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Female domestic service and fertility decline in Flanders 1830-1930.

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A. INTRODUCTION

The central topic of this research is the geographical and social diffusion of birth control during the European fertility transition. I am specifically interested in the case of female domestic servants. Using life course analysis I will *describe* differences in fertility behaviour between former urban, rural and non-servants and I will look for factors *explaining* these differences. By introducing regional variation into social diffusion analysis, I hope to contribute to the international debate concerning the fertility decline.

B. HISTORIOGRAPHY

1. The European fertility decline

"Tout en éprouvant, devant ces résultats materiels, une patriotique fierté, nous ne pouvons nous defender, cependent de reflexions mélancoliques sur le progress, dans certaines regions de notre pays, du mal don't souffre si cruellement la France, ni, par suite, de vives apprehensions au sujet des destinées de la patrie belge." (Cardinal Mercier, *Les devoirs de le vie conjugale,* 1909*)*

The decline of mortality levels in the eighteenth century, the collapse of the Malthusian marriage pattern (see below) and the drop in fertility levels in the nineteenth century are the main components of the *European demographic transition* (Chesnais 2000). This period marks the profound transition of a demographic balance between high mortality and high fertility to a regime where both death and birth rates are low. This new equilibrium is achieved around the middle of the twentieth century. In most European countries the mortality decline preceded the decline of fertility, but the timing and intensity of the latter varies significantly.

1.1.a. Geographical variation

In France fertility was controlled efficiently already during the Ancien Régime, while the start of the fertility decline on the rest of the European continent varied seriously (Chesnais 2000, Lesthaeghe 1977). After France, Belgium was the first country to experience a decisive drop in national marital fertility rates around 1880. In the Netherlands this happened only around 1900, while in some southern European countries like Italy and Spain, marital fertility remained high until the first decade of the 20th century. The fertility decline marked the transition from a society were fertility was controlled mainly trough late ages at first marriage and a large proportion people who never married (*Malthusian* fertility pattern[1]) to a society where a large part of the population used conscious family limitation and more effective contraceptive methods (*neo-Malthusian* pattern) (Lesthaeghe 1977). Although the fertility transition was at the core of demographic research for many decades, there is no consensus on the main causes of this 'quiet revolution' (Gillis, Tilly and Levine 1992).

In the *dassical literature* on the fertility decline, based on the work of Notestein (1945), spatial variation was explained by pointing to the socio-economic modernisation of the nineteenth century society. The correlation between industrialisation/urbanisation and fertility levels, lead to the conclusion that industrialisation and urbanisation undermine the social function of high fertility (Coale 1973). An economic system based on agricultural and cottage industry household production, demanded high fertility. The location of work outside the household (in manufacturies) as a consequence of industrialisation allowed people to raise smaller families.

This view was challenged by the *Princeton European Fertility Project*, lead by Ansley Coale (EFP, start 1963). On the basis of aggregate data this large empirical project studied the long term development of nuptiality and fertility in over 600 administrative units in Europe. At the same time the Princeton fellows analysed the influence of several possible causal factors. They came to the conclusion that socio-economic factors were insufficient to explain regional differences in fertility decline and that cultural variables were often more significant (Coale and Watkins 1986). Sociologist and Princeton researcher Ron Lesthaeghe, was one of the first to provide an empirical foundation to blurred notions like values and norms (Lesthaeghe 1977). Cultural elements like language, literacy and clericalism were essential components of social networks, that were still highly class-bounded in the 19th century. Lesthaeghe showed that even within one country important differences in fertility occured. His study of Belgium reveals a serious dichotomy between Dutch speaking Flanders and French speaking Wallonia. In some Walloon districts marital fertility fell below 0.71 before 1880, while the first Flemish districts that reached this level were Ghent and Antwerp in 1900. Not by accident, these were the largest urban centres in Flanders. A 'subsidiary differential' within one region was the more rapid shift towards fertility

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[1] This term is named after the English reverend *Thomas Malthus* (1766-1834) who wrote in 1798 *An essay on the principle op population*, warning for the negative consequences of the exponential population growth in his time. The only acceptable brake to population growth according to Malthus was postponing or cancelling marriage.

control in urban areas than in rural districts (Sharlin 1986). The interaction between areas with different fertility regimes has not been studied sufficiently.

1.1.b. Fertility and migration

The underrepresentation of migrants in fertility studies is due to the main sources (parish registers[2]) and methods (family reconstitution[3]) used and to the difficulty of considering migrants as a separate, homogeneous category of analysis (Moch 1992). The first and most famous study of the relation between migration and fertility is best known as the *Sharlin hypothesis* (Sharlin 1978). Sharlin contradicted the assumption that preindustrial cities had a natural population decrease, surviving by in-migration only. He stated that the urban population could be divided demographically into a relatively stable and prosperous inhabitants on one side and and a more mobile and poor migrant group on the other. According to Sharlin, the more stable community was reproducing itself at sustainable levels and that it was the mobile community's negative population growth that was decisive for the overall population decline. Later local studies confirmed the significant differences in fertility behaviour between migrant and sedentary populations in the eighteenth and nineteenth centuries, but never reached consensus in the nature of these differences (Perrenoud 1995, Pétillon 2006, Eggerickx 2001, Oris 1996). They did however demonstrate that factors like the age at migration, the duration of migration, the place of origin and the existence of social networks are crucial aspects in the analysis (Alter 1988, Neven 2003, Quaranta, Creighton and Matthys, 2007). A preliminary result seems to be that people moving from an area with more modern reproductive behaviour tend to keep this behaviour while moving to a more traditional area and people coming from a more Malthusian place quickly adopt the reproductive habits of their more neo-Malthusian destination (Quaranta, Creighton and Matthys, 2007).

1.2.a. Social variation

Not only did the practice of birth control vary geographically, there was also a social diversification. This is due to different *motivations* and *perceived feasibility* of fertility control among social groups (Coale 1973, Easterlin 1985). When the consciously reducing the family size is considered *favourable*, people are motivated to apply birth control. Motivation can be influenced by various factors like the desire to maintain a certain social position or the level of infant mortality. Feasibility depends on the *acceptability* of fertility control and the presence of *information* on how to perform it.

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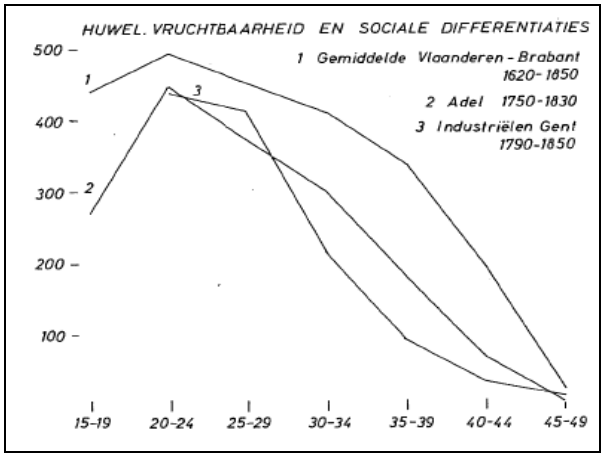
[2] In parish registers (from about the sixteenth century) baptisms, marriages and burials within a certain parish are recorded. Apart from an occasional birthplace, these registers give no information on migration.

[3] The technique of family reconstitution is based on parish registers. All data on births (baptisms), marriage and death (burial) for a married couple with complete fertility history and their children are collected on family forms. As a consequence only the fertility behaviour from the minority of the married population who remains wed until the women turns 50 and who remains in the same parish during the entire marriage, is analyzed.

Banks argued that British bourgeois families were the first to reduce family size trough birth control (Banks 1981). Serious investments in schooling and education were necessary to prevent future generations from descending the social ladder. Therefore upper and upper middle class families preferred few *high quality children* over a *high quantity of children*. The acceptance of the new French reproductive norms and information in the bourgeois population was stimulated by the presence of dense interregional and international networks and publications (Van Bavel 2002). Other local studies confirmed the pioneering role of upper classes in the adoption of fertility control. There is evidence that the bourgeoisie of Ghent and Geneva were already efficiently restricting their fertility in the late eighteenth century, as is illustrated in figure 3 (Henry 1956, Vandenbroeke 1976).

