

Status attainment in The Netherlands during the period 1851-1890: The influence of social capital on status attainment in the context of modernization¹

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Abstract

The present study examines the relationship between social capital and status attainment in The Netherlands during the period 1851-1890. Number of siblings is expected to have a negative effect on the occupational status of the husband as predicted by resource dilution theory. The occupational status of the siblings and brothers-in-law can be seen as resources and thus represent the social capital perspective. Modernization processes are expected to lower the effect of social capital on the occupational status of a married man. A large database of marriage certificates in five Dutch provinces was used to obtain data, which was then analyzed with multiple linear regression with interaction terms. The findings support resource dilution theory, especially for brothers. Thus, when a man had more brothers, his occupational status was lower. Social capital perspective is supported by the fact that occupational status of brothers and brothers-in-law was positively correlated with the occupational status of a married man. The processes of modernization seem to have a negative effect on the relationship between social capital and the occupational status of a married man.

Keywords: Status attainment, social capital

Introduction

The present study examines the effects of the different processes of modernization on the relationship between the role of social capital and status attainment in The Netherlands during the 19th century. “Social capital” refers to the capacity of actors to benefit from their social networks and other social structures that they are part of (Portes, 1998; De Graaf & Flap, 1988). Thus, social capital refers to the resources that people can potentially access through their networks, and which serves as a means for reaching their personal goals (e.g., to significantly improving their socioeconomic status). Almost all research into the relationship between social capital and status attainment was conducted in the second half of the twentieth century. And yet it is probable that social capital played a more important role in the 19th century, when socioeconomic status determined the kinds of jobs people could obtain. Human capital played a decidedly secondary role at that time. Studies about status attainment in the 19th century have typically examined intergenerational mobility and the trend of “ascribed” to “attained” (e.g. Ganzeboom & Luikx, 1995; Hendrickx & Ganzeboom, 1998; Van Dijk et al., 1984). In previous studies of The Netherlands in the 19th century, the influence of social capital on status attainment was not explored. This study thus represents an attempt to fill an

important void in the literature. This research also has contemporary relevance. The influence of social capital on status attainment depends on the context in which one lives (Volker & Flap, 2001). As mentioned previously, it is expected that social capital played a more important role in status attainment process in the 19th century than it does in present times. The occupational status of sons was strongly dependent on the occupational status of their fathers. They learned skills from their fathers, and often attained the same occupation as their fathers. In this way, socioeconomic status of family of origin determined the status attainment process.

The driving force behind the transition from one type of society into another is referred to as modernization, a term that refers to a collection of interrelated changing processes that have shaped today's society and that continue to do so (Van der Loo & Van Reijen, 1997). Examples of these change processes are urbanization, industrialization, mass communication, mass transportation and geographical mobility. Such modernization processes have each exercised an important effect on the relationship between social capital and status attainment. The modernization processes which played a role in the 19th century continue to do so in present times. This is because there continue to be improvements in communication and transportation resources, which also have some effect on social networks. By looking at the effects of processes of modernization in the past, we can also gain insights into contemporary society. In this way, the past can serve as an information source for the present. The central question that this article poses is as follows: To what extent does social capital contribute to the achievement of an occupation with a high status in the context of modernization?

Research on contemporary society shows that social capital plays an important role in status attainment. A relationship between different types of capital and status attainment has been found in different studies. In addition, the influence of social capital on status attainment has been examined in numerous studies. Lin (1999) provides an overview of published papers dealing with the relationship between social capital and status attainment, and identifies 32 such studies. Of these 32 papers, only one did not report a relationship between social capital and status attainment.

Data from the large database Genlias was used for the present investigation. These data contain information gathered from Dutch marriage certificates from five provinces in The Netherlands during the period 1822-1922. These data contain information regarding family ties. Therefore, social capital is operationalized as the number of siblings and the status of the brothers and brothers in law. Both the social capital theory and the resource dilution theory are used to generate hypotheses that will be stated later in this article.

