodox)* and *others*. I decided to keep the orthodox Calvinists as a separate category because the descriptive investigation has exposed their fertility levels as essentially different from those of the other Protestant groups. Furthermore, in the year 2004, synodal but not orthodox Calvinists have merged with the Dutch Reformed church.

The following item is on the frequency of attending religious services and thus serves as a measure for the degree of organised religiosity: *"About how often do you currently attend services at a church or community of faith? Hardly ever/never, Once or a few times a year, once or a few times a month, once or a few times a week"*. This question allows drawing conclusions on the proximity to the church, accordance with and exposure to its teaching and, presumably, integration in a church network. However, church attendance need not reflect personal conviction, but might as well be driven by convention or even social pressure. Less so in urban areas, but possibly in the countryside or in regions where orthodox Calvinism is prevailing.

Three considerations are particularly noteworthy when utilising this measure. Firstly, as church occupies a more central position in Catholicism than in Protestantism, Catholics are prescribed to attend church services on Sundays and holidays. Protestants attach greater value to other expressions of faith, such as reading and interpreting the Bible. But as the differences are not pivotal, I will utilise this measure uniformly. Secondly, as previously mentioned, several contributions have consistently confirmed the phenomenon of the over reporting of church attendance in surveys, which can also be established for the Netherlands. Lastly, church attendance is measured at the time of the survey only. For establishing causality, it is most crucial to establish that this variable is stable over time. If church attendance varied over time, maybe also due to childbearing, we would erroneously interpret third birth as dependent on it. Indeed, there are theoretical arguments that posit that the change in church attendance may result from childbearing. For example, baptism and Catholic first communion reanimate the contact of the parents with their local church community and church networks of people in similar situations might be attractive to parents. A birth may also raise questions about the meaning of life whereupon answers can be sought in the religion. Positive childhood reminiscences of the church can rouse the wish the child should experience them too or the desire to expose the child to "good values". Alternatively, child rearing responsibilities can hinder church attendance.

The evidence from previous studies is mixed. Analyses pertaining to European countries unanimously state that, as a rule, reduction of church attendance takes place in young adult age and afterwards, at

least during the childbearing ages, stays constant (Te Grotenhuis and Scheepers 2001; Lesthaeghe and Surkyn 1988; Crockett and Voas 2006; Voas and Crockett 2005; Tilley 2003). Some U.S. studies are in line with this finding while others emphasise the changes of church attendance with age.

The original answering categories of this variable – *hardly ever or never, once or a few times a year, once or a few times a month, once or a few times a week* – are kept for the statistical analysis. Only women and men who belong to a Christian denomination are incorporated into this variable, i.e., the denominations already specified plus Evangelical church denominations and other Christian church denominations. This restriction was substantiated by the rather homogeneous meaning of church services within this group.

Respondents who concur to the question *"Are you a member of any of the following clubs or voluntary associations? … Religious or church association"* can have a range of different clubs or associations in mind. For example, Bible study groups, parental or youth groups organised by the church, ecumenical discussion groups, membership in a board of a religious school or subscription to a religious periodical. The response categories of *yes* and *no* are used in the regression models.

The last question is a proxy for religious socialisation: *"At the age of 15: In our home, issues linked with religion and the church were considered to be very important. Strongly agree, agree, neither agree nor disagree, disagree, strongly disagree"*. The major importance of the parents in the transmission of religious values to their children has been repeatedly confirmed. Kelley and De Graaf (1997) found that in secular nations like the Netherlands, more than in religious ones, the family is of paramount importance for religious socialisation. Contact with religion, for example during religious education at school, through religious peers or religious festivities, does not come naturally in such a context. The family is usually the only instance that is capable of transmitting religious world-views and accustoming their children to religious practices and a religious surrounding.
For utilization in the empirical analysis, the original five answering categories of this variable are recoded into three, *(very) important, middle, (very) unimportant*.

5.3. Method

The technique to be applied is event history analysis, which models the rate of occurrence of an event. This hazard rate gives the risk per time interval for the event to occur, given the individual is still at risk at the beginning of the interval. The time is, according to the information provided in the data set, measured in years. Here, the population at risk are women and men at parity two, who are exposed to the risk of having a third child until either the birth occurs or they are censored at age 45 (women) or 50 (men), respectively, or at the time of the survey. I split the basic time factor, time elapsed since second birth, into intervals which allows modelling the risk for each time interval separately. The hazard is assumed to be constant throughout one interval but can vary between them. As the information on childbirth is only available on annual basis, I use a discrete model, in this case a logit model (Allison 1984: 17).

