

Journ@l Electronique d'Histoire des Probabilités et de la Statistique

Electronic Journ@l for History of Probability and Statistics

Vol 6, n°2; Décembre/December 2010

www.jehps.net

# German *Staatenkunde* or French 'Numbers and Equations': Statistics and the Demise of the Dutch Statistical Society

## Ida STAMHUIS<sup>1</sup>

#### Abstract

Simon Vissering (1818-1888), the founder of the Dutch Statistical Society, stressed two main geographical roots of statistics. The French emphasised 'numbers and equations', the Germans Staatenkunde, i.e. systematic knowledge of nation states. In this paper I will first discuss two Dutch representatives of these different approaches of statistics: in addition to the lawyer Vissering, the mathematician Rehuel Lobatto (1797-1866). Then I go into the history of the Dutch statistical society, its composition and activities. I will demonstrate the dominance of the German approach and the almost complete absence of the French approach. Comparison with the English situation indicates that this can, to a limited extent, explain the fact that from 1891 there was no longer a Dutch statistical society. The dominance of the German Staatenkunde in the early years of statistics was an international phenomenon and it is not always recognized that it influenced statistical developments for a long time.

## I Introduction

In 1934 the German Wilhelm Henninger wrote a paper in which he discussed national statistical societies in Europe and elsewhere [Henninger, 1934]. These societies were established over a period of more than a century. He started with the societies in his home country, the oldest of which he mentioned was founded in Württemberg in 1818. This was the *Society for Systematic Knowledge of the Fatherland* (Verein für Vaterlandskunde) The oldest society in Germany with 'statistics' in its name was the

<sup>&</sup>lt;sup>1</sup> Section for History of Science, Faculty of Sciences, Free University Amsterdam, The Netherlands / Department of Science Studies, Faculty of Science, Aarhus University, Denmark. Email: <u>i.h.stamhuis@vu.nl</u>

*Statistical Society for the Kingdom of Sachsen* (Statistischen Verein für das Köningreich Sachsen), established in 1831. Then he turned his attention to France where the Statistical Society of Paris (Société de Statistique de Paris; SSP) was established in 1860. He also discussed England: the London, later Royal, Statistical Society dated from 1834, whereas in Manchester a statistical society had already been formed in 1833. Switzerland, Sweden, Finland, Hungary and Czechoslovakia were also mentioned. Various countries outside Europe also established statistical societies, the USA as early as 1839. Henninger also mentioned societies in Mexico, Brazil, Japan, India and Egypt. Some countries only founded national statistical societies in the early years of the twentieth century. The latest foundation in Europe that was mentioned was the society of Czechoslovakia, established in 1928 and outside Europe that of India, established in 1933.

In this listing he also included The Netherlands, where he reported a Statistical Society had been established in 1858. In 1884 that society had even established its own national statistical institute that had to compensate for the absence of proper national official statistics. Then, however, Henninger had to conclude: "Today a statistical society no longer exists in Holland" [Henninger, 1934, p.191: "Heute besteht eine Statistische Gesellschaft in Holland nicht mehr"]. He apparently didn't know how this had happened. It must have amazed him, because he knew that some Dutch statisticians were quite famous in the international statistical arena [Henninger, 1934, p.186]. He must also have known that it was Dutch statisticians who, in 1885, had been in the forefront of establishing the International Statistical Institute (ISI), the international statistical organization. The Dutch had even made sure that the Permanent Office of this Statistical Institute was established in the Netherlands; it took up its headquarters in the building of the Dutch national official statistical bureau, where it is still located. It seemed that statistics was firmly established in The Netherlands. Henninger will therefore have expected that in the Netherlands, even more than in other countries, statisticians had organized themselves in a sizable and influential statistical society.

In a certain sense this was true. However this situation lasted until only 1892 and then this society decided to be no longer involved in statistics. This raises the question of how this could happen. It has to be realised that from the outset statistics was not an unambiguously circumscribed discipline. The oldest statistical society in Germany mentioned by Henninger was the 'Verein für Vaterlandskunde', the Society for the Systematic Knowledge of the Fatherland. It seems that statistics was identified with 'systematic knowledge of the native country', a rather broad and vague description. In England in 1833, on the occasion of the establishment of a statistics section of the British Association for the Advancement of Science, it was stressed that the new section had to restrict itself to "matters of fact ... with numerical results" [Cullen, 1975, p. 79].

