Working-class girls

The life-courses of 33 women cotton workers in Ghent around 1900

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June 2, 1893 was an important day for twelve-year-old Louise De Cock. That day she walked through the gate of the A.Voortman cotton mill in Ghent for the very first time. Louise was the youngest child of a humble working man's family. The little money she earned was welcome. Her father was ill and died four months later. At Voortman, Louise started as a reeler. When she was fourteen, she became a cotton bobbiner. Until the age of fifty, Louise stood behind the bobbin winding machine, except for the years the cotton mill closed its doors (1916-1921). Day in day out she replaced full and empty bobbins and tied broken threads. Louise stayed single. Until she was thirty-three she looked after her mother with one of her sisters, who also stayed single and with whom she lived together in the north of Ghent. Nine times they moved their humble belongings to another working man's house. In 1958, she moved into an old people's home in Ghent, where she died five years later, aged 82.

1. LIFE COURSE AS PARADIGM

The life course of Louise De Cock is without any doubt unique. Personal choices, family circumstances, coincidences, all this distinguishes Louise's life from that of her contemporaries. However, her life course could be an example of the destiny of a group of girls who lived in the same period and in more or less the same circumstances. This tension between uniqueness and recurrence, between individual behaviour and social patterns is at the centre of the so-called life course approach. In a recent article, Jan Kok tried to explain the increasing popularity of this method (Kok, 2000, 309-329). The ambition to bridge the gulf between micro and macro, between individual identity and structural processes undoubtedly plays a role. Social processes are complex, and it is that complexity that has to be understood rather than constraining it in vague models.

In this sense the life course approach criticises the concepts of life cycle and family cycle, which strongly emphasize continuity (Alter, 1988, 11). Family

cycle research too often reduces women's lives to a family context and those of men to their working environment and income.[1] In addition, such an approach often starts from a priori and often biased concepts such as family and work (Davidoff, 1999, 31; Vanhaute, 2001, 33-35).

The life course approach only surfaced when the concept of family in social and family history became problematic (Gittins, 1982, 28). Life course research makes a dynamic analysis of the events in someone's life. Life course refers to the succession of socially defined events and roles played by an individual in his or her lifetime (Giele and Elder, 1998, 22-23). It is dynamic because the research is not reduced to events such as being born, getting married, having children and dying. After all, the events are looked at from a perspective of individual choices, the time intervals between such choices, the impact of the 'time and place' and the collective experience of a specific birth cohort (Giele and Elder, 1998, XI).

According to Elder and Giele life course research must be based on a longitudinal study, combining four key elements: location in time and place, linked lives, human agency and timing.

The first element refers to the place of the individual in *time and space*. The social structure and the culture within which the studied individual has lived, but also the economic, political and social contexts of time and space must be taken into account. Life course research takes 'historic time' into consideration. Both the general and unique aspects of someone's personal place in time and space influence the complete course of his or her life (Giele and Elder, 1998, 9). The place of his or her age group is also important: *"Because society changes, members of different cohorts cannot age in precisely the same way"* (Riley, 1998, 42).

The second key element *linked lives* refers to the social integration of individuals and the interaction between individuals, social institutions and social groups (Giele and Elder, 1998, 9). After all, research showed that life course patterns are not only related to society but also to smaller groups within society. Social structures and institutions – both macro, meso and micro – have an influence on and are influenced by people's lives (Riley, 1998, 43). Researchers who carry out life course research assume that people with a different background and influences will have a different life course. In other words: perhaps people with parallel experiences and influences will develop the same behaviour or experience events at the same moment in their lives. Therefore our research does not only focus on 33 individuals but also on the group as a cohort.

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1. *"While his work situation shaped a male wage earner's choices and autonomy, the work-family link shaped those of his wife and children"* (Tilly, 1979b, 393).

The third aspect *human agency* is about the active pursuing of individual goals by the individuals under study, such as economic security, personal satisfaction, emotional stability... (Giele and Elder, 1998, 10).

The fourth and last element is *timing*, in the sense of time, point of time, space of time. On the one hand, persons and groups must adapt themselves to external events which take place at a certain moment in their lives. On the other hand, they take individual decisions or they participate in events. When individuals take a certain decision at a certain moment (accepting a job, getting married, giving birth, moving…) this is regarded as a strategy which on the one hand anticipates external events and on the other is in their own interests (Giele and Elder, 1998, 10). By analysing the timing it is possible to find out to which extent personal decisions coincide (living and working for instance), or to which extent individual transactions are attuned to each other (Kok, 2000, 315-319).

Summarizing: the family cycle method tends to lock behaviour in 'static' patterns, whereas the life course approach does not lose sight of variation in and deviation from standards. Many problems, however, are inherent in this approach. They can be reduced to two questions: a) to which extent can a standard be deduced from a 'small' number of cases? and b) how can the diversity of paths be made visible and analysed in a meaningful way? Considering the 'explorative stage' of the method, no decisive answers can be given for the time being (Kok, 2000, 314). Therefore, our study only aims at being a humble contribution in this innovating field of research.

2. POPULATION REGISTERS AND WAGE BOOKS

In a life course study, the division into cohorts is very important. After all, a cohort (aggregation of persons of the same age at the same point of time) combines the concept of generation (this term takes the historic context of the lives of a group of persons into account) with the concept of age (the physical and psychic changes which go together with ageing).

