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Total and Relative Endogamy by Social Origin: A First International Comparison of Changes in Marriage Choices during the Nineteenth Century

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INTRODUCTION

The introductory chapter to this volume presented a number of theories and hypotheses on the determinants of endogamy; the following chapters described endogamy in different historical settings and tested some of those hypotheses. The tests looked especially at the effects of individual characteristics of spouses, and sometimes of their parents. Results relating to changes in macro characteristics over time and their effect on the likelihood of endogamy were presented. Because all these chapters refer to only one country or region, regional comparisons are seldom made (there are some exceptions: Bras and Kok on differences between parts of the province of Zeeland; Pélissier *et al*. on differences between rural and urban areas, and Van de Putte *et al*. on differences between several Belgian cities and villages).

The aim of the present chapter is to shed some light on differences in endogamy between countries, regions, and periods.[1] We start by describing the steps that were taken to increase the comparability of the results. The first was the decision to opt for marriage registers as a source of data on endogamy. The second was the decision to classify occupations using HISCO. Thirdly, based on HISCO, HISCLASS was used as a taxonomy of class. We will refrain from describing the datasets, but refer instead to the preceding chapters in this volume for this information. We then proceed by describing total and relative endogamy in the regions and countries covered in this volume. We ask how large the differences in endogamy were between countries and regions, between rural and urban areas within countries, and to what extent endogamy changed over time within regions.

MARRIAGE RECORDS

The contributions in this volume have used marriage records as a source, which greatly facilitates comparisons. Marriage records are not the only

1. We would like to thank the authors of the individual chapters for kindly providing us with endogamy tables.

source of historical information on endogamy according to class of social origin, however. One could use other sources, such as marital contracts drawn up by notaries or censuses listing all people, whether married or not. Globally, however, marriage records are probably the most ubiquitous source. Furthermore, they cover a very high proportion of the population and are relatively easy to use. They are not entirely flawless, though. Not all partners marry; not all marriage certificates have the required occupational information for both the father of the bride and the father of the groom; and the occupational information is imperfect and must first be processed using a comparative historical class scheme.

Although, in the past, geographical and temporal variations existed in the proportion of people that ever married, the overwhelming majority of the world's population did marry. In Europe, more people remained unmarried than in many other parts of the world – as Hajnal's discovery of a European marriage pattern confirms – but, until recently, even in Europe the overwhelming majority of the population married.[2] Long-lasting relationships outside marriage did exist – the article by Holt, which looks at a slave society in Brazil, gives one example – and could in some instances encompass a sizeable proportion of the population, but until recently consensual unions were the exception.[3] This implies that marriage records offer information on long-lasting, intimate contacts of a very high proportion of the population, perhaps more so than any other single source.

This is not to say that the information they do not give, and the individuals and social contexts they do not cover, are uninteresting. One thing this source cannot clarify is the process of choosing between marrying (and, if need be, marrying downward socially) and staying single – the topic of Arrizabalaga's contribution to this volume, where, using marriage records in combination with other sources, she discusses the various options open to men and women. Furthermore, it is often difficult to trace migrants, and thus to illuminate the even more complex choice between marrying, staying single locally, or migrating – but it is certainly not impossible, as the article by Pélissier *et al*. makes clear.

To study the processes of class formation, one needs to have an indication of the social class of origin of bride and groom, in a way which is

2. J. Hajnal, "European Marriage Patterns in Perspective", in D.V. Glass and D.E.C. Eversley (eds), *Population in History: Essays in Historical Demography* (London, 1965), pp. 101–143; J. Hajnal, "Two Kinds of Pre-industrial Household Formation Systems", in R. Wall, J. Robin, and P. Laslett (eds), *Family Forms in Historic Europe* (Cambridge, 1983), pp. 65–104.

3. Stockholm offers an example of a city with a high proportion of consensual unions in the nineteenth century. See Margareta R. Matovic, "The Stockholm Marriage: Extra-Legal Family Formation in Stockholm 1860–1890", *Continuity and Change*, 1 (1986), pp. 385–413. Precisely because they were consensual rather than officially registered, it is not easy to know what proportion of the population was in such unions.

similar for all the regions and periods one would like to compare. Without this, one can never be sure whether the differences in social endogamy observed are merely artefacts – a consequence of non-comparable ways of allocating occupational titles from different languages, regions and periods into a class scheme. The same problem arises in comparative intergenerational research, and there it has been noted that even in many contemporary studies:

> [...] there is invariably a passage in which methodological problems and, in particular, problems of comparability of cross-national data are discussed and acknowledged to be grave. But then, this ritual having been completed, the analysis of the data goes ahead, even with a variety of *caveats*. The possibility that seems not to be contemplated, however, is that the degree of unreliability in the data is such that analyses should simply *not* be undertaken; that rather than such analyses being of some value as "preliminary" studies, which may subsequently be improved upon, they are in fact no more likely to have some approximate validity than they are to give results that point entirely in the wrong direction.[4]

Clearly, comparisons of important historical structures and processes would be less problematic if the occupational codings were comparable. In this volume we try to achieve comparability of results by first coding all occupational titles into the same fine-grained comparative historical coding scheme (HISCO) and then regrouping these codes into twelve social classes (HISCLASS), which for present purposes are collapsed into seven.

HISCO

HISCO is an occupational classification system that is both international and historical, and simultaneously links to existing classifications used for present-day purposes.[5] It did not emerge from nothing, but is a historicized version of a system with proven comparative credentials: the International Labour Organization's International Standard Classification of Occupations (ISCO). Both HISCO and the 1968 version of ISCO upon which it was based have ten major groups; these are divided into minor groups, which are subdivided into unit groups. HISCO has some 1,600 of these unit groups and is thus a detailed coding system. To give an example,

4. J.H. Goldthorpe, "On Economic Development and Social Mobility", *British Journal of Sociology*, 36 (1985), pp. 549–573, quotation on p. 554. The same point was made by H. Kaelble, *Historical Research on Social Mobility: Western Europe and the USA in the Nineteenth and Twentieth Centuries* (London, 1981), and *idem*, *Social Mobility in the 19th and 20th Centuries: Europe and America in Comparative Perspective* (Leamington Spa, 1985).