Theory

Social capital is the most fundamentally important concept for explaining the roles of social ties in the status attainment processes. Since the introduction of the concept of social capital in the mid-80s by Pierre Bourdieu and James Coleman, it has become a central concept in sociology. The idea of social capital was not new, given that a fair amount of research into social networks and their functions had been published prior to that time. Social capital refers to the capacity of actors to benefit from their social networks and other social structures that they are part of (Portes, 1998). This concept assumes a rational actor who consciously invests in his social network, and who expects to derive benefit from it.

One important aspect of the research on social capital concerns the link between that concept and status attainment. This connection is explored in various studies (e.g., De Graaf

en Flap, 1988; Lin, Ensel en Vaughn, 1981). Lin (1999) defines status attainment as a process in which actors use their resources to maximize their socioeconomic position, which is usually operationalized in the literature as the job that someone has. Jobs can be ranked in terms of their status by using an occupational prestige scale. There are three ways a person can get a job: through formal channels, informal channels or through an open application.

There are several mechanisms that can ensure that someone with more social capital acquires a higher-status position. The first of these is the accessing of informal channels in order to obtain a job. One example of this would be securing a job as a result of knowing the person who is offering the job. This can be the case for instance when bonds and mutual expectations exist between the involved parties. This can lead to a mutually beneficial relationship. A second way people can benefit from their social capital in finding a job is through learning indirectly about a vacancy. Granovetter (1973) reported that people find their jobs mainly through weak ties. Although people with whom one shares a strong bond are more willing to help, and are also those with whom one interacts more frequently, they often have the same information as the person seeking help, and therefore such connections often prove to be of limited value. Weak ties can be bridges to other networks, and other information. Therefore weak ties provide more help. In both cases, contacts with higher occupational status help secure higher-status jobs.

Social capital consists of several elements (Boxman, De Graaf & Flap, 1991), the first of which is the number of people in a social network. The assumption here is that there is a positive correlation between number of people in a social network and degree of social capital. When there are a lot of people in a social network, there are more people on whom one can rely. The second factor is the extent of resources that people in one's social network have at their disposal. There is assumed to be a positive correlation between the social status of the people in one's network and the degree of social capital that an individual possesses. People with more social status have more resources or more access to resources, and thus have more opportunities to help other people. Lin, Ensel and Vaughn (1981) found that people who use a contact with a higher status than themselves to acquire a job tend to get a job with a higher status. The third element of social capital is the willingness of people in a social network to help (De Graaf & Flap, 1988). Obviously, one cannot receive help from those who are unwilling to help. The last two elements of social capital are the strength of the ties and the structure of the social networks. The strength of the ties depends on the amount of time one invests in the ties, their intensity and the extent to which services are reciprocal (Granovetter, 1973). The literature distinguishes between weak ties and strong ties. The structure of one's social network consists of several elements. An example of a structural element is the density of a network. The density of a social network is higher when more people interact (Haynie, 2001). In this research, the number of ties and the resources of these ties are relevant.

Social capital theory predicts a positive relationship between the number of social ties and one's occupational status. The more people in one's social network, the more people there are who are able to help. In the present study, social capital was measured with data on the brothers and brothers-in-law when other elements of social capital couldn't be included. In addition, the occupational status of women in the 19th century does not appropriately reflect their actual status, given that women were to a large extent dependent on their husbands during that time. The literature has repeatedly shown a negative correlation between number of siblings and an individual's occupational status (Downey, 1995; Bras, Kok & Mandemakers, 2010). This finding contradicts the predictions of social capital theory. This discrepancy is usually explained in terms of the resource dilution theory, which assumes that siblings have to compete for the finite resources held by their parents. Van Eijck and De Graaf (1995) distinguish between material resources, which are related to the financial capacity of

the parents, and cultural resources, which encompass the education of the parents, their language skills and their attitude towards the dominant culture. These parental resources are divided among the children. The quantity of resources that the children receive depends on both the total available resources of the parents and the number of children among whom the resources must be divided (Bras, Kok & Mandemakers, 2010). The number of sisters is of course equal to the number of one's brothers-in-law. It can therefore be assumed that the number of brothers-in-law has the same effect as the number of sisters. The following hypothesis is based on the resource dilution theory and previous findings: The number of brothers or sisters (i.e., brothers-in-law) is negatively correlated with occupational status.

