Measuring social structure in the past

A comparison of historical class schemes and occupational stratification scales on Dutch 19th and early 20th century data[1]

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1. INTRODUCTION

With the introduction of the Historical International Standard Classification of Occupations (HISCO) problems with regard to comparability of historical occupational titles between countries, languages and over time have been tackled (Van de Putte & Miles, 2005; Van Leeuwen, Maas, & Miles, 2002; Zijdeman, 2007). Furthermore, historians and sociologists have also provided tools to study occupational status attainment: HIS-CAM (Maas, Lambert, Zijdeman, Prandy, & Van Leeuwen, 2006), and social mobility: HISCLASS (Maas & Van Leeuwen, 2005) and the Social Power scheme (SOCPO) (Van de Putte, 2003; Van de Putte & Miles, 2005). The need for these tools becomes evident from the quickly increasing number of sociological historical studies that are using these measures. Examples include the contributions in this issue for SOCPO; Van Leeuwen, Maas, and Miles (2005) for HISCLASS; and Maas and Van Leeuwen (2008), Zijdeman (2008, 2009) and Zijdeman and Mandemakers (2008) for HIS-CAM. However, with the increasing number of studies using new measurements of class and occupational stratification, the question arises to what extent results from these studies are comparable amongst each other. The more these new tools

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of measurement are alike, the easier it is to compare results across studies that use one of the new measures of class and stratification. Besides comparability with existing measures, the question emerges to what degree the new measures of class and occupational stratification are comparable with results from studies using other measurements of class and stratification. A comparison of HISCLASS, SOCPO and HIS-CAM with existing measures of class and occupational stratification provides some insight in whether it is useful to compare results between studies using contemporary measures of class and stratification with studies using the HISCO based measures. Our research question therefore is:

> "To what extent are HISCLASS, SOCPO and HIS-CAM comparable with existing class schemes and occupational stratification scales and with each other?"

To assess the comparability of the HISCO based measures and existing class schemes and stratification scales we consider three attributes of the scales and schemes. First we compare the scales by describing the distribution of HISCO coded occupations across schemes and scales. This exercise shows to what extent HISCO coded occupations end up in similar classes across class schemes and receive equal scores (or occupy comparable relative positions) across stratification scales. Next we consider to what degree class schemes and stratification scales are statistically associated with each other. This provides insight in the degree to which class schemes and stratification scales measure similar dimensions of social stratification. Finally, we compare the scales and schemes with regard to their explanatory power in the analysis of social mobility. By doing so we show to what extent class schemes and stratification scales are alike in explaining variance in a key dependent variable. This exercise is especially useful when comparing different versions of one and the same class scheme with one another.

2. MEASUREMENT OF HISTORICAL OCCUPATIONS AND OCCUPATIONAL STRATIFICATION

2.1. HISCO

Large scale comparisons of occupations are hampered by lingual and regional differences and changes over time in occupational titles. To increase the comparability of historical occupational titles historians and sociologists

designed a historical classification based on the International Labour Organisation's 'contemporary' classification ISCO-68 (ILO, 1969): HISCO (Van Leeuwen et al., 2002). The occupational titles that were used for the derivation of HISCO originate, amongst others, from marriage certificates and person records from eight different countries "with a chronological span of more than 200 years" (*Ibid*., 29). In HISCO occupations are categorised according to tasks that need to be fulfilled in that occupation. HISCO divides occupations into eight major groups, each of which are divided in two to ten minor groups. These 83 minor groups are again subdivided into 284 unit groups. Finally, these unit groups consist of 1,881 occupational categories, the lowest level of detail. Occupations with comparable tasks are grouped into one of these categories. The occupational categories are identified by a unique five digit code. The first digit represents the major group, the first two digits represent the minor group, while the first three digits represent the unit group. The last two digits distinguish a specific occupational category. For example, a railway service supervisor (2-22.30) is grouped into major group 2 "Administrative and Managerial Workers", minor group 2-2 "Supervisors, Foreman and Inspectors", unit group 2-22 "Transport and Communication Supervisors" and finally into an occupational category 30.

Apart from occupational titles, historical documents sometimes provide more information closely related to the occupation at hand. HISCO provides the possibility to categorise this additional information into three subsidiary classifications: *status*, *relation* and *product*. The *status* dimension provides fifteen two digit codes to include information on ownership, level of artisan career, rank of an employee, level of tertiary education and status titles. Ten two digit codes represent the subsidiary classification *relationship*, which allows for preservation of information on the subject reporting the occupational title. This includes information on whether the subject is retired, whether the subject performed a voluntary or honorary occupation, whether the occupation is performed by a home worker (e.g., housewife) and whether the subject suffered from a physical or mental disability. Finally, if the subject is not the one performing the occupation, information on the family relationship to the person performing the occupation can be stored.

The *product* classification is used to store information on products that are traded or manufactured, although in the latter case most often a specific occupational code is available. The product classification is based on a part of the United Nations Central Product Scheme (CPC) (*UN Central Product Classification (CPC) version 1.0 (draft)*, 1998).

Through its classification and subsidiary classifications HISCO provides a structure through which occupations are, to a certain extent, hierarchically

ordered. The hierarchical structure in HISCO was however not designed to be representative of hierarchical structures of occupations as they are present in societies. Class schemes and occupational stratification scales do serve this purpose. In the next section, recently developed HISCO-based class schemes and a stratification scale are discussed alongside existing class schemes and stratification scales. Although there is a wide range of existing class schemes and stratification scales to compare the HISCO-based schemes and scale with, we choose two national (Dutch) and an international scale and scheme for our comparisons.

2.2. Class schemes

2.2.1. HISCLASS

HISCLASS is a HISCO based class scheme. The constructors of HISCLASS aimed at

> "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" (Maas & Van Leeuwen, 2005).

As theoretical underpinning the authors constructed a scheme of the following dimensions: manual-non manual division, skill level, degree of supervision and economic sector. The dimensions are an evaluation of what "historians with self-construed local class schemes seem to agree [upon as] the main dimensions of [a] social class scheme" (*Ibid.*). The scheme is derived by cross-classifying these dimensions in a manner which identifies twelve classes. HISCO unit groups are allocated to the class scheme by assigning scores to the occupational unit groups on each of the dimensions. The scores are based on information on tasks and duties of occupations and workers present in *The Dictionary of Occupational Titles* (DOT) (1965). To validate the results seven experts in the field of work were asked to assign occupations directly to any of the twelve classes. If a different designation of an occupation arose according to the DOT and the experts, most often the expert judgement was followed.

2.2.2. SOCPO

SOCPO is a HISCO based class scheme based on what its constructors refer to as "social power" (Van de Putte & Miles, 2005). Social power is defined as

"the potential to influence one's destiny – or 'life chances' – through control of (scarce) resources" (*Ibid*., 63). The constructors of SOCPO differentiate social power along two different dimensions: economic power and cultural power. The degree of economic power results from material resources and is dependent on self-employment, skill and authority (at work). The degree of cultural power is based on the manual non-manual division and designation of 'pure' status which is not related to the position one has at work. For both economic and cultural power the constructors separate out the underlying dimensions of each power dimensions which results in five economic power levels and five cultural power levels. Next the power levels of the economic and cultural dimension are merged into a five level social power scheme. The highest social power level (level five) consists of 'high commanders', 'macro-scale self-employed', 'nonmanual superskilled' and the nobility. The lowest level (level 1) consists of unskilled workers.

2.2.3. EGP class scheme

The Erikson, Goldthorpe, and Portocarero (EGP) class scheme (Erikson, Goldthorpe, & Portocarero, 1979) is often used in contemporary international research. It is based on a notion of a threefold division of class positions: (1) employers who buy the labour of others, (2) self-employed workers who do not buy the labour of others, nor sell their own and (3) employees who sell their labour and put themselves under the authority of employers (Erikson & Goldthorpe, 1992, 40-41). Discerning different aspects of each of the three parts Erikson and Goldthorpe present a scheme of eleven classes in its most extended form. Unfortunately, most often datasets are not rich enough to represent all eleven classes and as a solution collapsed versions of the EGP scheme are frequently used. For their own analysis, Erikson and Goldthorpe use a collapsed seven class version (*Ibid*.), but even more collapsed versions often appear in the literature.