5. Marco H.D. van Leeuwen, Ineke Maas, and Andrew Miles, *HISCO: Historical International Standard Classification of Occupations* (Leuven, 2002); *idem*, "Creating a Historical International Standard Classification of Occupations: An Exercise in Multinational, Interdisciplinary Cooperation", *Historical Methods*, 37 (2004), pp. 186–197.

codes 6–xx.xx refer to the primary sector of the economy, with codes 6–2x.xx identifying various types of agricultural and animal husbandry workers. This last group includes codes 6–22.xx for field crop and vegetable farm workers and these, in turn, include several more specific occupational categories: general field crop farm workers (6–22.10), vegetable farm workers (6–22.20), wheat farm workers (6–22.30), cotton farm workers (6–22.40), rice farm workers (6–22.50) and sugar-cane farm workers (6–22.60).

The tasks and duties of each unit group are described, and occupational titles are coded into the unit group that matches the work its bearer does, the work as defined by the tasks and duties. In addition to the 1,600 five-digit codes, HISCO has three additional variables (status, relation and product) which are used to store information on social and employment status and product – information often found in historical records. Of these variables, status is of most interest here, since it contains information that may be used to code an occupation into its corresponding social class. The status variable distinguishes between types of ownership, stages in an artisan career, principals and subordinates, levels of education of persons still in the educational system, and indications of "pure" status, such as nobility.

Before discussing the transition from code to class, it is useful to know that the coding of occupational titles worldwide is ongoing; the progress so far can be seen on the History of Work website of the International Institute of Social History.[6] At present the website contains occupational titles coded into HISCO from the following countries: Belgium, Brazil, Canada (Quebec), England, Finland, France, Germany, Greece, The Netherlands, Norway, Portugal, Spain, Sweden, and Switzerland. Work on coding occupations in other countries, such as India, Italy, Russia, and the Philippines, is currently underway.[7]

HISCLASS

How does one transform 1,600 occupational unit groups into a convenient number of social classes? We cannot go into too much detail here, but we will briefly sketch this process. First, however, we would like to acknowledge the influence of the pioneering work of Gérard Bouchard.[8]

6. See www.iisg.nl.

7. See also V. Vladimirov (ed.), *Istoricheskor professiovedenie. Sbornik nauchnikh statie* (Barnaul, 2004).

8. G. Bouchard, *Tous les métiers du monde. Le traitement des données professionelles en histoire sociale* (Quebec, 1996). There are, of course, differences between HISCLASS and Bouchard's class scheme, which, in large measure, follow from the fact that we needed a scheme for comparisons not just between time-periods but also between territorial units. Thus we used the international HISCO as a starting point, and asked a group of historians from various countries to test the social-class scheme.

Like him, we wanted a historical social-class scheme that is both theoretically grounded – in identifying and closely following the underlying dimensions of social class in the past – and firmly tied to an empirical body of knowledge on these dimensions. To transform occupations into classes, a set of fixed criteria was necessary; these had to be as simple as possible. Ad hoc decisions were permissible, and sometimes unavoidable, but they could not form the basis of a social-class scheme. We did not want to classify occupations using just our historical intuition, although the intuition of a good specialist historian has sometimes proven to be rather good.[9] A theoretically, empirically and procedurally grounded class scheme has the advantage that all the cards are on the table, so to speak. Each step is documented, and can be questioned by the community of scholars: they may propose changes, test them, and see what difference these make. Thus a social-class scheme becomes a clear proposition regarding the social structure of past societies; one that can be questioned, rejected, or refined and, over the years, modified to take account of its flaws.

Our position on the virtues and flaws of any social class scheme is echoed in the following remarks by W.A. Armstrong:

> Any process of grouping, whether by age, birthplace, or in this case occupation, inevitably occasions some loss of detail. There are historians who instinctively object to the blanketing effect of all general schemes of classification, and on very much more reasonable grounds, those who prefer to use simple groupings of occupations, which are neither strictly hierarchical (social ranking) nor yet industrial groupings [...]. They are likely to point to the difficulties of deciding what are the criteria of social classes (and the shortage of information on some of the relevant variables) and to the various practical difficulties involved. To such historians, there might seem to be virtue in simply considering individual occupations as such, unaffected or uncontaminated by modern systems of classification, and they may well be suspicious of what look like rigid and inflexible general schemes, conjured up without mature consideration.
>
> We would not wish to claim that the schemes put forward later are fully comprehensive, entirely logical or perfectly suited to every scholar's purpose. Objections may very well be raised to the effect that this or that occupation ought "obviously" to have been placed in an alternative group or social class. Nevertheless it would be widely agreed that if research is conducted with some

9. Several studies have shown that there are both high correlations among expert historians as well as between historical intuition and contemporary rankings based on income, education, or social prestige. See T. Hershberg, M. Katz, S. Blumin *et al*., "Occupation and Ethnicity in Five Nineteenth-Century Cities: A Collaborative Enquiry", *Historical Methods Newsletter*, 7 (1974), pp. 174–216; D.J. Treiman, "A Standard Occupational Prestige Scale of Use with Historical Data", *Journal of Interdisciplinary History*, 7 (1976), pp. 283–304; R.M. Hauser, "Occupational Status in the Nineteenth and Twentieth Centuries", *Historical Methods*, 15 (1982), pp. 111–126; Matthew Sobek, "Work, Status and Income. Men in the American Occupational Structure since the Late Nineteenth Century", *Social Science History*, 20 (1996), pp. 186–207.