In this article we explore some living and working experiences of a number of women mill workers from Ghent (Devrieze, 1999). We choose a cohort of 33 girls, born in 1879, 1880 or 1881, who worked for a shorter or longer period at the A.Voortman-N.V.Texas cotton mill in Ghent between 22 May 1891 and 31 December 1899. The girls were chosen from a 'control group' of 127 women. 127 of the 250 women who worked at Voortman between May 1891 and December 1899 could be identified with certainty in the Ghent population registers. From this group of women we took the 1879-1880-1881 birth cohort. This choice was partly determined by the fact that at the time the cotton mill was reopened (22 May 1891), these girls were age twelve or were going to

turn twelve. Therefore, none of the 33 women started working at the cotton mill before they were twelve, although some of them are mentioned in the population registers as women mill workers at the age of ten.

For each of the 33 girls we reconstructed their life course. The research covers almost a century (from 1879 to 1974) but most women disappeared before World War II. In addition, we went in search of some cohort effects. All of them were born in or around 1880. All of them worked as cotton workers during their childhood. Nine in ten girls were born in Ghent. Three in four continued to live in Ghent until they died (at an average age of 66). 27 women could be followed until past their 45th birthday.

The research could not have been carried out, if we had not had access to two excellent sources. First of all, the city of Ghent has properly kept population registers. From January 1 1891, the population register was made accessible by individual index cards. As a result, it is possible to find individuals relatively quick in the register which consists of 7,000 books.[2] The Ghent population registers of the late nineteenth century are fairly reliable. An internal examination showed a high reliability of the information of marriages, deaths and migration. Information on births must be approached with some caution. Children who were still-born and children who died within three days were not recorded in the registers. The surviving children were most probably recorded correctly. Most doubt exists about the value of the professions mentioned. Therefore, we used this information only as an additional source.[3]

In addition, we could use consecutive pay books from the unique company archives of the Voortman cotton mill, for the period between 1891 and 1925.[4] The books start on 24 July 1891 and continue until 23 June 1916 at which moment the activities of the weaving mill were stopped for the second time. The pay books restarted on 18 May 1921 and continue until the week of 25 November 1925. Since the women workers were paid every week, they can be followed from week to week through the pay books. We found the following information: surname, forename, weekly production, piecework and hourly wages, total gross wages, supplements and fines, contributions to the social security fund and final net wages. After 25 September 1902 the weekly production and piecework wages were no longer mentioned. The pay books

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2. City of Ghent, Population Office, Population Registers, series 1867-1880, 1881-1890, 1891-1900, 1901-1910, 1911-1920, 1921-1930, 1931-1947, 1948-1961, 1962-1970, 1971-1980.

3. See Leboutte and Obotela, 1988.

4. Ghent City Archives, Nijverheidsfonds Voortman, books 412-429. See Coppejans-Desmet, 1971. On the basis of the archives of A.Voortman-N.V.Texas, a business study was already made: Avondts et al., 1976-1979 and Scholliers, 1996.

do not tell the absolute truth either. The (women) workers were not present when their work was measured or weighted and they repeatedly complained about irregularities (Scholliers, 1996, 125). In this respect it is to be noted that Voortman used the pay books to determine the total weekly production. Any incorrect measuring, whether intentional or not, resulted in unreliable production results.

So we have two rather unique and dynamic sources which supply continuous information on the houses, families, paid work and income of the women workers. The 33 selected girls were followed throughout the population registers from the moment they were born or immigrated into Ghent until they died or emigrated from Ghent. We recorded every address as well as the duration of their stay and any information on themselves and the persons they lived with in the same house. We also recorded all information from the pay books for each week worked by them.

3. GHENT, VOORTMAN AND THE COTTON INDUSTRY

Ghent prospered in the third quarter of the nineteenth century (Balthazar, 1989, 155-183; Capiteyn et al., 1983). Because of its mass production of fabrics, the Ghent industry depended largely on imported raw materials and international markets. Therefore, the reduction in the number of trade barriers was very important for the economic prosperity of the city. The American civil war plunged the cotton mills into a serious crisis. The import of raw cotton from America got into difficulties and the prices of raw materials rocketed. After this crisis, the cotton sector lost its leading role to the flax industry. In the 1870s, economic growth slowed down. The internal purchasing power was not able to cope with the overproduction and protectionist measures were promulgated once more. This crisis period bore the germs for a new growth. Companies were rationalized. There was space for technical and scientific innovations. Many family businesses were converted into limited companies and horizontal and vertical integration caught on. In that period, machine building became an increasingly important industry. However, this new growth was undone by the First World War. During the Interbellum the textile sector remained Ghent's main industry. According to the 1937 census, it still represented fifty per cent of the city's total employment. At that time, two thirds of the Belgian cotton production was still situated in Ghent.

In the second half of the nineteenth century, Ghent was the fourth largest city of Belgium. The city also had the largest share of (male and female) workers to the total population. One fourth of the Ghent population were labourers, mainly as a result of the strikingly high number of women workers.

In 1910, six in ten women aged between 15 and 55 carried out paid work, and eight in ten of them in the textile industry.

The Ghent employers were confronted very early with a structured labour movement. What started as a hidden fighting fund, was in 1914 a cooperative movement with both consumer cooperative associations, a bank of its own and several textile companies. In 1868 most of the Ghent trade unions joined the First International. After its break-up, the Ghent labour movement became increasingly reformist, which resulted in 1885 in the foundation of the Belgian socialist party, the *Belgische Werklieden Partij*.

The history of the Voortman company started in 1790, when Abraham Voortman, a Dutch immigrant, started a cotton printing mill at the *Vogelzangkaai* (Scholliers, 1976). In 1822 a totally mechanized weaving mill was added to the company and in 1826 the vertical integration was completed with a mechanical spinning mill. After a boom period, the company lost its leading position of Ghent textile manufacturer at the end of the 1850s. The following years, Voortman's élan kept on diminishing, mainly as a result of too few new investments. In November 1879 the weaving mill was closed because of modernization works. In March 1880, the spinning mill was destroyed by a fire. The production in the spinning mill was restarted rather quick but the weaving mill was not reopened until 1891. In 1890 the cotton printing mill was closed for good.