Another element of social capital is the number of resources that people in one's social network have at their disposal. The more resources a person has, the more help there is available. An example of a resource is occupational status. The status that someone has indicates to what extent one has power, information and skills. The higher the occupational status, the more help one can provide. Although the number of brothers and brothers-in-law may have a negative effect on occupational status, it is expected that the occupational status of the brothers or brothers-in-law has a positive effect on an individual's occupational status. Thus, the higher the occupational status of one's brothers and brothers-in-law, the higher one's occupational status. The following hypothesis is formulated on the basis of social capital theory: There is a positive correlation between an individual's occupational status and that of his brothers and brothers-in-law.

The Netherlands in the 19th century

Most modernization processes in The Netherlands began in the mid-19th century. Modernization processes refer, among other things, to industrialization, geographical mobility, urbanization, and the development of mass transportation (Zijdeman, 2010). These processes not only radically transformed society, but in most cases also exercised a reciprocal effect on one another.

At the beginning of the 19th century, The Netherlands had a largely agrarian economy. The majority of the Dutch population lived and worked in the countryside. Families were mostly self-reliant. All family members helped on the farm, while at times also engaging in rural industrial work to supplement their income (De Regt, 1993). Nineteenth-century social networks were small, and consisted mainly of one's family and neighbors. The society of those times had a strong local character and there were few transportation options. People often lived with their families in relatively small villages. There was little or no possibility of building a large social network. Thus, social networks in The Netherlands at the beginning of the 19th century consisted primarily of strong ties.

Dutch society at the beginning of the 19th century can be characterized as closed (Ultee, Arts & Flap, 2003) and was also, according to Brugmans (1969), divided into two classes: "the common folk and "respectable society". There was almost no middle class, and very little social mobility. The status attainment process for the most part depended on the status of the father. There were few job offers through formal channels. Available jobs were often informally divided. In small farming communities, almost everyone knew each other and there was also often a relationship between the father and the employer of his son. Therefore not only the status of the father was important but also his social ties. The influence of family was thus ever present. In addition, there were obligations and expectations. For example, if the son was not doing his job well, the father would be spoken to. There was thus a large degree of social control. This is also called the "reputation mechanism" (Zijdeman, 2010). Human capital played hardly any role at all in status attainment processes. Only children of the upper class received a secondary education and attended university. People from the lower classes typically received on-the-job training. Based on this overview of The

Netherlands in the 19th century it is expected that social capital played an important role in status attainment process, leading to the following hypothesis: There is a positive correlation between social capital and status attainment process in The Netherlands in the 19th century.

Modernization processes

Most historians date the beginning of industrialization in The Netherlands to the last quarter of the 19th century (Bras, Kok & Mandemakers, 2010). Industrialization can be defined as the process in which machines are used to expand or replace human power in the processing, manufacture, and distribution of natural resources or products (Zijdeman, 2010).

Industrialization led to a high degree of prosperity in the nation. Although The Netherlands lost its position as a distribution center, the revenue of the colonies made vital contributions to the national economy (Brugmans, 1969). Despite the resulting infusions of capital, The Netherlands was, during the first half of the 19th century, not oriented toward industrialization (Brugmans, 1969). Some historians considered the fact that The Netherlands had other income sources as one reason for this (Van Leeuwen & Maas, 1997). In addition, liberalism brought with it a new way of thinking regarding the economy (Bras et al., 2010; Brugmans, 1969), which in turn contributed to the advent of industrialization. In addition to changes in the structure of work, tasks were divided and specialization increased. The work was therefore more efficient and faster. New occupations were also created in which the skills that one learned from one's parents or within one's immediate social environment became less important than was previously the case. Industrialization also led to increased demand for skilled workers. Education became more important than social background. This is known as the trend of "ascribed to achieved" and leads to our next hypothesis: There is a negative correlation between level of industrialization and the influence of social capital on status attainment.