That at that time as well as later on different ideas about the content of statistics existed alongside each other in the Netherlands can be illustrated by looking at the membership of the Dutch Royal Academy of Sciences [Randeraad, 2002, p. 117]. In 1827, in the period when Belgium and the Netherlands were one nation, the internationally famous Belgian statistician Adolphe Quetelet (1796-1874) became a member of the First Class (Section) of the society, the one that dealt with mathematics and the natural sciences. In addition, the professor of statistics H.W. Tydeman was a member of the Second Class, the one dedicated to Dutch literature and history, and another professor of statistics, C.A. den Tex, belonged to Third Class, the one dedicated to the classics.

According to the professor of statistics and later founder of the Dutch statistical society, Simon Vissering (1818-1888), statistics was 'systematic knowledge of a nation state', which was of mainly German origin, and also 'numbers and equations', which was mainly French, approaches that were apparently two sides of the same coin.

As a result of the location and the size of The Netherlands, the country has always been strongly influenced by neighboring countries. At different times either French or German or English influence was dominant, but at times other countries were also influential. It also happened that one country was influential in certain groups of society whereas influences from other countries were at the same time affecting other Dutch groups. From Vissering's account we may assume that developments in France and Germany made their mark on the development of statistics in The Netherlands.

According to the historian and philosopher Hacking, each country became statistical in its own way in the course of the nineteenth century. He compares the culture of atomism, individualism and liberalism in western Europe – he refers to France and England – with the German culture of holism, collectivism and conservatism. He states that both put their mark on the statistical theory and practice of these countries. If we accept this, statistics in the Netherlands becomes very interesting because there the two statistical approaches confronted each other. What was the result of that confrontation? [Hacking 1990, 3-7].

Nowadays the mathematical content of statistics is dominant. At first sight it is easier to recognize modern statistics in the 'numbers and equations' approach than in the *Staatenkunde* approach. However, this latter approach was dominant in the Dutch Statistical Society in 1892 and a more probabilistic approach was entirely absent. It is therefore natural to assume that this is what caused the non-viability of the society in 1891, or at least contributed to it. The possible connection between the rise and defeat of the Dutch statistical society and the multilayered content of statistics is the topic of this paper.

I will first briefly introduce representatives of the two different approaches of statistics: the mathematician Rehuel Lobatto (1797-1866) as a representative of the French 'numbers and equations' approach and Simon Vissering, already mentioned, as a representative of the German *Staatenkunde* approach. Then the establishment of the Dutch Statistical Society will be sketched and attention will be paid to its composition and its most important initiatives. I will then focus on the statistical institute founded in 1884 to which Henninger referred. Then the chain of events that resulted in the demise of the statistical society will be discussed. Finally I will explain why, in 1934, Henninger may nevertheless have gained the impression that statistics was a strong field in The Netherlands.

In the conclusion I will return to the question of the relationship of the different approaches to statistics and the demise of the Dutch statistical society. I will conclude that there is no clear-cut answer. I will end with the suggestion that not only in The Netherlands but also in other countries the German approach was dominant for a long time.

### 2 Lobatto's 'numbers and equations'

"I may not provide statistical information that is unreliable." [Stamhuis, 2002a, 71-78, quotation on p.71: "Ik mag geenerlei statistiek meêdelen, dan waarop men staat maken kan."] This was the reaction of the mathematician Lobatto, when, around 1850, it became clear that the government was no longer willing to support the publication of the

Jaarboekje van Lobatto (Lobatto's Yearbook), which had been published since 1826, and which included a statistical section containing and discussing population figures. For the government minister involved "new ideas on the composition of this Yearbook" [Stamhuis, 2002a, p. 71: "Nieuwe inzigten over de inrigting van dit Jaarboekje"] had allegedly played a decisive role. In 1851 publication of an official statistical yearbook was started, in which Lobatto was not involved and in which these 'new ideas' were taken into account. This sequence of events marks a turning point in government statistics around 1850 in which Lobatto's approach had to taste defeat.