When the weaving mill reopened in May 1891, four workers were recruited. Their number rose slowly to 62 in 1894 and to 100 in December 1899. In 1907, 169 persons worked in the weaving mill. However, the new growth of the company as a technical leader soon came to an end. Voortman mainly tried to keep pace with his competitors by lowering the workers' wages. In 1916 Voortman closed its doors once more. In 1921 the company restarted with a weaving mill and a spinning mill.

Research of the personnel structure of the company showed that Voortman did not only pursue a tough wage policy but that he also had a specific recruitment strategy (Scholliers, 1996, 87-102 and 162-164). The company and in particular the weaving mill mainly recruited young and female workers in the second half of the nineteenth century. The share of women under age 20 kept on increasing throughout the century. In 1842 they constituted one fourth of the total labour force. In 1879, their share had risen to 45 per cent and in 1902 to 56 per cent. The girls studied in this research formed part of this group. With this employment policy, Voortman tried to lower the labour costs, without the productivity of the weaving mill being affected.

The women workers in the weaving mill performed several duties. There were bobbiners, reelers, weavers and shearers. All occupations in a mechanized textile weaving mill were, however, limited to the preparatory work for

the machines, the inspection of the machines, the making of corrections and the maintenance of the machines.[5]

The thread which left the spinning mill, went to the bobbining mill. There the thread was cleaned and inspected for weak places for the last time. It was the *woman bobbiner*'s job to replace full bobbins by empty ones and tie broken threads together. The thread had to be wound around a wooden bobbin which fitted in a shuttle. This operation was carried out on a shuttle machine. On this machine the yarn was wound off the bobbins and wound on such reels. It was the *woman reeler*'s job to keep an eye on the machine, replace empty bobbins by full ones, repair broken threads and replace full reels by empty ones. The last task before the warp threads were applied to a loom, was performed by *women shearer-placers.* They operated a machine which wound threads off bobbins on a weaving beam or chain beam. They placed the bobbins on the shearing rack and fixed the threads to the mill. Then they replaced empty bobbins by full ones and repaired broken threads. The last stage of the production process in the weaving mill was the weaving of fabrics. A *woman weaver* inspected a loom, which means that she replaced empty shuttles by full ones and that she also had to repair broken threads. In addition, it was also her job to maintain the loom.

Working in a weaving mill was definitely monotonous. After all, the same operation was repeated all the time. Apart from that, there must have been a lot of stress because everything had to be done very quickly. After all, each empty reel or bobbin or each broken thread brought the machine to a standstill. Since these women workers were paid per piece, each standstill meant a loss of pay. In addition, the working environment was dangerous. On the one hand, a lot of dust was released when fabrics were being woven, and on the other hand there was always the risk of driving belts breaking off and of shuttles going into the wrong direction. In addition, the large number of machines in one room produced a continuous volume of sound of about 100 to 110 decibels (Van Waarden, 1984, 103 and 106-107).

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5. For an extensive comment on the distinct stages of the production process and the machinery involved, see Ghyselynck, 1980, 11-29 and 45-53.

4. WORKING AND EARNING MONEY

Following a professional career through the professional data mentioned in the population registers gives doubtful results. The occupation of two of the women we followed is never mentioned, whereas they did work (temporarily) as textile workers. Three in four changes of address in the registers are, however, followed by the indication of an occupation, and so some conclusions can be drawn. Two girls are mentioned with an occupation when they were nine years of age. Four women over fifty are still mentioned as woman factory worker. On average, women got a last indication of paid work at the age of forty. No one was mentioned as 'housewife' before she was thirty.

The youngest girls were recruited by Voortman when they were twelve. On average, they started their careers in this weaving mill at the age of fifteen. An average girl kept working there four to five years. A lot of them, however, left the mill sooner. Their labour careers were closely related to the work they did. In the weaving mill there were in the main two groups of women workers: a majority of women reelers and women bobbiners and a minority of women weavers. The youngest woman workers (aged 12 to 15) were employed as women reelers. After a rather short period, often a couple of months, they were transferred to the bobbining mills. The women bobbiners stayed longest in the company. The women weavers started when they were older and they did not stay so long (from one and a half to three years). Louise De Cock as well started her career as a twelve-year-old reeler and she became a bobbiner when she was fourteen. She practised the occupation of bobbiner until the end of her career at Voortman. It is clear that she had a very atypical working career. As a general rule, women changed jobs and workshops regularly.

Both the women reelers, women bobbiners and women weavers received piecework wages. The women weavers were paid per finished piece, according to the degree of difficulty and the size of the fabric. The women reelers and women bobinners received a remuneration per ten kilograms of thread they wound on the reels/bobbins. Their remuneration depended on the thickness of the thread. A bobbin was filled quicker by a thick thread but more time was lost when changing the reels or bobbins. Fines and a contribution to the social security fund were deducted from the gross wages. On the other hand, bonuses, if any, were added. As a result the weekly paid wages were very variable. So the wages of reeler Louise De Cock fluctuated between four and ten francs per week, without taking any extremes into consideration, in the years 1892 to 1910.

FIGURE 1: THE NOMINAL WEEKLY WAGES OF THE 33 WOMEN WORKERS. AVERAGES PER YEAR AND PER OCCUPATIONAL GROUP, 1893-1914 (FRANCS PER WEEK).

