Societal openness during the urban crisis. Partner selection in the 19th-century Belgian textile cities Ghent and Verviers

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The History
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Family

Societal openness during the urban crisis. Partner selection in the 19th-century Belgian textile cities Ghent and Verviers

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Abstract

This paper examines the partner selection of the lower classes during an urban crisis period in early industrial Belgian cities. It was found that in this period characterized by an economic transition, overpopulation, migration and a low standard of living, social heterogamy was high, whereas social homogamy increased, or was 'restored', in the subsequent period. The urban crisis effect on partner selection contradicts the claims of modernization theory that there was a gradual increase in societal openness and that societal openness was typically modern, but it fits the idea of the informalization of marriage, a process marked by an increase in unmarried cohabitation and illegitimacy.
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1. Introduction

In this paper we address the formation of social bonds between individuals with a different social origin under societal conditions that are described as an 'urban crisis'. Group formation can be used to study the 'openness' of a society, defined as the extent to which ascribed positions, such as one's social origin (the class of one's father), have an influence on the life of individuals.[1] We use marriage partner selection according to social origin as an indicator of societal openness (Blau, Beeker & Fitzpatrick, 1984; Beekink, Liefbroer & Van Poppel,

1998; Thompson, 1988; Uunk, 1996; van Leeuwen & Maas, 2002; Van de Putte, 2005). We distinguish between social homogamy, defined as marrying a partner with the same social origin, and heterogamy, defined as marrying a partner with a different social origin.

The research on partner selection is closely connected to the research on (intergenerational) social mobility, and it is from this field that the main theoretical perspective on societal openness stems. The 'classic' view, inspired by modernization theory and particularly the 'thesis of industrialism', holds that there was a gradual increase in social mobility in the course of the industrialization process (see Fukumoto & Grusky, 1993; Miles, 1999; van Leeuwen & Maas, 1996). The closed traditional society characterized by high levels of immobility and homogamy became a modern open society characterized by high levels of mobility and heterogamy. Yet, both research on social mobility and on homogamy did not produce

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[1] Ascribed positions, like gender, age, geographical and social origin, are assigned to an individual beyond his or her effort, and are the opposite of achieved positions. This is a central distinction in the sociology of modernization (Ritzer, 1992).

systematic empirical evidence for this view [for an overview see van Leeuwen and Maas (1996), Miles (1999), and Van de Putte (2005)]. One of the reasons for this lack of empirical evidence is the influence of the specific historical socio-economic context on the partner selection pattern.[2] As the partner selection process is complicated, being influenced by factors such as feelings of group belonging, personal preferences for specific partners, social control and the characteristics of the marriage market, there are many ways in which this socio-economic context can exert an influence.

In this paper we address a specific aspect of this problem by examining partner selection during an urban crisis. By this concept we refer to societal conditions characterized by an economic transition (industrialization), a declining or low standard of living, overpopulation and migration (Seccombe, 1993; Wagenaar, 1992). We claim that under these conditions, even in early industrial societies, the impact of social origin on group formation decreased. This led, in our view, to a temporary high level of heterogamy. This pattern does not fit the standard modernization view, as it implies that societal openness is not typically modern, nor that there was a gradual increase in societal openness.

In short, in this paper we aim to include the historical context explicitly in the research on the influence of modernization on group formation and to demonstrate that incorporating the historical socio-economic context may help to understand the complex patterns of societal openness. For that purpose we examine the partner selection pattern in two Belgian textile cities, namely Ghent and Verviers, that in the first half of the 19th century experienced an urban crisis. There was an economic transition (industrialization), overpopulation, a low standard of living and migration was high (although not dramatically higher than in the periods afterwards). In Section 3.2 we give a detailed description of the precarious living conditions in the 19th century. In Section 4 we perform an empirical analysis of social homogamy, using marriage certificates. We start by discussing how precisely the urban crisis influenced homogamy.

2. Partner selection in the urban crisis

In this section we first discuss a simple model of partner selection to organize the discussion. Second, we define the traditional system of homogamy. We continue by explain-

ing how this system came under pressure during the urban crisis and how homogamy was restored afterwards.

2.1. Determinants of partner selection, the traditional system of homogamy

There are three groups of determinants of partner selection (Kalmijn, 1998; see also van Leeuwen & Maas, 2001; van Poppel et al., 2001; Van de Putte, 2005). First, there are 'structural causes'. Partner selection is influenced by the supply of potential partners. This supply can be defined as the composition of the group of marriage candidates by social origin and is, ultimately, the product of the social structure, that is, the number of skilled, semi-skilled and unskilled workers, etc. The supply of potential partners is also determined by meeting opportunities. If, for example, because of spatial segregation, marriage candidates can more easily meet similars, homogamy is stimulated.

Second, individual evaluation criteria ('preferences') are applied on partner selection. There are three main principles of evaluation that inform the 'development' of preference patterns in partner selection. Rational–instrumental selection is present when one chooses the most suitable partner. This principle may be applied on the social origin or on the social position of a potential partner. The former will lead to homogamy according to social origin, that is, where everybody tries to prevent marrying a lower ranked partner, the latter to (increased) heterogamy.[3] Romantic-expressive selection occurs when one chooses the only 'true' partner. If this principle is applied, the marriage is less likely to be homogamous (Shorter, 1975), although one could also argue that romantic-expressive partner selection may require cultural similarity, and in that case social homogamy might be required. Finally, selection may be based on 'group belonging'. Prejudices towards outsiders are important causes of homogamy. If, for example, social groups are defined by the father's occupation, marriage partner selection is probably restricted to this in-group.

A third determinant is 'social control'. The choice for a specific partner is typically influenced by the preferences of third parties, such as parents, peers, priests and colleagues.

To understand how the urban crisis had an impact on partner selection, we first discuss partner selection in traditional society. Pre-industrial societies are usually considered to be closed social systems with strong homogamy according to social origin (van Leeuwen &

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[2] The standard modernization thesis might of course also be wrong (Beck, 1992). Another factor is the lack of a common scheme for the classification of occupational titles (Van de Putte & Miles, 2005; Maas & van Leeuwen, 2005).

[3] That is, in case the correlation between social origin and social position is not too strong.

Table 1
Overview of determinants of partner selection

Determinants	Traditional society	Urban crisis	Modern society
Structural			
Preferences			
Rational–instrumental	Social origin	Social position	Social position
Romantic	No	No	Yes
Group belonging	Strong	Weak	Weak
Social control	Strong	Weak	Weak
Partner selection pattern	Homogamy	Heterogamy, but temporary	Heterogamy

Maas, 2002). We can specify this system of homogamy in terms of the partner selection model (Table 1).[4] First, in traditional society, occupational identity was important as an organizing principle of social life, as a shaper of social contacts between families attached to the same occupational group (Beauvalet-Boutouyrie, 1999; Miles, 1999; Pittomvils, 1994–1995; Verhavert, 1940). This stimulated homogamy because of its evident impact on group belonging (Van de Putte, Neven, Oris, & Matthijs, 2005). Second, partner selection was typically used as a rational–instrumental tool for social mobility (e.g. Dribe & Lundh, 2005), and as long as the father's position was crucial in the transmittance of property or skill, homogamy according to social origin was the result. Third, the typical tight social control also led to homogamy by social origin, as it prevented marriage candidates marrying the 'wrong' partner (Dribe & Lundh, 2005; van Leeuwen & Maas, 2005).