To understand Lobatto's approach it is illuminating to consider his background. Lobatto's mathematical interest and ability were noticed even as a child. He attended lectures by the professor of mathematics and physics, J.H. van Swinden. In 1812, when he was only fifteen years old, Van Swinden described him as a "first class genius" [Stamhuis, 2002a, p. 72: "eerste klas genie"] and four years later as the promising young student of the mathematical sciences. As the financial position of his family did not allow for his further academic study, in 1816 he was given, against his wishes, a lowly job at the Ministry of Home Affairs. Shortly afterwards he wrote to his Belgian friend, Ouetelet, who was to become famous later in life, that he would much rather become a teacher: "I abhor, I detest the bureaucratic life more and more and I love the sciences too much not to always foster the ambition to have a career in public teaching" [Stamhuis, 2002a, p. 72: "j'abhorre, je déteste de plus en plus la vie bureaucratique et j'aime trop les sciences pour ne pas ambitionner toujours la carrière de l'instruction publique"]. He tried repeatedly, and for a long time unsuccessfully, to find a position as a mathematics teacher. The reason why he did not succeed was probably not that his mathematical capacities were doubted, but that he was a Jew.

From 1823 on and until his death he published articles and books on mathematics. In 1834 he received public recognition for his mathematical work: the University of Groningen awarded him an honorary doctorate in mathematics and the natural sciences. The ultimate reward came in 1842 when he was appointed professor of Higher Mathematics at the recently founded Royal Academy in Delft. This appointment was entirely to his satisfaction: "I am now in a scientific position that satisfies all my wishes" [Stamhuis, 2002a, p. 74: "Je me vois maintenant placé dans une position scientifique qui remplit tous mes voeux"].

Until he became a professor, he tried to meet his financial needs and to give scope to his intellectual aspirations in various ways. From 1830 onwards he was involved in the development of life annuities and other forms of life insurance, in which mortality data play an essential role [Stamhuis, 1988]. In 1830 he published a book discussing the importance and the organisation of life insurance companies and the method of calculating premiums [Lobatto, 1830]. In 1832 he was appointed government advisor in matters concerning life insurance. In the same year he became the mathematical advisor of the life insurance company *Hollandsche Sociëteit van Leevensverzekeringen* (Dutch Society of Life Insurances). He continued to hold both these advisory positions until his death in 1866.

Lobatto pointed to the usefulness of statistical data for the determination of correct life insurance premiums. He was not the first Dutchman who had tried to do this: Johan de Witt, Nicolaas Struyck and Willem Kersseboom had preceded him. They belonged to the tradition of political arithmetic, which existed in the Netherlands, as in England, and in which one started reasoning from quantitative information, usually

Journ@l électronique d'Histoire des Probabilités et de la Statistique/ Electronic Journal for History of Probability and Statistics . Vol.6, n°2. Décembre/December 2010

population figures, such as birth and death rates. It was possible to derive from these figures the possible size of an army, or the size of the total population. In his book *Political Arithmetic* the Englishmen William Petty had calculated the capital loss incurred in the Great Fire of London in 1666 [Petty, 1690].

Lobatto developed statistical activities which contributed to the improvement of both his financial and intellectual position. In 1824 he had made plans for the publication of an official yearbook, in imitation of the French Annuaire, with which several famous French mathematicians were associated, such as P.S. de Laplace, A.M. Legendre and J.L. de Lagrange. The Dutch version was to contain figures on "the movements of the population, of deaths, marriages, births, with the aim of obtaining an exact foundation for the calculation of life annuities and tontines" [Stamhuis, 2002a, p. 76: "les mouvements de la population, des décès, marriages, naissances, afin d'obtenir une fois une base exacte pour le calcul des rentes viagères et tontines"]. These efforts resulted in the publication of the Jaarboekje van Lobatto (Lobatto's Yearbook) which first appeared in 1826 "on the Order of His Majesty the King" ("op last van Z.M. den Koning"). It was paid for and sanctioned by the government. It contained a statistical section. Tables with population figures per city and per province, birth and death rates per sex, per month and per province, numbers of legitimate and illegitimate births, as well as numbers of marriages were included. Lobatto looked for patterns amongst these numbers: a constant ratio between birth and population numbers and between births of boys and girls. Every year Lobatto included a mortality table.