Figure 1. Coefficients of marital fertility5 for different social groups (Vandenbroeke 1976)

1= Average provinces Flanders+ Brabant 1620-1850, 2 = nobility 1750-1830, 3 = Industrial bourgeoisie Ghent 1790-1850



The social variation in fertility behaviour among the working classes differs between town and countryside. For example, in urban centres (female) textile factory workers exchange contraceptive knowledge and have smaller families than women working at home according to Gittins (Gittins 1992). In rural Flanders, textile cottage workers and day labourers were the social group with the highest fertility in the eighteenth and nineteenth century (Vandenbroeke 1976).

1.2.b. Social diffusion

One of the central debates in studies of the fertility decline is the *innovation vs. adjustment debate*. According to the EFP the fertility decline was the result of an innovation in contraceptive habits and methods, more specific a shift from *parity independent* to *parity dependent fertility control* (see below) (Coale 1986). Gosta Carlsson on the contrary believed that it was the consequence of an adjustment to the changing nineteenth century socio-economic society due to a more intensive praxis of long known contraceptive methods (Carlsson 1966).

In this debate, innovation has often been related to diffusion (*innovation-diffusion theory*). Researchers believed that innovative contraceptive ideas and practices first occurred with small

groups of pioneers and then spread through the rest of the population (Casterline 2001). The channels through which this social diffusion took place, can be based on communication (mass media, formal contacts, informal communication networks) or mere observation. The latter is called *social learning*[4].

Guinnane, Okun and Trussell argue that adaptation and innovation should not be seen as distinct objects of competitive theories, but as complementary aspects in the fertility decline (Guinnane, Okun and Trussell 1994). This point of view does not obstruct the study of social diffusion. Social diffusion of reproductive norms and habits has only recently been the topic of empirical historical demographical research (Szreter 1996, Van Bavel 2004, Kling 2007). A key element in diffusion studies is to demonstrate that the contact with a particular social group was *decisive in accelerating fertility decline* in other groups (Woods 1981). If fertility declines ranked but parallel in successive births cohorts of different occupational groups, there is no evidence of diffusion. According to sociologist Jan Van Bavel cultural variables like literacy, language and neighbourhood were the main factors in the diffusion process within the provincial town of Leuven (Van Bavel 2004). Letters to birth control clinics in the work of historian Sofia Kling reveal that the diffusion of family planning norms (bourgeois decency) and the spread of information on birth control methods (informal networks, birth clinics) with the Norwegian working classes take place trough different channels.

2. Female domestic servants

"When I had to clean the bedrooms, there always was a glass on the bedside cabinet from Mister with a strange rubber thing in it. In that time, I was still quite silly and I didn't know anything about it. Later on I understood that must have been a condom.
(Pauline Verschueren in De Keyzer 1995)

2.1. Domestic servants as cultural intermediaries

If one really wants to understand how and why fertility decline socially and geographically spread, we need more information the people who functioned as diffusioners. In cultural studies, these people are called *cultural intermediaries*: they make a bridge between two different cultures (Roche 1978). Although a simplification of realty, it usually concerns a 'higher' and a 'lower culture', linked to other dichotomies like elite/masse, town/countryside, innovation/tradition and oral/written.

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[4] *Social learning theory* has its origins in psychology and explains how people learn behavior. People learn through observing others' behavior. If people observe desired outcomes in the observed behavior, they are more likely to model, imitate, and adopt the behavior themselves.

In this PhD research former female domestic servants are considered intermediaries when it comes to fertility behaviour. Domestic servants are an interesting research population because their *numerical importance* in the 19th century and their *social position on the crossroad* of the socio-cultural dividing lines mentioned above. Domestic service was an important element in the rural society of the Ancient Regime (Hajnal 1965). During the 19th century domestic service underwent some dramatic changes for women: employment opportunities as farm maids decreased while the demand for female servants in the growing cities increased, causing an increased female migration from country to town (see below). In Belgium urban female domestic service reached its summit around 1890 with a share of 13,7% of the female active population (Piette 2000). Domestic service was related with the life stage of adolescence, so nearly all maids were singles between 15 and 30 years old. In 1910 24,2% of all females between 15 and 25 years old for whom an occupation was reported, were urban servants.
They were employed in urban upper and middle class households who displayed a very different and more attractive culture than their own. Two thirds or more of these women usually came from the countryside. Because of this particular position, several historians considered domestic servants as cultural intermediaries. Several aspects of cultural interaction like language (De Metsenaere 1996), clothing (Roche 1978) and bank saving behaviour (McBride 1974) were studied. This lead some researchers to believe that domestic service was a mean to achieve *upward social mobility*. Broom and Smith called domestic service in Victorian England a 'bridging occupation' (Broom and Smith 1863). A bridging occupation provides, through work experience, the opportunities for movement from one occupation to another. For male domestic servants, this occupational movement often implied upward social mobility. Teresa McBride, analyzing choice of marriage partner believed that this was also true for female domestic servants (McBride 1974). Hilde Bras used more sophisticated statistical analysis to reveal that maidservants only had an increased change to marry a partner of higher social position under certain conditions, like a long career and high social status of the employer (Bras 2000).

2.2. Domestic servants and fertility decline

Fuchs and Moch argued that in 19th century Paris domestic servants had *specific reproductive networks* (choice of marriage partner, knowledge of abortion practices and contraceptives and childcare) (Fuchs and Moch 1995). In contrast to other working class women, people of higher social status belonged to their extended networks. The daily contacts with the attractive upper class culture may have influenced their *reproductive norms*. But female servants were also in a position where they could easily get *information* about contraceptives. Because they regularly visited markets, they often had good contacts with tradeswomen and laundresses, who were famous for their knowledge of abortive herbs and midwives. Other historians have mentioned domestic servants' intermediate position concerning fertility (McBride 1974, Banks 1981, Davidoff 1974) but their arguments lacked statistical power to be convincing.

Aggregate statistical studies were performed both for and against the hypothesis of domestic service as diffusion channel. Banks used the 1911 British census to show that couples where the husband was an indoor domestic servant had fewer children than couples with other occupations (Banks 1981). But Banks has no information on female occupations and important covariates like time

of marriage and age at marriage are absent in Banks analysis. Szreter on the other hand argues that regions where birth control was first adopted by working class people were areas where domestic service was lowest and industrial employment was most common (Szreter 1996). The regional level of domestic service however cannot be interpret as a behavioural variable; it is rather an indication of the wealth of a region and the presence of an institutional barrier to marriage (Woods 1987). Furthermore aggregate data ignore essential characteristics of domestic service, like the fact that it is a transitional stage in life. In order to gain insight in concrete human behaviour individual data are needed and a life course perspective is required to grasp the fact that domestic service is limited to premarital life and is otherwise 'invisible' in the sources after marriage. *Testimonial evidence* was also used but it is not always representative or only available for a limited time period (Vanhaute and Matthys 2007).

In this PhD a life course perspective is used to analyse the impact of diverse simultaneous and earlier factors on the fertility behaviour of these mobile women. Both childhood factors like social status and kinship relations in the family of origin and former experiences as a servant during adolescence might be reflected in the adult fertility behaviour. Contemporary influences include place of residence and social status of the husband. The life courses of 2134 born in two different localities in East-Flanders between 1830 en 1885 will be reconstructed on the basis of birth registers and population registers. The core group consists of those who become a domestic servant. Because the women are studied in several places of residence, their geographical mobility is taken into account and we get information on how fertility patterns spread in a population from two birth places to different geographical and social contexts.