Another important modernization process is the emergence of mass communication, which made information accessible to a wider audience. People were therefore no longer dependent on relatives for information (Zijdeman, 2010). Through the rise of national newspapers and magazines, a wide variety of information became available to the masses. One example of such information is the existence of a job vacancy or the building of a new factory. In addition, the social network of one's father decreased in importance. Thus, the emergence of mass communication ensured that the importance of social capital as an information source decreased, leading to the following hypothesis: There is an inverse relationship between the development of mass communication and the degree of influence of social capital on status attainment.

Urbanization is the process whereby a large number of people from rural regions move to the cities. At the beginning of the 19th century, The Netherlands was already relatively urbanized compared to other European countries. The first half of the 19th century did not witness a significant increase in urbanization. With the emergence of factories in the 1870s, levels of urbanization began to increase. For workers, there was greater access to employment, basic necessities, and entertainment in the cities. For employers, there was a large pool of potential employees in the cities. Because of urbanization, the influence of the social environment on finding a job decreased. In addition, there were different ways to find a job in the urban environment, and different selection criteria applied there. All this leads to the following hypothesis: There is a negative correlation between urbanization and influence of social capital on status attainment.

Because of increased geographical mobility, people became more able to travel further for a job. Previously, the employer was often a member of the social network of the parents. In such a situation, the parents could reassure a potential employer about the capacity of their

son. As the geographical mobility increased, the distance between the parental home and the work environment also increased and it thus became less likely that the parents knew the employer. This indicates that the influence of social capital on status attainment decreased, leading to the following hypothesis: There is a negative correlation between geographical mobility and the influence of social capital on status attainment.

The train was introduced in The Netherlands in 1842. This development eventually allowed large numbers of people to travel over long distances. Developments in mass transportation led to better and cheaper transportation opportunities (Zijdeman, 2010). This gave people the opportunity to work outside of their own communities. This increased the probability of the employer not being part of the social network of the employee and his family, which rendered the reputation mechanism relatively useless (Zijdeman, 2010). This means that there is less influence of the social network on status attainment. This leads to the following hypothesis: There is a negative correlation between the development of mass transportation and the influence of social capital on status attainment.

Methods

The GENLIAS database was used to obtain data for the present research. GENLIAS consists of digitized information of marriage certificates for the years 1812-1922. The marriage certificates contain information regarding occupation, age, gender, location and year of marriage of the persons who married, and about the occupation of the parents. In the version of GENLIAS which is used in this study (GENLIAS version 2007_3), the marriage certificate of the parents is linked to that of their children based on first and last name (Bras, Kok & Mandemakers, 2010). Not all marriage certificates are linked. This is only done for marriage certificates of children whose parents married in the same province as themselves and is also limited to the following five provinces: Groningen, Overijssel, Gelderland, Limburg and Zeeland.

The present study concerns only the status acquisition of husbands. The status attainment of women is more complicated than that of men. One reason for this is that women often stop working after they get married to commit themselves to the care of children and the household (Bras, 2002). In addition, the status of women often depends on the status of their husbands. Thus, the fact that a woman does not work could be an indicator of high status. The present study is limited to the period of 1851-1890 because all modernization indicators are available for this period. This makes it possible to analyze a complete model of all the modernization processes. In addition, because this period falls in the middle of the period covered by GENLIAS database, we can assume that complete families are included in the study. After removing the cases with missing values on key variables, the dataset for the present study consisted of over 226,788 cases.

Occupational Status

Occupations are classified according to the Historical International Standard Classification of Occupations (HISCO) scale (Van Leeuwen, Maas & Miles, 2002). The HISCO classification system includes occupation codes. This system thus enables the coding and comparison of different occupations. Based on this classification, the occupations are linked to the HISCAM occupational prestige scale (Lambert et al 2006). This scale was modeled on the Cambridge Social Interaction and Stratification (CAMSIS) scale, which assumes that people who are similar in terms of social position are more likely to become friends and marry one another (Zijdeman, 2010). Values on this scale range from 1 (servant) to 99 (e.g., attorney, physician).

Table 1 provides an overview of a number of occupations and their values on the HISCAM scale.