Needless to say that this is only a general account of partner selection in traditional society, without regard of the many differences that probably existed. Particularly the difference between urban and rural areas was quite considerable, with cities typically showing a higher level of heterogamy (Miles, 1999). But rural society was not necessarily completely closed. Social control was not perfect, and intergenerational social mobility was far from absent, and therefore heterogamy was far from exceptional (Van de Putte et al., 2005).

2.2. The effect of the urban crisis on partner selection

The urban crisis showed the effects of modernization before it became regulated, that is, before the development of the strong (municipal) government, the large-scaled educational system, the welfare state and the modern

Labour movement, at, say, the end of the 19th century. In our view, the urban crisis undermined the system of homogamy. There are four specific reasons for this (Table 1).

First, the urban crisis diminished the paternal capacity to interfere in his children's lives. The economic transition itself weakened the position of the father due to the loss of property and means of production, unemployment and the declining role in transmitting skill (Seccombe, 1993, p. 59). Also migration may have contributed to this. Due to migration, the parents of the marriage candidates often lived elsewhere, which seriously diminished their capacity to support their children. And even if they were present, children often lacked their support, as these parents did not necessarily dispose of strong networks of friends and family in their new place of residence (Ryczkowska, 2003). Consequently, the potential partner's value was probably no longer estimated by his or her social origin, and rational–instrumental selection was no longer applied.

Second, identification with the father's occupation was also probably weakened. In a discussion of 19th-century Marseille, Sewell claimed that French immigrants were more socially mobile than natives. These immigrants left the 'familial web of social relations', and this diminished their commitment to and identification with the paternal occupation (Sewell, 1976). Social conditions of economic change, population growth and low or declining standard of living may provoke similar pressures on feelings of group belonging, and not only for migrants. Old-style affiliations may seem to be irrelevant in the new, chaotic reality. In this way, the urban crisis may have diminished the impact of the traditional occupational group belonging.

Third, in the urban crisis conditions it is difficult for the parents and the marriage candidates to evaluate (the parents of) the potential partner (Wall, 1999). A main cause of this was the increased geographical mobility in the city, a typical phenomenon in times of strong population growth and housing shortage. Because geographical mobility reduced the possibility to gather information, the efficiency of social control strategies was limited and therefore it undermined the system of homogamy (Van de Putte, 2005). This factor was probably less strong for those persons most 'rooted' in society, that is, for those persons who used family, work or ethnic relationships to build stable and strong social networks in native city life.[5] Mind that this third mechanism differs from the other claims in the way the relationship with the

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[4] The influence of social structure is context dependent. We will control for its influence in the empirical analysis. The role of meeting opportunities is difficult to assess, we do not make claims about it, but see the methodology section.

[5] In many 18th- and 19th-century cities (e.g. Grenoble, Geneva), a distinction is made between the rooted persons, who are seen as the 'core' of the city, those who own and transmit the local town culture and the city pride, and the mobile persons, who are just going through. Migrants meant that marrying a native bride was seen as a good strategy of stabilization and integration in the city.

urban crisis is specified. It adds to the first and second mechanisms that not only vulnerable conditions are specified (brides without father, sons with a less strong occupational identity), but also that for these 'vulnerable' groups it became less easy to maintain social homogamy during the urban crisis. We return to this issue in the hypothesis section.

Fourth, the urban crisis probably stimulated short-term strategies, and this must have had an impact on the way instrumental partner selection was exercised. For children, one's social origin was, in general, typically a long-run determinant of health and wealth once a given age was reached. Social origin refers to both power and prestige. We assume that at the time of marriage, the impact of the social power of the father was indirect and not necessarily very strong, at least for the lower classes. At that time, the majority of men (and women) had finished education and had already entered the labour market. After these key transitions, only a few possibilities to influence their children's lives were left (Goldthorpe, Llewellyn & Payne, 1980; Miles, 1999, pp. 160–179; Van de Putte, 2005). We also assume that the transmittance of prestige only offered advantages in the (far) future, as its effect on life chances is as such rather diffuse and indirect (Van de Putte & Miles, 2005). In short, even though in general one's social origin may always have been taken into account, the above-mentioned argumentation implies that one's social origin did not offer much help for short-term survival. In times of necessity, other strategies, such as selection based on the groom's and the bride's characteristics, may (temporarily) have been more valuable to cope with the precarious living conditions during the urban crisis, as this offered direct advantages. The focus on daily survival is clearly present in Dhondt's account of early 19th-century factory workers (Dhondt, 1960, p. 40): "their life was hard and miserable, and they had not much attention for anything except for the next day. From time to time, driven by despair, they showed short periods of insurgency" (own translation from Dutch).

In short, we claim that because of the diminished importance of social origin, the decreased identification with one's social origin, the focus on short-term strategies and the weakening of social control, the urban crisis stimulated social heterogamy. We expect this to have been the case for the lower classes in particular, as they experienced the consequences of the urban crisis most severely.

In our view, these conditions only had a temporary effect. Homogamy regained its strength in the second half of the 19th century, as the urban crisis was followed by a period of stability in which societal conditions were beneficial for the restoration of the paternal position. First,

the declining importance of social origin was mainly linked to the urban crisis, that is, to the low standard of living, migration, overpopulation and economic transition, and not only to proletarization and industrialization as such. Consequently, when the pace of economic transition slowed, population growth declined and the standard of living rose, also the effects on partner selection probably disappeared.

Second, in the second half of the 19th century the activities of both the Labour movement and the Church attempted to restore the father's social position. Even if later in the 19th century the modern Labour movement aimed at broadening group boundaries by unifying all workers in one party and in one lower class (transcending more narrow boundaries based on occupation or skill), occupation-based social life and identity remained the basis of its activities for a long period. Indeed, the organization of the Labour movement was originally based upon those segmentations (De Witte, 1986). In both cities, also in a more modern context, the process of early political class formation with the many federations and co-operatives shaped social life and served as a means of structuring social bonds, of producing a social identity (being a spinner or a textile worker), of claiming dignity in a new environment of stagnation (Verviers) or in a less chaotic environment (Ghent) (see also Section 3.2 on context information). This may more or less work in the same way like traditional occupation-based social life promoted social immobility (Sewell, 1976). It is plausible that these were the elements that led to the restoration of homogamy.[6]

Furthermore, strategies of the Church and the bourgeoisie tried to restore patriarchal power in the lower class family, especially later in the 19th century. The propagation of the breadwinner model was such a strategy that was, to some extent, rather successful (De Maeyer, 2000; Seccombe, 1993; Servais, 2001; Van de Putte, 2005). Also, this may have helped to restore respect for the father and his social position.

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[6] It is important to distinguish this period of early political class formation from the subsequent period (1891–1913). A new political climate, in which political class formation and the 'social question' were central issues, swept over Belgium. The socio-political atmosphere was troubled since the strikes of the mid-1880s, sometimes framed as a 'violent workers' revolt' (Lamberts, 1999, p. 332). The advent of universal (plural) manhood suffrage (1893) and the entry of the Socialist party into parliament served to exacerbate this atmosphere. In this climate of massive working class discontent, the Labour movement became a mass movement. In our view, at that time, the process of class formation led to new group belonging criteria (weaker boundaries within the lower classes) and this led (again) to heterogamy, at least in Flanders, which was indeed observed in Ghent (Van de Putte, 2005).

2.3. Hypothesis and empirical implications

The central hypothesis of this research is that the urban crisis led to societal openness. If there is an urban crisis effect in Ghent and Verviers, we expect to observe a low level of homogamy in the first half of the 19th century and a higher level of homogamy thereafter. As we claim that the urban crisis effect was caused by changed preferences and/or social control, and not by changes in the social structure, we expect to observe a low level of homogamy after controlling for the supply effects. We address this first question using log-linear analysis (Section 4.1).