Apart from the explanatory variables on religiosity, the following five time-constant covariates are included in all models: age at first birth[6], interval between first and second birth[7], birth cohort[8], education[9] and number of siblings[10]. Marital status[11] enters the regression equation as time-varying

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[6] The respondents have been distributed into the three categories "young", "middle" and "old" in the proportion 1:2:1. "Young" women are 16-23 years old at the birth of their first child, "middle" aged women are 24-29 years old and "old" women have their first child between 30 and 41 years. 16-25 year old first time fathers are denoted as "young", men aged 26-30 are in the "middle" category and 31-46 year old men count as "old".

[7] The constructed time intervals are 0-1, 2, 3, 4 and 5+ years.

[8] The respondents were assigned to the following birth cohorts: 1936/37-1944, 1945-1954, 1955-1964 and 1965-1979.

[9] The levels of education were constructed according to the International Standard Classification of Education (ISCED). Completed or incomplete elementary school (ISCED 1), lower vocational and lower general schooling between ages 12-15 or 16 respectively (ISCED 2) are denoted as "Low education". "Intermediate education" comprises completed intermediate general secondary, upper general secondary and intermediate vocational

regressor. I also experimented with the inclusion of the variables age at second birth, country of residence at age 15, urban or rural residence at age 15, sex composition of previous children and if the respondent ever had a paid job, but since they did not further enlighten the relationship between religiosity and progression to third birth I excluded them in the models presented here.

The analysis is based on women and men who have at least two biological children either with the current, with the previous or without a steady partner. Records with adopted children, twins at second birth and cases in which the first or second child died before the birth of the third one were excluded (please see Appendix). Women and men were also censored if they were below 15 or above 45 years (women) or 50 years (man) of age respectively at the birth of first or second child. When second and third birth occurred in the same year or the second birth took place in the year of the survey records were omitted due to non-exposure.

Furthermore, respondents who were older than 65 at the time of interview were excluded from the analysis. This approach has been chosen as it is assumed that religiosity is prone to changes after this age. Women and men are exposed to a shift in social location, mainly withdrawal from the labour force, and, going along with it, changes in time allocation. Declining physical abilities might pose an obstacle to join certain activities and the rise of existential questions is likely in the face of the approaching end of life of oneself and others.

The final total number of women and men that enter the analysis is 2,091 and 1,334 respectively. The minimum age is 24 years, the maximum age is 65 at the time of the survey. Owing to the inappropriate coverage mainly of men, weighed data are used (Glynn 2004). Table 1 depicts the percentage distribution of female and male respondents according to the levels of the religious variables. The choice of cohorts is based on the state of religion during their socialisation. The system of pillarisation ended at the time the youngest of the 1936/37-54 cohorts were adolescents and thus still exposed to a strong religious influence.

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training between ages 15/16 and 17-20 (ISCED 3). "High education" refers to women who accomplished their higher vocational, university or post-graduate training taking place between ages 17/18 to 20-24 (ISCED 5). "In education" constitutes the forth category. Education, even though in principle time-varying, enters as a time-constant covariate which should not be problematic as very few people complete their education after the birth of the second child (Hoem et al. 2001: 252).

[10] Respondents having 0, 1, 2 or 3 and more siblings are distinguished.

[11] Marital status comprises the following states: No union, cohabitation, first order marriage, higher order marriage.

Table 1: Percentage distribution of respondents according to the categories of the religious variables (weighted)

	Women			Men		
	All cohorts (1937-1979)	**Older cohorts (1937-54)**	**Younger cohorts (1955-79)**	**All cohorts (1936-1979)**	**Older cohorts (1936-54)**	**Younger cohorts (1955-79)**
	n=1,790	n=791	n=999	n=1,552	n=859	n=693
Importance of religion at age 15						
(Very) Unimportant	35	29	41	32	27	37
Neither – nor	20	20	21	20	19	21
(Very) Important	36	44	30	39	45	32
Missing	8	8	8	9	9	9
Membership in religious or church association						
No	55	47	61	54	49	61
Yes	14	16	13	15	16	14
Missing[12]	31	37	26	30	34	25
Religious affiliation						
None	34	31	37	33	30	38
Roman Catholic	27	28	26	30	34	26
Dutch Reformed	12	14	10	11	13	9
Calvinist	5	6	3	5	6	4
Calvinist (orthodox)	4	4	4	3	2	4
Other religion	7	6	8	7	7	8
Missing	11	11	12	10	10	11
Church attendance						
Hardly ever/Never	44	44	44	45	43	48
At least yearly	24	21	27	23	25	21
At least monthly	9	12	7	8	10	6
At least weekly	10	13	9	10	11	10
Other religion	3	2	4	4	3	5
Missing	8	8	9	9	9	10
Father's religious affiliation						
None	16	14	18	13	12	14
Roman Catholic	36	34	38	39	40	37
Dutch Reformed	17	18	16	16	17	15
Calvinist	7	8	5	6	6	6
Calvinist (orthodox)	5	6	4	4	2	5
Other religion	5	5	5	6	5	6
Missing	15	16	14	17	16	17