C. METHOD

'The life course approach has offered a way of capturing the complexity on the impact of social change on people and, conversely, on the contribution of people to facilitating and modifying social change.'
(Hareven 2000)

1. Conceptual framework

1.1. Life course analysis

Life course analysis studies transitions in the lives of groups of people (Kok 2007). A transition from one status to another is always marked by the occurrence of an event. Depending on the research question all kinds of occasions can be considered as the event of interest. When studying marital fertility for example, the event marriage marks the transition from celibacy to the status as wife or husband. The birth of a child determines a transition in parity (= number of children ever born to a woman). Events in the life course of other people may also affect the status of the person of interest. The death of a spouse signifies a transition to widowhood for the surviving

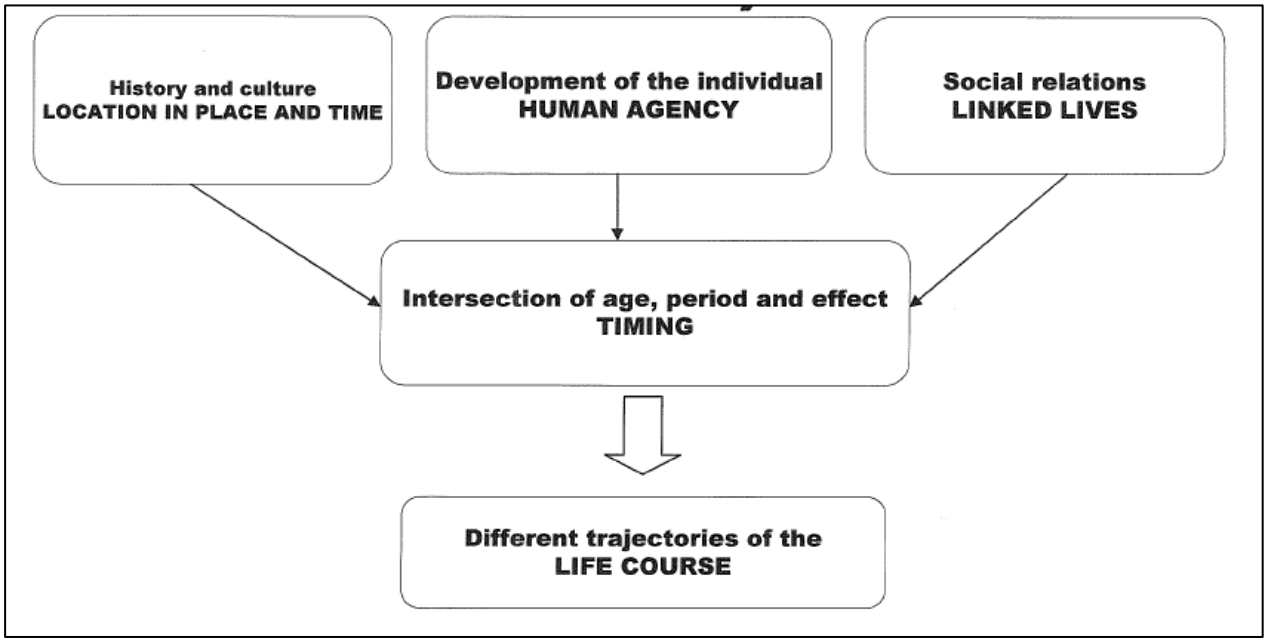
partner. The occurrence and the timing of events are influenced by earlier life choices of the individual, events and characteristics of the family and the wider historical context.

There are several reasons why life course analysis is the preferable method to study the practice and diffusion of fertility control through domestic service.

1) Aggregate studies of regional and even sub-regional differences are necessary to reveal the patterns and processes that shaped the fertility decline. However, to analyse concrete fertility behaviour and social diffusion longitudinal information on individual actors is needed (Van Bavel 2002).
2) Studying the geographical dissemination of family planning requires an examination of the fertility behaviour of migrants (Moch 1992). The mobile population group has been neglected in historical fertility studies for several reasons (see above). The construction of longitudinal databases on the basis of population registers and the statistical methods linked with a life course analysis allow to overcome these problems.
3) One problem involved in fertility research on migrants, is that it is hard to find a distinctive element other than 'born outside…' that allows to consider them as a separate category. The solution to this problem in this study is found in selecting a specific migrant group: female domestic servants. The drawback to this is that very few servants were married and that most births at the time occurred within marriage. This is the reason why former quantitative analyses on the role of maidservants in the fertility transition were never successful (Vanhaute and Matthys 2007). Since life course analysis allows to incorporate earlier life experiences, again this is the proper method.

A critical evaluation of the first generation of life course studies, revealed that life course studies often meet difficulties to attain their ambitious goals and that scholars tend to get lost in the complexity of their analysis (Kok 2007). The combination of family history, life course methodology and advanced statistics is a hard nut to crack for an individual researcher. Therefore, in this study, I have chosen a very basic methodological framework by Giele and Elder (Giele and Elder 1998).

Figure 2. Conceptual model life course analysis, Giele and Elder 1998



This scheme clearly identifies the three levels of influencing factors on the individual. *History and culture* refers to the shared experiences of a certain population. *Linked lifes* points to the responses of individual or groups to on the occurrence of external events (transitions in the life course of others). *Human agency* emphasises the flexible adjustment of people to the circumstances in order to attain their goals in life. By means of these concepts behavioural patterns can be detected in research populations and *age-, period* and *cohort effects* can be specified. Age effects are symptoms that occur in specific age groups regardless of the social contexts, while period effects represent the opposite. Cohort effects are characteristic effects for a certain age group in a specific social context. The statistical technique that is related to life course analysis, is called event history analysis (see below).

Life course analysis provides an overall conceptual framework, but has no theories of its own. In order to come up with a solid research model some central concepts from family history will be introduced.

1.2. Additional concepts

1.2.3. Family strategies

Family strategies or *household strategies* refer to the choices families make in order to achieve certain goals in life within the possibilities and restraints of their social environments (Chayanov 1966, Becker 1973). This concept originates from neoclassical economic theory (*New Home Economics*). It was heavily criticised for its presumption that separate family members make their individual choices to maximize the well being of the family as a whole (Engelen 2002). Both entering domestic service and family limitation can be understood as outcomes of family strategies. Several studies confirm that in earlier times the choice of parents to send one or more of their

children into domestic service was the result of trade-offs on the basis of, amongst other characteristics, sex and birth order (Van Eijck 1996, Wall 1996, Dribe 2001). Banks' assumption that couples limit their fertility to maintain or improve their social position is another example of a family strategy (Banks 1981). The awareness about internal conflict and hierarchy (based on rank, age and gender) has lead researchers to incorporate negotiation into the concept (Kok 2002, Bras and Neven 2007, Hareven 1982, Tilly and Scott 1978). A more profound critique is that the behaviour of families is not merely driven by their own rational considerations, but is mainly embedded in broader cultural patterns (England and Farkas 1986).

Although the concept of household strategy is debateable, I am convinced that in a life course framework it is a useful instrument to understand individual choices in the inevitable family context.

1.2.2. Social networks and social capital

The concept of family strategies emphasizes parent-child relations, ignoring the existence of lateral sibling ties. In recent historical demography however the focus has shifted slightly towards the lifes of brothers and sisters. Most research concerned the effect of *shared childhood experiences* on health, marriage, migration and mortality (Alter and Oris 2005, Bras and Van Tilburg 2007, Bras and Neven 2007, Bras and Neven 2007b). Furthermore, studying the lifes of siblings allows to introduce the concept of social capital and social networks into the statistical analysis. '*Social capital refers to the resources which, although possessed by others, are available to a given individual through his or her social relations with these others and as a result of the structural characteristics of the network in which all concerned are embedded*' (Bras and Neven 2007).

In this PhD both shared childhood conditions and social capital networks between siblings will be considered. Statistically, this is done by what sociologists call *sibling models* (Hao and Matsueda 2006). Close contacts with migrants increase an individuals social capital. Research by Bras and Neven suggests that the odds for single young women to migrate outside the birth place, increased when more siblings had previously migrated (Bras and Neven 2007). In historical fertility studies siblings are still largely absent.

In the case of domestic servants it is important to also consider specific non-kin networks that provide social capital to young women, such as contacts with the employers and fellow servants (see above: Fuchs and Moch 1995). The reproductive effects of these networks may be either indirect or direct. If fertility behaviour is mainly influenced by the social status of the husband and the servant experience increases the odds of marrying a higher positioned husband, their reproductive behaviour is *indirectly* influenced by domestic service. However when the social capital gained through normative and information networks mainly causes a greater negotiating power towards the husband – in other words when the reproductive effect is unrelated to the status of the husband –, there is a *direct* effect.