2.3. Occupational stratification scales

2.3.1 .HIS-CAM

HIS-CAM is a HISCO based occupational stratification scale (Maas et al., 2006). It is constructed according to the principles of Cambridge Social Interaction and Stratification (CAMSIS) scaling (Prandy, 2000; Stewart, Prandy, & Blackburn, 1980). The theoretical argument on which the scales are based is that the closer individuals are related in terms of social standing,

the more they interact. Furthermore, CAMSIS scales assume that these interactions are representative of the overall occupational stratification structure (Stewart et al., 1980; Prandy 2000; Prandy & Lambert 2003; Bottero, 2005). For the construction of HIS-CAM, data on inter-generational connections between occupational titles was analysed. Data was derived from 1.5 million marriage records from six different countries (Britain, Canada, France, Germany, the Netherlands and Sweden) covering the period 1800-1938. Despite the large number of observations certain HISCO occupational unit groups were hardly represented. The constructors of HIS-CAM decided to merge occupational unit groups with less than 20 observations, with occupational unit groups closely related in terms of duties and tasks performed. This resulted in a total of 581 occupational unit groups. Associations between Child's and Parent's occupational unit group are estimated using RC-II association models (Goodman, 1979) as implemented in the package LEM (Vermunt, 1997). Finally, these associations were transformed into a scale ranging from 1 (low) to 99 (high).

2.3.2. Van Tulder's Dutch occupational prestige scale

Van Tulder's occupational prestige scale is the first Dutch occupational prestige scale representative of the male Dutch labour force (Van Tulder, 1962). It was constructed by asking a representative sample of the Dutch population of 18 years and older (N = 500) to hierarchically rank 57 cards with occupational titles from high to low according to their social standing (*maatschappelijk aanzien*) (*Ibid*., 225). Each of the occupations was assigned a rank score between 1 and 57 according to the position provided by the respondents. Finally, the scale was constructed by taking the mean of all rank scores for each occupation. The highest score (52.2) is assigned to the occupation of university professor (*hoogleraar*), while the occupation of messenger (*loopknecht, besteller*) received the lowest score (5.1).

2.3.3. U&S occupational prestige scale

The Ultee and Sixma (U&S) occupational prestige scale is a successor of the occupational prestige scale of Van Tulder (Sixma & Ultee, 1983). Its constructors claim that the earlier scale seemed to be dated and no longer used (*Ibid*., 362). For the new scale the constructors selected 116 occupations based on the following selection criteria. First, the new scale had to be comparable with existing national and international occupational prestige scales. This resulted for example in an overlap with the 57 occupations of Van Tulder's prestige scale. Second an overlap with the occupational classifi-

cations of the Dutch Central Bureau of Statistics was required. The third aim was to incorporate all occupations performed by 5,000 or more Dutch workers. The 116 selected occupations were presented in sets of 28 occupations to a representative sample of the Dutch population. Each of the respondents was asked to rank the occupations according to how they thought the social standing of the occupation was considered in society (*Ibid*., 366).[3] The highest rank score was assigned to the occupation of surgeon (*chirurg*) (89.1), while the lowest score was given to the occupation of dustman (*vuilnisman*) (13.4).

2.3.4. Treiman's Standard International Occupational Prestige Scale

The Standard International Occupational Prestige Scale (SIOPS) was originally derived by Treiman, who used data from existing prestige studies (Treiman, 1977, 167). In each of the studies respondents were asked to "rate or rank a set of occupational titles with respect to their prestige or social standing" (*Ibid*., 25). There was quite some variation in the rating tasks with regard to (1) the terms used (e.g., "prestige", "respect", "social standing"); (2) the number of occupations that had to be ranked; and (3) the way in which the occupations had to be ranked. Nevertheless Treiman found high correlations between studies within as well as between countries. In the Dutch case for example, correlations between four local studies and a national study were all above 0.94. All in all occupational prestige scores were derived for 509 occupations from prestige studies of (parts of) 55 countries. For all occupations in a given country standard metrics were derived. The SIOPS scores were then derived by averaging the country scale scores for each occupational title.

2.3.5. Other occupation-based class schemes and occupational stratification scales (collapsed EGP; skill level; manual-nonmanual; Güveli and ISEI)

For purposes of exploratory comparison (see Figure 4a and 4b), a further 7 measures were derived. These measures are more commonly calculated for contemporary societies, and are not central to this review of data focussing upon the nineteenth century. They are derived however since they provide some useful points of comparison with contemporary literature on occupa-

[3] Questioning whether the scale scores presented by Van Tulder can be interpreted as interval scale scores, Sixma and Ultee use Thurstone's method of successive intervals to derive scale scores for the occupations.

tion-based social class schemes and stratification scales. These measures include three collapsed versions of the EGP scheme (5-, 3- and 2-category versions, see Erikson & Goldthorpe, 1992, 38) and the ISEI (International Socio-economic Index of Occupational Status) scale (Ganzeboom, De Graaf, & Treiman, 1992). The EGP reduced versions were compared since these schemes are commonly used in contemporary empirical research. A scheme based upon a standardised skill-level classification (SKL4) for contemporary occupations (Elias, 1997) was used since skill-level features prominently in many contemporary and historical occupation-based social class schemes. A classification of occupations into manual and non-manual characteristics (MNM) was used since this dichotomy is a prominent feature of occupation based analyses (a macro used by Lambert & Bihagen (2007) was exploited). Lastly a classification of occupations into the social class scheme advocated by Güveli (2006) (GÜV) was calculated since this scheme, prepared for contemporary research in the Netherlands, is claimed to implement an improved variant of the EGP scheme which better recognises differences between advantaged occupations. Finally, ISEI (Ganzeboom et al., 1992) is a popular ranking of occupations calculated by using a weighted average of the typical incomes and educational levels held by the incumbents of occupations across nations. Like the EGP reduced schemes, ISEI was chosen since it is commonly applied in contemporary empirical research.

3. DATA AND METHODS

To compare the class schemes and occupational stratification scales we use occupational data of the database of marriage records of the Historical Sample of the Population of the Netherlands (HSN) (Mandemakers, 2001). Ultimately the HSN database will consist of life course data of a representative sample of all persons born in the Netherlands between 1812 and 1922 (N = 77,000) (HSN, 2008). The current database of marriage records consists of 21,820 Dutch marriages conducted between 1812 and 1994, although the annual number of marriages conducted before 1845 and after 1942 is low (HSN, 2007). For the analyses we use occupational titles of grooms and grooms' fathers that are derived from the marriage records from 1835 to 1939. On nearly all records information on the occupation of the groom is present (95.2 percent), while only on 47.5 percent of the records information on the occupation of the groom's father is available. Although common among datasets of marriage records, the large proportion of missing data is

sometimes argued to bias analyses of the association between fathers' and sons' occupations (Delger & Kok, 1998). This issue is however not so problematic for our analyses, since we focus on similarities and differences between measurements of class and status, rather than on calculating precise estimates of father-son associations. Available information on the occupations of grooms and their fathers was coded into HISCO by matching occupations with two database files consisting of Dutch occupational titles and corresponding HISCO codes (see Maas (2007) in Appendix 1).[4]

The transformation of HISCO units into alternative class schemes and stratification scales was achieved by using a number of conversion macros, which are listed in Appendix 1. Several of these macros themselves exploit coding procedures designed for the ISCO-68 (International Standard Classification of Occupations) and ISCO-88 occupational unit group schemes, published by Ganzeboom (2008). In such examples, the validity of a concordance between HISCO and ISCO-68 is a critical assumption in the use of the relevant scheme (Van Leeuwen et al., 2002, 331).

The procedures for exploiting these macros are relatively complex, usually requiring bespoke programming in suitable software languages (such as SPSS (Statistical Package for the Social Sciences) and Stata). To assist other researchers who may wish to replicate our analyses, the macros listed in Appendix 1 have also been deposited with the online facility 'GEODE' (Grid Enabled Occupational Data Environment, www.geode.stir.ac.uk), which seeks to provide an internet portal allowing easy access to such occupational information resources.