Second, if we do observe a temporary low level of homogamy, the next question is whether we can connect it to the reasons underlying the urban crisis effect. We address this in the second part of the empirical research, using a logistic regression analysis (Section 4.2), even though it is not possible to measure all necessary variables at the individual level. If the reasons underlying the urban crisis effect are correct, we have to observe a relationship between social heterogamy and a set of variables that measure different aspects of the urban crisis. We propose three specific empirical claims: (1) if the urban crisis diminished the father's capacity to interfere in his children's lives, we expect that heterogamy was related to the presence of the father; (2) if the urban crisis weakened the identification with one's social origin, we expect that heterogamy was related to the strength of the occupational identity of the grooms; (3) if the urban crisis diminished the possibility to exercise social control, we expect that heterogamy was related to the strength of the bonds of grooms and brides with native city life. In our opinion, it is not possible to propose a specific individual-level claim regarding the fourth mechanism.

Mind that the third claim includes three variables: the presence of family, work and ethnic bonds, and that two of these (family and work bonds) are also included in, respectively, the first and second claims. However, the third claim differs from the other claims in the way the relationship with the urban crisis is specified. Indeed, the relationship between these variables and heterogamy can take two forms. First, every variable may have a direct effect, as their relationship with social heterogamy may be 'universal' (e.g. the presence of the father may always stimulate homogamy). In that case, the urban crisis effect was caused by the increasing number of persons who were 'vulnerable' to heterogamy (e.g. during the urban crisis there were more spouses whose father was not present). Second, the relationship may be conditional upon the existence of the urban crisis. This means that the relationship was only present during the urban crisis (e.g. the

effect of the absence of family in the city of marriage may only be present during the urban crisis). If these inter-action effects are observed, this suggests that during the urban crisis, family, ethnic and work relationships were used as a strategy of social control to prevent heterogamy (third claim).

3. Data and methodology

3.1. Data

We used marriage certificates from civil registration registers. The certificates contain information on the marriage itself, some demographic history of the spouses and their parents, their occupation, place of residence and birth, etc. For Ghent, one in 12 marriage certificates was coded, for Verviers an alphabetical sample on the letter B. We only used marriages for which both fathers were alive (as for dead parents no occupational titles were available).[7] For Ghent we had 1347 of these marriages for the period 1800–1890, for Verviers we had 597 marriages for the period 1819–1890.[8]

Marriage certificates are the main source of informa-tion for historical marital mobility research (Maas & van Leeuwen, 2005). One major issue of concern is, however, the classification of the occupational titles present on the certificates. In order to present a controllable, theoretically grounded and explicit classification of these numerous occupations into a limited number of classes, we applied the SOCPO scheme [presented in detail in Van de Putte and Miles (2005, 2006)]. This classification distinguishes between five 'social power' (SP) levels using skill, possession and position within a hierarchical organiza-tional structure and prestige characteristics as criteria. Lower class subgroups are: SP level 1 (mainly unskilled workers), SP level 2 (mainly semi-skilled workers) and SP level 3 (mainly skilled workers). The middle class (SP level 4) is mainly composed of master artisans, retailers,

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[7] For approximately 50% of the spouses' fathers were not alive at the wedding. This lack of information on this group implies that the results are not necessarily applicable to the whole population, but only to the population of spouses with living fathers. Simulations that take a (possibly) higher level of intergenerational mobility and a (possibly) lower level of social control for those with dead fathers into account, while also controlling for the changing amount of spouses whose father was dead, shows that at least for Ghent the trend of heterogamy is valid for the whole population under these assumptions (see Van de Putte, 2005). Of course, it cannot be excluded that spouses with dead fathers react completely different to the living conditions during the urban crisis.

[8] Information on the period before 1800 is difficult to collect as it was only after 1796 that the government created marriage certificates. In parish certificates, only a few occupational titles are recorded.

farmers, clerks, etc. SP level 5 (the 'elite') comprises white collar/professional specialists (e.g. lawyers), wholesale dealers, factory owners, etc.[9]

3.2. The urban crisis in Ghent and Verviers

Both Ghent and Verviers underwent an urban crisis in the first half of the 19th century. The first component of the urban crisis was the economic transition. There was a genuine industrial take-off in Ghent (Mokyr, 1976) and Verviers. In Verviers, steam engines' capacity increased from 14 horse power in 1816 to 546 in 1857 and 747 in 1860 (Desama, 1985, p. 67; Desama & Bauwens, 1995, p. 91). The net production of woollen cloth grew from 22,000 pieces in 1784 to 65,000 pieces in 1848 (Desama, 1985, p. 73). The number of textile workers in Verviers grew in absolute number from 3858 in 1806 to 5306 in 1845 (Lebrun, Bruwier, Dhondt, & Hansotte, 1981, pp. 228–235). In Ghent, the first steam engines were used around 1800. In 1850, the cotton industry made use of a steam engine capacity of 1070 horsepower (Coppejans-Desmedt, 1986, p. 583). In 1860 the cotton spinning industry counted approximately 500,000 spindles. At the same time the flax industry counted approximately 120,000 spindles (Capiteyn, Decavele, Van Coile, & Vanderlinden, 1983). In 1846 there were more than 10,000 workers in the textile sector (Capiteyn et al., 1983).

Although both cities were large textile centres, there were also many differences. First, the cloth manufacture in Verviers was less sensible to economic fluctuations than the Ghent cotton industry. In Verviers, the textile industry had developed from a pre-industrial tradition of cloth manufacturers. The Ghent industry lacked such an experience, which proved to be a disadvantage to coping with the rather chaotic early industrial environment (Lebrun et al., 1981, p. 185).

A second, major difference is that the Ghent economy was more diverse. Although the textile sector was by far the most important, other large sectors were also present, as illustrated by the large number of metal and machinery workers, shoemakers, construction workers and tailors. The Ghent economy also employed a large middle class (Table 2). In Verviers, the textile industry dominated the social structure. In 1800–1850, approximately 45% of

Table 2
Social position (SP) of the father of the groom, Ghent and Verviers, percentages by period

Verviers	1800–1850	1851–1873	1874–1890
SP level 5 (elite)	7.14	9.00	9.47
SP level 4 (middle class)	12.24	16.11	18.95
SP level 3 (mainly skilled workers)	17.35	18.48	27.37
SP level 2 (mainly semi-skilled workers)	48.47	40.76	33.16
SP level 1 (mainly unskilled workers)	13.27	13.74	10.53
n	196	211	190
Ghent			
SP level 5 (elite)	8.5	6.2	5.9
SP level 4 (middle class)	24.3	24.4	23.8
SP level 3 (mainly skilled workers)	32.6	34.1	31.5
SP level 2 (mainly semi-skilled workers)	18.4	13.1	19.2
SP level 1 (mainly unskilled workers)	16.2	22.3	19.5
n	445	295	390

the fathers of the grooms had an occupational title that explicitly referred to the textile industry (Desama, 1985; Lebrun et al., 1981). Hence, the large size of SP level 2, in which most of the textile occupations are coded. This is partly related to the recruitment of workers among sons of rural textile workers living close to the city. While in Ghent, approximately 80% of the grooms working in the textile sector were native, in Verviers only about 50% were. Yet, also approximately 40% of the Verviers grooms worked in the textile sector. In Ghent, only about 9% of the fathers had an occupational title that referred to the textile sector,[10] whereas 12% of the grooms had.