> common basis of classification, order and uniformity could be introduced in the field [...]. By following the schemes suggested here, no one need feel that his hands are tied. There is no reason why particular occupations could not be singled out for special analysis where appropriate, and alternative schemes can and should be applied according to individual interest. At the same time, if all would consider using these schemes *alongside* their own, their findings could be tabulated in forms which would be meaningful to other workers in the field. Anarchy might be avoided.[10]

A social class, it can be said, is a set of persons with the same life-chances. Historians working with self-construed local class schemes seem to agree that the main dimensions of social class are the manual–non-manual divide, skill level, the degree to which one supervises others, and the economic sector.[11] A felicitous characteristic of a social-class scheme constructed along these lines is that it results in social classes familiar to historians. It thus seems to conform to the way historians have generally seen society and, as a consequence, it can draw on the existing literature. Table 1 specifies how the twelve social classes in HISCLASS are derived (in a slightly stylized way) from the main dimensions of class. In order to avoid very small numbers in some classes, and thus a high volatility due to random factors, the studies in this volume have not used the full scheme but instead a version of HISCLASS condensed into seven classes: 1+2 higher managers and professionals; 3+4+5 lower managers and professionals, clerical and sales personnel; 6+7 foremen and skilled workers; 8 farmers and fishermen; 9 lower-skilled workers; 11 unskilled workers; 10+12 lower-skilled and unskilled farm workers.

It is one thing to specify the main dimensions of social class; it is quite another thing to allocate occupations to the appropriate class in a systematic way. This task is now far easier than ever before, however, because much of the work has already been done by the HISCO coding scheme, which reduces the world of work worldwide into some 1,600 basic

10. W.A. Armstrong, "The Use of Information about Occupation", in E.A. Wrigley (ed.), *Nineteenth Century Society: Essays in the Use of Quantitative Methods for the Study of Social Data* (Cambridge, 1972), pp. 191–310, quotation on p. 197.

11. See the review by Bouchard, *Tous les métiers du monde*, pp. 33–60, of major historical and sociological studies. See also the social-class scheme developed by a team of German historians (Federspiel, von Hippel, Hubbard, Kaelble, Kocka, Lundgreen, Mocker, Schraut, and Schüren) in R. Schüren, *Soziale Mobilität: Muster, Veränderungen und Bedingungen im 19. und 20. Jahrhundert* (St Katharinen, 1989). To the list of main dimensions of class could be added employment status, in the sense of being employed, an employer, or a working proprietor. Employment status is, however, often not given in historical datasets. This severely limits the scope for close matching with the current sociological EGP classification. This is regrettable since this classification is often used today to make international and temporal comparisons. See R. Erikson and J.H. Goldthorpe, *The Constant Flux: A Study of Class Mobility in Industrial Societies* (Oxford, 1992). The HISCLASS taxonomy will not, however, look entirely strange to users of EGP.

Table 1. *Dimensions of social class in HISCLASS*

Manual/ non-manual	Skill	Supervision	Sector	Class labels	Number
Non-manual	higher-skilled	yes	other	Higher managers	1
			primary		
		no	other	Higher professionals	2
			primary		
	medium-skilled	yes	other	Lower managers	3
			primary		
		no	other	Lower professionals, clerical and sales personnel	4
			primary		
	lower-skilled	yes	other		
			primary		
		no	other	Lower clerical and sales personnel	5
			primary		
	unskilled	yes	other		
			primary		
		no	other		
			primary		
Manual	higher-skilled	yes	other		
			primary		
		no	other		
			primary		
	medium-skilled	yes	other	Foremen	6
			primary		
		no	other	Medium-skilled workers	7
			primary	Farmers and fishermen	8
	lower-skilled	yes	other		
			primary		
		no	other	Lower-skilled workers	9
			primary	Lower-skilled farm workers	10
	unskilled	yes	other		
			primary		
		no	other	Unskilled workers	11
			primary	Unskilled farm workers	12

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categories (and some auxiliary variables), in line with present-day schemes. To allocate the HISCO codes to a social-class scheme we processed information from the *Dictionary of Occupational Titles* (*DOT*).

Research for the *DOT* was initiated in 1934 by the United States Employment Service "for the use of public employment offices and related vocational services".[12] Prior to that, the various employment offices had their own systems of classifying occupations, and no common scheme existed. In addition, the various local schemes were incomplete. This made it impossible to describe the world of work in general – i.e. to compile national employment and unemployment statistics – and made it more difficult to find jobs for the unemployed:

> [...] getting qualified workers into appropriate jobs is a task that can be done most adequately when the transaction is based on a thorough knowledge of both worker and job. [...] Thus, it becomes part of the duties of public employment offices to learn as much as possible about jobs and workers in order to be able to act as an effective placement agency. If a foundry superintendent wants the public employment office to send him a cupola tender, the office must know enough about the work and worker to be able to refer a registered applicant who has previously been classified as qualified and capable of doing the work.[13]

To obtain this knowledge, occupational analysts – employees from the US Employment Service – went to plants and businesses all over the country to observe men and women at work. They collected information on tasks performed, knowledge required, machine equipment and materials used, physical demands and working conditions, and required worker characteristics. The third edition of the *DOT*, for example, was based on over 75,000 job observations relating to over 45,000 job studies.[14]

The first edition of the *DOT* was published in 1939, the second in 1949, the third in 1965 and the fourth in 1977. In addition, several supplements or revisions to the entire corpus were prepared and published. A much revised edition of the fourth edition was published in 1991, for example, as the "fourth edition, revised 1991". The coverage of the dictionary in terms of the number of occupations and the information per occupational category grew over time, and both the structure and the information were modified to accommodate changes in the American economy.