1.2.3. Female agency

A women's fertility behaviour is influenced by the opportunities and constraints offered by hierarchical and lateral ties in the family of origin and by the extend of a young adult's social capital networks. But what about women's own decision making?

Applying birth control before the pill required cooperation of both marriage partners. Flandrin argued that although women were usually the instigators of family limitation, the most common birth control methods (like withdrawal) were essentially male (Flandrin 1976). Consequently, he argues that men only practise withdrawal if women are in a position to convince them. With some important exceptions – like the work of Diana Gittins (Gittins 1982) – this field of research was never empirically explored. This lack of interest caused Susan Cotts Watkins' indignation about the consideration of child births as the product of '*immaculate conceptions*' in demographic studies (Watkins 1993). With this she refers to the absence of sexuality and power relations between husband and wife in demographic studies. In historical demography sexual power relations were even more ignored (Mackinnon 1995). Large scale studies based on aggregate date like the EFP, contributed to the notion of men and women as passive objects undergoing social change (Janssens 2007). At the same time historical demographers often assumed that couples only have mutual interests when it comes to limiting family size (Greenhalgh 1995, Janssens 2007). Since the early nineties gender has become more explicitly present in fertility studies (Gillis, Tilley and Levine 1992). Demographers started to use qualitative sources to analyse spousal relations (Fisher 1995). In quantitative research the use of individual data allowed to incorporate more female socio-economic characteristics in the analysis and to stress individual agency (Janssens 2007). Research done so far seems to confirm Flandrin's assumption that changing fertility trends are related to shifts in the social position of men and women, like the rise of the single breadwinner family (Seccombe 1992) or the bourgeois gender norms (Szreter 1996, Kling 2007). Van Bavel revealed that on an individual level female characteristics where more decisive than male when it came to fertility behaviour (Van Bavel 2002)

In the research presented below location in place and time will touched upon by analysing different fertility regimes according to the local context and birth cohort. The concept of linked lifes is central to the study because the role of servants as cultural intermediaries and diffusion channels is closely related to their specific social networks. Moreover sibling relations will be heavily stressed upon. Of the same importance is human agency, or in this case more specifically: female agency. On an individual level the way women respond to and deal with life experiences will be studied and it might be possible to make some statements about their role as a social group in the fertility decline.

2. Setup and hypotheses

2.1. Main question and sub questions

The central question of this research is the role of female domestic servants as mediators and diffusion channels of fertility decline in 19th century Flanders. To analyse this question properly, a set of sub-questions were formulated.

1) *Descriptive part.* Are there significant differences in fertility behaviour between different servant groups: urban servants, rural servants, non servants? Do these differences change over time?
   a) To what extend and in what sense can differences be detected concerning starting, spacing and stopping?
   b) Do these differences result in different outcomes (family size)?

2) *Analytical part.*
   a) Using event history analysis, are these differences due to childhood experiences, the environment at the time of reproduction or to aspects of their lives as a servants?
   b) Do the life course experiences of women, in particular the fact of having been a servant, influence the fertility behaviour of their sisters in a similar way?

2.2. Hypotheses

The central hypothesis is that rural-born women who worked as a domestic servant with then urban middle- and upper classes were influenced by the restricted fertility behaviour of their employers and played a pioneering role in applying a neo-Malthusian fertility behaviour among working classes women In relation to the research questions mentioned, this hypothesis can be divided in a few more limited presumptions.

1) Urban female domestic servants can be considered intermediaries when it comes to fertility behaviour. Servants employed in urban upper and middle class households adopt the neo-Malthusian fertility behaviour that they witness in the masters family. This will be most outspoken in the middle two birth cohorts (see below).

   a) • *Starting*:
      - both rural and urban servants marry later than women who never enter domestic service. This habit reflects the traditional Malthusian way of limiting family size.
      - rural and urban servant are at a higher risk of giving birth before marriage

      • *Spacing*: rural and non servants are more eager to apply this more traditional way of family limitation

      • *Stopping* is more important as birth control method with the urban servants.

   b) Urban female domestic servants have the lowest parity, due to a combination of intensive Malthusian and neo-Malthusian methods of limiting fertility. Rural servants also have lower parities than non servants, mainly because they marry later.

2) a) The aspect of urban domestic service has a decisive restrictive impact on fertility behaviour, both in rural and urban places of residence after marriage. However this is only the case when the woman remains in urban domestic service for several years.

b) After controlling for their individual characteristics, sisters of former urban domestic servants show signs of neo-Malhusian fertility behaviour.

2.3. Exploration and operationalisation of hypotheses

In this section I will briefly overview how the analysis will be put into practice. First, I describe the research population and its the local contexts. Then, I put forward a scheme for the analysis, placing the hypotheses in the conceptual framework and describing the variables used as indicators of the different relevant factors mentioned in the hypotheses.

2.3.1. Setting and population

The life courses of 2341 women and their sisters (± 1500 women) are the starting point of this research. As stated above, life course analysis studies the life trajectories of groups of people in order to discover different behavioural patterns depending on certain characteristics within the chosen population. Therefore the research population must be chosen carefully: a balance between internal similarity and variety must be achieved. In this study I selected four birth cohorts: 1830-1834, 1846-1850, 1860-1864 and 1880-1884. Women born during these years in the villages of Assenede, Eine, Heurne or Mullem make up the research population. The four villages represent two different local contexts in the Belgian province of east-Flanders in which the cohort members spent their childhood; Assenede (=ASS) on one hand and Eine, Heurne and Mullem (=OUD) on the other. A total of eight cohorts are obtained this way. The inclusion of sisters' life courses makes it possible to incorporate shared childhood experiences and mutual influence in the analysis. It would of course be interesting to include siblings of both sexes. Unfortunately this was unachievable within the scope of this research. The limitation to sisters can be justified by earlier research, showing that nineteenth century information networks considering reproductive strategies almost exclusively consisted of women (Sogner 2003, Fuchs and Moch 1995, Celis 1996). Therefore it can be assumed that the mutual influence between female siblings is much more important than exchanges between brothers and sisters.

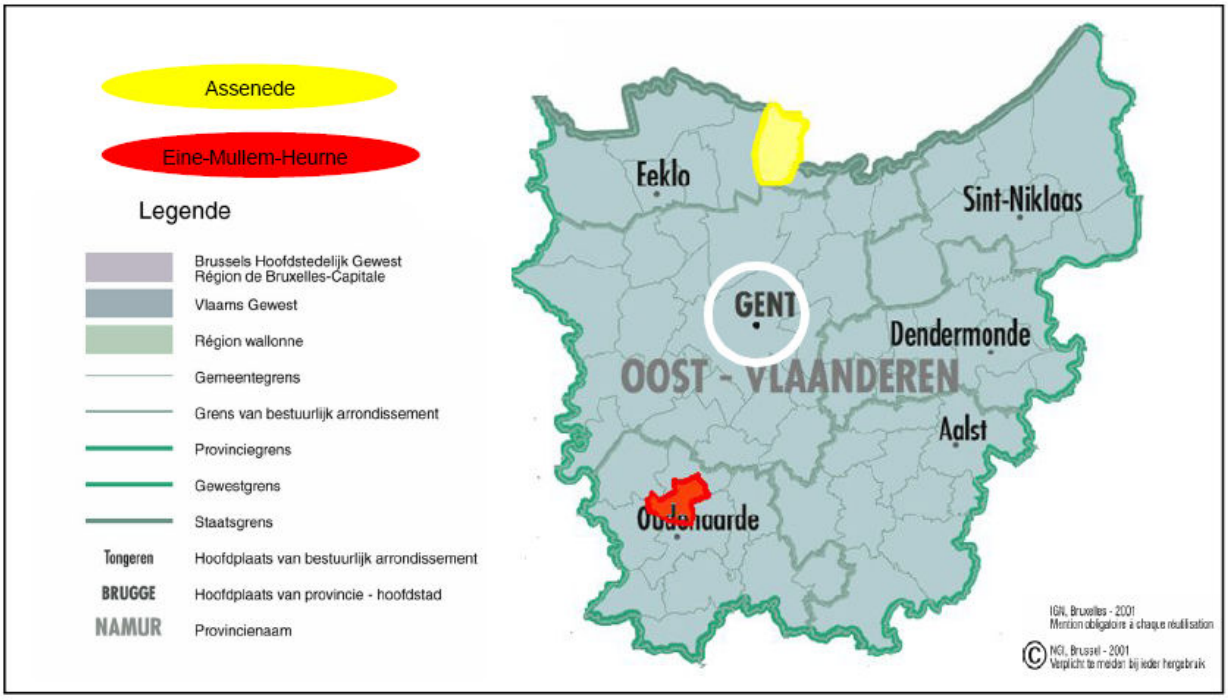
Table 1. Size of birth cohorts and total research population