Lobatto wrote two articles that dealt with the application of probability theory to statistical data; in 1860 a scientific article in the journal of the Wiskundig genootschap (the Dutch Mathematical Society), and much earlier, in 1829, in his yearbook, an article for a wider audience [Lobatto, 1829; Lobatto, 1860]. Both articles built on the work of the French mathematicians J.B.J. Fourier and S.D. Poisson, to which Lobatto added elements of his own. The article of 1829 discussed the relation between the real value and the mean of a series of measurements of a variable, as well as the 'precision of the mean', a criterion for the width of the corresponding normal curve and inversely proportional to the standard deviation. The article of 1860 contained a mathematical derivation of the probability distribution of the mean of a variable from the distributions of the individual observations, especially for the case of normal distributions. The results were applied to the ratio between mortality and the population size and to the ratio between the number of births and the population size. Lobatto expected that probability theory could enrich statistics, and more particularly that it could improve the reliability of statistical data. He kept abreast of French developments in this area, and incorporated the latest results in an article for the Dutch mathematical world.

Lobatto became involved in government statistics. In the first half of the nineteenth century, official statistics became institutionalized in The Netherlands, just as in other European countries [Hacking, 1990]. In 1826 a Statistical Office was founded at the Ministry of Home Affairs and a Statistical Committee was established. The most important activity of the committee was the initiative, in 1828, to organise a census. Lobatto exerted a decisive influence, and as a result he became much more directly involved in official statistics. In his position as the editor of the Yearbook he sent a letter to the Statistical Committee in which he wrote that there existed: "uncertainty about the only and true foundation of all statistical calculations, that is the exact size of the population at the beginning of every year" [Stamhuis, 2002a: p.77: "onzekerheid bestaat omtrent den eenigen en waren grondslag van alle statisticshe berekeningen, dat is het nauwkeurig bedrag der bevolking bij den aanvang van elk jaar"]. No general census had

ever been held, and the precise size of the population was therefore unknown. Different official counts sometimes differed considerably. Lobatto felt that the numbers that he included in his Yearbook were not precise enough. He therefore proposed that a census should be held throughout the entire kingdom and in accordance with clear rules. Such a census would have to be repeated every ten years. Lobatto's ideas were adopted almost unaltered, and in 1828 it was decided that a general census would be held in 1829. Since then the census has been repeated every ten years.

Lobatto was asked to prepare a report for the minister concerning the best way to implement such a census. Lobatto's reaction to Quetelet was: "(between us) I am glad, for I will fulfil this task conscientiously, because of the great importance I ascribe to the success of this useful measure" [Stamhuis, 2002a, p. 77: "Je n'en suis pas fâché (entre nous), car je m'en acquitterai avec conscience à cause du grand intéret que je porte au succès de cette mesure utile"].

At the recommendation of the Committee of Statistics, Lobatto was appointed secretary of the committee in 1831. The committee members had great expectations of his ability. In a letter to the minister they characterized him as "a man who is continually engaged in mathematical, statistical and arithmetical subjects, and who has an exceptional talent in this respect" [Stamhuis, 2002a, 78-79: "een man die zich onafgebroken met mathematische, statistieke en rekenkundige onderwerpen bezig houdt, en daarvoor een eigen en bijzonder talent bezit"]. However, after 1830, as a result of the separation of Belgium from the Netherlands, neither the Statistical Committee nor the Statistical Office initiated any further activities.

From the preceding account, both Lobatto's involvement in, and his influence on, the statistical activities of the Dutch government during the years around 1830 are obvious. He developed his activities in a way that was closely in line with his mathematical interests. Lobatto's involvement in statistics was in the tradition of political arithmetic and probability theory. His statistical practice consisted of 'numbers and equations'. Through his efforts to promote statistics, he also came into contact with the 'Statistical Movement', in which the dominant opinion was that statistics was *Staatenkunde*. However for the time being until 1850, he was able to influence government statistics by his 'numbers and equations' approach.