Table 1 *Values of a few occupations on the HISCAM scale*

occupation	HISCAM
Servant	10.60
Factory worker	44.40
Farmer	50.70
Headmaster	70.40
Postmaster	77.80
Mayor	89.80
Pharmacist	97.80

The occupational status of husbands is measured at the time they married. On average, these men were 28 years old, and had a mean occupational status of 44.81. The occupational status of the brothers and brothers-in law is measured on the basis of the occupation listed on their own marriage certificates. The average occupational status of brothers of husbands was 45.55, and that of their brothers-in-law was 45.35. For both of these variables, the average value is used in the absence of brothers or brothers-in-law. This is done because the absence of brothers or brothers-in-law is not the same as having brothers or brothers-in law with very low occupational status. The occupational status of the father is used as a control variable (i.e., to control for the resources that people received from their parents). In most models of status attainment, the status of the father is an important predictor of the status of the son. Because the father has the same status effect on all his children, it is important to control for this. The occupational status of the father is measured in the present study on the basis of his occupation as indicated on the marriage certificates of his children. If different, the average occupational status is used. In the analysis, the age at time of marriage and year of marriage are also included as control variables. This is because it is possible that the age when one marries had an effect on the occupational status of a man (e.g., the older one marries, the more that person has already invested in his career). It is also important to control for the year in which one is married. This is because it is conceivable that occupational status increases over time due to changes in the structure of society. This could be due to processes of modernization. Table 2 presents an overview of the descriptive variables.

Number of brothers / brothers-in law

The number of brothers and brothers-in law is obtained by linking everyone with the same father on the basis of the document number of the father. In this way the siblings and the in-laws are traced. The people who are not married are not included in this dataset. But the vast majority of people in the 19th century did marry (the percentage is estimated to be 86%) (Ekamper et al, 2003). The average number of brothers of those in the database is 1.37. The average number of brothers-in-law is 1.43 (Table 2).

Table 2 *Descriptive table*

	Mean	Sd	Min	Max
Occupational Status	44.81	12.82	10.60	99.00
Number of brothers	1.37	1.29	0	10.00
Number of sisters/brothers in law	1.43	1.33	0	11.00
Status of brothers	45.55	9.75	10.60	99.00
Status of brothers-in-law	45.35	8.64	10.60	99.00
Occupational status of the father	46.05	10.75	10.60	99.00
Age of marriage	28.11	5.41	16	69
Year of marriage	1872.55	11.050	1851	1890
<u>Indicators modernization:</u>				
<i>Industrialization:</i>				
Number of steam machines per 1000 inhabitants:	1.36	2.27	0	24.53
<i>Urbanization:</i>				
Population x 1000	7.88	10.07	0.19	56.41
<i>Geographical mobility:</i>				
Number of incoming migrants x 1000 inhabitants	49.38	31.77	0	566.06
<i>Mass communication:</i>				
Post office (yes/no)	0.33		0	1
<i>Mass transport:</i>				
Train station (yes/no)	0.30		0	1

Modernization processes

The measurements of the various modernization variables are for the most part derived from Zijdemans (2010). Industrialization is the process in which machines are used to expand or replace human power in the processing, manufacture or distribution of natural resources or products derived therefrom (Zijdemans, 2010). This is measured in the present study in terms of the number of steam machines in the place and year of marriage (based in turn on the assumption that married couples generally remained in the town where they married). Thus, site of marriage is the most relevant context and therefore the best approach for measuring effects of modernization. The data on the number of steam machines are available up to 1890 (Zijdemans, 2010). On the average there were about 16 steam machines present in one place during the period 1851-1890.

Mass communication is the process through which technological knowledge and information became available to large numbers of persons within a given population. For the 19th-century Netherlands, this refers mainly to the rise of national newspapers and magazines. National newspapers were an important vehicle of mass communication during that period. To measure the development of mass communication, data on the presence of a post office in the place of marriage during the year in which one married was used. The reason for this is that the post office was the place where national newspapers and magazines were sold during that period. In the post office there was also access to a telegraph, a medium that made long-distance communication possible. The data up to 1879 are from "Reports to the King on the basis of the Department of Posts and Telegraphs" (Zijdemans, 2010). The data from 1880 are from the annual reports of the Dutch postal service.