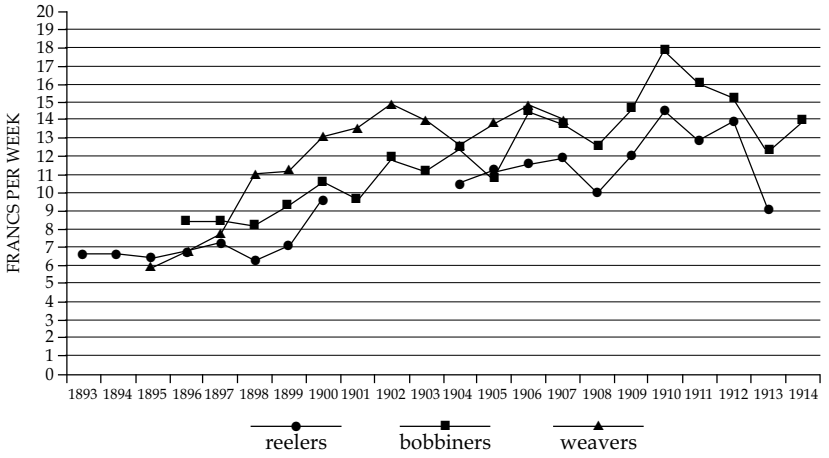
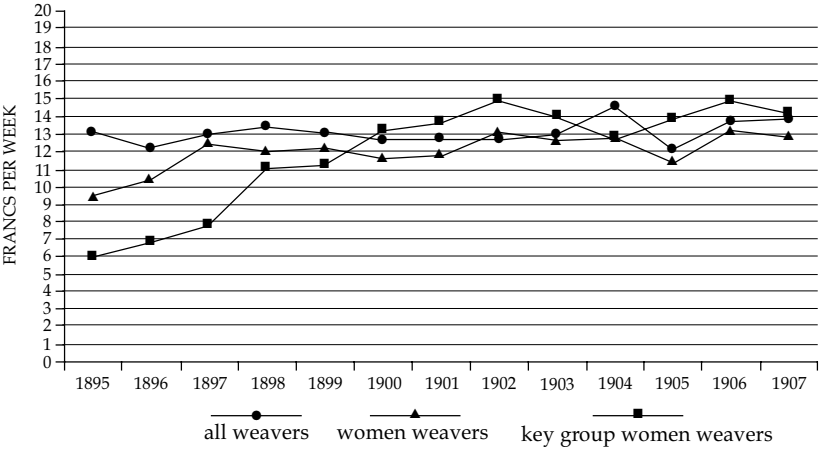


Figure 1 shows the fluctuations of the average net weekly wages of the 33 women workers in the years 1893 to 1914. The nominal net wages of all three occupational groups doubled in this period. The wages of the women weavers doubled a lot quicker (in 1901) than those of the women bobbiners (1910). The generally rising line must mainly be interpreted within the framework of an ageing birth cohort. In 1893, the women workers were thirteen-year-old girls, whereas in 1910 they were thirty. The productivity of a woman worker – and therefore also her wages – increased very quickly between the ages of thirteen and twenty. Then it increased still a little until the age of thirty (Varlez, 1901, 594). Apart from the age factor, the apprenticeship factor must also be taken into consideration. According to Van Waarden, the women workers could be taught rather quick how to operate a loom but they needed at least six months to some years to learn the tricks of the trade (Van Waarden, 1984, 105). The work carried out by the women bobbiners and certainly that by the women reelers seems to be more routine. That difference in apprenticeship explains the evolution of the wages of the women weavers in comparison with those of the other women workers. After all, initially the women weavers earned the least money but after some years they could earn the most. Inspecting a shuttle and a bobbining mill was not difficult to learn, which resulted in a fair production from the beginning. After that the production could be increased only slowly. Because of the rather large turnover in personnel, it was hard for the group of women reelers to increase their degree of schooling.

FIGURE 2: COMPARISON OF THE NOMINAL WEEKLY WAGES OF THE WOMEN WEAVERS (KEY GROUP VERSUS ALL WEAVERS AND WOMEN WEAVERS) IN THE VOORTMAN WEAVING MILL, 1895-1907 (FRANCS PER WEEK).



The nominal wages of the 33 women can be compared with the average nominal wages available for the whole weaving mill (Avondts, Hannes et al, 1979, 1-96). This comparison shows that the women reelers and women bobbiners of the selected birth cohort follow the general line of their respective occupations on the understanding that they earned more after 1900 because from that year they are older than the average employee. As appears from figure 2, the women weavers, however, show another picture. The first few women weavers of the key group who entered the company, earned a lot less than the average of all woman weavers. This did not change until 1900. As from that moment, their wages surpassed the average. Between 1900 and 1907, the women weavers earned even more than their male colleagues, except for one year. The wage differential between the women weavers of the key group and the total group of women weavers can be explained by the age factor. This is not the case as far as the difference between their earnings and those of the male weavers is concerned. One fourth of the weavers belongs to the same age class as the key group and almost fifty per cent are even older (Scholliers and Avondts, 1977, 75). A possible explanation is that women made smaller, simpler and thus less paid pieces, but they compensated this disadvantage by a higher productivity.