A second aspect of the urban crisis concerns population growth. In Ghent, the population doubled in the first half of the 19th century, from 50,000 to 100,000 inhabitants. In Verviers, the population grew by a factor of 2.4 (from 10,000 to 24,000 inhabitants; Desama, 1985, 1994). This population growth was accompanied by housing problems. In Ghent, the number of inhabitants per hectare was approximately 464 in 1848. This gradually decreased, reaching 265 in 1913 (Capiteyn

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[9] As a preparatory step we applied the Historical International Standard Classification of Occupations (HISCO) scheme (van Leeuwen, Maas & Miles, 2002). HISCO is a functional classification distinguishing between occupations on the basis of the tasks associated with them. Each occupational group gets a five-digit code (e.g. 75,400 for 'weaver'). Other information, for example on employment status, is stored in separate codes.

[10] Yet, there were more 'labourers' and 'factory workers' in Ghent, and they probably worked in textile factories. This reflects the different origin of the workers. While Ghent recruited unskilled workers among its Lumpenproletariat, Verviers attracted proto-industrial textile workers coming from the neighbouring countryside and the suburbs.

et al., 1983). The city was unable to cope with the problem of overpopulation, as shown by the large number of slums (Backs, 2001). In the middle of the century, approximately 20% of the population lived in these miserable slums (Decavele, Pairon & Van de Wiele, 1980). As the first factories were built in the city centre, the inner city was an overpopulated mix of slums and factories (Capiteyn et al., 1983). Only in the second half of the 19th century, after some severe cholera and typhus crises (Capiteyn et al., 1983), were some first steps taken to improve this situation (Coppejans-Desmedt, 1986; Steensels, 1977). In Verviers there was a similar situation. Companies were also set up in the very centre of the city, which resulted in an "inextricable jumble of factories, fine large houses and miserable housing" (Desama & Bauwens, 1995; own translation from French). With an average of 11.85 people per house (in 1846) the ratio of the number of inhabitants to the number of inhabited houses was the highest of the whole Liège province, for which the average was only 5.17 (Oris, 1990).[11] In Ghent, this ratio was approximately 7.2 in 1843, but to compare this with Verviers we must take the larger middle class of Ghent into consideration, which undoubtedly experienced a better housing situation.

A third component is migration. The proportion of migrants among grooms was rather stable in 19th-century Ghent, although slightly decreasing. In the first half of the 19th century, 43% of the grooms were migrant, whereas this percentage was 40.9% for the period 1874–1890. In Verviers, the proportion of migrants increased from 55.2 to 62.2% in the same period.[12] The composition by class changed somewhat during the 19th century. In Ghent, the proportion of the lower class among the migrants decreased from 73% in the first half of the 19th century to 67% in the period 1873–1890. In Verviers, this proportion decreased from 86.7 to 77.0% in the same period.

Even though the share of migrants in the city population was higher than in non-industrial Belgian cities in the first half of the 19th century (Van de Putte et al., 2005), it was not typically high in the urban crisis period. However, the combination of the presence of a large group of lower class migrants and the economic transition, the low standard of living and overpopulation may have had an effect on partner selection that was typical for this period.

The fourth component is the low standard of living. Research by Vandenbroeke (1973), Scholliers (1995) and Segers (2003) clearly demonstrates the low standard of living in Ghent in the first half of the 19th century, particularly between 1830 and 1850. Afterwards there was a gradual increase. In Verviers, real wages almost did not increase between 1810 and 1850 (less than 10%). According to the budgets elaborated by Ducpetiaux in 1855, most of the Verviers workers could not make their family living without the help of the charity institutions. When food prices increased, for instance in 1846 or 1853, extraordinary help was organized (Desama & Bauwens, 1995, p. 103).

3.2.1. Stabilization after 1850

In the second half of the 19th century, in both Verviers and Ghent, the economic transition slowed and early political class formation started.

First, we discuss the economic evolution. In Verviers the period 1850–1873 was one of economic growth, but because of productivity gains (Desama & Bauwens, 1995) this industrial success had only a limited demographic echo as far as massive migrations were concerned (Lebrun et al., 1981). After 1873, Verviers' industry declined more precociously than elsewhere. Weaving and spinning installations were not sufficiently renewed and improved during the ascending Kondratieff of 1850–1873. Consequently, at the end of the depression around 1890, Verviers' textile industry was no longer competitive, had reduced its labour force and the population started to decline immediately. In fact, the city never succeeded in stopping this decline. From 20th-century texts and testimonies it is clear that the city tended to close on itself, was associated with textiles, conscious of its decline and unable to react. In other words, the precocious industrial decline was associated with a general atmosphere of resignation. Yet, the standard of living rose pretty well (Leboutte, 1988).

The economic situation in Ghent showed similarities, but was also somewhat different. Although the largest expansion happened in the first half of the 19th century, there was still expansion after 1850. The number of textile enterprises and workers increased, but their proportion within the whole economy declined (Capiteyn et al., 1983). In the same period, the population growth slowed and the standard of living increased gradually.

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[11] Yet, this 'pole position' of Verviers does not seem to be the obvious answer to population growth, as – although really important – it has never reached the levels and the rhythm observed in other Walloon industrial areas, such as Liège or Seraing. Of course, the other industrial centres were also overpopulated, but the overcrowding was by no means equal to that observed in Verviers. The specificity of the wool city may be explained by the bad railway connections. The railway only reached the city in 1843, and good connections with the neighbouring villages were only present from the 1870s. In these circumstances, workers had no other choice than living near their factory.

[12] These are, of course, no migration figures. First, unmarried cohabitation is not taken into account, although probably strong for migrants and in the first half of the 19th century (Van de Putte, 2005). Second, natives and migrants may differ in marriage intensity. Third, there may be a time lag between arrival and marriage.

Second, there was a process of early political class formation. Both Verviers and Ghent were pioneer cities of the Labour movement. In Verviers, this resulted in many trade unions, federations, co-operatives, an affiliation to the Belgian Worker Party in 1885 and, yet only in a later phase, massive strikes. Also, in Ghent, the Labour movement became important. In the large industrial sectors, cohesive group bonds gradually emerged. In the late 1850s, important branches of the Labour movement were established (organizations of spinners, weavers, etc.). However, this early class formation did not succeed in overcoming sector-based differences at an early stage (De Witte, 1986, p. 50; De Wilde, 1997, p. 200; Van de Putte, 2005).

3.3. Variables

Before we discuss the methodology of the empirical analysis, we give an overview of the variables that will be used.

3.3.1. Period

We distinguish three periods: 1800–1850, 1851–1873 and 1874–1890. These periods broadly reflect the main structural socio-economic transformations: the first industrial revolution and the urban crisis before 1850, an ascending phase from 1851 to 1873 and the long depression in industry and agriculture after 1874.

3.3.2. Urban crisis variables

We measure the possibility to interfere in one's children's lives by combining migration status and the presence of the father in the city of marriage into one variable:

migration and the presence of the father of groom/bride
    groom/bride is native[13]
    groom/bride is migrant and the father of groom/bride lives in the city of marriage
    groom/bride is migrant and the father of groom/bride does not live in the city of marriage.

We measure 'occupational identity' by comparing the occupation of the father and the groom.[14] We assume that for sons who worked in a different sector the identification with the father's occupational group was less strong. We control for social mobility, as those who

worked in a different sector were also more likely to be mobile. We make a distinction within the category of grooms that have a different occupation than their father, between those sons who were mobile (had a different SP level than their father) and those who were not:

occupational identity
    son had the same occupation and the same SP level as their father
    son had a different occupation and the same SP level as their father
    son had a different occupation and a different SP level than their father.[15]

We measure the rootedness of the spouses by the presence of social networks. Apart from the bonds with the occupational group of the father and with the father (previous variables) we also measure the bonds with family members and with native city inhabitants. The first is measured by the presence of family witnesses at the wedding ceremony. Yet, these family connections did not necessarily surpass their own circle, that is, migrants may have had a well-developed network of family members, while remaining quite segregated from native city life (Van de Putte, 2005):

family witness
    none or one family witness (of four witnesses)
    two or three family witnesses
    four family witnesses.