### **3** Vissering's 'knowledge of state power'

The 'Statistical Movement' developed as a result of the statistical lectures given at law faculties in Dutch universities. These lectures had first been given in Leyden in 1802 by Adriaan Kluit, who was succeeded by H.W. Tydeman, and the initiative soon spread to the other Dutch universities [Stamhuis, 2002b]. C.A. den Tex, mentioned previously, taught statistics in Amsterdam. A group of lawyers who had attended these lectures became convinced of the significance of the subject. They dedicated themselves to the advancement of statistics.

Simon Vissering (1818-1888) was one of the leaders of this 'Statistical Movement' [Stamhuis, 2002a; 78-87]. He studied literature as well as law. According to his friend and obituarist, he studied literature "because he was inclined towards it" [Stamhuis, 2002a, p. 79: "omdat zijn hart daarheen trok"], and law because of the perspectives it offered for a career. Entirely in line with his wide interests, he was awarded two doctorates in 1842, one in literature and one in law. In 1850 he was appointed professor of political economy, statistics and political history at the University of Leiden. From 1850 to 1879 he offered lectures in statistics.

Vissering expressed his ideas on statistics in his lectures and in a number of articles. In the lectures he formulated the concept of statistics in the following way: "Statistics is the science of the forces of nature and of human labour which work in a given circle of society, of the results of these activities for society and of the permanent phenomena that are revealed in them. Or: statistics is the knowledge of that which exists and works in society." [Stamhuis, 2002a, p. 81: "Statistiek is de wetenschap van de krachten der natuur en van den menschelijken arbeid die in een gegeven maatschappelijken kring werkzaam zijn, van de resultaten van hare werking voor de statistiek is de kennis van hetgeen in de maatschappij bestaat en werkt"]. He added that statistics should restrict itself to the phenomena in society that concern people. This indicated its boundaries.

He distinguished between two main views on the content of statistics. The German idea was that statistics is Staatenkunde. He mentioned the names of G. Achenwall and L. Schlözer. According to the second view, especially advocated by the French, statistics was "an arithmetical formula of social phenomena". He mentioned the names of Moreau de Joanes, Dufau and Guerri. "Some want numbers, others want knowledge of the forces in the state." Vissering pointed to the original meaning of the term statistics in the eighteenth century, which was the "knowledge of all the sciences concerning the state", but the meaning had slowly changed and the science of statistics now studied the population. He therefore found the German definition too 'restricted'. However, this did not imply that his view of statistics was similar to Lobatto's, for his comment on the French definition was: "statistics does not only consist of numbers. The aim of statistics is much higher and loftier, and therefore our definition is better, if not the best" [Stamhuis, 2002a, p. 81: "de kennis van dezen of genen staat"; "een rekenkunstige formule van maatschappelijke verschijnselen"; "De één wil cijfers, de ander kennis der staatskrachten."; "kennis van alle staatswetenschappen"; "de statistiek bestaat niet alleen uit cijfers. Het doel der statistiek is veel hooger en verhevener, en daarom is onze definitie veel beter zoo niet de beste"].

In 1849 Vissering had expressed himself about the role of numbers in statistics as follows: "Statistics is one of the most positive sciences, its fundamentals are numbers; its first part consists in adding and subtracting, its second part in equations; only after battling your way through these barren areas do you arrive in pleasant and fertile terrain" [Stamhuis, 2002a, p. 81: "De statistiek is eene der meest positieve wetenschappen, hare beginselen zijn cijfers; hare eerste deel bestaat uit optellen en aftrekken, hare tweede uit aequaties: eerst wanneer gij deze dorre streken zijt doorgeworsteld, komt ge op aangenaam en vruchtbaar terrein"]. He not only characterised numerical data as barren and unpleasant, he also warned against the use of the arithmetic mean. A mean can be useful, but in Vissering's opinion it was improper to determine the mean lifespan of an entire population, because one "should take into account the distinction between the higher and the lower classes" [Stamhuis, 2002a, p. 81-82: "de onderscheiding van hoogere en lagere standen (...) in aanmerking zou moeten nemen"]. The effect of numerical information was social levelling, which Vissering apparently considered undesirable.