6. Descriptive analysis

First, I present a descriptive overview of parity progression ratios (PPR), the percentage of two-child mothers experiencing a third birth, according to the five indicators of religiosity analysed here (Figure 3). Each higher level of religiosity corresponds to an increase in the third birth PPR. The range between the minimum and the maximum PPR is fairly similar for religious affiliation, father's affiliation and frequency of church attendance, amounting to 41-45%.

Regarding respondent's affiliation, the PPR is lowest for the non-affiliated. Orthodox Calvinist women have the highest progression ratio of 72% and Calvinists and the Dutch Reformed take up a position in between these extreme groups. The PPR of Catholic women exceed that of the non-affiliated by 7% only.

An increase in the PPR from those who practically never attend church services to those who go at least weekly is apparent. While the intervals are rather even between the three lower levels of church attendance, weekly church attendees show a distinctively higher fertility.

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[12] The high share of missing values is arguably owed to the respondent's lack of understanding of this item given that it is located shortly after the question on belonging to a religious denomination or church.

High importance of religion at age 15 and membership in a religious or church association are accompanied by a higher PPR, but the contrast between their levels is less pronounced than for the previous variables.

Figure 3: Parity progression ratios from second to third child (in percent), by various indicators of religiosity, women (weighted)
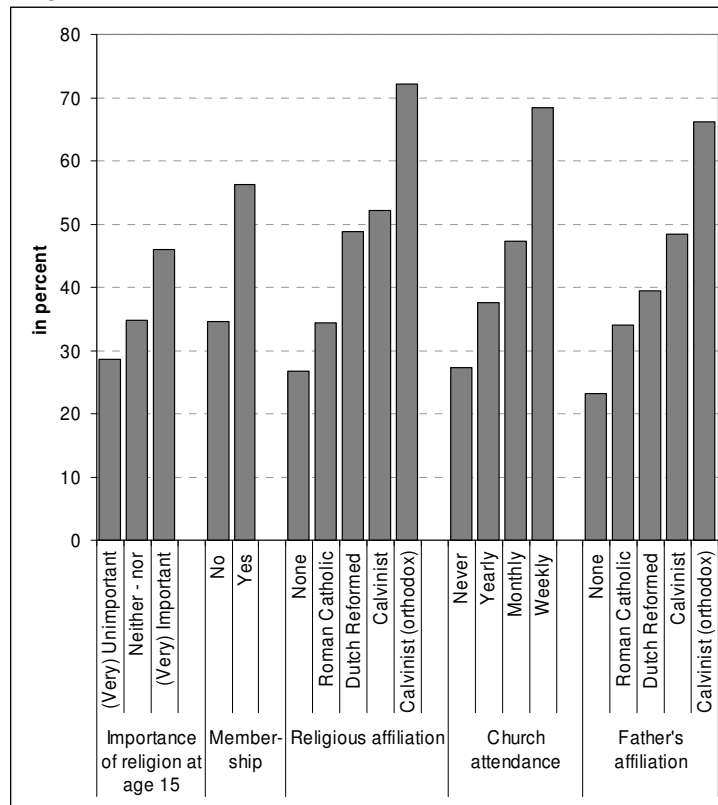
Figures 4(a) and (b) display the cumulative progression to the third birth by a combination of religious socialisation and church attendance[13]. They do so separately for older (1936/37-54) and younger (1955-79) cohorts and both sexes respectively.

As a rule, two-child church-goers who were raised in a religious environment show by far the highest propensity to have a third child. They are followed by women and men who were socialised in a religious way but have discontinued attending church services themselves. Respondents who do not attend church and were not brought up in a religious family are least likely to progress to a third child. The number of those who were not exposed to a religious socialisation during adolescence but attended church at the time of the survey is negligible.

The differences in religious intensity are also mirrored in the length of the birth interval between second and third birth, following the same gradient, with regular church attendees having the shortest duration to third birth. A deliberate decision for a third child frequently implies a close spacing of all previous births due to fecundity limitations. This point is especially valid for the Netherlands which is characterised by a high mean age at first birth.