The use of such macros is sometimes questioned with regard to the extent to which they reliably recode occupational positions into suitable locations. There is a risk, for instance, that an individual's standardised occupational title may not give enough information about their employment and circumstances to achieve an accurate classification to a relevant scheme, and this may be exacerbated in comparative analyses where practices of coding individuals to occupational unit groups may vary across contexts. Although automated recoding is a standard approach, these problems reflect genuine limitations to the large scale analysis of occupational titles, and it is perhaps important for many historians who collect detailed micro-data on occupational titles to be aware of the implications of subsequent automatic recoding. Nevertheless, automated coding procedures are widely used, and those occupation-based schemes which are deliberately constructed for detailed HISCO unit groups (SOCPO, HIS-CLASS and HIS-CAM) ought, in princi-

[4] For the appendix accompanying this article, see the website of the BTNG/RBHC: http://www.flwi.ugent.be/btng-rbhc/en/archive/2010-0102.html

ple, to have favourable measurement properties, since HISCO unit groups preserve relatively more detail about differences between occupational units. Moreover, an attraction of automated coding approaches is that they allow researchers to deal with the increasing size of historical occupational datasets, where manual coding of occupations is otherwise less feasible. Manual coding is also prone to manual error, such as when the same occupation could be coded differently either between different researchers, or even by the same researcher on different occasions: unlike with automated coding, such errors are random rather than systematic and therefore difficult to discover and correct. For these reasons, we seek to directly evaluate the structural properties of occupational data after it has been subject to standard (automated) coding approaches.

In the analyses we will use collapsed versions of the EGP and HISCLASS scheme as these are more often applied than the full class schemes. The collapsed EGP class scheme consists of (original classes between brackets): 1: service class (I+II), 2: routine non-manual workers (IIIa+IIIb), 3: petty bourgeoisie (IVa+b), 4: farmers (IVc), 5: Skilled workers (V+VI), 6: non-skilled workers (VIIa) and 7: agricultural labourers (VIIb) (Erikson & Goldthorpe, 1992, 38-39). Table 2 in the introduction chapter (see Van de Putte & Buyst in this issue, pp. 17-18) shows the full class scheme of HISCLASS. The collapsed 7 class version of HISCLASS consists of (original classes between brackets): 1: higher managers and professionals (1+2), 2: lower managers and professionals, clerical and sales personnel (3+4+5), 3: foremen and skilled workers (6+7), 4: farmers and fishermen (6), 5: lower skilled workers (9), 6: unskilled workers (11) and 7: lower-skilled and unskilled farm workers (10+12) (Maas & Van Leeuwen, 2005, 280-281). In the comparative analyses we will further more apply the widely used 10 class version of EGP, (generated by Harry Ganzeboom's macro), and the 5, 3, and 2 class versions, that are also applied in the field.

4. RESULTS

4.1. Distributions of HISCO coded occupations across class schemes and occupational stratification scales

4.1.1. Class schemes

A first way to compare the class schemes and stratification scales is to see whether occupations coded in HISCO are assigned to the same classes, and

receive comparable scale scores across different scales and schemes. In order to compare the distribution of HISCO major groups across class schemes we use the collapsed seven class version of HISCLASS, the seven class version of the EGP scheme, and the full five class version of SOCPO.

Figure 1a and 1b depict a general overview of the distribution of grooms' occupational titles across the three class schemes and the four stratification scales. The figures show where each separate HISCO code is placed: for each HISCO code a circle is drawn, its size proportional to the number of grooms from the HSN sample found in that code. Although at first sight overwhelming, these figures give a detailed insight into the allocation of particular large and small occupational units into the respective class schemes and stratification scales.

Apart from information where a specific HISCO code is classified, the figures also provide information on the distribution of HISCO codes across HISCO major groups. It shows for example that HISCO major group 2 (the values 20000-30000 on the horizontal axes) contains by far the smallest number of cases. It also shows that the HISCO major groups 7, 8, and 9 consists of many different HISCO codes, while major group 6 is dominated by only three HISCO codes. The largest single HISCO code is the large circle associated with HISCO unit group 61220 (Field Crop Farmers). Figures 1a and 1b show that this group is located in different relative positions across schemes and scales. The figures therefore give a clear indication that wherever a particular classification assigns large occupational unit groups, such as this one, can have a critical effect upon the subsequent properties of the relevant scheme or scale.

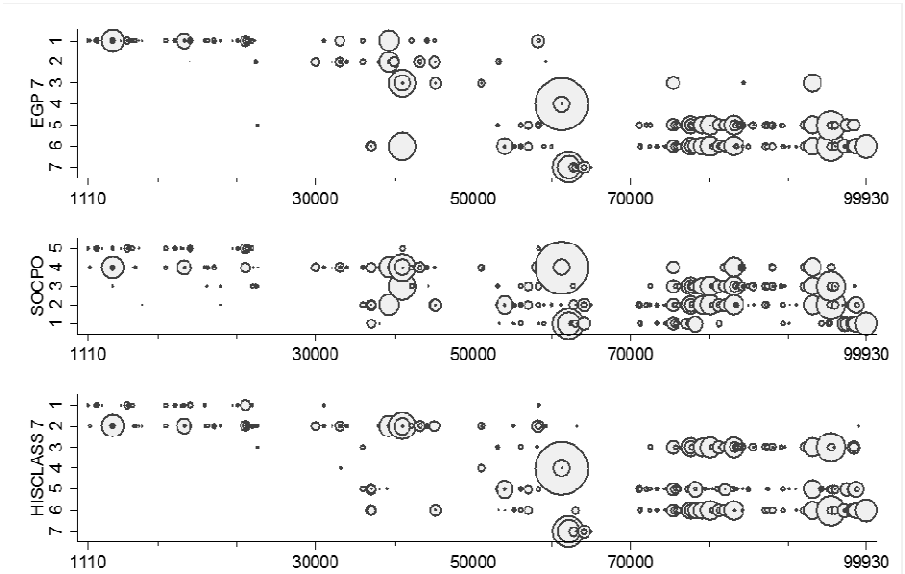
To compare the distribution of HISCO major groups across class schemes Figure 2 shows the distribution of grooms' occupations according to HISCO major groups within respectively EGP, SOCPO and HISCLASS.[5] Occupations with HISCO codes 9-99.00 (Worker, no further information) and 9-99.20 (Day-Labourer) are excluded from the analyses.[6] By doing so we restrict the comparison of class schemes and stratification scales to those

[5.] Mind that for reasons of comparison the SOCPO scale is mirrored: SOCPO level 5 is on the left hand side, rather than on the right hand side.

[6.] The reason is that occupational titles with HISCO codes 99900 and 99920 are by definition too vague to determine whether the activities performed for this occupation are related to agriculture or not. The HISCLASS scheme provides a special coding rule to deal with this issue, but we did not have enough information to do so. Since the other schemes are lacking such a coding rule and we cannot code the occupations in HISCLASS optimally, we refrain from using them in our comparison.

occupations for which it is clear what kind of occupational activities are involved.