The third edition, issued in 1965, was the first systematically to list information on the nature of the work (working conditions, work performed, and industry), but also on the demands made by the work on the workers in terms of training time, aptitudes, interests, temperaments, physical demands. This information extended and replaced the

12. US Department of Labor, *The Dictionary of Occupational Titles*, 2 vols (Washington, DC, 1939), vol.1, p. iii.
13. *Ibid*., p. xi.
14. *Ibid.*, p. ix.

previous classification into skilled, semiskilled, and unskilled occupations. The completeness of the information contained in the third edition makes it appealing to use this edition rather than previous editions for HISCO purposes. Of course, it remains to be seen to what extent information from the world of work in the USA in the mid-twentieth century can be used to characterize the worlds of work earlier or elsewhere. This very same problem makes the fourth edition of the *DOT* – which basically contains the same sort of information – a less suitable starting point for our purposes.

The problem of anachronism remains when using the 1965 *DOT* to characterize earlier societies, but from the start it was clear that the problem was not insurmountable. This was evident from Bouchard's successful attempt to use information from the French-Canadian *DOT* to characterize occupational terms from vital registers from the Saguenay region in French Canada in the nineteenth and twentieth centuries, and to classify these occupational terms systematically into a small number of classes. Bouchard's book is extremely well documented and contains a systematic and detailed discussion of the various problems that he encountered, the solutions he chose, and their reliability.[15]

Briefly, we first matched each of the 1,600 HISCO categories to one of the over 10,000 *DOT* categories. We did this not on the basis of name similarity, but by carefully comparing the description of the tasks and duties of a particular HISCO unit with that of a specific *DOT* category. Once the match had been made, we used the numeric information that *DOT* gives for each category on the dimensions in the HISCLASS scheme.[16] Having completed this operation, we wanted to test the validity of the scheme by making systematic use of expert knowledge. We therefore consulted a small group of historians with a working knowledge of the world of work.[17] We asked them to score HISCO groups on the dimensions that HISCLASS uses (manual/non-manual, skill level, supervision, sector) and to classify HISCO groups directly according to the twelve social classes of the class scheme. Where a majority of these experts disagreed with the results derived from our *DOT* exercise, we re-examined the data and, by and large, concurred with the experts. Usually, we understood the root of the problem, and this use of expert judgement should, we feel, have removed the worst flaws in *DOT*, in our matching

15. Bouchard, *Tous les métiers du monde.*

16. It is documented in M.H.D. van Leeuwen and I. Maas, "HISCLASS", paper presented at the 5th European Social Science History Conference (Berlin, 24–27 March 2004), and it will be the subject of a future publication.

17. The experts were Marie-Pierre Arrizabalaga, Hans Henrik Bull, Gordon Darroch, Sören Edvinsson, Georg Fertig, Matts Hayen, and Jan Kok. It goes without saying that we are extremely grateful for their collaboration.

procedure, and in applying *DOT* to a historical context. One result, we feel, is that anachronistic use of *DOT* has been greatly reduced.

As it stands, we certainly do not believe that HISCLASS is beyond criticism. We do think, however, that it is a historical social-class scheme that can be used to compare social structures and mobility in different parts of the world, in the sense expressed by Armstrong.[18] There is one flaw we would like to mention here. In historical populations a large proportion of the population ends up in the farming class (see Figure 1, which shows the proportion of grooms from the rural classes in the studies in this volume). This is not a HISCO problem, as HISCO has various categories of farmer, both according to specialization and to the nature of their activity, varying from cotter status to manager of a large estate. Nor is it a HISCLASS problem either, because these two groups end up in categories other than that of the average "farmer" (they are placed among the rural labourers and the managers respectively). The problem is one of the vagueness and incomparability of the sources. In many cases the historical source gives just "farmer" without any further qualification. In other cases there is extra information, but this varies by time and place to such an extent that no common ground could be found for distinguishing subcategories. If, however, a subdivision is necessary for a certain type of analysis and the source gives the necessary information, the historian is of course at liberty to make it.

DIFFERENCES AND CHANGES IN TOTAL ENDOGAMY

Now that comparable data exist on the class distributions of the fathers of brides and grooms in a number of regions and periods, we want to present what is the first truly comparative analysis of endogamy by social origin. The most commonly used measure of social endogamy is the percentage of couples both of whom originate from the same social class, i.e. those couples who can be found on the diagonal of an endogamy table. Figure 2 shows these percentages for the countries and regions studied. Five periods are distinguished: all years before 1800; 1800–1833; 1834–1866; 1867–1900; and all years after 1900. These periods are necessarily broad because some of the datasets are rather small and preclude any further temporal subdivision. To facilitate comparisons between regions we chose to use the same periods for all regions.[19] At first sight it appears that, compared with

18. Some results on its use across cultures will be discussed at the next European Social Science History Conference in Amsterdam, in the spring of 2006.

19. It would have been preferable to have used shorter time-periods and to have avoided the open-ended start and end periods which are used in most of the articles in this volume. For comparative reasons, it would also have been preferable to have territorial units of more or less equal size.