	ASS	OUD	TOT
G1830	286	294	580
G1846	198	262	460
G1860	268	256	524
G1880	285	285	570
TOT	1037	1097	2134

Assenede was a medium sized agricultural village in the polder area 25km north of the metropolis Ghent (see Figure 2). Cottage textile industry was of minor importance: in 1846 only 6,6% of the population was employed in this sector and by 1866 nearly all weavers and spinners had disappeared (Van Holen 1999). Agriculture on the contrary was the main employment sector: even in 1880 still 72,2% of the population was involved in some sort of agricultural labour. The presence of several schools, a hospital, doctors and notaries allows to call Assenede ' a regional service centre'. The distance to the closest provincial town Eeklo was about 13 km. Since Assenede served as a service centre itself and linen industry was of a minor importance in the village, the orientation towards Eeklo (regional service centre and important linen market) was limited. This is reflected in the low emigration: of all emigration destinations of cohort members Eeklo had a share of only 1,1 % (7 out of 640)! Ghent on the other hand, was the number one destination of emigrating cohort members with 23,6% (151) of all emigration destinations. Eine, Heurne and Mullem are three small neighbouring villages in the district of Oudenaarde, 25 km south of Ghent. The majority of the inhabitants in this district were employed in textile industries until the end of the 19th century (Hoebeke 1998). The provincial town of Oudenaarde had an important regional administrative, service and commercial function (Ronsijn 2004). Very important during the 19th century was the linen market. The economic and social attraction of the city was therefore important: 7% of all migrations by cohort members have Oudenaarde as a destination[5]. Especially in Eine the textile industry was the major source of employment. In 1805 no less than 36,5% of the total population were spinners of flax or hemp. Important to notice is that Eine, unlike contrary to the surrounding villages, was not only orientated towards the market of Oudenaarde, but to a lesser extend also to Ghent (Hoebeke 1998). In 1855, as a reaction to the 1846 crisis in agriculture and textile industry, the steam powered spinning mill Vanderstraeten and Cie was established and industrialised textile production gradually began to replace cottage work.

[5] 11 out of 159. This is a preliminary result based on population registers in Heurne (complete) and Eine (1846-1856)!

Figure 3. Position Assenede en Eine, Mullem and Heurne in East Flanders



The urban context in my research is represented by the city of Ghent. Ghent was the third city in Flanders, after Brussels and Antwerp. The geographical and demographical expansion in the second half of the 19th century was enormous: the suburbs of Ledeberg, Sint Amandsberg and Gentbrugge were swallowed and the population doubled from 85500 in 1831 to 166000 in 1910 (Vermeulen 1989). This expansion was closely related to the industrialisation of the city. At the outset of the industrial revolution Ghent was already a major centre of textile industry. From about 1850 numerous mechanized textile and other manufacturies were installed, creating a growth of the urban bourgeoisie and new employment opportunities for the working classes. A constant bulk of immigrants therefore contributed to the population increase. The lure of the big city especially attracted women because of the specific sectors in which jobs were available: textile industry and domestic service. This created a female surplus. At the end of the 19th century the sex ratio consists of 85 men per 100 women. This placed women in a disadvantaged position on the marriage market.

2.3.2. Descriptive part

The first part of my analysis consists of displaying the different fertility patterns of urban and rural servants and women who were never a servants. This part is analysed with descriptive statistics and demographic measurements. I will distinguish between the several cohorts and the former servant status of the cohort member: never a servant, only a rural servant, urban servant[6].

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[6] A women person who worked both as a rural and urban servant is considered an urban servant.

2.3.2.1. Fertility outcomes and components of fertility

In demography the concept *fertility* points to the effective realisation of the *fecundity* (=the biological capacity to reproduce), in other words it means the process of childbearing in human populations.

A first step in the descriptive analysis is to detect differences in fertility outcomes (= *total parity*: the number of children ever born) between the different servant groups. When studying fertility behaviour, one is always confronted with *age effects*: as a women gets older, coital frequency and the capacity of conceiving decrease (Coale and Trussell 1974). A non-restricted reproductive carreer is reflected in a convex curve, a concave curve gives away signs of birth control (see figure 1). Therefore *age specific fertility rates* are always constructed. Some *period effects* I expect to find are: a higher age at marriage and a higher number of illegitimate births for both rural and urban servants than for non-servants. But the most important expected *cohort-effect* is that the urban servants will have significantly more restrictive marital fertility, at least in the two middle cohorts. The girls of the 1830 generation are domestic servants around the middle of the 19th century. At that urban fertility levels were still high. The domestic servants of the 1880 cohort were employed around the turn of the century. Around the time they had children fertility levels started to drop all over the Flemish countryside (Lesthaeghe 1977). The urban servants of the 1846 and 1860 cohorts on the contrary were employed with the bourgeoisie at the time that the gap in fertility behaviour between the urban upper class and the rural population was at its highest.

Fertility is *determined* by biological and social factors that influence the taking place of 1) intercourse, 2) conception and 3) childbirth (Bongaarts 1978). These factors also influence the three essential components of fertility behaviour: *starting*, *spacing* and *stopping*, respectively the age at which the first child is born, the length of intervals between births and the age at which the last child is born. Even when the number of children ever born is similar in the different groups, the methods of family limitation may differ so be one significantly (McDonald 1984, Van Bavel 2004). The *spacing/ stopping debate* is concerned with the question which kind of birth control was decisive in the fertility transition. Carlsson believed that even before the fertility decline, people controlled their fertility (Carlsson 1966). The lengthening of birth intervals trough breastfeeding (see below) is considered an important example of these *traditional* methods. One of the notions of the EFP is that the fertility decline was caused by the general adoption of innovative stopping behaviour (Coale 1986). Recent studies have critized this and put more emphasis on how the two forms of fertility control were combined (Bengtsson & Dribe 2006, Van Bavel 2004b, Szoltysek, 2007)

2.3.2.2. Starting

The biological determinant of starting is the age at menarche, the moment of the first menstruation. However, in the European context the social determinant of marriage is much more important. Although illegitimacy levels were high, reproductive performance was mainly reserved for married people (Vandenbroeke 1984).

In the nineteenth century the European marriage system profoundly changed. For centuries, the dominant marriage regime was the Malthusian system with high ages at first marriage and a large share of permanent singles. Consequently, marriage was the main break to high fertility in Europe. Rural domestic service is believed to have played an essential role in this Malthusian pattern because the redistribution of young adults within the population allowed the age at first marriage to remain high (Hajnal 1965, Devos 1999). It has indeed been shown that rural servants married later than women who never worked as a servant, but this was also true for urban servants (Delahaye 2006, Bras 2002, Vanhaute and Matthys 2007). From about 1860 the average age at first marriage decreased and a smaller proportion of the population remained unmarried (Watkins, 1986). Despite this intensification of marriage, fertility levels did not rise. On the contrary, they started to decline, which proofed that by this time fertility was controlled effectively within marriage (Coale and Watkins 1986, Lesthaeghe 1977). I expect that in the case of both rural and urban servants a late age at first marriage remains an important factor in family limitation.