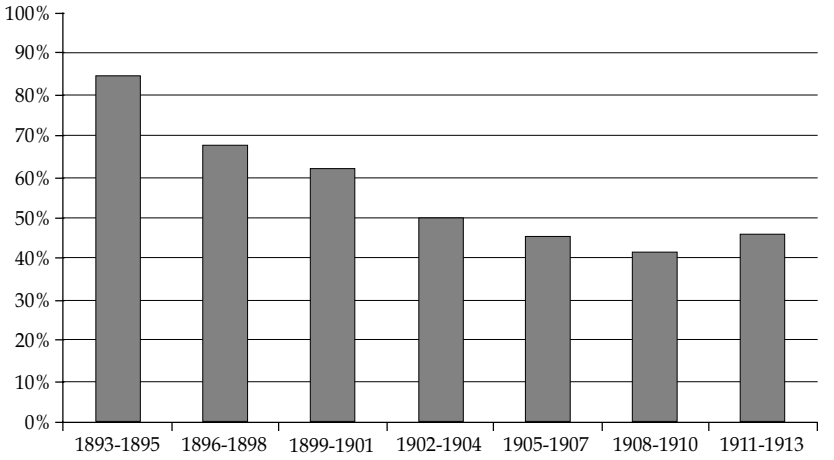
Real wages generally followed the rise of nominal earnings.[6] The women

6. We used the cost of living-index, prepared by Scholliers as a deflator (Scholliers, 1995, 204-205).

weavers realised a doubling of their real purchasing power already in 1902. The women reelers and bobbiners reached their highest real wages in 1910, without there being a doubling in comparison with those of the first year. After the First World War, none of these groups realised the same purchasing power.

What could a woman worker buy with her wages? To which extent could she live economically independent? This depends on the extent to which he or she is able to feed, to dress and to house himself or herself. In this exercise Louise De Cock's purchasing power between 1893 and 1913 is analysed. In those years she almost always worked full-time (more than 50 weeks a year) at Voortman. We proportion the average net weekly wages to a package of necessary expenses for food, clothing and housing (rent, heating and lighting).[7]

FIGURE 3: THE PURCHASING POWER OF LOUISE DE COCK'S WAGES EXPENDITURE ON FOOD, CLOTHING AND HOUSING, 1893-1913 (% OF WAGE).



7. The prices were taken from several publications on Ghent prices, rents and budget inquiries. For the composition of the food package: Scholliers, 1982, 284. The cost of food package was calculated on the basis of the food prices quoted in: Avondts and Scholliers, 1977, 1-172. The cost of food thus calculated was increased by an amount on account of rent on the basis of *Salaires et budgets ouvriers en Belgique au mois d'avril 1891*, Brussels, 1892, 388-389. The rent was annually adjusted on the basis of the Ghent rent index: Avondts and Scholliers, 1978, 150. Apart from major expenses on account of food and living, amounts for clothing, heating and electricity were included in the costs. These amounts were taken from *Salaires et budgets*, 390-391. For the exact way of processing: Devriese, 1999, 91-96.

Figure 3 shows that Louise De Cock was able to support herself as a twelve-to-fourteen-year-old reeler. Her weekly wages were sufficient for the rent of one half of a small house or one room, the minimum costs of clothing and basic food, and for the payment of heating and lighting. Nevertheless, the women reelers belonged to the lowest paid women workers of the company. When at the age of fifteen she became a bobbiner, the share of her necessary expenses dropped to something less than 70 per cent of her wages. That share kept decreasing and from the age of 21, she still had fifty per cent of her wages after paying the necessary costs. Once over thirty, the remainder decreased. On the one hand, this was due to a price increase and on the other to a decrease of her nominal wages.

So Louise De Cock was able to support herself with her pay. Together with her older sister, she, however, had to support her mother. Her mother died in 1914 and after her death both unmarried sisters kept living together. The following undated scrawled note in the population register of 1911-1921 illustrates that in spite of her spending margin, it was impossible for her to save any money: *"De Cock Louise. Is she wealthy? She is not. Does she have furniture which can be seized? She does not. Value of her furniture? 100 francs. The constable on duty"* [our translation].[8]

The above calculations put the 'survival wage' into perspective. On an individual basis, full-time weekly wages in the Ghent textile industry at the end of the nineteenth century were sufficient for the necessary spending. The negative picture of the wages in the textile mills of Lille in the years 1896-1911, drawn by Hilden, is not applicable here: *"In the stark terms of survival... neither men nor women could subsist on their pay alone. Only by combining incomes could most textile workers eke out an existence"* (Hilden, 1984, 364). On the other hand, often more than one individual had to be supported by the wages of one person and so the survival limit was very close. Louise De Cock did not have to combine her income with that of others to support herself. On the contrary, she used a part of her income to support her mother and her sister. In principle, it was possible to build up an individual living with a factory pay, which was also found by Tilly in Roubaix in 1906: *"... the availability of better individual wages meant that some women were living on their own, apart from their families"* (Tilly, 1979a, 149).

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8. Ghent Population Office, Population Register, 1911-1920, 3rd quarter, book 6, folio 105.

FIGURE 4: WOMEN WORKERS ACCORDING TO THREE TYPES OF FAMILY AND AGE, 1893-1913.