The second variable is the composition of the couple according to geographical origin. We distinguish between the most rooted couples (natives marrying natives), the least rooted (migrants marrying migrants) and a middle group of mixed couples (Van de Putte et al., 2005)[16]:

geographical homogamy
    groom and bride are native homogamous
    groom and bride have different geographical background
    groom and bride are migrant homogamous.

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[13] We cannot distinguish between those with and without a father present, as the latter category is too small.

[14] To compare father and son we used the HISCO codes in the two-digit form (e.g. 95 = construction worker).

[15] The small number of sons with the same occupation but with a different SP level are coded in the last category. This situation may occur where there is information on employment or hierarchical status, as in this case other SP levels are assigned (e.g. master carpenter and carpenter are coded in the same occupational group, but in different SP levels).

[16] The mixed group is probably more integrated than the least rooted group. For example, a migrant marrying a native bride in Verviers is someone who wanted to move to the rooted group, and his marriage was already a success, as well as a promise for further integration in the group of real Verviétois.

3.3.3. Control variables

We use a set of variables that measure other determinants of partner selection.

3.3.3.1. Structural causes. In the first part of the analysis, we use log-linear analysis to control for the main effect of social structure (see Section 3.3). In the second part, we include a group size variable.[17] We have no variable for meeting opportunities, yet, there are, in our opinion, no reasons why meeting opportunities might have changed dramatically in the period under observation.[18]

3.3.3.2. Intergenerational social mobility. We control for meritocracy by measuring intergenerational social mobility. Social mobility is included in the variable for occupational identity (supra).

3.3.3.3. Romantic partner selection. We use age homogamy as a measure of romantic partner selection, as Shorter (1975) claims that 'free' partner selection of young spouses resulted in choosing a partner within a close circle of age peers. We distinguish between:

Older husband marriages (groom is at least 2 years older than bride)
Same age marriages (groom and bride do not differ more than 2 years)
Older wife marriages (groom is at least 2 years younger than bride).

3.3.4. Social origin

The variable 'social origin groom' controls whether the evolution of heterogamy was caused by the changing number of grooms who belonged to a class with a specific partner selection profile. For example, if unskilled workers were (traditionally) a marginalized outgroup with a high level of homogamy, the increase in the number of unskilled workers led to an increase in homogamy, even after controlling for structural effects. For the categorizations of social origin, see Section 3.1.

3.4. Log-linear analysis

First, we perform a log-linear analysis to test whether social homogamy is lower in the urban crisis period than afterwards. We use the log-linear analysis to control for the impact of the social structure on partner selection.[19] The starting point of the analysis is the partner selection table (social origin groom versus social origin bride). Log-linear models specify by what effects, such as the distribution of the social origin of groom and bride (= the social structure) and the association between social origin of groom and bride (= homogamy), the cell frequencies are determined. In this way, log-linear analysis permits the evaluation of whether the observed cell frequencies in a partner selection table diverge from the frequencies expected in the case of random partner selection. The latter refers to the theoretical reference situation in which there is no preference for a specific type of partner and in which the marriage pattern is only determined by the social structure.

A multitude of models can be constructed, each different in the effects it contains and in the way the effects are devised. In this analysis we use two models. Model 1 estimates the evolution of social heterogamy. In the model we include the following variables: the SP level of the father of the groom, the SP level of the father of the bride, the period and the location. The model contains parameters for all first-order effects, for the association between the SP levels of both fathers with period, between the SP level of both fathers with location, and between the period and the location (second-order effects). In this way we control for the effect of the social structure, its changes over time and its differences in each location. To model the association between the social origin of the groom and the bride we use a topological design. In topological models, the relationship between variables is modelled in a parsimonious way. Each combination of the social origin of the groom and the bride is assigned to an index. Each of these indices stands for one log-linear parameter. The combinations assigned to the same index are constrained to get the same parameter.[20] This technique

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[17] For each category of social origin (e.g. SP level 2), the percentage of fathers of the bride that belongs to this category is calculated. For each groom with this specific social origin (here: SP level 2), this percentage is the chance to marry homogamously. The results show whether there are differences in the chance of marrying homogamously between locations and groups, controlling for the group size. For information on this procedure, see Van de Putte (2005).

[18] And if this changed during the period under observation, this probably only led to an increased difficulty to observe the expected effect on heterogamy in the first half of the 19th century. The slums in Ghent (composed of very small dwellings built around a square or in a small street, without individual sanitation) restricted meeting opportunities between members of different classes, as there were only poor inhabitants. As these slums were already numerous in the first half of the 19th century, this may result in higher levels of homogamy rather than heterogamy.

[19] For the use of log-linear analysis in the study of (historical) social mobility, see Grusky and Fukumoto (1989) and Van Leeuwen and Maas (1996, 2002).

[20] In a so-called saturated model, an individual parameter is calculated for all cells. In topological models, groups of cells are constrained to have the same parameter, assuming that the differences between the cells are negligible.

is frequently applied in social mobility research (Erikson & Goldthorpe, 1993; van Leeuwen & Maas, 2002). A frequently used type of topological model is the inheritance (or homogamy) model.[21] The model permits the measurement of the tendency to marry within one's own SP level (van Leeuwen & Maas, 2002). In this analysis we use a differentiated homogamy model, which simply signifies that not all diagonal cells are assigned to the same index. The model specifies three indices: one for homogamous marriages of the lower classes, one for homogamous marriages of the middle class and the elite and one for the other marriages. We use the last category as the reference group. Hence, two parameters are estimated. The design matrices of the model are as follows:

D1: lower class
```
0 0 0 0 0
0 0 0 0 0
0 0 1 0 0
0 0 0 1 0
0 0 0 0 1
```

where row = social position father groom (SP level 5 to 1); column = social position father groom (SP level 5 to 1); 1 = homogamous marriages of SP level 1, 2 and 3; 0 = other marriages.

D2: middle class and elite
```
1 0 0 0 0
0 1 0 0 0
0 0 0 0 0
0 0 0 0 0
0 0 0 0 0
```

where 1 = homogamous marriages of SP level 4 and 5; 0 = other marriages.

To obtain a homogamy parameter for each period separately, we add the period as a grouping variable. This signifies that the parameters of design matrix 1 are calculated for each period separately. In model 2 we use a variant of design matrix 1 so that it measures the third-order effect of the period, SP level father groom and father bride (for SP level 1–3), with location as a grouping variable. This model calculates the parameters of design matrix 1 for each location separately. This

permits the examination of the differences between Ghent and Verviers.[22]

To assess the fit of the models we compare the model expected frequencies[23] and the observed frequencies. A measure of error (L^2) indicates how strong these cell frequencies differ. The model with the lowest error is, however, not necessarily the best one.[24] The error must be weighed against the parsimony of the model — the lower the number of effects and parameters, the better. The Bic value summarizes the error and parsimony of the model (van Leeuwen & Maas, 1996). The model with the lowest Bic value is the best in terms of the included criteria. We will compare the Bic value of both models to evaluate the difference between Verviers and Ghent.

3.5. Logistic regression analysis

As it is difficult to perform log-linear analysis with many variables with many categories,[25] we use a logistic regression analysis to examine the causes of the evolution of homogamy. We limit this analysis to grooms whose fathers belonged to the lower classes.[26] The outcome variable is marrying heterogamous versus marrying homogamous.