FIGURE 1a: DISTRIBUTION OF GROOMS' OCCUPATIONAL TITLES CODED IN HISCO FOR THREE DIFFERENT CLASS SCHEMES: EGP(7), SOCPO AND HISCLASS(7), 1835-1940, N=17,334*

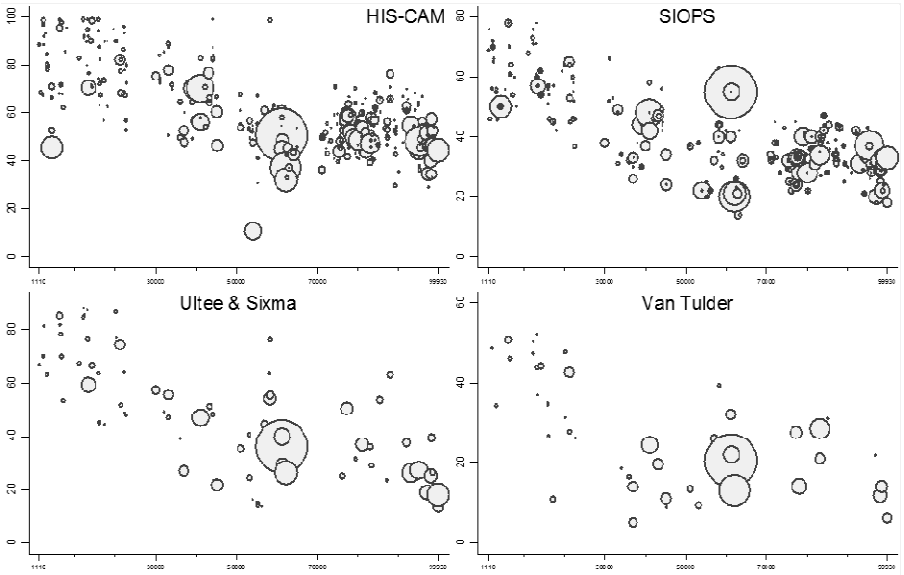


Source: Historical Sample of the Netherlands, release 2007_01 (2007).
Horizonal axis shows HISCO 5-digit unit groups.
Size of circles shows number of grooms from each HISCO unit in each class category.

*The values and labels of the collapsed EGP and HISCLASS scheme are (original classes between brackets):
EGP 1: Service class (I+II)
EGP 2: Routine non-manual workers (IIIa+IIIB)
EGP3: Petty bourgeosie (Iva+b)
EGP4: Farmers (IVc)
EGP5: Skilled workers
EGP6: Non-skilled workers (VIIa)
EGP7: Agricultural labourers (VIIb)

HISCLASS 1: Higher managers and professionals (1+2)
HISCLASS 2: Lower managers and professionals, clerical and sales personnel (3+4+5)
HISCLASS 3: Foremen and skilled workers (6+7)
HISCLASS 4: Farmers and fishermen (8)
HISCLASS 5: Lower-skilled workers (9)
HISCLASS 6: Unskilled workers (11)
HISCLASS 7: Lower-skilled and unskilled farm workers (10+12)

FIGURE 1b: DISTRIBUTION OF GROOMS' OCCUPATIONAL TITLES CODED IN HISCO FOR FOUR DIFFERENT OCCUPATIONAL STRATIFICATION SCALES: HIS-CAM, SIOPS, ULTEE & SIXMA AND VAN TULDER, 1835-1940, N=17,334

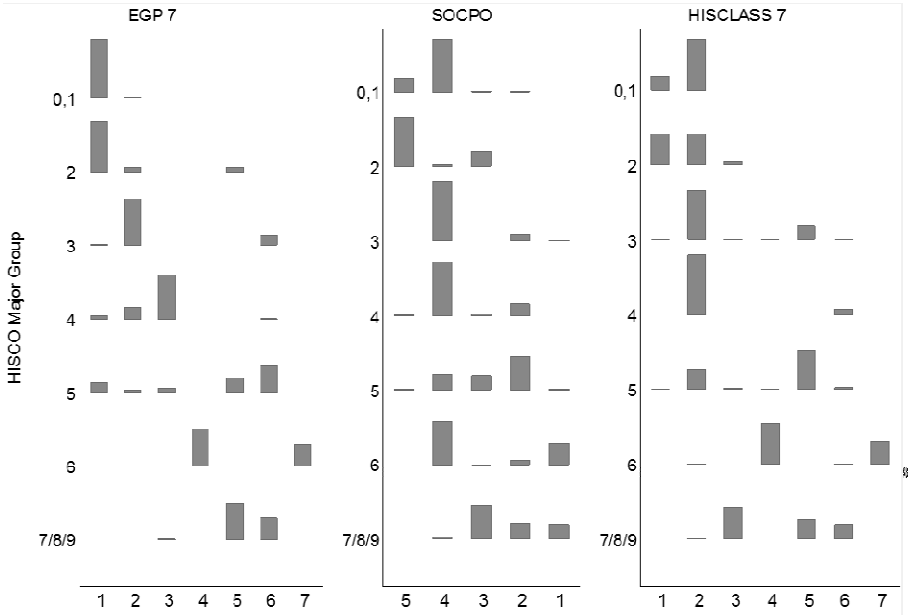


Source: Historical Sample of the Netherlands, release 2007_01 (2007).
Horizonal axis shows HISCO 5-digit unit groups.
Size of circles shows number of grooms from each HISCO unit. N varies between scales (see section 4).

Occupations in HISCO major group 0/1 (professional, technical and related workers) are in EGP nearly without exceptions found in the *service class*. In HISCLASS and SOCPO occupational titles from HISCO major group 0/1 are on the whole divided over two classes. Somewhat more than 21% of the grooms are assigned to Social Power level 5 in SOCPO or to the class of *higher managers and professionals* in HISCLASS. However, most often occupations are assigned to SOCPO level 3 or to the class of *lower managers and professionals, clerical and sales personnel*.

Only a small proportion of all occupations in the dataset belong to HISCO major group 2 (administrative and managerial workers). In the EGP scheme these occupations mostly appear in the *service class*, although some occupations are also assigned to the class of *routine non-manual* and *skilled-workers.* In HISCLASS the occupations of HISCO major group are mainly divided over two classes, that of *higher managers and professionals* and that of *lower managers and professionals, clerical and sales personnel*.

FIGURE 2: DISTRIBUTION OF HISCO MAJOR GROUPS ACROSS THREE CLASS SCHEMES: EGP7, SOCPO AND HISCLASS7, 1835-1940, N=17,334*



Source: Historical Sample of the Netherlands, release 2007_01 (2007).
Graph shows percent of cases from each HISCO major group falling into respective class categories.

*The values and labels of the collapsed EGP and HISCLASS scheme are (orginal classes between brackets):
EGP 1: Service class (I+II)
EGP 2: Routine non-manual workers (IIIa+IIIB)
EGP 3: Petty bourgeosie (Iva+b)
EGP 4: Farmers (IVc)
EGP 5: Skilled workers
EGP 6: Non-skilled workers (VIIa)
EGP 7: Agricultural labourers (VIIb)

HISCLASS 1: Higher managers and professionals (1+2)
HISCLASS 2: Lower managers and professionals, clerical and sales personnel (3+4+5)
HISCLASS 3: Foremen and skilled workers (6+7)
HISCLASS 4: Farmers and fishermen (8)
HISCLASS 5: Lower-skilled workers (9)
HISCLASS 6: Unskilled workers (11)
HISCLASS 7: Lower-skilled and unskilled farm workers (10+12)

In SOCPO, most occupations end up in SOCPO level 5, with the exception of supervisors, foreman and inspectors (HISCO 2-20.00), production supervisors (HISCO 2-26.60) and ship chief stewards (HISCO 2-24.50) who are assigned to a somewhat lower class (SOCPO level 3).

The occupations of clerical and related workers (major group 3) are in the EGP and HISCLASS scheme most often found in respectively the *routine non-manual* class and the class of lower managers and professionals, clerical and sales workers. Most other occupations are classified as *non-skilled workers* in EGP or *lower skilled workers* in case of HISCLASS. This concerns mainly occupations related to sorting and distributing of mail, such as postmen (HISCO 3-70.30) and messengers (HISCO 3-70.40). SOCPO assesses messengers (SOCPO level 2) different from postmen and assigns them to SOCPO level 4, along with most other occupations in major group 3. In SOCPO postmen with HISCO status code 33 (subordinate) do end up in SOCPO level 2. In HISCLASS these subordinate postmen are assigned to the class of the *unskilled workers*. The EGP class scheme does not differentiate between subordinate and 'ordinary' postmen.