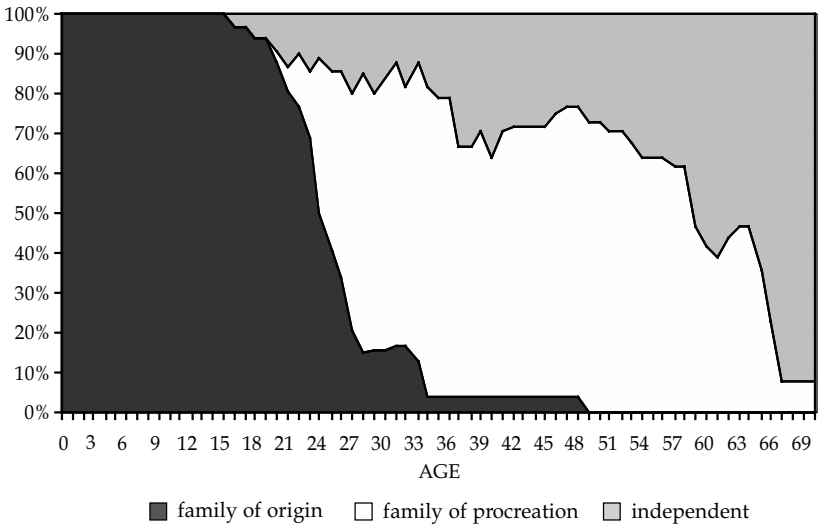

Figure 4 gives a general view of the family situation of the 33 women workers according to age. We categorize the women workers according to three types of family: the parental family (family of origin), the family of one's own (family of procreation) and the families without parents or spouse (independent). Until the age of 21-22, the large majority still lived in the parental family. At the age of thirty, one in eight still did. Between their 25th and 60th anniversary six to seven in ten women lived in their own family (of procreation). This means that a large number of wives lived independently: from the age of 35 about one in three. One in two women over age 20 lived in a nuclear family (with husband and children). The other fifty per cent lived in extended families, compound families or lived alone. Non-traditional forms of families were in the minority. This does not alter the fact that most women did spend at least some time of their lives in a non-nuclear family.

Four women did not marry. Consequently, the large majority entered into marriage at least once. They did so when they were still young, eight in ten

before they were 26. Two of the 24 marriages that could be followed until their dissolution, ended by divorce. In the control group, we could follow 64 marriages and five of them ended in divorce. This is a remarkably high number. At that time the official divorce degree fluctuated in Ghent around five in 10,000 (Dumont, 1951, 154). On the basis of interviews, Elisabeth Roberts contributes this to family violence and alcohol abuse in workers' families in the first half of the twentieth century (Roberts, 1984, 121). In such cases, the judge mostly pronounced a divorce. It was impossible to find out whether the cases concerned were seven cases of marital violence.

Twenty-six women could be followed until after their fertile years (45 years of age or older). Four of these 26 women stayed single and none of these unmarried women had (surviving) children. Nineteen of the 22 married women gave birth to at least one (surviving) child. So, barely three in four female workers became mothers. Together, these nineteen women had 48 surviving children, a proportion of 2 to 3 children per woman. The large number of mothers with only one child is striking: almost fifty per cent. Four in ten mothers had three children or more. This is a big difference with the women of the former generation, the girls' mothers. Twenty-six women could be followed until after their fertile years. Together these women had 206 surviving children, which means almost eight children per mother. Besides, this number is an underestimate. The brothers and sisters of the women workers born before 1879 and who had already died at the time of birth of the woman worker were mostly not recorded. Not one mother of the former generation had less than three (surviving) children. Six in ten mothers gave birth to at least six children. One of them had even fifteen children. Our women workers clearly belong to the first generation of women from Ghent who successfully applied an advanced birth control. This is a real generation gap.

TABLE 1 AGE OF THE MOTHER AT THE TIME OF BIRTH OF THE FIRST CHILD AND OF THE LAST CHILD ACCORDING TO BIRTH COHORT

Birth cohort	*°1859 - 1870*		*°1871 - 1878*		*° 1879 - 1881*		*°1882 - 1885*	
	First	*Last*	*First*	*Last*	*First*	*Last*	*First*	*Last*
Mean	23.9	31.5	23.9	32.0	23.0	28.6	25.8	31.8
Median	23.3	31.8	22.2	30.4	21.8	26.7	25.5	29.6
Minimum	19.3	22.7	16.7	21.5	18.0	19.9	17.0	22.1
Maximum	33.0	40.3	42.1	42.2	40.0	44.2	36.3	44.1

TABLE 2 THE INTERVAL BETWEEN TWO BIRTHS ACCORDING TO BIRTH COHORT (YEARS)

Birth cohort	*°1859 - 1870*	*°1871 - 1878*	*° 1879 - 1881*	*°1882 - 1885*
A: The interval between two births, expressed in years. Women of 45 years and older, with minimum two children				
Mean	2.5	2.8	3.4	6.2
Median	2.0	2.4	2.5	4.2
Minimum	1.1	0.9	0.9	0.9
Maximum	6.8	9.0	12.9	16.5
B: The percentage of children born within two years after the birth of the previous child				
< 2 years	46.30%	42.70%	27.50%	23.50%

In discussions among historians and demographers on the decline of fertility, spacing versus stopping is an important controversy. Couples can choose between increasing the interval between births or stop having children, when the desired number of children has been reached. George Alter gives preference to the explanation of stopping after a certain number of children: *"If we look at the problem from a broader perspective, 'spacing' could have been no more than a temporary stage. In the twentieth century the intervals between births were reduced, as couples compressed childbearing into a smaller amount of time"* (Alter, 1992,14-15). Tables 1 and 2 – in which the 127 women from the broad control group are divided into four birth cohorts – show that both strategies were applied in Ghent in the period under study.[9] On the one hand, the age at which the women had their last child was lower and the time between the first and the last births was shorter. On the other hand, the time interval between the births of successive children doubled. The information nevertheless indicates that spacing was at least an equal important method among the women workers from Ghent at the end of the nineteenth century to reduce the number of children.

9. The women born before 1871 had children between 1882 and 1911, 77 per cent of whom were born before 1900. The 1871–1878 birth cohort gave birth between 1891 and 1920 and 84 per cent of the children were born before 1910. The intensively followed birth cohort had children between 1899 and 1923, 81 per cent of whom before 1920. For table 2 only those women who had more than one child were counted.