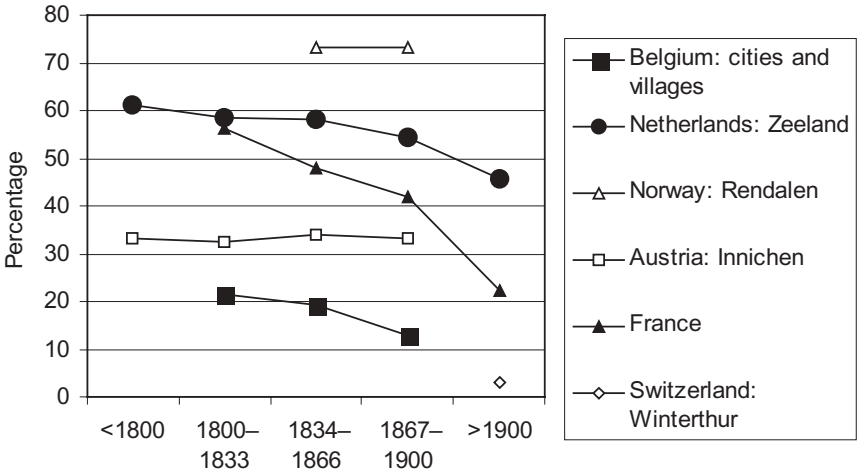

Figure 1. Proportion of grooms from the rural classes, by country and period.

regional differences, endogamy changed little over time. The largest change over time occurred in the Rendalen region (Norway), where the percentage of socially endogamous marriages decreased from 76 per cent in the period before 1800 to 61 per cent in the period 1867 to 1900. In rural areas of France, endogamy decreased by 11 percentage points between 1867–1900 and the period after 1900. In all other regions and countries the within-country changes never exceeded 10 percentage points over the whole period.

If we take a closer look at changes in endogamy over time, it also becomes clear that the nineteenth century was not especially characterized by decreasing endogamy. Clear increases in endogamy are visible in the Belgian villages and in Innichen between 1800–1833 and 1834–1866, in the Scanian parishes in Sweden between 1834–1866 and 1867–1900, and in urban France between 1867–1900 and the period thereafter. The largest decreases in endogamy occurred in the period before 1800 (in the Norwegian region of Rendalen and in the Austrian town of Innichen) and in the period after 1900 (in rural France and the Dutch province of Zeeland). There are no indications of a decrease in endogamy at all between the first and second part of the nineteenth century. Between the second and third part of the nineteenth century endogamy decreased in rural Belgium and urban France.

There were large differences between countries and regions. The highest rate of endogamy (76 per cent) was found in Rendalen (Norway) in the years before 1800, the lowest (29 per cent) in Winterthur (Switzerland) in the period after 1900. Regional differences between rural and urban areas

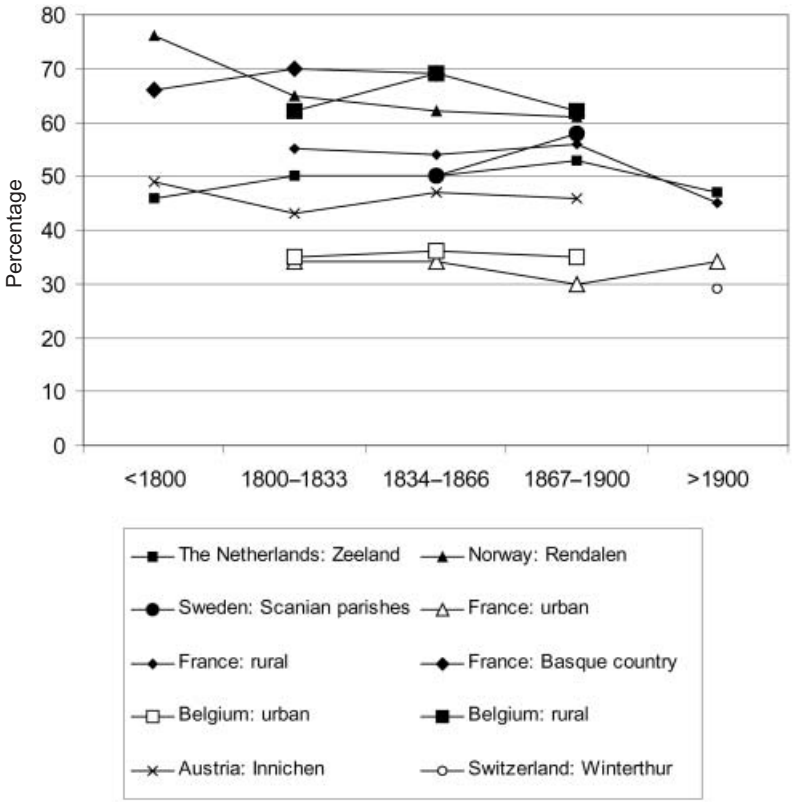

Figure 2. Total endogamy by region and period.

were especially large. Four of the regions in our study can be classified as rural: the Basque country (France), Zeeland (the Netherlands), Rendalen (Norway), and the Scanian parishes (Sweden). They were all characterized by high percentages of endogamous marriages (on average around 68 per cent, 50 per cent, 65 per cent, and 54 per cent respectively). For France and Belgium we can distinguish between urban and rural regions. Within the French countryside around 50 per cent of all marriages were endogamous; within Belgium's villages the corresponding figure was 65 per cent. In contrast to these high endogamy rates in rural areas, rates in urban areas of France, Belgium, and Winterthur (Switzerland) were much lower, at 32 per cent, 35 per cent, and 29 per cent respectively overall. Whether Innichen (Austria) should be regarded as urban or rural is a matter of debate. Earlier, we showed that the proportion of grooms from the rural classes exceeded 30 per cent in Innichen and was clearly higher than in the Belgian cities and Winterthur. Consistent with its intermediate level of urbanization,

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Innichen shows percentages of endogamous marriages that are in between those of the urban and rural regions in our study.

As was shown in several of the preceding chapters, the percentage of endogamous marriages is strongly affected by the class structure. Large classes generally have higher endogamy rates than small classes. Further, rural classes are characterized by high endogamy. More or less by definition, rural areas and periods were characterized by an uneven class distribution in which two classes (farmers and farm labourers) were much larger than the other classes.