Women who do not attend church and were or were not brought up religious, respectively, differ by around 6-7% from each other, while a substantial gap to the current church attendees appears. This pattern is strikingly similar by cohorts, yet, the levels of the curves are elevated for the younger ones. This is in agreement with Hypothesis 5 which predicts a larger impact of religious indicators for younger as compared to older cohorts.

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[13] The variable was constructed in such a way that "church attendance" implies going to church at least monthly, anyone below this value is not regarded as a churchgoer. If religion was considered very important or important in the respondent's parental home, the respondent is defined as having been socialized in a religious way. Stating that religion has been very unimportant or unimportant means in my definition that no religious socialization has taken place. The middle category was omitted.

The results for the men differ in two ways from the observations for the women. The range between respondents who do not attend church, on the one hand, and those who come from a religious home and continue attending church, on the other hand, is larger for women than for men. And secondly, the ultimate probability of having a third child for the religiously socialised who do not attend church lies virtually in the middle between the other two categories. This finding could point to socialisation being a more decisive factor for men than for women. Partly it is due to the lower levels of third-child progression for male churchgoers.

Figure 4: Cumulative progression rate to third birth by religious socialisation and church attendance (weighted)

(a) Women
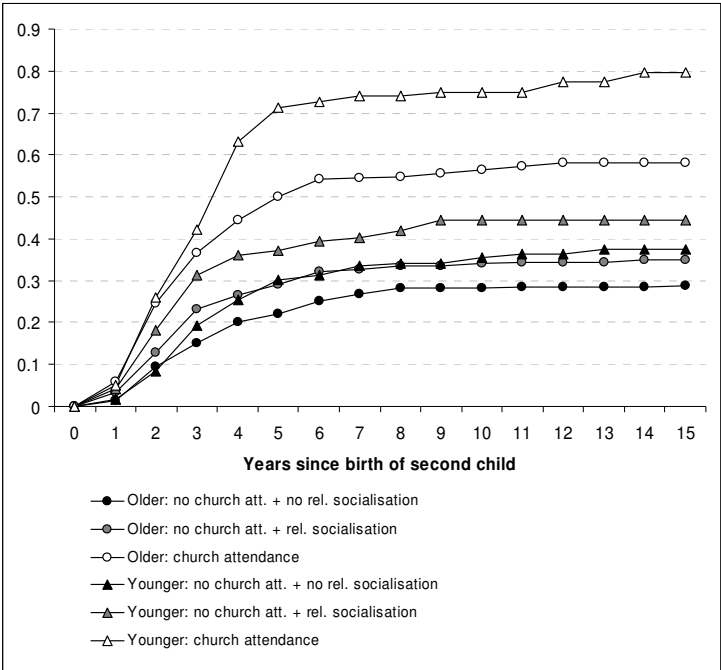
(b) Men
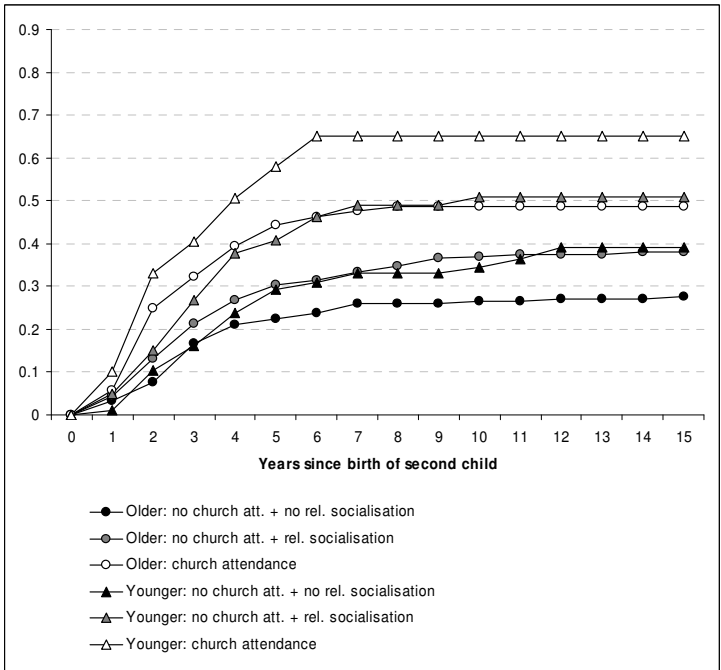
7. Results and interpretation

The main research questions are addressed in consecutive model fitting. The first strategy is to single out the most relevant aspect of religion for the transition to the third child, either referring to past or current religiosity and, more general, to investigate the relations between the variables. The aim of the second models is to find out whether religious socialisation matters even in the absence of present religiosity. Third, I test the supposition that religious effects are stronger among the younger than for the older cohorts by performing the analyses separately for cohorts born from 1936/37 to 1954 and those born between 1955 and 1979.