6. PRODUCTION VERSUS REPRODUCTION?

Was the decline of fertility influenced by the paid work of women before and after their marriage? Did their marriage or the birth of a child put an end to their labour careers? Since long such questions have been at the centre of family history and gender-oriented research. In her pioneering studies from the 1970s, Louise Tilly regards reproduction, just like paid work, as a part of a family strategy. The family has to choose between production – paid work of the wife – or reproduction – unpaid work of the wife and paid work of teenage children (Tilly, 1978, 33-58; Tilly, 1979a, 137-151; Tilly, 1979b, 381-391). Unlike Tilly, according to Gittins the decision to reproduce is an individual decision, in relation to the social and economic environment indeed. In this respect, Gittins emphasizes the value and role patterns between both partners whether shared or not (Gittins, 1982). Both authors see a difference between the reproduction behaviour of (women) workers of the textile sector and the reproduction behaviour of (women) workers active in other socio-economic sectors.

Family relations and individual work experiences, it is obvious that both factors play an important role in the choices made by men and women as regards work, income, family and children. Our research shows once more how difficult it is to test such clearly defined research questions in practice. Besides, the answers do not seem to point in the same direction.

In order to be able to analyse the relationship between production and reproduction we delineated the life events of each individual woman on a career line. We transferred the information about starting a family, birth, moving, death to these individual time lines. In addition the work career was delineated as detailed as possible. This was done on the basis of occupations mentioned in the population registers and the information contained in the pay books of Voortman. The confrontation of both series of data makes it possible to deepen some questions regarding production and reproduction.

Was the employment at Voortman influenced by a first marriage? Because of the specific character of the personnel of the Voortman weaving mill, it is difficult to get a clear picture as far as such relationship is concerned. The workers of the weaving mill were young and were only employed for a short period of time. At the beginning of their careers at Voortman, all women workers were part of a parental family. After they had stopped working in the weaving mill, twenty-five of the thirty-three women workers stayed with their families of origin for at least two years. As a result, the number of women whose marriage behaviour may have been influenced by the work at Voortman is very small. Two of these eight women kept working after the First World War. One of them – Louise De Cock – stayed single. The other one had then been living together with her legitimate husband for years. Four women had

been married for more than one year when they stopped working at Voortman. Two other women stopped one to two months before or after their marriage. There is no clear connection at all.

To which extent does the fact that someone enters into marriage have an influence on the registration of his or her occupation in the population registers? Not all women can be followed until the date they married. Some women stayed single. Four women emigrated at an early age. One of them left immediately after her marriage. The three other women were not (yet) married. Four women continued to live in Ghent until they died and remained unmarried. They kept working until they were old. Each time they moved, they had an occupation registered and all four of them had an old-age pension file number.

If we take the twenty-five women who entered into marriage into consideration, it becomes clear that the large majority did not leave the paid work circuit in function of their marriage. It can be said with certainty only in the case of three women that they stopped performing paid work in the period just before their marriage. Two other women never had an occupation registered before their marriage. In the case of the other twenty women, paid work is still mentioned after their marriage. This does not mean that they kept working until their retirement age or that they always worked outdoors.

It is very difficult to find out whether there is a connection between the fact that they stopped performing paid work or not and the occupation of their husbands. According to Gittins, a woman married to a man whose occupation is mainly (or only) practised by men, is less inclined to keep working than a woman married to man who worked in a mixed occupation sector. By mixed occupation sector she mainly means textile workers, because both weaving and spinning are done by both sexes (Gittins, 1982, 181-189).[10] It is striking in our study indeed that women who are married to textile workers kept carrying out paid work for a long time. But the pattern is not that unambiguous as presented by Gittins. The five women who stopped working after their marriage were indeed married to men who practised an occupation 'dominated by men': two clerks, a cart smith, an iron-founder and a porter. But in the group of women who had their occupations mentioned at least once after their marriage, fifty per cent of them were also married to men practising an occupation 'dominated by men'. The other fifty per cent were married to textile workers.

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10. She, however, compares two small cities with a different economic character, which accentuates the contrast.

What is the influence of motherhood on the careers of the women at Voortman and on occupational work in general? One in four of the women under study became a mother when she was a worker at Voortman. On average they kept working at Voortman for two years after giving birth. Not one woman stopped working at Voortman to become a 'full-time' mother.

As far as the influence on the registration of occupations is concerned, the same classification as for the marriages is used. A first group seems to stop carrying out paid work just before or after marrying. They had few children, on an average less than two. As already mentioned, none of these five women were married to a textile worker. The ten female workers who were married to textile workers had more children (an average of two) but raised less of them as a result of a higher infant mortality rate.

Women who temporarily suspended their work after they married form a different group. They had a lot more children, an average of almost five. These women seem to have stopped working after the birth of one or several children but by necessity (mostly the death of or the divorce from their husbands) had to start working again. Women who kept working for some time after their marriage, either in a factory or as a self-employed person stopped performing paid work only after the birth of their third or fourth child or from the moment the eldest child brought an income home. As far as the other women of the group are concerned there seems to be little connection between the birth of their children and/or the performance of paid work by one of their children. Many of them kept working outdoors, also when both their husbands and their children earned wages. It is, therefore, striking that those women had relatively few children. The five women who, when they got older became shopkeepers or innkeepers, had barely one child. Women who kept working in a factory, had more children, an average of two per woman, but raised only a bit more than half of them because of the high infant mortality rate. This is mainly striking in families where husband and wife were textile workers. In those families, barely one in four children survived.

Although we have followed a group of women who shaped their lives within the same physical and socio-economic context, their lives were very different. The same variables come always to the front, *i.e.* paid work, marriage, surviving children and husband's occupation, but not always in the same relationship. The group with few children shows two patterns. Those who stopped performing work outdoors were married to men with relatively 'strong' occupations. Those who kept working, did so to keep the family budget in balance. Women who had more than three surviving children, tended to leave the external work circuit but succeeded in doing so only temporarily. When the 'pressure' of the children had decreased a bit, they restarted working either as wage earners or as self-employed persons.