The dissimilarity index is a measure of how much the class structure of a given society deviates from a situation in which all classes are of the same size.[20] We calculated the dissimilarity index for the class distribution of the fathers of the groom for all regions and periods presented in Figure 2. The highest dissimilarity index was found for Rendalen (Norway) in the period before 1800. It was as high as 71 per cent, indicating that 71 per cent of the fathers of all grooms would have had to change class for there to have been a class distribution in which all classes were of the same size. The lowest dissimilarity indices were found in the Belgian cities and in urban parts of France (between 19 per cent and 22 per cent). The dissimilarity index correlates highly (0.88) with the percentage of fathers in the rural classes (HISCLASS 8 and 10+12). More importantly, the correlation between the dissimilarity index and the percentage of endogamous marriages is 0.86 and the correlation between the percentage of fathers in the rural classes and endogamy is even higher (0.90). These high correlations confirm our conclusion based on Figure 2, namely that the percentage of endogamous marriages was principally a function of the extent to which the class structure was dominated by the rural classes.

In the next section we will investigate what differences in endogamy between regions and periods remain if we take the effects of the class distribution into account.

DIFFERENCES AND CHANGES IN RELATIVE ENDOGAMY

In research on mobility and endogamy a range of models has been developed to analyse the association in a cross-tabulation (for example, of the social origin of the groom and the social origin of the bride) which remains after the effects of the marginal distributions (the class structure of the fathers of the groom and the bride) are taken into account. This residual association is called "relative endogamy". We estimated a model which calculates one measure for the amount of endogamy for each class (i.e. one parameter for each diagonal cell of the table, which we will refer to

20. The dissimilarity index is calculated as $0.5 * \Sigma_i |(\text{Percentage in class}_i - 100/i)|$ in which i is the number of classes.

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as relative endogamy), one measure for the strength of the association between class of origin of bride and groom under the condition that they do not marry endogamously (i.e. one parameter for all the non-diagonal cells, which we will refer to as relative exogamy), and measures for the relative distances between the classes. Classes whose members are very unlikely to marry one another are thought to be further apart in social reality than classes whose members are likely to marry each other. Unfortunately, the endogamy tables for Rendalen (Norway), the Scanian parishes (Sweden), the Basque country (France), and Innichen (Austria) had to be omitted from these analyses because some of the HISCLASSes were not present in these regions at all.[21]

The first result of this model is thus the relative distances between the HISCLASSes.[22] These distances are shown in Table 2. Higher managers and professionals and lower-skilled and unskilled farm workers are at the extreme ends of the estimated continuum. This means that the sons of higher managers and professionals were very unlikely to marry the daughters of lower-skilled and unskilled farm workers, and vice versa. The remaining classes occupy positions in between which are comparable to the positions they would occupy on a status scale. The likelihood of sons of foremen and skilled workers marrying daughters of a higher manager or professional was higher than the corresponding likelihood for sons of lower-skilled workers and clearly higher than the corresponding likelihood for sons of unskilled workers. The class of farmers and fishermen occupies a position in the middle, indicating that their children could marry either upward into the other propertied classes or downward, by marrying children from the other rural class. A final interesting finding is the relatively large distance between the two classes at the top. If the children of higher managers and professionals married outside their own class, it was very likely that they did so with children of lower managers, professionals, clerical and sales people. However, the relatively large distance between these two classes indicates that this was not a very common phenomenon.

The second result of the model gives us the class-specific relative endogamy parameters for the region and period that we chose as the

21. The model estimated is the so called Row and Column Effects (II) model. See Leo A. Goodman, "Simple Models for the Analysis of Association in Cross-Classifications Having Ordered Categories", *Journal of the American Statistical Association*, 74 (1979), pp. 537–552. We used the lEM program to estimate the model. See Jeroen K. Vermunt, *Log-linear Event History Analysis: A General Approach with Missing Data, Latent Variables, and Unobserved Heterogeneity* (Tilburg, 1996).

22. We assumed that the distances are equal for fathers of the bride and fathers of the groom, which is not unlikely, and equal for all periods and regions, which will be a topic of future research. Compare for example the distances estimated for Winterthur in the chapter by Schumacher and Lorenzetti, pp. 65–91.

Table 2. *Estimated distances between the social classes with respect to the likelihood of intermarriage, and class-specific relative endogamy in Belgian cities 1800–1833*

HISCLASS		Relative position	Class-specific relative endogamy, Belgian cities 1800–1833
1+2	Higher managers and professionals	−2.07	−2.88
3+4+5	Lower managers, professionals, clerical and sales people	−0.12	0.40
6+7	Foremen and skilled workers	0.18	0.30
8	Farmers and fishermen	0.20	1.95
9	Lower-skilled workers	0.40	0.38
11	Unskilled workers	0.68	1.14
10+12	Lower-skilled and unskilled farm workers	0.73	1.34

"reference category". In our case these are the Belgian cities in the period 1800–1833. These parameters are also shown in Table 2. The higher the estimated parameter value, the greater the likelihood of brides and grooms marrying within their own class. Belgian brides and grooms originating from the two rural classes showed a high likelihood of endogamy. In the first few decades of the nineteenth century the likelihood of young men and women from Belgian cities escaping their class of origin by marrying upward were rather small if they originated from the unskilled working class. At the other extreme of the social continuum, however, the children of higher professionals and managers were relatively likely to marry outside their own class. Note, however, that this is after taking into account the relatively large distance between this class and the other classes, as discussed above. We could interpret these findings as indicating that at the beginning of the nineteenth century the sons and daughters of higher managers and professionals in Belgian cities were more likely to marry outside their own class than one would have expected on the basis of the distance between this class and other classes, as estimated using information from all regions and all periods.