Urbanization refers to the number of inhabitants in a municipality. During the course of the 19th century, the number and size of cities increased. Many people moved from the countryside to the city. The data on the number of inhabitants in a given municipality comes from the Historical Ecological Database (HED) and the Historical Database of Dutch

Municipalities. The smallest municipality in the database has 210 inhabitants, and the largest has 56,413. The average size is about 7,875 and the standard deviation is 10,071.

The indicator used for mass transportation is whether a train was present in the place and year of marriage. During the period under study means of transportation arose that made it easier and cheaper to travel long distances. This made mass transportation possible. The data are taken from the website <http://www.stationsweb.nl/>. This website gives the year of opening and closing of all stations in The Netherlands. These data reveal the presence of a train station in 30% of cases.

Mobility refers to migration flows. The indicator for geographical mobility is the number of people who migrated during the year of marriage to the municipality of marriage. These data are taken from the Historical Ecological Database (HED) and the Historical Database of Dutch Municipalities (HDNG).

Data obtained in this study were analyzed with multiple linear regression with interaction variables. Four models are used for the analysis. Centered variables are used in all four models in order to facilitate interpretation. The data have a nested structure. Sons and brothers are nested within families. Such a nested structure makes the data suitable for multilevel analysis, a procedure which ensures statistical independence.

Results

Number of brothers/brothers-in-law and occupational status of brothers/brothers-in-law

Although social capital theory predicts a positive correlation between the numbers of ties and acquired occupational status, Model 1 in Table 3 shows that the number of siblings has a negative effect on the occupational status of the husband. This is consistent with the hypothesis derived from the resource dilution theory and with the findings of previous studies. The effect is stronger for brothers than sisters. This may be explained by the fact that parents transfer resources to their sons more often than they do to their daughters. Sons were educated to be providers for their families. Therefore, brothers are competitors for limited resources in a way that sisters are not.

In Model 2, the occupational status of the brothers and brothers-in-law is added to Model 1. The number of brother in-laws is equal to the number of sisters, since only married people are included in the dataset. Social capital theory predicts that the occupational status of the brother and brothers-in-law has a positive influence on the occupational status of the husband. Model 2 is displayed in Table 3. Model 2 shows that both the occupational status of the brothers and the occupational status of the in-laws have a positive effect on the occupational status of the husband. This is consistent with social capital theory and the above-mentioned hypothesis. There is a higher effect of the occupational status of the brother than of brothers-in-law on the occupational status of the husband.

Table 3 *Models 1 and 2: Numbers of brothers/ brothers-in-law and status of brothers/brothers-in-law*

	Model 1		Model 2	
	B	SE B	B	SE B
Intercept	44.744	.023	44.629	.022
Number of brothers	-.389***	.018	-.073***	.017
Number of brothers-in-law	-.233***	.018	-.101***	.017
Status father	.615***	.002	.426***	
Age at time of marriage	.086***	.004	.081***	.004
Year of marriage	.056***	.002	.038***	.002
Status of brothers			.358***	.003
Status of brothers-in-law			.181***	.003
Model 1: $R^2 = .275$ Model 2: $R^2 = .358$ *** $p < .001$ ** $p < .01$ * $p < .05$				

With the introduction of the status effect, the effect of the number of brothers and brothers-in-law decreased. This is an indication that families with more children have a lower status. By controlling for status effect, a large part of the negative effect of the number of siblings disappears. Within the various groups, such as families with low status, the inverse relationship between status of husband and number of siblings still holds.

But this correlation is less strong than was previously found in the model without the status effect (model 1). The strongest effect in the model is that of the occupational status of the father, but with the addition of the status of brothers and brothers-in-law, this effect decreases somewhat. The addition of the occupational status of the brothers and brothers-in-law to the model increased the explained variance (from .275 to .358).