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[21] Homogamy parameters are similar to inheritance parameters in research on intergenerational mobility, that is, parameters that refer to the diagonal cells of mobility tables.

[22] The models can be described in this way: Model 1 = {l, p, g, b, pg, pb, lp, lg, lb, lpg, lpb, D1(gb, 1, p), D2(gb, 1)}, where l = location, p = period, g = SP level father groom, b = SP level father bride, pg = the association between period and SP level father groom,..., lpg = third-order effect of location, period and SP level father groom,..., D1 = design matrix for the association between SP level father groom and bride (SP level 1–3) with one parameter (gb) calculated for each period; D2 = design matrix for the association between SP level father groom and bride (SP level 4–5) without period as the grouping variable. Model 2 = {l, p, g, b, pg, pb, lp, lg, lb, lpg, lpb, D1(gbp, 3, l), D2(gb, 1)} where D1 = design matrix for the association between SP level father groom and bride (SP level 1–3) and period, per location, with one parameter (gb) for each period, calculated per location.

[23] The parameter estimates of all the effects in the model allow the calculation of the model expected frequencies. If there are other effects, not included in the model, that strongly determine the observed frequencies, the model expected frequencies will be rather different from the observed (true) frequencies.

[24] Otherwise the 'saturated model' (containing all effects) would always be the best model, as observed and model expected frequencies are by definition the same in this model. Saturated models are not theory driven, and hence have the disadvantage that they are very difficult to interpret.

[25] If many cells of the partner selection table have zero or a few observations the estimation of the parameters is biased.

[26] If we also include the middle class and the elite, we need to add interaction parameters to the model (e.g. between the presence of parents and social origin). This unnecessarily complicates the analysis. The claims about the effect of the urban crisis are made for the lower classes, not for the middle class and the elite. Taking this perspective of the groom does not limit the procedure for controlling for the effect of group sizes (Van de Putte, 2005). If we take the other perspective (selection of brides with lower class social origin) the results are not different.

We give an overview of the models. Model 1 is the basic model in which location, period, group size, age homogamy and social origin of the groom are the independent variables. The model allows the measurement of the evolution of heterogamy controlling for the non-urban crisis variables.

In model 2A we add variables that measure the effect of some aspects of the urban crisis, namely the presence of father groom/bride, occupational identity and number of family witnesses. In model 2B, we introduce geographical homogamy.[27] Models 2A and B allow the evaluation of whether the effect of these variables was universal, and therefore whether the urban crisis effect was caused by, for example, a low number of grooms whose parents were present or by a low number of grooms with the same occupation as their father.

In models 3A and B we add interaction parameters to models 2A and B for the variables added in models 2A and B. We use these models to examine whether the effect of these variables was limited to the urban crisis period itself.[28]

4. Empirical analysis

4.1. Log-linear analysis

First, the parameter estimates of model 1 confirm the existence of an urban crisis effect on partner selection. Social homogamy was lowest in the period 1800–1850 and increased thereafter. For the first half of the 19th century, the association between the social origin of the groom and bride (homogamy) increased the frequencies of the diagonal cells for the lower classes by a factor that was only 1.3 times higher than the factor by which the off-diagonal cells were increased. This factor was higher

for the subsequent periods, namely 1.71 between 1851 and 1873, and 1.86 between 1874 and 1890. The difference between 1800–1850 and 1873–1890 was significant at the 0.05 level. Also the difference between the periods 1800–1850 and 1851–1890 was statistically significant at the 0.05 level. If we add a grouping variable (period) for the elite and the middle class homogamy (D2) to model 1, we observe that homogamy was not lower in the first half of the 19th century for these groups. The urban crisis effect was, not surprisingly, limited to the lower classes. Second, model 2, which allows the homogamy parameter to vary in both cities, does not really reduce the model error and consequently the Bic value was not lower (Table 3).[29] This means that in both cities the trend in homogamy was basically the same.[30] Fig. 1 shows the evolution of the homogamy parameters for the lower classes in Ghent and Verviers using model 2.

That we observe these results for both cities clearly indicates that the urban crisis effect was not a peculiar characteristic of a specific location. Note that for reasons of limited data availability we did not measure the marriage pattern before 1800. Consequently, we can, in principle, not exclude that heterogamy was high even at that time. Yet, we did not find a similar pattern of early temporary heterogamy in other Belgian cities (Leuven and Aalst) that did not undergo such an urban crisis phase (Van de Putte, 2005), even though we used the same classification scheme for the occupations and a comparable statistical model.

4.2. Logistic regression analysis

The results of the logistic regression analysis (model 1, Table 4)[31] confirm the presence of the urban crisis effect, now controlling for group sizes, age homogamy, location and social origin of the groom. Heterogamy was highest

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[27] We cannot simply use this variable in model 2A as there is an overlap with the variables measuring the presence of the father. The category 'native * native' (geographical homogamy) is a combination of the category 'native' of the variables that measure the presence of father groom and the presence of father bride.

[28] A short note on the interpretation of the parameter estimates of the logistic regression analysis. The parameters of a logistic regression analysis show how many times more (if higher than 1) or less (lower than 1) the chance is of marrying heterogamously if one belongs to a specific category of a variable compared with the reference category of that variable. In a model containing interaction effects, the main effects of the variables in the interaction effect (e.g. between period and family witnesses) show the effects within the reference group of the other variable in the interaction effect. For example, the parameters for family witness show the difference in the chance of marrying heterogamously in the reference period. The period effect shows the effects for the reference category of 'family witness'. The interaction effects of 'family witness' and period show how this period effect differs in the other categories of 'family witness'.

[29] The negative Bic values for both models signify that the models are better in terms of fit and parsimony than the saturated model. This means that omitting more specific effects (e.g. different homogamy indices per SP level) does not lead to a significant loss of information.
[30] Mind that the models are very parsimonious. Here we are not interested in what precisely happens in the off-diagonal cells. We do not have any hypotheses on whether people marry upwardly or downwardly.
[31] Model information:

Model	Chi^2	Sig	Nagelkerke R^2
Model 1	46.5	0.00	0.051
Model 2	77.1	0.00	0.085
Model 2B	74.8	0.00	0.083
Model 3	97.8	0.00	0.107
Model 3B	90.3	0.00	0.099

$n = 1221$ (model 1); $n = 1189$ (models 2, 2B, 3, 3B).

Table 3
Model information for log-linear analysis of social homogamy, Ghent and Verviers

Models	Bic	df	L^2
Model 1: urban crisis effect in Verviers and Ghent	−368	92	318.0
Model 2: different pattern for Verviers and Ghent	−346	89	317.5

in the reference period (μ−1850) and decreased after 1850. Model 1 also shows that SP level 3 (skilled) and SP level 2 (semi-skilled, although the parameter is not significant) were more heterogamous than SP level 1 (unskilled), but this difference between the subgroups of the lower classes was not the cause of the period effect in heterogamy.

In models 2A and B we add the urban crisis variables. First, the results partly confirm the role of parental presence for heterogamy. Heterogamy was higher if the father of the (migrant) bride was not present. That this was not observed for grooms may not be surprising, as brides were probably, in general, more dependent upon their father's social position (Leneman, 2000) and were, therefore, we can assume, probably the first to encounter the disadvantages of losing their father's support — although this is an a posteriori explanation. Second, and perhaps surprising, there was no general effect of occupational identity, at least when the son did not attain a different position than his father. Where there was social mobility, heterogamy was also likely. Third, there was no effect of family witnesses, but this variable does not measure the number of native family witnesses. Fourth,

the least rooted couples (migrants marrying migrants) were more heterogamous than the most rooted couples (natives marrying natives), which confirms the effect of this aspect of the rootedness of people on heterogamy.