7.1. Aspects of religiosity and their impact on the third birth

Model 1 in Table 2 contains women's religious socialisation. The third birth intensity of those in whose parental home religion was (very) important, is elevated by 73% as compared to those where religion was (very) unimportant. The middle category does not differ significantly.
Adding membership in religious or church association in Model 2 reveals that members have a higher progression risk than non-members, even though this effect disappears once religious affiliation is added to the equation (Model 3). The third birth intensity of Roman Catholics does not differ significantly from that of the non-affiliated, lending support to the perception that Roman Catholicism in the Netherlands mainly reflects cultural belonging. The effect coefficients of the members of the Dutch Reformed and the mainline Calvinists are fairly similar. The highest progression risk, 2.14 times higher than the reference category, is observed for the orthodox Calvinists.
However, when church attendance is introduced as in Model 4, it absorbs the effects of the other variables, showing a strong positive effect itself. The third birth intensity increases with every subsequent level of church attendance, peaking at a more than double the risk for women who attend church once or a few times a week as compared to those who never attend. Yearly and monthly attendees are relatively similar in their progression risk, occupying a middle rank between the two extremes. The loss of the significance of religious affiliation indicates that the differences between the denominations can primarily be attributed to different intensity of religious practice. In other words, not a distinction in teaching on childbearing and family related issues are responsible for the observed disparities in fertility but rather differences in the devotion to the church and its teaching.

In the last model, respondent's religious affiliation is substituted by another measure of religious socialisation, namely father's affiliation when the respondent was 15 years of age. Father's affiliation yielded a stronger effect than did mother's. An interaction between mother's and father's affiliation revealed that the progression risk is equally low independently if one or both parents are not affiliated (model not shown). All levels, except for the Roman Catholics are significantly different from the baseline category no affiliation. Concerning the size of the coefficients the denominations exhibit the same rank like in respondent's affiliation. Finding father's religious affiliation significant is rather unexpected granted that respondent's own affiliation did not evince any statistically significant effects when controlling for church attendance. Further analysis showed that also when combining both, respondent's and father's affiliation as well as church attendance in one model, father's affiliation turns out to be more important than woman's own affiliation (model not shown). Bivariate analysis demonstrates that respondent's affiliation and church attendance are more strongly correlated than father's affiliation and church attendance. Therefore, also the results of the models support the interpretation that father's affiliation reflects religious socialisation as opposed to current religiosity which is measured by church attendance or respondent's affiliation. But both measures are likewise important.

Table 2: Effects of measures of religiosity on third-birth rates of Dutch women born 1937-79. Discrete hazard model

	Model 1		Model 2		Model 3		Model 4		Model 5	
Importance of religion and church at age 15										
(Very) Unimportant	1		1		1		1		1	
Neither – nor	1.24		1.19		1.15		1.11		1.02	
(Very) Important	1.73	***	1.57	***	1.42	**	1.24		1.10	
Membership in religious or church association										
No			1		1		1		1	
Yes			1.47	***	1.15		0.91		0.94	
Religious affiliation										
None					1		1			
Roman Catholic					1.09		0.82			
Dutch Reformed					1.66	***	1.29			
Calvinist					1.79	**	1.22			
Calvinist (orthodox)					2.14	***	1.35			
Church attendance										
Hardly ever/Never							1		1	
At least yearly							1.57	***	1.43	**
At least monthly							1.85	***	1.71	***
At least weekly							2.56	***	2.42	***
Father's religious affiliation										
None									1	
Roman Catholic									1.25	
Dutch Reformed									1.54	**
Calvinist									1.81	**
Calvinist (orthodox)									1.97	**

Controlled for: Age at first birth, interval between first and second birth, cohort, education, number of siblings, marital status.
Missing values and the category "other religion" are not shown but were controlled for.
Significance levels: * $p \leq 0.05$ ** $p \leq 0.01$ *** $p \leq 0.001$

To shed further light on this observation an interaction between father's and female respondent's affiliation is included in the model, together with church attendance. As apparent from Table 3 a socialisation effect persists. The category of non-affiliated women comprises on the one hand women whose father belonged to a certain religion and on the other hand those whose father was non-affiliated when she was 15 years old. The interaction variable suggests that the third birth risk of non-affiliated respondents whose father was Catholic or Dutch Reformed is about 40% higher as compared to those who come from a non-religious family background. However, significance levels do not allow for any strong inference, even if the value of 1.41 for Catholics is significant at the 10% level.