Vissering wrote that the basis of a useful statistic consisted of numbers or facts. After the figures had been collected, they had to be processed and ordered. The scientist could visualise the numbers with the help of tables, maps and graphs. Vissering referred to Quetelet's publication *Sur l'homme*, in which these options had been applied [Quetelet, 1835]. Once the numbers were ordered and put into graphic form, they had to

be interpreted and applied. This was the final aim of statistics, although it no longer formed part of statistics: "The politician has to build on the foundation that has been obtained" [Stamhuis, 2002a, p. 82: "De staatsman moet verder opbouwen op den verkregen grondslag"].

Vissering also stated that the aim of statistics was threefold. In 'demonstrative statistics' one was satisfied with systematically enumerating and describing the properties of a nation state. In 'comparative statistics' a nation state was compared with other states or with the same state in a different period. Thirdly there was 'philosophical statistics', or, as the French called it, 'moral statistics', or the 'theory of probabilities'. There the aim was to find laws. Population statistics belonged to this category. Quetelet had especially been engaged in this last category of statistics.

Because a state or a society can be viewed as a whole the first two aims of statistics can be connected to the German collectivistic and holistic view of society. In the third the individual, atomistic view of society can be discerned. Laws were considered a product of the will of individuals. This is probably the reason why the Germans were very reluctant to speak of 'laws', or at least they considered them to be facts about culture, not distillations of individual behaviour [Hacking 1990, 37-40].

In his Schets voor eene Statistiek van het Koningrijk der Nederlanden (Sketch for a Statistics of the Kingdom of The Netherlands), the appendix to an article of 1849, Vissering distinguished four main topics in a statistical description of The Netherlands [Vissering, 1849, pp. 23-33]. First he mentioned the territory: the climatological characteristics, a description of the soil and its minerals, and of the plant and animal kingdom. Secondly he mentioned the political aspects, in which section belonged a discussion of the social classes, as well as a discussion of the crown and the government, defence, finances and the relation between state and church, education and industry. In the third place he mentioned the *population*, and remarked that its treatment may be preceded by observations about the origin, composition and character of the people. Apparently he doubted whether this topic belonged to a statistical description. In a treatment of the population, not only figures of births, deaths and public health had to be discussed, but also the religious, moral and intellectual development of the population. Again Vissering suggested a preliminary subject of which he was unsure whether it belonged to statistics: "General national virtues and vices" [Stamhuis, 2002a, p. 83: "Algemeene nationale deugden en gebreken"] Finally, the national assets should be discussed. Vissering was thinking of a treatment of the material wealth, including prosperity and poverty, as well as at a treatment of the various forms of industry.

From this classification, it is apparent how wide Vissering's notion of statistics was and how minor the role he ascribed to numbers. Around 1850 Vissering's opinion was that numbers had to play an essential, albeit minor, role in a statistical description.

In the course of time there was a shift in Vissering's ideas. In his article of 1875, *Handleiding tot het statistisch onderzoek* (Manual of statistical research), Vissering compared the method of statistics with that of astronomy and meteorology [Vissering, 1875]. Just as in statistics, phenomena have to be observed and classified in these sciences, as no experiments can be performed. By registering, ordering, ranking and comparing facts, *laws of cause and effect* can be discovered. In this publication Vissering paid special attention to the significance of numbers and the manipulation of numbers. He was, however, still not of the opinion that statistics should consist entirely of numerical information. Certain facts and phenomena, like the moral development of a nation, belong to a statistical description, he claimed, although they cannot entirely be expressed by numbers.

Vissering maintained that numbers were the main component of statistics. He stated that numbers are the most positive and concrete way in which facts can be expressed, and that statistics consists of knowledge of facts. Statistics should bring clarity to our ideas, and for that purpose numbers can be very useful. Subsequently, he extensively discussed the usefulness of percentages and averages. He devoted almost half of his 30-page article to a discussion of the manipulation of numerical data. This emphasis can in part be attributed to the series in which the article was published: *Manual for scientific observations* (Handleiding tot wetenschappelijke waarnemingen). But it also shows that by 1875 Vissering's ideas on the role of numbers in statistics had developed further.