Another element that should be considered, is illegitimacy. Because they were subjected to fellow-servants and the employer(s sons) in the privacy of the master's households, maidservants had a higher risk of giving birth to an illegitimate child (Vandenbroeke 1976).I will study how the presence of a illegitimate child affects the mother's career as a domestic servant, the choice of a marriage partner and her later fertility behaviour. Fuchs argued that servants in nineteenth century Paris often left their bastard child with their parents in the countryside while they were earning a living for themselves and the child (Fuchs and Moch 1990). Preliminirary research suggests that this strategy was also present in the population studied here and did not necessarily affect the subsequent reproductive life course, as is illustrated by the case of Nathalie Pykevet (Matthys 2004).

Nathalie Pykevet born in Assenede in 1830 was a servant in Ghent and Brussels between the age of 19 and 35 and alternately lived in the parental home. She conceived an illegitimate son, who remained with her parents even after her marriage with a cook in 1865. Nathalie spend her married life in Ghent and conceived two more sons, of which only one survived and graduates as a pharmacist. This in contrast to her bastard son who was a landworker in Assenede.

2.3.2.3. Spacing

Spacing – the lengthening of the interval between births – is mainly influenced by coital frequency and temporal reduced fecundity.

The regularity of sexual intercourse usually decreases after several years of marriage but can also be interrupted periodically, for example when one of the partners is involved in seasonal labour or on the basis of religious prescriptions. During the Advent and Lent sexual contacts were forbidden. This results in lower birth levels for the months December and September (= conception in March and December) (Vandenbroeke 1984).

More important when it comes to fertility control is the phase of temporary sterility after giving birth, the so called *postpartum amenorroe*. This episode can be prolonged by breastfeeding the infant for a longer time (Coale 1986, Bongaarts & Potter, 1983; Vandenbroeke, Van Poppel & Van der Woude, 1983). When an infant died, the risk of conception increases again (Alter 1978). The relation between fertility, infant mortality and breastfeeding is however far from univocal (Hoogerhuis 2003). Nevertheless, it is important to include infant mortality and the length of birth intervals in the analysis. Recently new methods have been developed, that will be used here (Van Bavel 2004). When it comes to domestic servants, I expect that for rural servants and girls who were never a servant, the more traditional spacing will be the most important way of controlling fertility within marriage.

2.3.2.4. Stopping

The age at which the last child is born is biologically determined by the menopause. It is also the most common indicator of stopping behaviour. When the age at which the last child is born is younger than what physiologically can be expected, it's an indication that the coupled has stopped reproducing once the desired amount of children (*parity*) is reached. As stated above, Princeton fellows considered this to be a decisive factor in the fertility decline. Although this is no longer taken for granted, stopping is still believed to be a more innovative method. Therefore I expect that it's share in the fertility control will be most important for urban servants.

2.3.3. Analytical part

In the second part of the analysis I will focus on variables which can *explain* the differences in fertility behaviour between former rural, urban and non-servants.

2.3.3.1. Becoming a servant: unequal opportunities

Several variables in the analytical model refer to the cohort member's family of origin. This is not only because I believe that childhood experiences have an impact on a person's fertility behaviour, but also because the fact of being a servant may be correlated with a specific background. We need to be aware of this to perform an accurate statistical analysis.

Rural born women have unequal opportunities when it comes to employment in rural and urban domestic service. First of all the odds of becoming a servant are influenced by employment opportunities in two types of birth places (*location in place and time*). The textile and agricultural crisis of 1846 decreased job opportunities for rural women in textile industries and small-scaled farms, creating a female labour surplus. This development corresponded with increasing employment opportunities for female domestic servants in the city. For the growing number of bourgeois households having a large domestic staff was an important element of prestige (Piette 2000). Maids from the countryside were preferred because they were thought to be more compliant. Around 1880 the demand for domestic servants even increased because middle class households tried to copy the upper class lifestyle and hired a maid whenever possible. Therefore, I expect the highest share of urban servants in the last two cohorts. In Assenede employment

opportunities for farm maids clearly dropped: their share in the female population decreased from 11% in 1796 to 4% in 1846 to 0,5% in1880 (Van Holen 1999). However increasing demand for labour on a daily basis and the presence of large polder farms in the area ensured continuous employment opportunities (Priester 1998). Girl's from Eine, Heurne and Mullem main employment opportunities lay in the industrialising textile sector. In the nearby city of Oudenaarde there was also a modest demand for domestic servants: in 1796 10,1% of the female population were domestic maids (Van Hoecke 1995). In 1811 6,29% of the population consisted of domestic servants; 70% of them were women. The majority (53,2%) came from the surrounding countryside.

With no testimonial data available it is not easy to get a grasp on the process of household decision making and the motivations and power of the actors in this process. Research has shown that its was beneficial for parents to send a daughter into domestic service because that way she contributed to the households income without the costs for food and housing (Bras 2002). Having her employed in an urban household was the most favourable since in the city wages were higher. For daughters on the other hand domestic service offered possibilities to girls to gain more independence. Also for the girls working in the city was preferable because the tasks they had to perform were less hard than those of farm maids. In order to analyse to what extend *family strategies*, *social capital networks* and/or and a girl's *individual acting power* are at stake, characteristics and events of all members in the family of origin will be taken into account (presence younger/older brothers and sisters, death of a parent, migration/marriage of siblings, occupation, migration history and literacy of the father/mother). Although this research field needs to be further explored, its preliminary results suggest that I can expect the following: daughters of workers have the highest change to become a servant (Bras 2002, Vanhaute and Matthys 2007); the death of a parent increases the probability of becoming a servant (Bras and Neven 2007); having a literate father increases the odds of becoming an urban servant (Bras 2002, Vanhaute and Matthys 2007), migration histories of siblings, especially of sisters, have a positive impact on individual migration (Bras and Neven 2007). In this research indicators of female agency are: the amount of times a girl returns to her parents household, her level of literacy, the age at which she enters employment as a domestic servant. The younger she is, the less likely that it is her decision. This assumption is reinforced by preliminary research: young women from poor working class households had their first job in domestic service as a teenager (modus: 15), while girls from rural middle class families were in their early twenties (modus: 22) (Matthys 2004). Similar results are presented by Bras (Bras 2002). This link between age and social background also suggests that more options were open to the daughters of wealthier crafts- and tradesmen. Literate women are believed to have more changes on the urban labour market, especially in the later cohorts, because employers more and more called on written advertisements to find a servant (Piette 2000).

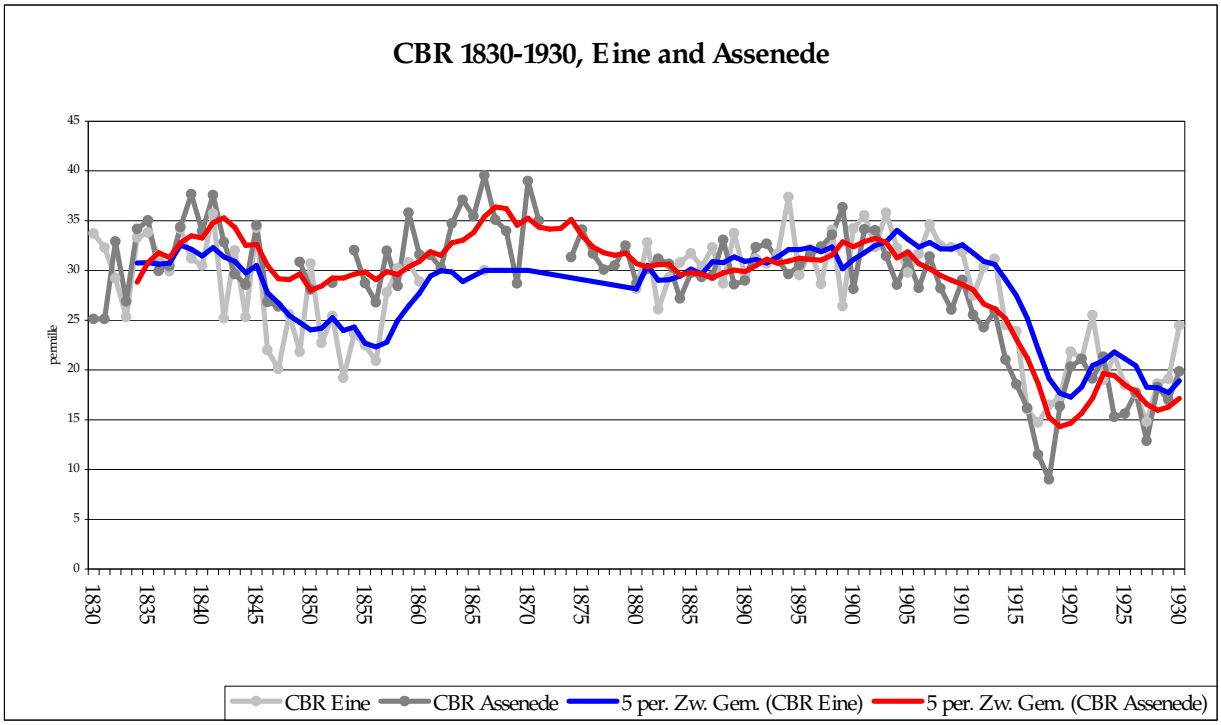
2.3.3.2. Measuring the impact of domestic service on fertility