We can tentatively conclude that the non-affiliated women consist of two groups: firstly, those without a religious family background who display the lowest third birth intensity and secondly, those with a religious family background whose third birth intensity is higher. As a consequence, due to this mixture the non-affiliated women do not differ significantly from affiliated women (Table 2, Model 4). If, however, father's affiliation is included instead of the woman's, non-affiliated women with an increased hazard due to their religious background are combined together with the affiliated ones which are then distinctive from the non-affiliated (Table 2, Model 5).

Table 3: Effects of father's and respondent's religious affiliation on third-birth rates of Dutch women born 1937-79. Discrete hazard model

Father's affiliation	Respondent's affiliation		
None	None	1	
Roman Catholic	None	1.41	
Roman Catholic	Roman Catholic	1.17	
Dutch Reformed	None	1.43	
Dutch Reformed	Dutch Reformed	1.69	**
Calvinist	None	(2.32)	**
Calvinist	Calvinist	1.67	
Calvinist (orth.)	None	(1.23)	
Calvinist (orth.)	Calvinist (orth.)	1.90	*

Controlled for: Age at first birth, interval between first and second birth, cohort, education, number of siblings, marital status and church attendance.
Missing values and the category "other religion" are not shown but were controlled for.
Brackets indicate that n<50.
Significance levels: * $p \leq 0.05$ ** $p \leq 0.01$ *** $p \leq 0.001$

Resuming the hypotheses, we can summarize that, in line with Hypothesis 1, church attendance as a measure of current religiosity is a more relevant predictor for having a third birth than importance of religion during adolescence. I argued that the church-goers are a particular subgroup of all women who have been exposed to religious socialisation. However, the picture is less clear with respect to father's affiliation. Here, measures of past and present religiosity likewise exert an effect.
Among the measures of current religiosity, church attendance is a stronger determinant than religious affiliation, as expected by Hypothesis 2.

As a next step, I test the hypotheses for the men. The results of Models 1 and 2 in Table 3 resemble those for women. The third birth progression hazard is elevated for men in whose parental home religion was (very) important as compared to the cases where religion was (very) unimportant. Being member in a religious or church association also makes a significant difference. Then, in Model 3, the picture of findings diverges. Membership continues to have a significant effect, whereas religious affiliation does not. When church attendance is added, the effects of membership and religious affiliation decline, however, the newly added variable does not prove to be significant itself (Model 4). Yet, the weekly church goers differ from the reference category at the 10% significance level (p=0.08) and thus more evidently than the levels of the other variables from the accordant baseline categories. A positive significant association at the 5% level emerges, though, when respondent's affiliation is replaced by his father's affiliation in Model 5. I therefore find a weak support for Hypotheses 1 and 2 in the data as church attendance seems to be the most salient correlate of third birth intensity among the indicators of religiosity. Contrary to the expectation of Hypothesis 3, religiosity matters more strongly for women's than men's decision to have a third child.

Table 4: Effects of measures of religiosity on third-birth rates of Dutch men born 1936-79. Discrete hazard model

	Model 1		Model 2		Model 3		Model 4		Model 5	
Importance of religion and church at age 15										
(Very) Unimportant	1		1		1		1		1	
Neither – nor	1.31		1.26		1.22		1.21		1.23	
(Very) Important	1.55	***	1.36	*	1.24		1.21		1.29	
Membership in religious or church association										
No			1		1		1		1	
Yes			1.62	***	1.41	*	1.25		1.30	
Religious affiliation										
None					1		1			
Roman Catholic					1.12		1.05			
Dutch Reformed					1.27		1.17			
Calvinist					1.49		1.30			
Calvinist (orthodox)					(1.59)		(1.27)			
Church attendance										
Hardly ever/Never							1		1	
At least yearly							1.10		1.12	
At least monthly							1.26		1.41	
At least weekly							1.45		1.77	**
Father's religious affiliation										
None									1	
Roman Catholic									0.89	
Dutch Reformed									1.09	
Calvinist									0.72	
Calvinist (orthodox)									(0.84)	

Controlled for: Age at first birth, interval between first and second birth, cohort, education, number of siblings, marital status.
Missing values and the category "other religion" are not shown but were controlled for.
Brackets indicate that n<50.
Significance levels: * $p \leq 0.05$ ** $p \leq 0.01$ *** $p \leq 0.001$