More interesting than the relative endogamy parameters in the Belgian cities in a specific period are the differences in relative endogamy between regions and periods. To facilitate the interpretation of the results, we estimated the extent to which all classes in a certain period or region were more (or less) likely to marry within their own class than in another period or region.[23] The results are presented in Figure 3. The Belgian cities between 1800 and 1833 are the reference category. As one can see from the graph, the relative endogamy value for this reference category is

1. A value above 1 for a certain period and region indicates that brides and grooms from all classes there and then were on average more likely to marry within their own class than brides and grooms in the Belgian cities between 1800 and 1833. A value below 1 indicates a lower likelihood of doing so.

At first sight it is clear that the distinction between rural and urban areas that we found for total endogamy is not applicable to relative endogamy. For example, after taking the different class distributions into account, we found that brides and grooms from Belgian villages married less endogamously than brides and grooms from Belgian cities. Relative endogamy in French rural and urban areas was similar during most of the period under investigation. Only between 1867 and 1900 were brides and grooms from French rural areas more likely to marry within their own class than brides and grooms from French urban areas. Winterthur (Switzerland) had the lowest rate of relative endogamy; the Dutch province of Zeeland the highest, at least for the period 1834–1900.

With respect to changes over time in class-specific relative endogamy we can conclude that the six regions do not show a single consistent pattern of change. Whereas the likelihood of marrying within one's own class of origin increased during the nineteenth century in Zeeland (the Netherlands), it decreased in urban regions in France and remained stable in the Belgian cities. In Belgian villages brides and grooms were more likely to marry within their own class in the middle of the nineteenth century than at the beginning or the end; in rural France the opposite was the case.

Finally, the model estimated provides us with information on the strength of the association between class of origin of the bride and class of origin of the groom where they did not marry endogamously (thus in the non-diagonal cells of the endogamy table). We refer to this measure as relative exogamy, with a high level of association implying a low likelihood of exogamy.[24] Data on relative exogamy in the different periods and regions are presented in Figure 4.

The figure for the rural villages in Belgium is striking. Whereas all other regions show a slow upward or downward change in relative exogamy, in the Belgian rural villages the association between the class of origin of the bride and that of the groom drops strongly from almost eleven to a little below four.[25] This means that if the Belgian rural population married outside their class of origin in the first three decades of the nineteenth

23. For details on these "uniform-change" models see Yu Xie, "The Log-Multiplicative Layer Effect Model for Comparing Mobility Tables", *American Sociological Review*, 57 (1992), pp. 380–395.

24. The same terminological confusion exists in mobility research, in which this association is referred to as "relative mobility" or "social fluidity".

25. This measure of association can be interpreted as an odds ratio weighed by the estimated distances between the classes.

Figure 3. Relative endogamy by region and period.
Note: Relative endogamy parameters describe uniform differences in all seven class-specific endogamy parameters between countries and regions. Belgian cities in 1800–1833 are the reference category.

century, they were likely to marry into a neighbouring class. Later in the nineteenth century, the likelihood of marrying more distant classes increased strongly.

The changes in relative exogamy in the other countries, and the relative positions of these countries compared to each other, are rather similar to the changes and relative positions with respect to relative endogamy. The Dutch province of Zeeland shows an increase in the likelihood of endogamous marriage and in the likelihood of marrying over a short social distance until at least the mid-nineteenth century, with a modest decrease thereafter. The Swiss city of Winterthur shows a relatively low likelihood of endogamy and a high likelihood of marrying exogamously over a larger social distance. The urban and rural regions of France differ little on both criteria, and in both cases the pattern in the Belgian cities is closest to that of the province of Zeeland (the Netherlands) too.

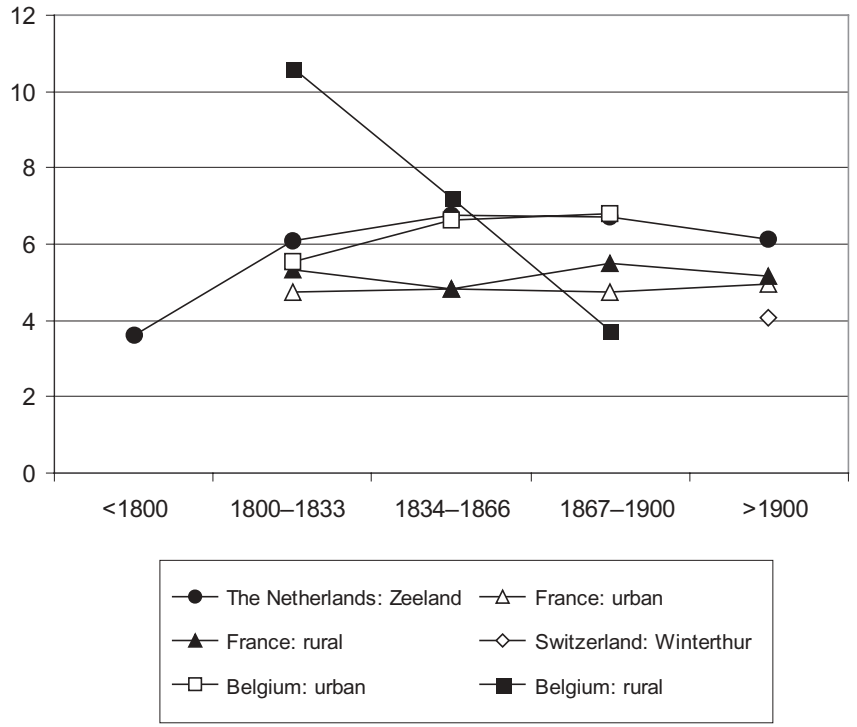

Figure 4. Relative exogamy by region and period.
Note: Relative exogamy parameters describe the association between social origin of the bride and social origin of the groom outside of the diagonal of the endogamy table. They are odds ratios scaled by the relative distances between the social classes.

CONCLUSION

This chapter presented the first truly comparative figures on endogamy by social origin in several regions and for periods before the twentieth century. This comparison was possible due to the development of an international classification of occupations, HISCO, and a standard procedure to group occupations into social classes (HISCLASS). As a result, we can begin to discern what was general and what was unique to regional variations and to temporal patterns before the twentieth century (and indeed how unique the twentieth century was compared with previous centuries).