Yet, adding all these variables that measure (some of) the causes underlying the urban crisis effect did not change the period effect (models 2A and B). Consequently, the urban crisis effect was not caused by the presence of many migrant brides without fathers, nor by an increased number of unrooted migrants.

The results for models 3A and B add complexity to the discussion. Important are the results of the control variables. First, the role of the presence of the father of the migrant bride was confirmed. In the period 1800–1850, the odds of marrying heterogamously was 3.4 times higher for migrant brides whose fathers were not present. Moreover, the low value of the interaction parameters (respectively 0.285 and 0.553 for 1851–1873 and 1874–1890) shows that the difference between migrant brides without a present father and the others declined after the urban crisis period. Multiplying the interaction effects with the main effects shows that in the periods 1850–1873 and 1874–1890 the odds of marrying heterogamously were, respectively, 0.97 and 1.89 times higher for migrant brides whose fathers were not present. In short, brides whose fathers were not present were typically more heterogamous, and the lack of this bond made them even more heterogamous during the urban crisis.

Second, grooms who had the same social position as their father and worked in the same sector, had, in the
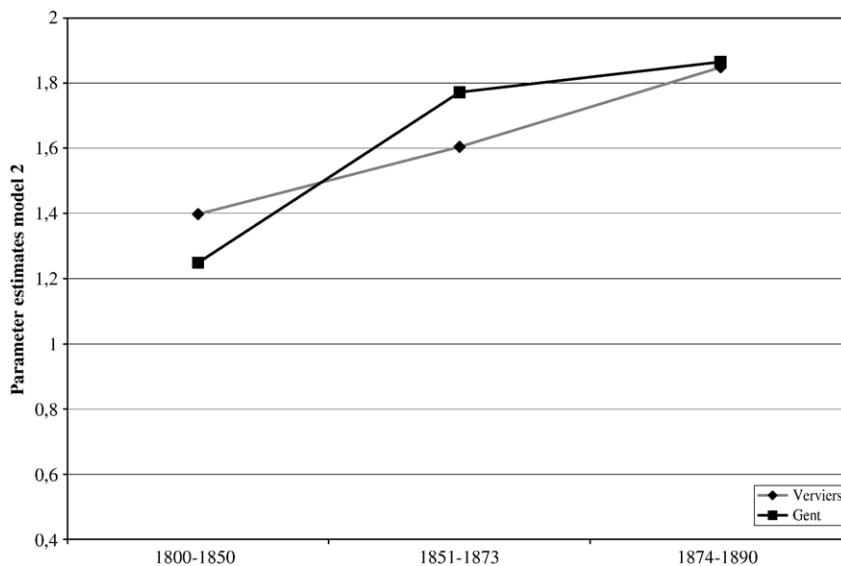

Fig. 1. The rise of homogamy in the lower classes in Verviers and Ghent, parameters of the log-linear model 2.

Table 4
Logistic regression analysis of marrying heterogamously (=1) versus marrying homogamously according to social origin, Ghent and Verviers

Variables	Model 1		Model 2A		Model 2B		Model 3A		Model 3B	
	Sig.	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)
Group size	0.000	0.954	0.000	0.958	0.000	0.958	0.000	0.957	0.000	0.958
Period										
1800–1850 (reference)										
1851–1873	0.060	0.758	0.031	0.717	0.040	0.729	0.251	0.568	0.288	0.593
1874–1890	0.011	0.686	0.005	0.644	0.007	0.657	0.002	0.205	0.002	0.209
Location										
Verviers (reference)										
Ghent	0.602	0.929	0.951	0.991	0.909	1.018	0.981	1.004	0.808	1.039
Age homogamy										
Groom older than bride (reference)										
Groom and bride equal age	0.573	1.082	0.660	1.066	0.648	1.068	0.585	1.084	0.614	1.077
Groom younger than bride	0.842	0.970	0.479	0.893	0.522	0.904	0.513	0.899	0.628	0.925
Social origin groom										
SP level 1 (reference)										
SP level 2	0.085	1.379	0.063	1.429	0.058	1.440	0.068	1.427	0.061	1.440
SP level 3	0.010	1.559	0.005	1.670	0.004	1.691	0.005	1.671	0.004	1.689
Family witness										
0 or 1 family witnesses (reference)										
2 or 3 family witnesses			0.228	1.215	0.235	1.211	0.316	1.291	0.431	1.218
4 family witnesses			0.118	1.321	0.152	1.288	0.985	1.006	0.983	0.994
Presence father groom										
Native (reference)										
Migrant, father present			0.263	1.212			0.762	1.091		
Migrant, father not present			0.703	1.072			0.548	0.833		
Presence father bride			0.060				0.021			
Native (reference)										
Migrant, father present			0.360	1.163			0.658	1.136		
Migrant, father not present			0.019	1.602			0.006	3.410		
Occupational identity										
Same SP level and sector			0.407	0.865	0.441	0.874	0.019	0.500	0.019	0.505
Different SP level and sector			0.002	1.723	0.002	1.734	0.464	1.249	0.540	1.201
Same SP level, different sector (reference)										
Geographical homogamy										
Native homogamy (reference)										
Migrant homogamy					0.027	1.561			0.395	1.340
Mixed					0.273	1.168			0.236	1.325
Family witness * period										
2 or 3 family witnesses * 1851–1873							0.233	0.624	0.297	0.665
2 or 3 family witnesses * 1874–1890							0.291	1.543	0.255	1.586
4 family witnesses * 1851–1873							0.855	0.922	0.892	0.942
4 family witnesses * 1874–1890							0.059	2.364	0.066	2.285
Presence father groom * period										
Migrant, father present * 1851–1873							0.777	1.123		
Migrant, father present * 1874–1890							0.592	1.259		
Migrant, father not present * 1851–1873							0.618	1.245		
Migrant, father not present * 1874–1890							0.251	1.674		
Presence father bride * period										
Migrant, father present * 1851–1873							0.941	0.971		
Migrant, father present * 1874–1890							0.642	1.208		
Migrant, father not present * 1851–1873							0.023	0.285		
Migrant, father not present * 1874–1890							0.291	0.553		
Occupational identity * period										
Same SP level and sector * 1851–1873							0.024	2.580	0.023	2.585
Same SP level and sector * 1874–1890							0.086	2.105	0.078	2.133

Table 4 (*continued*)

Variables	Model 1		Model 2A		Model 2B		Model 3A		Model 3B	
	Sig.	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)	Sig.	Exp(B)
Occupational identity * period										
Different SP level and sector * 1851–1873							0.278	1.589	0.248	1.631
Different SP level and sector * 1874–1890							0.165	1.837	0.119	1.971
Geographical homogamy * period										
Migrant homogamy * 1851–1873									0.997	0.998
Migrant homogamy * 1874–1890									0.255	1.742
Mixed * 1851–1873									0.252	0.680
Mixed * 1874–1890									0.918	1.036
Constant	0.000	5.555	0.001	3.079	0.002	2.969	0.000	4.624	0.000	4.385

urban crisis period, less chance of marrying heterogamously than those who worked in a different sector. In the urban crisis period, their odds of marrying heterogamously were 0.5 times lower than for sons who had the same social position as their father but who worked in a different sector (main effect). This means that the inclusion in the occupational network of their father 'protected' or 'prevented' them against the effect of the urban crisis. The interaction parameters show that the difference between these groups disappeared afterwards. Multiplying the interaction and the main effects shows that the odds of marrying heterogamously were, respectively, 1.29 and 1.05 times higher in the periods 1851–1870 and 1871–1890 (although for this variable, the interaction parameter for the period 1873–1890 is only significant at the 0.10 level). This signifies that during the urban crisis, heterogamy was mainly higher for those who did not work in the same sector as their father.