Another difference between the three schemes is the positioning of transport conductors. In SOCPO, bus conductors (HISCO 3-60.40) end up at the same level as messengers (SOCPO level 2), while transport conductors (HISCO 3-60.00) and railway passenger trainguards (HISCO 3-60.20) end up together with postmen at SOCPO level 4. In EGP, transport conductors (HISCO 3-60.00), railway passenger trainguards (HISCO 3-60.20) and bus conductors (HISCO 3-60.40) are all assigned to the same class of *routine non-manual workers*, and are thus differently classified than those occupied with sorting and delivering mail. In HISCLASS all types of transport conductors are assigned to the same class, which is also that of the mail sorting workers and mail delivering workers: *lower-skilled workers*.

Sales workers (major group 4) appear in EGP in any of the classes: *service class*, *routine non-manual workers* and *petty bourgeoisie*, although most often in the latter class. In HISCLASS and SOCPO sales workers are most often classified as respectively *lower managers and professionals, clerical and sales workers* and SOCPO level 4, respectively. Street vendors, news and other types of vendors are an exception and are placed in the class of *unskilled workers* at SOCPO level 2. SOCPO also designates retail trade salespersons (HISCO 4-51.30) in this class.

In each class scheme service workers (major group 5) are scattered among different classes. Military officers (HISCO 5-83.20) are found in the *service class* (EGP), the class of *higher managers and professionals* (HISCLASS)

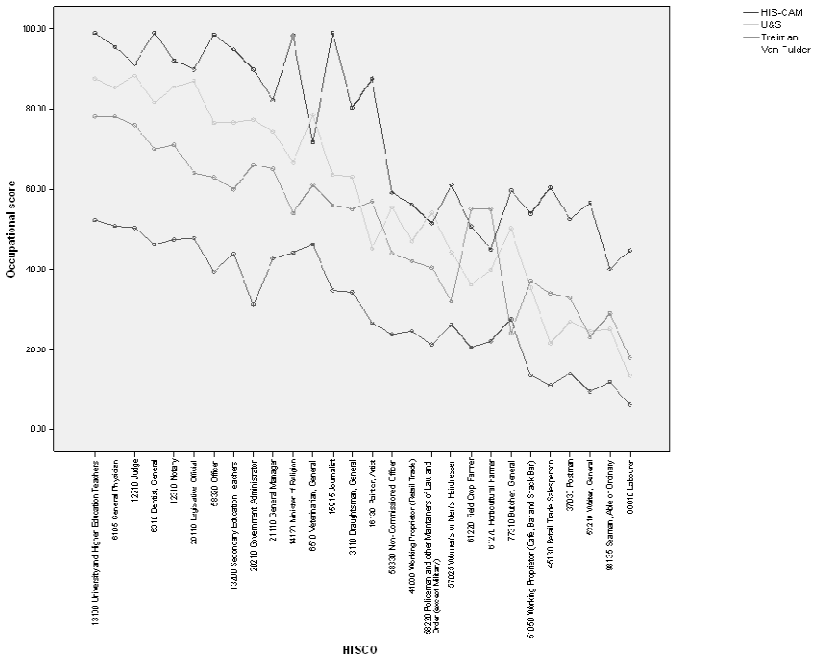
and SOCPO level 5. EGP assigns policemen (HISCO 5-82.20) also to this class, while HISCLASS and SOCPO assign them to a different class, that of *lower managers and professionals* and SOCPO level 4, respectively. About a third of the occupations in major group 5 are formed by domestic and house servants (HISCO 5-40.10, 5-40.20). These are classified as *non-skilled workers* in EGP, as lower-skilled in HISCLASS and are found in Social Power level 2 in SOCPO.

Major group 6 consists of agricultural, animal husbandry and forestry workers, fisherman and hunters and are mostly divided into two categories. This division is most of all the result of the presence of farmers in major group 6 on the one hand and farm workers on the other. The class schemes resemble each other in how they make this division. EGP assigns farmers to the class of *farmers* and workers to the class of agricultural labourers. Unlike EGP, SOCPO differentiates between types of workers in HISCO major group 6. For example, farm workers (HISCO 6-21.05), field crop farm workers (HISCO 6-22.10), and peat workers (HISCO 6-29.70) end up at SOCPO level 1, while nursery workers (HISCO 6-27.00), gardeners (HISCO 6-27.40) and (deep sea) fisherman (HISCO 6-41.00, 6-41.20) are designated to SOCPO level 2. In HISCLASS, only peat workers are treated different from the other workers in HISCO major group 6 and are assigned to the class of *unskilled workers*.

Finally, the largest proportion of workers is found in major group 7/8/9: production and related workers, transport equipment operators and labourers. Given the large number of different occupations in this group it is no surprise that in all schemes occupations in this major group are divided over several classes. There are nevertheless clear differences in the divisions. In the EGP scheme the 62.3 percent of all occupational titles are classified as skilled workers, while 37.4 percent are assigned as non-skilled workers. In the SOCPO scheme, major group 7/8/9 is represented in all but SOCPO level 5. Most occupations (52.0 percent) end up at SOCPO level 3, while other occupations end up at SOCPO level 1 (21.3 percent), or SOCPO level 2 (23.4 percent). A small number of occupations (3.4 percent) ends up at SOCPO level 4. These are mainly specialised workers, such as cartwrights (HISCO 8-19.25), gem cutters (HISCO 8-80.30), goldsmiths (HISCO 8-80.50) and watch and clock makers (HISCO 8-42.25). Finally, in HISCLASS major group 7/8/9 is divided over the classes representing foremen and skilled workers (48.3 percent), lower-skilled workers (29.7 percent) and unskilled workers (21.9 percent).

4.1.2 .Occupational stratification scales

FIGURE 3: SCORES OF GROOMS' OCCUPATIONS ON FOUR DIFFERENCE STRATIFICATION SCALES, 1835-1939, N=4,013



To further assess the distribution of HISCO coded occupations across occupational stratification scales, Figure 3 provides a graphic overview of selected occupations in the four occupational stratification scales (HIS-CAM, Van Tulder, U&S and Treiman's SIOPS). Of these stratification scales Van Tulder's scale is the most limited in the sense that it only provides scale scores for 57 occupations. Since some occupations were assigned the same HISCO code (see the methods section), and some of Van Tulder's occupations are not performed by grooms (such as "chambermaid in a hotel") Figure 3 is only based on 28 unique HISCO codes. The lines in Figure 3 represent the occupational stratification scale scores for each of the occupational stratification scales. The lines show some variation in the overall height of the assigned scale scores. HIS-CAM assigns the highest scores followed by the U&S and Treiman's SIOPS scale. Van Tulder's scale provides the lowest scores, which is not surprising since this scale has a theoretical maximum

score of 57. These differences are important to be aware of when directly comparing scale scores between occupational stratification scales.

For comparisons of results on status attainment based on different scales, differences in the relative scale scores are more important. From Figures 1b and 3 it becomes clear that the four different scales assign relatively different values to a number of occupations. HIS-CAM assigns a relatively lower score to the *general veterinarian* (HISCO 0-65.10) and the *able or ordinary seaman* (HISCO 9-81.35). The U&S and Van Tulder scale assign relatively lower scores to *painters, artists* (HISCO 1-61.30) than the HIS-CAM and Treiman scale. Treiman's scale provides relatively lower scores for *general butchers* (HISCO 7-73.10). Striking are the relatively higher scores for *field crop farmers* (HISCO 6-12.20) and *horticultural farmers* (HISCO 6-12.70) on the Treiman scale.

In sum, the comparison of the division of HISCO occupations and major groups across the classes and scales provides a mixed image. On the one hand there is a certain degree of overlap on how major groups, and unit groups, are placed. In all schemes HISCO occupational titles of major group 0/1 and 2 are found in the upper classes or scale scores, while major group 4 and 6 are scattered across all classes, and occupations in major group 7/8/9 are mostly concentrated in the lower classes or scale scores. On the other hand Figures 1a, 1b and 2 show much differences between schemes. On the whole it appears that the EGP scheme shows the lowest level of variation of HISCO major groups across classes, while SOCPO, HIS-CAM and SIOPS show higher levels of variation. Although more variation could imply more accuracy, it could also indicate more error or 'noise'. From these examinations alone, we underline that we cannot draw conclusions on which scheme is right or wrong. From the description above and the figures, we do however conclude that variation in the designation of HISCO coded occupational titles across schemes and scales is likely to result in different outcomes between studies using different schemes and scales.