Modernization processes

The influence of social capital is context-dependent. The expectation is that the impact of social capital on status attainment decreases due to modernization. In Model 3 of Table 4, the various modernization processes are added to the model. The results for the various modernization processes indicate that degree of “modernization” of the place of marriage is positively correlated with occupational status of the husband. This finding provides supportive evidence that the structure of society changed with the onset of modernization. In addition, it is important to note that the effects are relatively small. Adding the modernization indicators results in a small increase in the explained variance.

In Model 4 of Table 4, the effects of various modernization processes on the relationship between social capital and status attainment are examined by means of interaction variables. What is particularly striking about these results is that the interaction between the processes of modernization and the status of the brothers yield results that differ from those obtained from the interactions between the processes of modernization and the status of in-laws. The results of the interactions with the status of the brothers are less ambiguous and more understandable. Therefore, the focus will be on these five results. The expectation was that the various modernization processes would show a decline in the influence of social capital on status attainment. In three cases, this is indeed the case: the number of residents in the town where one is married and the effect of the status of brothers on the status of the

husband; the number of immigrants and the effect of the status of brothers on the status of the husband; and the number of steam machines per 1000 population and the effect of the status of the brothers on the status of the husband.

Table 4 *Models 3 and 4: Modernization processes and interaction variables*

	Model 3		Model 4	
	B	SE B	B	SE B
Intercept	43.104	.044	43.070	.044
Number of brothers	-.057**	.017	-.048**	.017
Number of brothers-in-law	-.060***	.016	-.057**	.016
Status of brothers	.339***	.003	.375***	.005
Status of brothers-in-law	.162***	.003	.160***	.005
Status of father	.412***	.002	.413***	.002
Age at time of marriage	.114***	.004	.113***	.004
Year of marriage	.011*	.002	.011***	.002
<i>Modernization processes:</i>				
Population municipality (x1000)	.083***	.003	.095***	.003
Incoming migrants (x10000)	.029***	.007	.003***	.001
Number of steam machines (x1000)	.120***	.011	.123***	.011
Presence of post office	1.733***	.062	1.648***	.063
Presence of railway station	.034	.059	.040	.059
<i>Interaction variables:</i>				
Residents*Status of brothers			-.003***	<.0001
Migrants*Status of brothers			-.005***	.001
Steam*Status of brothers			-.004**	.007
Post*Status of brothers			.037***	.007
Train*Status of brothers			-.001	.006
Residents*Status of brothers-in-law			-.001**	<.0001
Migrants*Status of brothers-in-law			.002**	.001
Steam machines*Status of brothers-in-law			.002	.001
Post*Status of brothers-in-law			.004	.008
Train*Status of brothers-in-law			-.016*	.007
Model 3: $R^2 = .372$ Model 4: $R^2 = .373$ *** $p < .001$ ** $p < .01$ * $p < .05$				

The interaction variable between the status of the brothers and the presence of a railway station did not yield a significant result. A possible explanation for this is the fact that most stations were opened relatively late in the study period. Finally, the interaction variable between the status of the brothers and the presence of a post office has a positive effect. A

possible explanation is the presence of the telegraph in post offices (which, while not a form of mass communication, facilitates long-distance communication).

Conclusion

In this study, the relationship between social capital and occupational status in the 19th century is examined. Based on the results of this study, some interesting conclusions can be drawn. First, the number of siblings has a negative impact on the occupational status of the husband. Number of siblings is negatively correlated with occupational status. This finding is contrary to the expectations of the social capital theory, which state that a greater number of social ties contribute to more resources. But this link is often found in the literature, and it is explained by the resource dilution theory. Siblings compete with each other for the limited resources of their parents. The influence of the number of siblings decreases when the status of brothers and brothers-in-law are taken into account. One possible explanation for this phenomenon is that families with a lower social status have more children.

The study shows a positive influence of the occupational status of brothers and brothers-in-law on the occupational status of the married man. This finding is consistent with social capital theory. When one's occupational status is higher, one has more resources and is thus better able to provide help (e.g., in finding a job). In the present study, the correlation was stronger for brothers than for brothers-in-law. A possible explanation for this finding has to do with a difference in the willingness to help. Brothers may be more willing to help their brothers than their brothers-in-law.