This part of the analysis I will reveal that domestic service, especially in the city, was a determining factor of fertility behaviour. Because domestic service was a complex phenomenon that was intertwined with several social dividing lines (see 2.1.), it is important that there are

several control variables in the statistical model. In accordance with the conceptual model, these covariates may refer to current or past characteristics of an individual women, her relatives and contacts and her broader social environment. There are briefly presented in this section.

Location in place and time

A first possibility is that the individual's fertility behaviour was not influenced by the fact of having been a servant or by the place of residence, but that it reflects the fertility regime of the place of origin. On the Flemish side of Belgium urban/rural differences in fertility were more outspoken than in Wallonia and fertility decline took place gradually, spreading from metropolitan cities like Ghent to provincial towns like Oudenaarde to the countryside. The fertility regimes of Assenede and Eine-Mullem-Heurne were both part of the overall rural fertility regime in Flanders, characterised by a late decline of marital fertility. However there are indications that Malthusian fertility pattern in Assenede is more persistent during the 19th century before the fertility decline (Art 1972). In the graphs below the *crude births rates (CBR)* are shown for Assenede and Eine 1830-1930. A CBR is the number of births in a given year divided by the number of people in the population in that year. The graph confirms that in Assenede fertility is very high until the 1880's. But the actual fertility decline seems to have begun earlier and at a higher speed than in Eine. I will take into account the birth place in order to understand if the persistence of the Malthusian fertility regime in the place of origin is still present in the fertility choices of a couple.



Based on Van Simaeys 2002 + NIS[7] figures

Another social environment to be considered is of course the of residence at the time the woman is reproducing. Historian Anne Winter has shown that in the city of Antwerp migrant maidservants were more eager to remain in the city after marriage than before (Winter 2007). I believe it is the proximity with the bourgeoisie that influences the former servant's behaviour. The possible influence of a more general urban reproductive culture however, must be kept in mind. As shown before the fertility in Ghent and Antwerp dropped earlier than anywhere else in Flanders; in 1890 marital fertility fell below 0.7 in the city of Ghent, while in the surrounding area it was between 0.8 and 0.9 (Lesthaeghe 1977). Working class women also reduced their fertility, specifically via long birth intervals (Devrieze and Vanhaute 2001).

The possible effect of domestic service on the fertility behaviour of sisters is affected by changes in the cohabitation structures and migration. By the end of the 19th century long distance migration increases (Moch 1992). Although this was not always a permanent movement, siblings became geographically more scattered and were therefore less likely to affect each other reproductive behaviour. Consequently, I expect that in the 1880 generation the impact on siblings will be smaller than before

Linked lifes

Fuchs and Moch argued that in 19th century Paris domestic servants had specific reproductive networks (see 2.2.). Because urban domestic servants had these particular networks, the analysis of their social relations as a servant is a crucial element of this research. The contact with the employer is the social relation that distinguishes servants from non servants. The following variables concerning the master('s family) will be taken into account: place of residence, occupation, duration of employment, fertility behaviour. Also the presence and gender of fellow servants will be considered. Girls employed in middle class families often had no colleagues and because they were factotums, their contacts with people outside the work floor were also limited.

The role of the husband is crucial for interpreting the fertility behaviour of a couple. The choice of the husband may be influenced by family strategies in the family of origin, but McBride argued that female domestic servants often married a man of a higher social status (McBride 1974). Bras refined this perspective, demonstrating that only women who were domestics in upper class households, had higher changes to marry a wealthier husband (Bras 2002). If the husband belongs to a higher social class or come from an urban area, a more restrictive fertility can be expected. In other words: the effect of domestic service on fertility may be a direct effect, unrelated to the status of the husband or it may be indirect: urban domestics have higher odds of marrying a higher positioned husband and through this their fertility behaviour is influenced.

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[7] Belgian National Institute for Statistics, with thanks to Philippe De Man

Like the place of origin might have affected the fertility behaviour, so can the family of origin. Therefore I account for occupation of the father and look via different measures to the fertility behaviour of the parents (if possible) and the sisters of cohort members.

Van Bavel demonstrated that living in a street with a lot of French speaking couples increased the change of not experiencing a next birth with 21% for women born in 1850 and with 29% for women born in 1864 (Van Bavel 2004). This clearly indicates social diffusion. In my own research, it will not be possible to analyse the influence of former urban servant's on their neighbours' behaviour. However I will be able to test the influence on the sisters. Of course there must be controlled for several covariates concerning the sisters: their place of residence, migrant and servant status and the occupation of the their husband. Moreover some characteristics of the sibling-relation are taken into account: the age difference between the sisters and the time they spent in the same household.

Female agency

Van Bavel believes that former domestic servants were in a stronger negotiating position towards their partner because of their familiarity with 'decent manners' and their dowry they could bring into marriage through their bank savings (Van Bavel 2002). It is not an easy task to analyse couples decision making using quantitative data. To get a grasp of women's own decision making I will look at the age of marriage, choice of husband and the development of a career: do I see an evolution in job content, for example from chambermaid to cook, or in occupational status of the employer?

The variables described in the paragraphs above are summarized in the following scheme. Note that some variables are used in several sections of the scheme.

Different trajectories of the life course

2134 women born Assenede, Eine-Mullem-Heurne, 1830 to 1885 and their sisters

Timing: intersection of age, period and cohort effect

Descriptive part

Starting

- H: rural and urban servants marry later than non servants → V: *age at first marriage*
- H: servants have an increased risk of having an *illegitimate child* (V)

Spacing

- H: non-servants and rural servants are more eager to limit family size this way →V: *birth intervals*

Stopping

- H: this way of family limitation is more important with urban servants →*V: age at last birth*

Explanatory part

Location in place and time

- H: national and regional fertility developments suggest that differences will be more outspoken in middle cohorts→ V: *birth cohort*
- H: both fertility regimes of *place of origin* (V) and *place of residence* (V) have an impact

Linked lifes: family strategies + social networks

- H: contact with urban upper/middle class households have neo-Malthusian impact on behaviour →*V: employers' place of residence and occupation and duration employment per employer*)
- H: workfloor gossip provides contraceptive info → V: *amount of and sex fellow servants*
- H: urban servants can marry a husband of higher social class → V: *husbands literacy, occupation, place of origin*
- H: aspects of the family of origin influence the reproductive career → V: *occupation father, fertility of parents and* sisters)

Female agency

- H: servants with a *carreer* are more ambitious, stay longer under bourgeois influence and are more eager to adopt bourgeois norms and practices and have stronger negotiating power → V: *occupation (of both marriage partners), carreer: urban/ rural, duration, course: changes in job content oroccupational status employers*
- H: literate women are more eager to limit fertility → V: *literacy (of both marriage partners)*

3. Data collection

This is a quantitative research. Most of the analysis will be performed with the statistical technique that accompanies a life course perspective: *event history analysis*. Unlike in other statistic methods, in event history analysis the dependent variable is always a duration till the next event: for example the birth of a child (Alter and Gutmann 1999). Central to the analysis is the impact of several covariates on this duration. Without going into technical details, the reason why event history analysis preferred to analyse individual longitudinal demographic data, is twofold: first it allows to perform a complex multilevel analysis and second, it is able to overcome specific problems that can not be solved with 'normal' regression analysis.