Whilst it is clearly possible to observe the different allocations of occupational units between schemes and scales, and recognise their probable implications, is it also of interest to question why these differences come about. Differences in the allocation of occupations may be the deliberate intentions of the different measurement instruments, since each class scheme and scale attempts to emphasise a somewhat different concept of social stratification and occupational inequality. However, as noted above, it is also possible that some differences in the allocation of occupations may arise for accidental reasons, such as errors or limitations in the coding and

classification procedures. It is ultimately possible to evaluate the criterion validity of the different schemes and scales in these terms, namely by asking whether the differences between their treatment of certain particular occupations are accurately reflecting genuine differences between the occupations in terms of the concepts covered by the respective schemes. A comparable review of the properties of differences between classifications schemes, for contemporary data, is presented by Lambert and Bihagen (2007). They argue that differences in how particular occupations are classified do sometimes reflect the underlying concepts embraced by the schemes (but they also observe that, overall, the average patterns of differences between the properties of different schemes do not, in large part, reflect their different conceptual foundations). An authoritative test of such properties for historical data is beyond the scope of this paper. Our review of distributions presented above does, however, suggest that many of the differences between how particular occupations are located could plausibly be attributed to intentional conceptual differences between the schemes – an example being that farmers are ranked relatively higher in the SIOPS scale than in other scales, perhaps because the prestige associated with farming is higher than its average social stratification rewards.

4.2. Associations between class schemes and occupational stratification scales

Another way to compare the class schemes and stratification scales is to examine the associations between them. The more the schemes and scales are associated with each other, the higher the comparability between the class schemes and stratification scales. Sometimes this is done by correlating the class schemes and stratification scales using each occupation as a single case. Each occupation is then given equal weight in the correlation analysis and the distribution of occupations (cases) is thereby ignored. Therefore we will correlate the measures of class and occupational stratification using the actual number of occurrences of a certain occupation in the dataset. This approach provides more insight in the comparability of studies using different measures of class and status than the first approach.

For our analyses we will use four association statistics: Pearsons's R, Spearman's R, Cramer's V and Eta. These are four commonly used association statistics, which summarise the extent of correlation between two variables. They range in magnitude from 0 (no association) to 1 (complete

correlation). The four measures are appropriate for different levels of measurement of the variables being compared. The exact values of the statistics are not strictly comparable between each other (though they are broadly so). Primarily, they are appropriate for comparing magnitudes within any particular measure.

The four stratification scales can be treated as continuous, metric measures. However, whilst the SOCPO class scheme is intended to be an ordinal scheme, the authors of the HISCLASS and EGP schemes are explicit that these schemes are nominal and not rank-ordered (although, in practice, it is not uncommon for other researchers to use these nominal schemes in an ordinal manner). For comparisons of the associations between schemes, these differences in levels of measurement present a challenge. In our analyses, we therefore consider statistics that treat these three class schemes as both nominal (Cramer's V statistics) and ordinal (Spearman's R statistics), both when comparing with each other and comparing with the four stratification scales (using Spearman's R or Eta- statistics respectively).

	Van Tulder	**U&S**	**Treiman**
	Pearson correlation for cases coded to all 4 schemes (n=4013)		
HIS-CAM	0.820	0.796	0.250
Van Tulder		0.951	0.529
U&S			0.397
	Pearson correlation for cases coded to 3 schemes (n=6866)		
HIS-CAM		0.786	0.455
U&S			0.592
	Pearson correlation for cases coded to 2 schemes (n=19979)		
HIS-CAM			0.661
	Pearson correlation (with pairwise n) for all cases excluding Field Crop Workers (HISCO=61220)		
HIS-CAM	0.697 (3534)	0.791 (4440)	0.763 (17553)
Van Tulder		0.961 (1587)	0.753 (3536)
U&S			0.758 (4442)

Source: Historical Sample of the Population of the Netherlands (all marriages 1835-1939).
Note: all correlations significant at $p < 0.001$

TABLE 1: CORRELATIONS BETWEEN FOUR DIFFERENT STRATIFICATION SCALES (GROOM'S OCCUPATIONS)

Table 1 shows the Pearson's correlations between four different occupational stratification scales. The first correlation matrix in Table 1 encompasses all

four stratification scales. Since the scales differ in the type and number of occupations they represent we show three different correlation matrices with the maximum number of observations available within a combination of stratification scales. The first matrix shows strong associations between HIS-CAM and the two Dutch stratification scales ($r \geq .8$). The strong correlation ($r = .951$) between the original Dutch scale (Van Tulder) and the more recent Dutch scale (U&S) confirms the results found by Sixma and Ultee (1983). The weakest correlations ($r < .5$) exist between Treiman's prestige scale on the one hand, and HIS-CAM and the two Dutch scales on the other. The second matrix shows a similar image. The strongest association exists between HIS-CAM and the Dutch scale U&S, while Treiman's prestige scale is only moderately associated with these scales. In a direct comparison between HIS-CAM and Treiman's prestige scale, which includes the largest number of occupations and cases, HIS-CAM shows a stronger association with Treiman's prestige scale than any of the Dutch scales did. Finally, the fourth matrix shows the associations between all four scales, but now excludes field crop farmers. While the associations between HIS-CAM and the two Dutch scales hardly differ from the first matrix, the associations between Treiman's prestige scale and the other scales increase quite extensively. This suggests that, like Treiman argues, the positioning of farmers on Treiman's occupational stratification scales should be carefully considered (Treiman, 1977).

	SOCPO (5 categories)	**HISCLASS** (7 categories)	**EGP** (7 categories)
	Spearman's R / Cramer's V (all cases, n=16620)		
SOCPO		0.743 / 0.761	0.870 / 0.672
HISCLASS			0.802 / 0.763
	Spearman's R / Eta (pairwise n for all valid cases)		
HIS-CAM (n=16604)	0.601 / 0.659	0.661 / 0.754	0.612 / 0.690
Van Tulder (n=5950)	0.605 / 0.882	0.710 / 0.876	0.499 / 0.799
U&S (n=6843)	0.740 / 0.794	0.780 / 0.871	0.654 / 0.810
Treiman (n=16619)	0.855 / 0.873	0.634 / 0.913	0.796 / 0.895

Source: Historical Sample of the Population of the Netherlands (all marriages 1835-1939).
Note: all correlations significant at $p < 0.001$

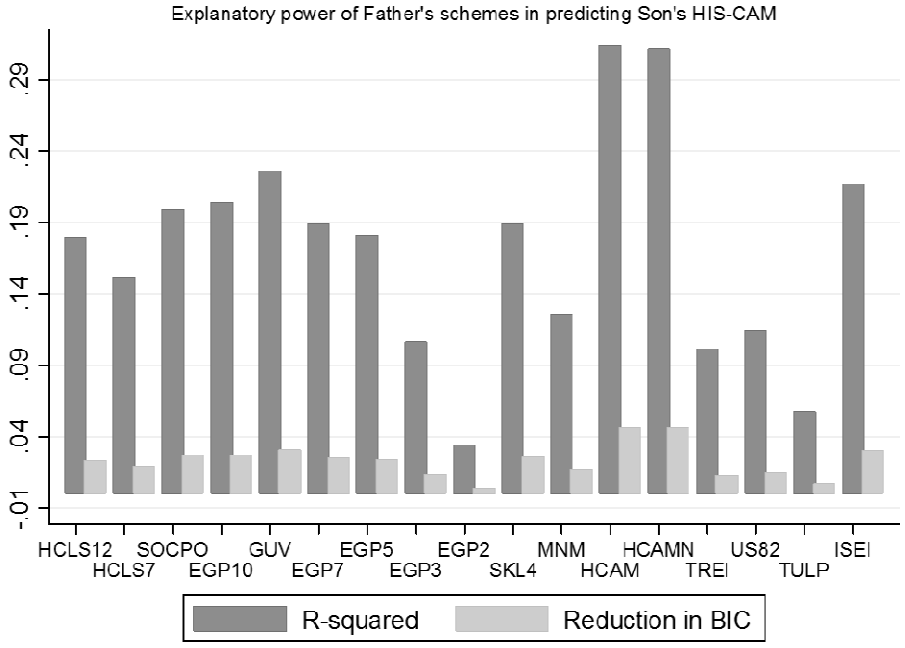
TABLE 2: ASSOCIATIONS BETWEEN THREE DIFFERENT CLASS SCHEMES AND OTHER STRATIFICATION SCALES (GROOM'S OCCUPATIONS)