The influence of the processes of modernization on the relationship between social capital and status attainment is examined through interaction variables. The expectation was that the various processes of modernization would contribute to reducing the impact of social capital on status attainment. This proved to be the case in three instances. The size of the town of marriage (an indicator of urbanization) proved to exercise a negative influence on the relationship between the occupational status of the brothers and the occupational status of the married man. In larger towns, there are larger numbers of potential workers and employers, and more and different selection mechanisms may play a role in both the job search and the search for employees. This results in the social class of potential employees becoming less important. The number of immigrants in the year and place of marriage (an indicator of geographical mobility) also has a negative impact on the relationship between the occupational status of the brothers and the husband. One explanation for this relationship is that the increase in geographical mobility implies that people more often work in a different social environment, and for an employer outside the social network of their relatives. Finally, the number of steam machines in the town where the marriage took place (an indicator of industrialization) showed a negative influence on the relationship between the occupational status of the brothers and the occupational status of the husband. Industrialization led to a transformation of employer-employee relationships. Specifically, it became more important to hire employees who were qualified to carry out their tasks. Education therefore became an important selection mechanism, and the importance of social background decreased. The findings for these three processes of modernization are thus consistent with one of the hypotheses of this study. For two other processes of modernization, no evidence was found. The presence of a railway station (an indicator of mass transportation) did not affect the relationship between social capital and status attainment. A possible explanation is that most stations in this study period were opened relatively late. The presence of a post office in the place of marriage proved to be a positive influence on the relationship between the occupational status of the brothers and the occupational status of the husband. One possible

explanation is that not only mass print media were available at the post office (i.e., national newspapers), but also that the telegraph was present there. The telegraph was a medium through which people could send and receive messages or information over long distances. It is possible that brothers who lived far from one another used the telegraph to communicate.

Discussion

Like all research, this study has some limitations. First, it is impossible to make statements about the causality of the relationships that were found. The relationship between the occupational status of the brothers and the occupational status of the married man can be explained in several ways. Is it true that brothers really help in finding a job with a higher status, or does the fraternal relationship simply reflect the influence of the father? The statistical analyses control for the occupational status of the father. Yet it is doubtful whether occupational status covers all paternal influence. Perhaps the relationship found in this study is a representation of the value system that the father transmitted to his children. The relationship between the status of the husband and the status of the in-laws is also ambiguous. Does the brother-in-law help the husband to get a job with high status or does the latter help his sister find a husband with higher status?

A second shortcoming in this study is the measurement of social capital, which was operationalized in terms of the number of brothers and brothers-in-law and the resources brothers and brothers-in-law provided access to. This is the best possible approach with the available data. But it is not comparable to measures of social capital in present-day research into the present. Although it is plausible that siblings and their partners fulfilled a central role in the social networks in the 19th century, a measurement in which other social ties are considered would be ideal. This would also make it possible to account for other elements of social capital. As Granovetter (1973) has shown, people most often find a job through weak ties. In this study, the measurement of social capital was limited to strong ties. A study involving a distinction between these types of ties would be a contribution to the research on the 19th century.

But despite these limitations, this study contributes to the existing research by providing an examination of both social capital theory and the influence of brothers and brothers-in-law on the occupational status of the husband. A large database of marriage certificates was used, thus increasing the validity of the correlations reported here. Bras, Kok en Mandemakers (2010) found a negative correlation between the number of siblings and status attainment in The Netherlands in the 19th century. This same relationship was found in the present study. The influence of the number of siblings on status attainment proved to be only part of the story. When the occupational status of brothers and brothers-in-law is higher, the occupational status of the husband also tends to be higher. This study has also shown that the relationship between social capital and status attainment is determined by context. The relationship between social capital and status attainment appeared to decrease in the context of modernization. In broad terms, the contribution of this study is twofold: (1) It applies social capital theory to the study of The Netherlands in the 19th century and (2) it demonstrates, by reference to modernization processes, the context-related nature of the relationship between social capital and status attainment.

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