Based on the regions and periods included in this study, three preliminary conclusions can be drawn. First, total endogamy was strongly related to the proportion of the population originating from the rural

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classes. In societies dominated by one or two rural classes, endogamy was much higher than in societies whose populations were more or less evenly distributed across all the seven classes that we distinguished. Although not shown in this chapter, this first conclusion leads to a second, namely that with modernization and the accompanying shift in the class distribution total endogamy decreased over time. Thirdly, relative endogamy and relative exogamy did not change uniformly over time and seemed unrelated to the level of urbanization in the regions.

Although we would very much like to give explanations for the variations in endogamy we found, at present it is not easy to test systematically and statistically the hypotheses presented in the opening chapter of this volume. The search for comparable indicators of the determinants of endogamy is seriously hampered by the large differences in size of the regions being studied here. What seems a reasonable indicator for a town (whether, for example, there is a factory or a railway station) does not make much sense for a country, and vice versa. Another problem is the broad periods that are distinguished. The effects of historical events that are relatively short (war, for instance) are therefore hard to detect. A further problem is the small number of cases. All in all, there are only twenty data points for six countries. This makes it difficult to detect regularities.

Some of the theoretical hypotheses in the opening chapter are, however, supported by the results presented in various chapters in this volume. Van de Putte, Oris, Neven, and Matthijs demonstrate the significant effect of group size in general on social homogamy, while also showing that a distinct ethnic cleavage – between the native French-speaking population of Walloon cities and the Dutch-speaking immigrants – reduced the scope for native Wallonians to enter into socially endogamous marriages. But was this ethnic divide stronger than that between the French-speaking natives in the industrial centre of Winterthur and the German-speaking rural migrants of which Schumacher and Lorenzetti write?

If a man was upwardly mobile, this influenced his ability to marry outside his social class, both in the Dutch province of Zeeland, as discussed by Bras and Kok, and in France, as borne out by Pélissier, Rébaudo, Van Leeuwen, and Maas. But did it matter more in France than in the Netherlands? And did it matter as much in the Brazilian plantation society described by Holt? Sweden's 1734 Marriage Act stipulated that no one could be forced into marriage, but it also stipulated that marriage required consent. In the case of women, this would normally have been given by the father. As is apparent from the contribution by Dribe and Lundh, there was no age limit either: regardless of her age, an unmarried woman had to obtain consent in order to marry. Dribe and Lundh also write that fathers often forced daughters to marry against their will. Parental pressure was also apparent in the Norwegian valley studied by Bull. There, opportu-

nities to meet were also regulated by means of night-courting, a phenomenon that served to subject the choice of partner of young men and women to the scrutiny not only of their peers but also of their parents. Bull also stresses the effect of inheritance laws on those farmers who had something to bequeath – an effect different for the eldest son than for his siblings. Fathers pushed sons to marry endogamously, he concludes; thus, if the father died prematurely the eldest son would be more likely to marry exogamously. While we know that parental pressure in various forms, including bundling, existed in both Nordic countries, we do not know if the existence of bundling, in addition to other forms of pressure, gave parents in Sweden and Norway more control over their children's destiny than in other countries.

To investigate to what extent these results for single countries also hold for other countries, two requirements have to be met. First, we need additional data on endogamy in more regions and periods, to increase the number of cases at the macro level. We hope that more and more historical marriage registers will become available for comparative research, especially those covering regions (notably outside Europe) not included in this volume. We also hope that even more occupational titles will be coded using HISCO and HISCLASS and become available for comparative research into the history of work through the History of Work website.[26] The regions studied and the time blocks into which the data were divided in this conclusion are, in a sense, gifts of chance. If more regions and countries could be covered, the global similarities and divergences would become more apparent, and the time horizon could extend beyond the nineteenth century (the focus of many of the studies in this volume) while the time blocks could be narrowed, even for the nineteenth century. This would allow us to see more detail, and make it easier to explain what we can see.

Secondly, comparable data on the macro characteristics of these regions and periods need to be compiled. For this, we hope, good use can be made of ethnographical, anthropological, and qualitative historical material. In his survey of social mobility studies, some twenty years ago, Kaelble remarked that:

> Two theatres of the history of social mobility have none of the actors and very few of their spectators in common. Sociologists mostly do not know the historical studies, since they often regard them as too limited, too crude in their statistical methods, too narrow minded in their analytical approach, too far removed from the long term view of present trends. Historians usually take little interest in sociological studies since they are regarded as not taking account of

26. The website also contains photographs and other images of the world of work, an as yet small dictionary of occupations, and other information. It is hoped that, with the help of those interested in the world of work, this website will continue to grow.

social history in its entirety, as being too difficult to interpret because of the quantitative techniques employed, as remaining too general and vague in their conclusions.[27]

This volume will, we hope, serve as a bridge between this era and a new one: an era which sees interdisciplinary collaboration, a stretching of historical and current time, and in which social endogamy across the globe (and processes of social inequality and mobility more generally) is compared and explained.[28]

27. Kaelble, *Historical Research on Social Mobility*, p. 114.

28. We have already commenced a more ambitious project to analyse endogamy according to social class in a large number of regions and time periods. This project will also gather more comparable information on macro characteristics to explain differences in total and relative endogamy. This research is part of the HISMA (Historical International Social Mobility Analysis) project. Using occupations and measures of social class and prestige as indicators, HISMA tries to promote research into social inequality and mobility, through the study of marriage according to social class in the past, the historical study of careers, and the study of intergenerational social mobility. A session of the next International Economic History Association Conference (to be held in Helsinki in the summer of 2006) will be devoted to this topic.