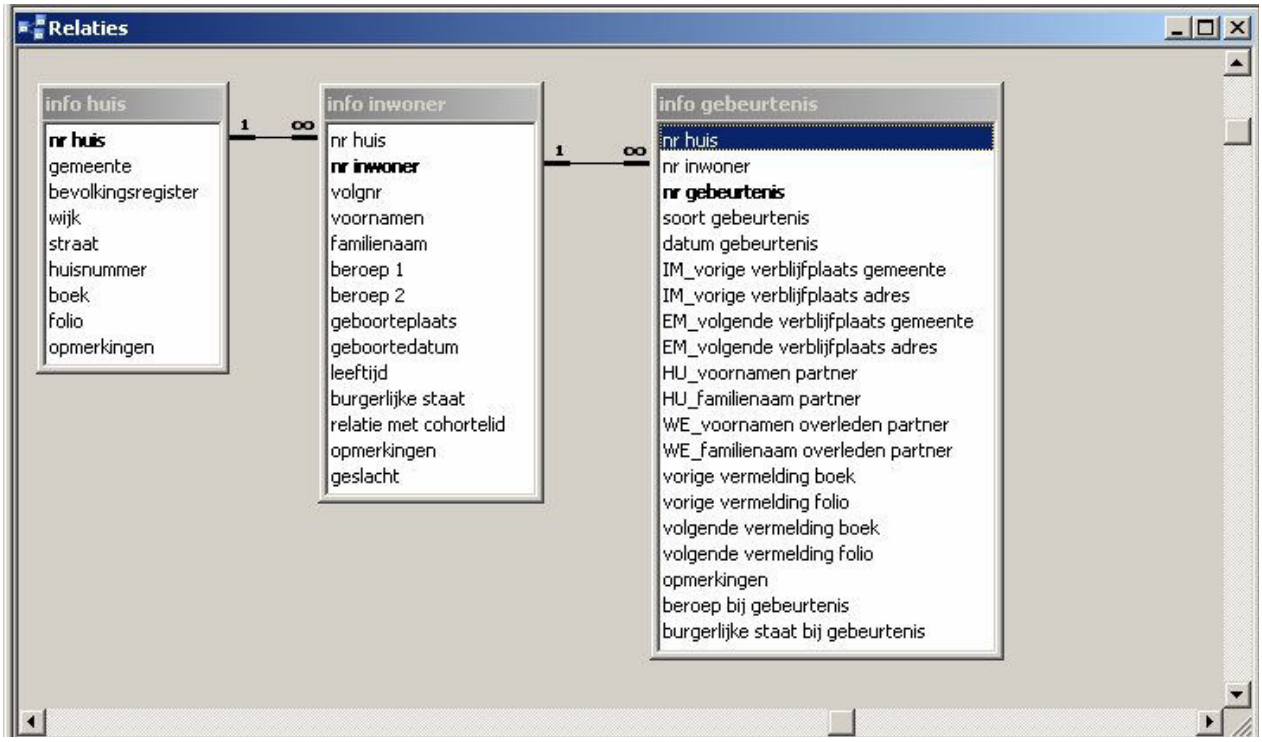
3.1. Sources

In order to execute a solid longitudinal quantitative life course analysis, the sources must meet some requirements. The ideal longitudinal dataset consists of a well defined population, is clearly marked in time, provides a reliable sample, contains an accurate and exhaustive description of the events and their timing, together wit a set of covariates and allows for effective record linkage (Alter and Gutmann 1999). *Population registers* – only available in a few countries, like Belgium, Italy, the Netherlands and Sweden – come close to this ideal. They contain per village or town (sample) the results of the census (marked time interval between 2 censuses). Each set of 2 pages covers one or more household(s). For each individual in the household, a set of characteristics like occupation and marital status are noted (covariates) and the volumes were continuously updated with information about births, deaths, marriages, and migration (events). Containing data on birthplace, migration dates (entrance and exits), as well as previous and next address, population registers also offer good possibilities to study the life course of migrants. Population registers are the main source of this research. The information will be refined by collecting data from *birth, marriage and death certificates*. Life course data of the research population are collected in the registers of the birthplaces, the city of Ghent and the ten other most important destinations for emigrating cohort members. All data of all household members on the pages on which a cohort member is registered are typed into the database, the same is true for their sisters.

3.2. Database

A first step to statistical success is to design an efficient database in which the life course data are stored with an eye for further processing. For the moment two files are used: one with data from birth, marriage and death certificates and one with data of the population registers. When the data collection is finished, both files will be linked. The structure of the latter is presented in figure 5. It is a three-level relational Access database (house, individual and event). The structure of the file is constructed after the example of "Demographica Flandria Selecta", a database designed at the Catholic University of Leuven (Van Baelen 2007).

Figure 5. Structure Access-database



When all the data are collected and the two databases are linked, the following steps must be taken before statistical analysis is possible (Alter and Gutmann 1999, Van Baelen 2007): first, the current database must be transformed into an *event file*. A crucial step here is the *record linkage*: for now all information is stored per individual page in the registers. Consequently, it is possible that the same person is present on several pages. Record linkage means that we create a unique identifier for each person and all attestations of this person are linked to this unique ID. By doing this for all persons in the dataset, we create an event file. An event file gives an overview of all events per person. Second, this needs to be further treated to get an *episode file*. An episode file is a dataset where information is stored in the form of closed intervals or episodes. Each event marks the end and beginning of a new episode. A third step is to link family. Then the dataset is prepared for the statistical analysis.

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APPENDIX 1. SOURCE LIST

1. Published

The published sources are mainly used to describe the demographical and socio-economic local, regional and national context.

DE BELDER (J.), JASPERS (L.), STEVENS (C.), VANDENBROEKE (Chris), Arbeid en tewerkstelling in Oost-Vlaanderen op het einde van het Ancien Regime, een socio-professionele en demografische analyse. Werkdocumenten 1., s.l., s.p.

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2. Unpublished

2.1. Main Sources

These are sources that are used to reconstruct the women's life course.

City hall Assenede, Communal Archive Assenede, Population registers + indices Assenede 1847-1856 to 1921-1930.

City hall Assenede, Communal Archive Assenede, Birth + marriage + death registers Assenede 1830-1930.

Communal Archive Oudenaarde, Population registers + indices Eine, Mullem and Heurne 1847-1856 to 1921-1930.

Communal Archive Oudenaarde, Birth + marriage + death registers Eine, Mullem and Heurne 1830-1930.

City of Ghent, Archives of the Population Service, Population registers + indices Ghent 1847-1856 to 1921-1930.

City of Ghent, Archives of the Population Service, Birth + marriage + death registers Ghent 1830 to 1930.

City of Ghent, Archives of the Population Service, IXOS-database of Ghent inhabitants 1887-1947.

State Archives Ghent (SAG), Modern Archive Assenede (MAA), Population register Assenede 1829-1847, 1 register, (film 4).

2.2. Local context

National Institute for Statistics, Kopie van 43002 Assenede.xls

National Institute for Statistics, Kopie van 45035 Oudenaarde.xls

National Institute for Statistics, Kopie van 43000 Gent.xls

The previous sources contain the population number and sex-specific crude demographic rates for the second half of the 19th century.

SAG, MAA, nr. 69, Population statistics Assenede, 1800-1893, 1 pak.

The following are secondary sources that link the population and agriculturl censuses for the given years.

VAN HOLEN (Gorik), Link1846.xls

VAN HOLEN (Gorik), Link 1880.xls

APPENDIX 2. CHAPTERS
APPENDIX 3. PLANNING

Coming soon