He ended this essay with a description of the subjects which should form part of a statistical treatment. Just as in the sketch of 1849, it is noticeable that he thought that in a genuine statistical description numbers should play only a minor role. Vissering still held that many subjects which should form part of a statistical description were not suitable for a numerical treatment: "A representation of the level of the intellectual and moral development of the people is difficult to express in numbers." [Stamhuis, 2002a, p. 84: "Eene voorstelling van den graad der intellectuëele en moreele ontwikkeling des volks is kwalijk onder cijfers te brengen"].

The shift in Vissering's view on statistics and the role of numbers is reflected in the different ways in which he described his statistical predecessors. While in his lecture notes of 1859-60 he mainly had the German school in mind, in an article in 1869 he distinguished three groups of predecessors: in addition to the German school, there were the political arithmeticians, including Petty, and a group of people who had attempted to find mathematical relations in population figures. In 1877 Vissering's opinion was that in The Netherlands the German school had lost its significance. The most important roots of the new statistics, which had enabled it to develop into a science, had been the "investigations and calculations of the ratios between population size, births and deaths". This approach had brought order to the "muddled confusion of the life of humankind" [Stamhuis, 2002a, p. 84: "onderzoekingen en becijferingen van de verhoudingen tussen levenden, geborenen en gestorvenen"; "warrig gewemel van het leven der menschheid"]. The successors of the political arithmeticians, the mathematicians, physicists and medical scientists, from whom the modern statisticians had learnt to make careful observations and to take every fact seriously, were simply called 'the mathematical school' by Vissering. This new school did not confine itself to population numbers, but it extended its observations to all areas of social life. He considered the mathematician Jakob Bernoulli as a member and Quetelet as the most important representative of this school. The aim of the new science was to solve the great perennial question, viz. that of man's free will under the domination of the laws of nature. This was apparently a shift from a more collectivist view of society to a more individualistic approach.

From Vissering's discussion of his predecessors, it appears that in the course of time his ideas on statistics shifted in a more quantitative direction. Although he claimed that he chose the middle way between the German *Staatenkunde* and French 'numbers and equations', the latter played only a minor role in his approach to statistics, especially in the period when he was first engaged in statistics. His statistics can be characterized as *Staatenkunde*. Vissering's ideas on statistics were in agreement with the general opinion within the 'Statistical Movement' which was, as will be discussed in the next section, the dominant group within the Dutch statistical society.

### 4 The Dutch Statistical Society

The emergence of a statistical mindset in The Netherlands was an inextricable part of the democratisation and industrialisation process of Dutch society (Klep and Stamhuis 2002; Maarseveen et al, 2008; Stamhuis et al, 2008). The radical revision of the Dutch constitution in 1848 as a result of which the Second Chamber of Parliament was elected directly, played an important role in the foundation of the Netherlands Statistical Society [Stamhuis, 2007, Stamhuis 2008b]. This constitutional reform was the reason why the lawyer J. de Bosch Kemper (1808-1876) started to publish a yearbook, *Staatkundig en Staathuishoudkundig Jaarboekje* (Political and Economic Yearbook). His aim was to inform the voters, as in his opinion only then could a direct election be a "blessing for the country"; it was therefore necessary that the electorate became sufficiently informed without "letting themselves be fooled by sweet-sounding words" [Stamhuis, 2008b, p.135: "een zegen voor het Vaderland"; "zonder zich door schoonklinkende woorden te laten misleiden"]. He apparently thought that objective and reliable information was necessary.

The yearbook was intended to be a collection of discussions on specialised knowledge of state affairs. According to De Bosch Kemper, causes of social phenomena had to be discovered, so that consequences could be estimated. By continually comparing statistical information, laws could be discovered. The science of statistics "which, as expert knowledge, has the same relationship to politics and economics as physics to medicine" could be used to realise this aim [Stamhuis, 2008b, p.136: "die als zaakkennis in dezelfde verhouding staat tot de staatkunde en staathuishoudkunde als de natuurkunde tot de geneeskunde"]. De Bosch Kemper expressed the hope that in the future more and more statistical comparisons would become possible. Later he would add that he had also been motivated by the emerging socialist theories, as a result of which people had lost sight of the real condition of the population. The first yearbook appeared in 1849 and its content can be characterised as 'statistical' in the sense that it was a broad description of relevant aspects of society.