7.2. The influence of past and present religiosity over cohorts

The subsequent models are fitted for older and younger cohorts separately. Women and men who were born between 1936/37 and 1954 are compared with those born from 1955 to 1979. I speculated that the behaviour of religious persons should get more distinctive from non-religious ones over cohorts since the religious people form an increasingly select group owing to the secularisation process. This assumption finds support in the data.
Younger women for whom religiosity was (very) important show 1.86 times higher third birth intensity than the reference group, while the accordant value amounts to 1.61 for older cohorts (Model 1b)
Model 2b reveals that among the older cohorts, solely weekly church attendees were clearly marked by significantly higher third birth intensities than people who never went to church. The effects gain much strength over the cohorts under observation. For women born between 1955 and 1979 the regression coefficients are monotonously increasing in rather equal gaps with the frequency of church attendance. In a surrounding characterised by low church attendance, third birth risk of yearly church attendees resembles closely the one of the monthly church attendees in the generations before. It shows again that church attendance is a stronger measure than importance of religion in the past.

For men, the findings point in the same direction as apparent in Table 5. With regard to both measures, younger cohorts show stronger values as compared to the older ones. In general, however, the effects

are weaker than for the women. Differently from the younger women, there is strong distinction between never/yearly and monthly/weekly churchgoers for men (Model 5b).

Employing an interaction between religious socialisation and church attendance uncovers that religious background continues to exert an influence on fertility outcome even in the case of no church attendance at present for the younger but not the older cohorts (Models 3b and 6b). In fact, young female non-churchgoers who were subject to religious socialisation during childhood and youth are about 56% more likely to proceed to a third birth than those who were not exposed to religious socialisation. For the men, the effect is very similar with 58%. The value 1.41 is significant at the 10% level. Not surprisingly, the coefficients are further elevated for those who persist attending church at the time of the survey.

Table 5: Effects of measures of religiosity on third-birth rates of Dutch women born 1937-79, by cohorts. Discrete hazard model

	All cohorts		1937-54		1955-79	
	Model 1a		**Model 1b**			
Importance of religion and church at age 15						
(Very) Unimportant	1		1		1	
Neither – nor	1.24		1.13		1.32	
(Very) Important	1.73	***	1.61	**	1.86	***
	Model 2a		**Model 2b**			
Church attendance						
Hardly ever/Never	1		1		1	
At least yearly	1.45	***	1.28		1.59	***
At least monthly	1.87	***	1.55	*	2.41	***
At least weekly	3.17	***	2.95	***	3.42	***
	Model 3a		**Model 3b**			
Importance at age 15 + church attendance[1]						
Past no, now no	1		1		1	
Past yes, now no	1.37	*	1.18		1.56	**
Past no, now yes	(2.11)	**	(1.39)		(2.59)	**
Past yes, now yes	2.60	***	2.25	***	3.02	***

[1] The middle category "neither – nor" was omitted. "Hardly ever/never" and "At least yearly" church goers are denoted as "no", "At least monthly" and "At least weekly churchgoers" as "yes".
Controlled for: Age at first birth, interval between first and second birth, cohort, education, number of siblings, marital status.
Missing values are not shown but were controlled for.
Brackets indicate that n<50.
Significance levels: * p ≤ 0.05 ** p ≤ 0.01 *** p ≤ 0.001

Table 6: Effects of measures of religiosity on third-birth rates of Dutch men born 1936-79, by cohorts. Discrete hazard model

	All cohorts		1936-54		1955-79	
	Model 4a		**Model 4b**			
Importance of religion and church at age 15						
(Very) Unimportant	1		1		1	
Neither – nor	1.31		1.36		1.25	
(Very) Important	1.55	***	1.48	*	1.66	**
	Model 5a		**Model 5b**			
Church attendance						
Hardly ever/Never	1		1		1	
At least yearly	1.19		1.08		1.36	
At least monthly	1.63	**	1.30		(2.55)	***
At least weekly	2.18	***	1.96	***	2.36	***
	Model 6a		**Model 6b**			
Importance at age 15 + church attendance[1]						
Past no, now no	1		1		1	
Past yes, now no	1.43	*	1.41		1.58	*
Past no, now yes	(2.30)	*	(2.97)	*	(1.55)	
Past yes, now yes	2.06	***	1.91	**	2.31	***

[1]The middle category "neither – nor" was omitted. "Hardly ever/never" and "At least yearly" church goers are denoted as "no", "At least monthly" and "At least weekly churchgoers as "yes".
Controlled for: Age at first birth, interval between first and second birth, cohort, education, number of siblings, marital status.
Missing values are not shown but were controlled for.
Brackets indicate that n<50.
Significance levels: * $p \leq 0.05$ ** $p \leq 0.01$ *** $p \leq 0.001$

8. Summary

The Netherlands is a particularly relevant country for studying the interrelations between religion and fertility. Compared to other countries of Europe it was characterised by a high fertility rate until the early 1960s which had to a great extend been attributed to the large number of children born to Roman Catholics. A rapid secularisation set in, first among the Dutch Reformed, and with the erosion of the pillarised structure of society from the mid-1960s, increasingly among the Roman Catholics, rendering the Netherlands one of the most secularised countries in Europe. Against this background I have examined the associations between the interplay of past and present religiosity and progression to third birth using event history analysis.