Table 2 shows correlations between the four stratification scales and the class schemes: SOCPO, HISCLASS and EGP. Although EGP and HISCLASS are not developed as ordinal, they are often treated as such in analyses. Therefore, Table 2 reports both ordinal (Spearman's R) and nominal (Cramer's V and Eta) measures of association. The table suggests that the class schemes are connected to all scales, but less strongly connected to HIS-CAM than to the scale structures of Treiman, Van Tulder and U&S. Subsequent analyses on the distributions of scale scores within class categories (not shown here) reveal that there are often greater standard deviations of HIS-CAM within classes than for other scales. This indicates that HIS-CAM reports relatively larger differences between occupations within classes. One reason for this could be that HIS-CAM allows for a more detailed examination of occupations within class groups than other scales. Using Eta rather than Spearman's R suggests for most schemes that stronger associations with the scales can be seen when the schemes are treated nominally rather than restricted to an ordinal comparison. An interesting exception is the comparison of HISCLASS and SOCPO with EGP, which suggest a certain degree of ordinality.

4.3. Explanatory power of schemes

Figures 4a and 4b show gradations in the explanatory power associated with alternative occupation-based social classifications in explaining fathers' occupation outcomes, in this example, sons' HIS-CAM. While Figure 4a applies to all sons and fathers for whom occupational information was available, Figure 4b excludes sons who are farmers (HISCO 6-12.20). For each social classification, the explained variance (R^2) of a father's occupational position predicting his son's position (measured by HIS-CAM) is given. Furthermore, a measure for the increase in the BIC (Bayesian Information Criterion) statistic relative to the null model is provided. In the null model there are no variables and son's HIS-CAM score is predicted by a constant (the mean of father's HIS-CAM score). So the relative BIC measure shows the increase in explanation between a model with no explanatory variables, and a model with just one explanatory variable for occupational stratification schemes and a number of dummy variables equal to the number of classes for each of the class schemes. The use of fathers' HIS-CAM does bias the explanatory power in favour of the comparable groom's HIS-CAM data (which is seen here to have the strongest correlation).

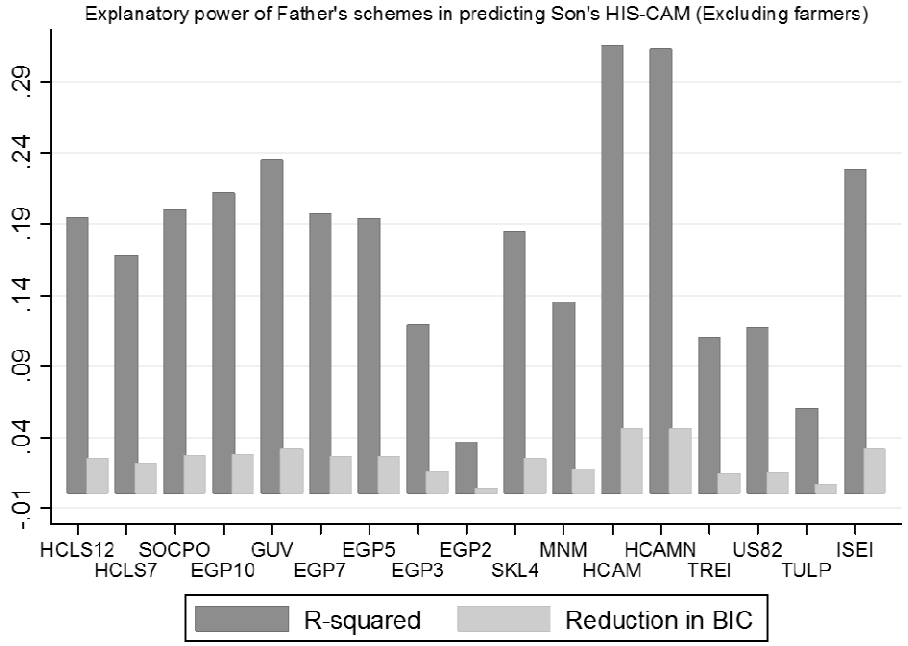
FIGURE 4a: FIGURE 4A. R^2 AND BIC FOR PREDICTED SON'S HIS-CAM BY FATHER'S OCCUPATIONAL CCLASSIFICATION POSITION DERIVED FROM SEVERAL CLASS SCHEMES AND OCCUPATIONAL STRATIFICATION SCALES, 1835-1939, N~= 11,000



Source: Historical Sample of the Population of the Netherlands, release 2007_01 (2007).
Graph shows R2 for linear regression (outcome is son's HISCAM) with only one explanatory variable, the occupation-based social classification (using dummy variables for class schemes). Scaled BIC statistic compares the BIC of the regression with that of the Null model with no explanatory variables (BIC - Null BIC / Null BIC). Unweighted data.

HCLS12	HISCLASS (full version)
HCLS7	HISCLASS (collapsed seven class version)
SOCPO	SOCPO (full version)
EGP10	EGP (collapsed ten class version)
GUV	Güveli's adjusted EGP scheme
EGP7	EGP (collapsed seven class version)
EPG5	EGP (collapsed five class version)
EGP3	EGP (collapsed four class version)
EGP2	EGP (collapsed two class version)
SKL4	Elias' standardized skill level classification
MNM	Manual / Non-manual dichotomization
HCAM	HIS-CAM version 0.1
HCAMN	HIS-CAM version 0.1 (Dutch version)
TREI	Treiman's prestige scale (SIOPS)
US82	Ultee & Sixma 1982
TULP	Van Tulder's prestige scale
ISEI	International Socio-Economic Index of occupational status

FIGURE 4b: R^2 AND BIC FOR PREDICTED SON'S HIS-CAM BY FATHER'S OCCUPATIONAL CLASSIFICATION POSITION DERIVED FROM SEVERAL CLASS SCHEMES AND OCCUPATIONAL STRATIFICATION SCALES, 1835-1939, N~= 10,000, EXCLUDING SONS IN HISCO = 61220



Source: Historical Sample of the Population of the Netherlands, release 2007_01 (2007).
Graph shows R2 for linear regression (outcome is son's HISCAM) with only one explanatory variable, the occupation-based social classification (using dummy variables for class schemes). Scaled BIC statistic compares the BIC of the regression with that of the Null model with no explanatory variables (BIC - Null BIC / Null BIC). Unweighted data.

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EGP3	EGP (collapsed four class version)
EGP2	EGP (collapsed two class version)
SKL4	Elias' standardized skill level classification
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ISEI	International Socio-Economic Index of occupational status

Alternative graphs, not shown, for other measures of father's social position, in turn show other measures of grooms' position having the strongest correlation. The point of these graphs however is not so much to draw attention to which schemes have the highest patterns of correlation, as to differences of gradation in the explanatory power of different schemes. The graphs show very starkly the considerable cost of reducing EGP coding to a level of detail lower than 5 categories. They also show the relative comparability of all the different class schemes, and a gradation of comparability between the metric schemes, whereby the HIS-CAM measures; the Van Tulder, U&S and ISEI; and the Treiman measures, seem broadly to represent three distinct clusters of measurement. Finally, Figure 4b shows on the whole somewhat higher values of explained variance than Figure 4a. This again underlines the influence of differences in the positioning of a large occupational group (farmers) on the measurement properties and comparability of different class schemes and stratification scales.

5. CONCLUSION

The development of HISCO, a historical classification of occupations, and the construction of two HISCO based class schemes (HISCLASS and SOCPO) and a HISCO based occupational stratification scale (HIS-CAM) are an important step towards the development of large scale studies on stratification research. This paper was concerned with the inter-comparability of HISCLASS, SOCPO and HIS-CAM with contemporary measures of class and occupational stratification.