The period in which these women lived, worked and started a family is a period of quick changes. Their world differed from that in which their mothers had to grow up because of the first forms of labour protection, a larger (male) participation in politics, a somewhat greater purchasing power and – most important perhaps – the decreasing pressure of the children. Life course research wants to link those changing circumstances to the individual path followed by people. As we mentioned in the beginning, such ambition clashes with the practical difficulties of the (labour intensive) reconstruction of individual life courses and the aggregation of a 'sufficient' number into patterns or models. In this study we were not able to overcome those difficulties. We could, however, draw the attention to a number of strong points of the life course research. The most individual specific experiences such as the first working day, one's own purchasing power, marriage as well as divorce, the choice to have children and to stop working, could be confronted with each other in a broader perspective.

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Jonge arbeidsters. Het levenslooponderzoek van 33 Gentse textielarbeidsters omstreeks 1900

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SAMENVATTING

Het paradigma van de individuele levensloop of de *life course* creëert een aantal nieuwe onderzoeksmogelijkheden in de historische demografie en in de sociale geschiedenis. Gegroeid als een kritiek op de al te uitvlakkende concepten van de levenscyclus en de gezinscyclus, wil de levensloopbenadering een dynamische analyse maken van individuele gebeurtenissen en keuzes. Die worden bestudeerd in relatie tot elkaar (tijdsintervallen), in relatie tot de collectiviteit van een geboortecohort en in relatie tot de context van tijd en plaats. Deze bijdrage wil met een concreet voorbeeld enkele mogelijkheden van het levenslooponderzoek tegen het licht houden. Aan de hand van bevolkingsboeken en loonregisters werd het leven en het werk van 33 Gentse textielarbeidsters zo goed als mogelijk in kaart gebracht. Deze groep is een onderdeel van 127 geïndentificeerde meisjes die tussen 1891 en 1899 minstens een tijd hebben gewerkt in de weverij van A.Voortman. Volgende vragen komen in het onderzoek aan bod: Welke loopbaan volgen de arbeidsters? Wat verdienen zij en wat kunnen ze daarmee kopen? In welke gezinnen worden ze groot en hoe en wanneer vormen ze een eigen huishouden? Krijgen ze kinderen en zo ja, hoeveel en wanneer? Welke invloed heeft de betaalde arbeid op de beslissingen inzake huwen en kinderen krijgen en vice versa?

Het onderzoek laat een erg verscheiden beeld zien, uiteraard is geen enkele levensloop identiek. Daarnaast worden ook enkele patronen duidelijk, ondermeer inzake kinderen, beroep en samenwonen. Het onderzoek maakt ook duidelijk welke praktische bezwaren opduiken bij het toepassen van de levensloopbenadering als wetenschappelijke methode. Ten eerste overstijgt de moeilijke en arbeidsintensieve reconstructie van individuele levenslopen de mogelijkheden van individueel onderzoek. Ten tweede blijft de vraag hoeveel gevallen er nodig zijn om te kunnen komen tot geaggregeerde patronen of modellen, los van de vraag op welke wijze dit dient te gebeuren. Vooralsnog is het aftasten en uitproberen.

Filles ouvrières. La vie de 33 ouvrières du coton à Gand autour de 1900

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RÉSUMÉ

Le paradigme du cours de la vie ou *life course* suscite de nouvelles possibilités d'investigation dans l'histoire sociale et démographique. Née comme une critique des concepts trop mécaniques du cycle de vie et du cycle familial, l'approche du cours de la vie a pour but de réaliser une analyse dynamique des événements et choix individuels. Ceux-ci sont étudiés les uns par rapport aux autres (intervalles de temps), par rapport à la collectivité que constitue une cohorte de naissance et par rapport au contexte de l'époque et du lieu. Cette contribution veut éclairer, grâce à un exemple concret, quelques possibilités de l'analyse des parcours de vie (levensloop). A l'aide des registres de population et des registres de salaires, la vie et le travail de 33 ouvrières gantoises du textile ont été reproduits le plus fidèlement possible. Ce groupe fait partie des 127 filles identifiées qui, entre 1891 et 1899, ont travaillé dans l'atelier de tissage de A.Voortman. L'enquête a suscité les questions suivantes: quelle carrière suivent les ouvrières? Que gagnent-elles et quel est leur pouvoir d'achat? Dans quelles familles grandissent-elles et quand créent-elles leur propre ménage? Ont-elles des enfants et si oui, combien et à quel âge? Quelle influence le salaire a-t-il eue sur les décisions relatives à leur nuptialité et à leur vie féconde?

L'enquête fait apparaître des résultats très disparates, puisque chaque vie est unique. Toutefois, quelques modèles clairs émergent, notamment en ce qui concerne les enfants, le travail et la cohabitation. L'enquête montre également quelles objections pratiques surgissent lors de l'application des techniques et concepts de la *life course analysis* comme méthode scientifique. Tout d'abord, la difficile et laborieuse reconstruction des parcours de vie excède les possibilités d'un chercheur isolé. Ensuite, pour dépasser les cas d'espèce, il faut répondre à deux questions: combien de cas sont nécessaires pour pouvoir proposer des modèles agrégés? Par quelles méthodes peut-on passer du micro au macro; comment peut-on transposer les expériences individuelles en celles d'une population? Nous n'en sommes encore à l'heure actuelle qu'au stade des tâtonnements et des essais.