In the literature on the religious influence on childbearing little attention has been paid to religious socialisation. This is surprising given the great relevance of religious family background as a determinant for later religiosity. The expectations for religious adults raised in a religious parental home are clear: they are apt to have a higher number of children. But what can we predict for non-religious adults who were exposed to religious socialisation? Put in a nutshell, parents shape the religious views and related family values of their children. Even if religiosity is abandoned later in life, what has been internalised in the early years remains formative. Moreover, due to the strong social component of religiosity do religious parents likely have contacts with their likewise religious parents, siblings and friends, who constitute an important influence. Religious parents are inclined to promote the integration of their children into church run children's playgroups, choirs and the like, who form friendships in this context. Therefore, it is proposed that even if religiosity has been ceded, religious social influences remain in place and exert an effect on childbearing behaviour.

I started the empirical analysis by testing which religious indicator – pertaining either to religious socialisation or current religiosity – in a main effects model is most relevant for the transition to the third child. In line with the selection hypothesis, a measure of current religiosity, namely church

attendance is the most important predictor for men. A part of the men who have been socialised in a religious family become secularized later in life leaving the more religious ones a more select group, also with respect to childbearing behaviour. For women, on the contrary, church attendance, as well as a measure of religiosity in the parental home, namely father's affiliation when the respondent was aged 15, likewise exert a strong effect on the propensity to proceed to a third birth. Religious affiliation had lost its independent effect as soon as I standardised for church attendance, but unexpectedly father's affiliation remains significant. Seemingly, the difference between current and past religiosity is reflected here: because they both measure current religiosity respondent's affiliation and church attendance are more strongly linked than father's affiliation and church attendance. Another conclusion is that differences by affiliation result from different religious intensity and not from genuine differences in the teaching on children and other family issues.

Theoretical reasoning further suggests that religiosity has a stronger influence on men's than on women's reproductive behaviour since the overall lower affinity of men towards religion renders the religious ones a more select group. Contrary to expectations, I find that the impact of religiosity is more pronounced for women than for man. An alternative explanation would be that women's influence on fertility decision is stronger than men's.

Moreover, I was able to demonstrate that the effect of religiosity has strengthened over cohorts. This result supports the assumption that religious fertility differentials become progressively more apparent as the religious constitute an increasingly small and select category. This inference holds for measures of past and present religiosity as well as for an interaction between them.

Probably the most interesting findings pertain to an interaction between past and present religiosity. Confirming the expectations, men and younger women, who were brought up in a religious home but have stopped attending church show a risk in between those without any religious background and those who have continued churchgoing.
I also find that even though the woman's own religious affiliation turned out not to have any significant influence on third birth hazard, her father's affiliation does when controlling for church attendance. Further investigation revealed that the progression risk of non-affiliated women with an affiliated father is heightened as compared to the risk of non-affiliated women with a non-affiliated father. Consequently, no differentials are seen between this heterogeneous group of non-affiliated women and those who belong to a denomination.

Literature

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Appendix

Table A1:   Number of excluded cases, women

Total number of female respondents	4,741
Number of female respondents with two and more children	2,756
Excluded cases:	
Twins at second birth	35
Second and third birth in same year	4
Second birth in survey year	26
Adopted children	33
Children from current partner living with respondent	57
Respondent < 15 at second birth	4
Respondent > 45 at second birth	2
First or second child died before birth of third child	50
Respondent > 65 in survey year	454
Total number of excluded cases	665
Number of included respondents	**2,091**
Number of third births	751

Table A2:   Number of excluded cases, men

Total number of male respondents	3,420
Number of male respondents with two and more children	1,880
Excluded cases:	
Twins at second birth	20
Second and third birth in same year	8
Second birth in survey year	21
Adopted children	31
Children from current partner living with respondent	72
Respondent < 15 at second birth	0
Respondent > 50 at second birth	9
First or second child died before birth of third child	33
Respondent > 65 in survey year	352
Total number of excluded cases	546
Number of included respondents	**1,334**
Number of third births	480