Apparently heterogamy was connected to occupational identity. In the social turmoil during the urban crisis, only those with a strong occupational identity managed to keep the role of social origin intact, whereas in later periods, everybody could. This does not simply confirm that a weaker identification with one's father's occupational group caused heterogamy. In that case we would expect a non-period bounded effect of occupational identity combined with, during the urban crisis, a low number of sons who worked in the same sector as their father. The observed effect suggests that occupational identity was a strong tool for determining group bonds, and the strength of it became clear in periods in which group bonds were under pressure.[32] This shows, in our view, the importance of being rooted in city life.

Third, in the period 1800–1850 the level of heterogamy was not really higher for migrant couples than for others (model 3B). In the urban crisis period, migrant couples had 1.34 times more chance of marrying heterogamously compared with native couples, which is not statistically significant. These unrooted migrant couples were in general more heterogamous (see the results of model 2B, where the parameter is 1.561 and statistically significant) – they did not need an urban crisis to be heterogamous – whereas in the urban crisis the others were also heterogamous. This qualifies the previous finding. The urban crisis effect was not present for those who were always strongly integrated (those having the same occupation as their father), and it was also not present for those who were never really integrated (migrant couples). It is furthermore meaningful that for the period 1874–1890 (same model, but 1874–1890 as the reference category), we did find a significantly higher level of heterogamy for migrant couples (odds ratio = 2.334; p = 0.016). In that period, the more rooted population had increased homogamy.

The results from model 3 (although not always strong) support the view that the high level of heterogamy during the urban crisis was related to the pressure it put on migrant brides whose fathers were not present and on those who were not working in the same sector as their father. In the subsequent period, homogamy increased, and this was mainly the result of the partner selection of those couples who were 'partly rooted', that is, those couples who did not belong to the migrant outgroup – which was always heterogamous – and those couples who did not belong to the very rooted group of couples of which the husband had the same occupation as his father — who even during the urban crisis married homogamously.

5. Conclusion

The observation of a temporary high level of social heterogamy for the lower classes during the urban

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[32] To this must be added that in the period 1874–1890, the effect of working in the same sector as one's father disappeared (parameters obtained by the same model, but with 1873–1890 as the reference period: 1.077; p = 0.815), which confirms our interpretation.

crisis[33] is important, as it is a contradiction of the idea that heterogamy gradually increased during the 19th century as a result of industrialization and modernization (thesis of industrialism). The pattern found for Ghent and Verviers in the period 1800–1890 indeed shows the reverse pattern. Of course, this does not exclude that modernization led to societal openness in a later stage, or in other locations. But this finding does add complexity to the debate on partner selection.

First, societal openness is as such not typically modern, a fact perhaps a bit surprising for scholars using a (historical) sociological perspective, as in the latter the distinction between traditional and modern society is a classic key issue (Ritzer, 1992).

Second, we can make a formal claim about one way in which the historical socio-economic context influenced the process of group formation. Early industrial cities that underwent an urban crisis experienced an early, but temporary, increase in heterogamy. This claim echoes the view, proposed in social mobility research, that there was an 'early jump' in social mobility during the economic take-off (see Fukumoto & Grusky, 1993). Yet, the latter theory does not predict that an early increase in social mobility was only temporary and, as typically inspired by the functionalist logic that modern industrialism requires a fluid mobility regime, it also identifies different causes underlying the pattern.

Also, in other eras and locations context characteristics, that for example influence patterns of group belonging, social control or meeting opportunities, may have had similar effects. Therefore, this research is, in a sense, a claim for a more thorough examination of the historical context as a necessary step to unravel the evolution of societal openness.

Third, a clear picture of marital mobility in industrial contexts starts to emerge. We can now identify, based on research using the same class scheme, two periods of decreasing homogamy: one period during the early

industrial urban crisis, and one very late in the 19th century when more mature, demographically stable industrial cities were characterized by, for example, intense class conflict and/or profound Labour movement activity (see Van de Putte & Miles, 2005, 2006).

Although the pattern of partner selection is clear, the precise reasons underlying it are less so. There were some important findings, however. First, particularly migrant brides whose fathers were not present had more chance of marrying heterogamously. This supports the view that these conditions limited the father's possibility to interfere. Second, there is the role of occupational identity. The urban crisis effect was not caused by a strong increase in the number of grooms working in a different occupational sector than their fathers. But we did find that during the urban crisis, grooms working in the same sector as their father were more homogamous than those who were not. Being integrated in the father's social circle prevented heterogamy. Apparently, the urban crisis effect was not the effect of the persons most rooted in traditional city life. But a third observation shows that it was also not the effect of the most marginalized part of the city population. In general, migrant couples had more chance of marrying heterogamously than native or mixed couples. This difference was, however, not present during the urban crisis. In our interpretation, the urban crisis made the biggest difference for the 'middle' group that was not attached to the sectoral life of the father, but was also not isolated in a migrant social circle.

It must be stressed, however, that some possible effects of the urban crisis could not be measured. The consequences of the low or declining standard of living and the dramatic population growth are, for example, difficult to address by the information present in our database.

Although the findings of this study are, perhaps, somewhat controversial in the perspective of the research on partner selection and modernization, they are less unexpected when considering the literature in other research fields. In a way, we simply extended the discussion on the impact of a paroxystic period of maximal population increase on nuptiality, fertility and mortality in early industrial (metallurgic) cities (Bourdelais, 2000). Furthermore, the early 19th-century city has been associated with other 'disruptive' behaviour, such as illegitimacy (Cloet, 1991; Cooper, 1999; Fuchs & Moch, 1990) and unmarried cohabitation (Lynch, 1991; Matovic, 1990; Ratcliffe, 1996). Also in this line of research the argument holds that in changing urban contexts, the lower class was characterized by a specific demographic culture and

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[33] This view on the limited impact of one's social origin during the urban crisis may seem to contradict the widely held vision that in times of crisis the importance of family support increased (Kocka, 1984; van Poppel & Nelissen, 1999). The latter vision is, of course, plausible, in the sense that in these conditions presumably all potential channels of support were used. But this does not necessarily imply that social origin was more rigidly used as a criterion of partner selection. The conditions under which social origin is a criterion in partner selection are that one's social origin is, first, known by the parties involved, and, second, estimated, at the time of marriage, as more useful compared with the social positions and characteristics of the spouses themselves. In our opinion, in times of urban crisis these conditions were not fulfilled.

behaviour.[34] These studies showed what can be called the rise in the 'informal marriage system' (Seccombe, 1993, p. 59) and, indeed, the high level of social heterogamy fits very well in this picture.

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[34] Also in Ghent there was a high level of illegitimacy (Art, 1972; Cloet, 1991, pp. 438–439) and probably unmarried cohabitation (Van de Putte, 2005). According to Alter (1988, p. 112), Verviers "had a moderately high illegitimacy ratio (about 9% of all births were illegitimate) and a very high rate of bridal pregnancy (30–40%)". Mind that unmarried cohabitation was probably not strongly related to patterns in social homogamy. An analysis of street homogamous marriages in Ghent, among which were the marriages between spouses who were cohabiting before marriage, shows that these marriages did not differ from other marriages in terms of their homogamy pattern (Van de Putte, 2005).

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