There are several ways to evaluate the comparability of class schemes and stratification scales. One might compare the theoretical arguments used in the construction of schemes and scales, (although, as we note above and argued by Lambert & Bihagen (2007), it cannot be assumed that the theoretical origins of a measure necessarily translate into the measurement properties of a scheme or scale). One might also choose a measure pragmatically, perhaps based upon convenience of access and implementation or the highest volume of previous use – this represents the dominant strategy employed in contemporary sociological analyses. This paper tries to allow for a third type of decision, based upon the empirical progression that the different measures allow for. Moreover once an understanding of the empirical properties of different measures is developed, we argue that we can then answer the important

question of how we can compare results from studies using different measurements of class and occupational stratification with each other.

The results show that despite differences between HISCLASS and SOCPO in the way HISCO coded occupations are assigned to classes, the HISCO based classification scales are both strongly associated with an often used contemporary international class scheme: EGP. The HISCO based occupational stratification scale HIS-CAM was compared to two Dutch stratification scales and a contemporary international stratification scale: Treiman's SIOPS. There is much resemblance between HIS-CAM and the two Dutch scales. This finding is not only relevant to an assessment of the comparability of HIS-CAM. It also shows that two conceptually different methods to construct an occupational stratification scale have led to comparable results. The relationships between Treiman's SIOPS on the one hand, and the two Dutch scales and HIS-CAM on the other, are not that strong. This was predicted by Treiman who wrote that the SIOPS does

> "a poorer job of estimating the prestige of agricultural occupations in countries with high proportions of the labour force engaged in agriculture than in countries with a largely non-agricultural labour force" (Treiman, 1977, 183).

Further analyses indeed showed that Treiman's SIOPS evaluates occupational prestige of farming occupations rather different from the other three scales. Furthermore, farming occupations are indeed quite common in the data used (consisting of marriage records of representative sample of Dutch born between 1822 and 1922). This nevertheless raises the question of the usefulness of Treiman's SIOPS for stratification research in the pre-industrial era. Although it is claimed that the scale is universal and can be used for all countries and regions, it does seem to have a different evaluation of farming occupations. This is problematic since most societies in the pre-industrial era have large proportions of farmers in the labour force.

Although based on the same historical data, there is sufficient discrepancy (lack of correlation) between the schemes to conclude that the class schemes HISCLASS and SOCPO have a somewhat different assessment of the occupational hierarchy compared to the stratification scale HIS-CAM. This hampers comparability of studies using these different measures above and beyond the methodological issues that should be taken into account when comparing results based on concepts of class and occupational stratification. Furthermore, analyses of explanatory power of various scales and schemes revealed differences and suggests that even comparisons of collapsed versions of the same class scheme (EGP) should be treated with care.

For a long time lack of large scale occupational data and a universal classification of occupations have compromised our understanding of social stratification in the 19th and early 20th century. Now that both data on occupations and a universal classification of occupations are available, it is understandable that as a result different measures of occupational stratification have arisen. Although these measures are mostly congruent, they do feature some considerable differences relevant to the comparability of results. Researchers in historical occupational stratification may therefore want to reflect on what measure(s) to use, in order to safeguard comparability of studies and to increase our understanding of social stratification in the 19th and early 20th century.

ABBREVIATIONS

BIC	Bayesian Information Criterion
CAMSIS	Cambridge Social Interaction and Stratification
CPC	Central Product Classification
DOT	Dictionary of Occupational Titles
EGP	Erikson, Goldthorpe, and Portocarero class scheme
GEODE	Grid Enabled Occupational Data Environment
GÜV	Güveli
HISCO	Historical International Standard Classification of Occupations
HIS-CAM	Historical Camsis (Social Interaction and Stratification Scale)
HISCLASS	Historical International Social Class Scheme
HSN	Historical Sample of the Population of the Netherlands
ILO	International Labour Office
ISCO	International Standard Classification of Occupations
ISEI	International Socio-economic Index of Occupational Status
MNM	manual and non-manual
SIOPS	Standard International Occupational Prestige Scale
SKL4	standardised skill-level classification
SOCPO	Social Power scheme
SPSS	Statistical Package for the Social Sciences
U&S	Ultee and Sixma occupation scale

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Het meten van historische sociale structuren: een vergelijking van historische klassenschema's en beroepsprestigeschalen op basis van Nederlandse gegevens uit de 19de en de vroege 20ste eeuw

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_____ SAMENVATTING _____

Beroepstitels afkomstig uit verschillende talen en perioden kunnen worden geclassificeerd aan de hand van de Historische Internationale Standaard Classificatie van beroepen (HISCO). Op basis van HISCO zijn er recentelijk twee historische klassenschema's (HISCLASS en SOCPO) en een beroepsprestigeschaal (HIS-CAM) ontwikkeld. In dit artikel staat de vraag centraal in hoeverre deze nieuwe meetinstrumenten vergelijkbaar zijn met elkaar en met hedendaagse instrumenten. Wij beantwoorden deze vraag door (1) te vergelijken hoe HISCO gecodeerde beroepen worden toegewezen aan de verschillende schalen; (2) te bepalen hoeveel statistische samenhang er bestaat tussen de instrumenten; (3) te bestuderen in hoeverre de drie instrumenten verschillen in de mate waarin zij variantie verklaren in analyses van intergenerationele statusverwerving op basis van ca. 15.000 Nederlandse huwelijksakten uit de periode 1835-1939. Onze resultaten laten zien, dat hoewel de instrumenten een grote mate van overeenstemming laten zien, er tussen de diverse klassenschema's en beroepsprestigeschalen ook aanzienlijke verschillen bestaan, voornamelijk met betrekking tot de agrarische beroepen. Gezien het groeiend aantal landen dat zich inzet om historische data te digitaliseren, brengen onze bevindingen belangrijke vragen te berde met betrekking tot de vergelijkbaarheid van studies die verschillende meetinstrumenten gebruiken om meerdere landen en diverse perioden met elkaar te vergelijken.

Het artikel wordt aangevuld met een appendix. Deze bijlage is beschikbaar op de website van BTNG/ RBHC:
http://www.flwi.ugent.be/btng-rbhc/nl/archief/2010-0102.html

La mesure des structures sociales dans le passé: une comparaison des systèmes de classes historiques et des échelles de stratification professionnelle sur la base des données néerlandaises du XIX^{e} siècle et du début du XX^{e} siècle

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RÉSUMÉ

L'*Historical International Standard Classification of Occupations* (HISCO – Classification historique internationale standard des professions) offre un système standardisé pour mesurer et classifier les titres professionnels sur différentes périodes et en différentes langues. Deux systèmes de classes historiques, HISCLASS et SOCPO, ainsi qu'une échelle de stratification professionnelle historique, HIS-CAM, tous basés sur l'HISCO, ont été développés récemment. Le présent article se concentre sur la question de savoir dans quelle mesure ces outils fraîchement développés sont semblables et dans quelle mesure ils sont comparables aux mesures contemporaines de la stratification des classes sociales et des professions. Nous répondons à cette question en comparant comment les professions codées dans HISCO sont attribuées aux différentes échelles, en déterminant quelle est la cohérence statistique entre les différents outils et en examinant dans quelle mesure les trois outils diffèrent quant à leur capacité d'explication des mesures dans les analyses d'environ 15.000 actes de mariages néerlandais entre 1835 et 1939. Nos résultats indiquent que, malgré un degré appréciable de congruence, il existe aussi des différences considérables entre les différentes mesures des classes et de la stratification, notamment en ce qui concerne les métiers de l'agriculture. Étant donné qu'un nombre croissant de pays s'efforcent de numériser les enregistrements personnels historiques et les données des recensements, nos résultats soulèvent des questions importantes concernant la comparabilité des études qui utilisent différents outils de mesure pour comparer des pays et des périodes différents.

L'article est complété par une annexe. Cette annexe est disponible sur le site web BTNG/ RBHC: http://www.flwi.ugent.be/btng-rbhc/fr/archives/2010-0102.html