De Bosch Kemper was soon joined by others. In the following years the yearbook was compiled by a group of people several of whom had already been involved in the efforts by Dutch learned societies between 1846 and 1849 to persuade the government to establish a official central statistical organisation [Stamhuis, 2008a, 53-54]. Vissering was one of them. Every year the contributors met to discuss the content of the coming issue. In 1852 they debated whether to discontinue their publication, as the government's statistical bureau, established in 1848, had also started to publish a yearbook. This publication was also the reason why Lobatto no longer published his yearbook as the government no longer supported his publication, once it had started its own. De Bosch Kemper and his colleagues, however, decided to continue their own yearbook because it could be used to compile the data that were collected and published by the government administration, and to test them and compare them with data from other countries.

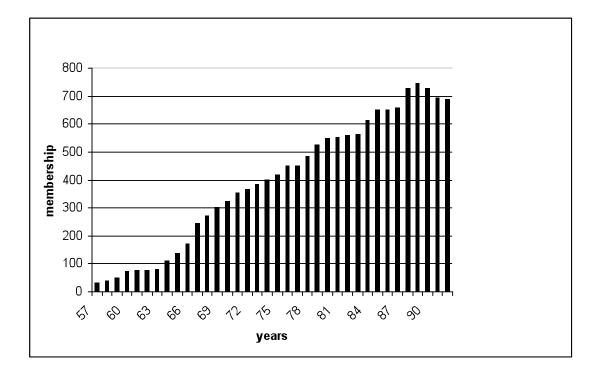
In 1857 Vissering suggested the establishment of a statistical society to fellow editors. According to Vissering's elaborate proposal, this statistical society should compile and disseminate statistical knowledge. Vissering proposed that the new society should start conducting surveys and that it should produce publications. He stressed that a good relationship with the government was of the utmost importance. As a result the editors of the yearbook founded the *Vereeniging voor de Statistiek* (Statistical Society) and appointed De Bosch Kemper as president.

When, in 1858, the government established a *Rijkscommissie voor de Statistiek* (State Committee for Statistics), the young Statistical Society responded enthusiastically. Chairman De Bosch Kemper characterised it as "the start of a new era for Statistics in our country" [Stamhuis, 2008b, p.137: "De aanvang van een nieuw tijdperk voor de Statistiek in ons Vaderland"]. The Society decided to continue the publication of the yearbook. The argument was that the State Committee was responsible for collecting detailed and consistent statistical data, while independent persons and organisations should process these data and draw conclusions from them. The Statistical Society was in a good position to do this and the yearbook was a very suitable medium for the published results. Unfortunately the State Committee for Statistics had already been abolished in 1861. Vissering reacted by proposing to formalise the society. He proposed an application for corporate rights and the application was approved.

Two years later the Utrecht professor of statistics Otto van Rees (1825-1868) proposed that the society should organise a second annual meeting. The normal annual meeting was always used to discuss the contents of the yearbook and to deal with administrative issues. His plan was to use the second meeting to discuss the scientific aspects of statistics and economics. His fellow members agreed, as long as the subjects discussed were "relevant to the everyday life of the population", and could "shed light on the situation of the working class" [Stamhuis, 2008b, p.139: "die in het volksleven ingrijpen"; "licht (moeten) verspreiden over den toestand der arbeidende klasse"]. Vissering was later to state that this extension of the society's activities resulted in an interest in statistical and economic issues, and in an increase in the membership of the society.

In the meantime the publication of the yearbook was the most important activity of the society. It soon comprised some 500 pages. An important part of each yearbook was devoted to a statistical overview according to various topics; this survey discussed a wide variety of subjects, such as population, church matters, and weights and measures. In the course of time statistical tables gained a more prominent place in the publications. Much attention was given to parliament: membership, issues discussed, and bills passed. In the section *Mengelwerk* (Miscellaneous), a number of topics were discussed more extensively.

In addition the Society developed other activities. It was, for example, involved, albeit only indirectly, in the organisation of the international statistical congress held in The Hague in 1869. Some goals turned out to be unattainable. As early as 1857 Vissering had questioned the desirability of composing a general statistical description of the Netherlands. The debate on this topic was repeated several times. In 1866 he proposed that the society compile an *Algemeene Statistiek van Nederland* (General Statistical Description of the Netherlands) based on data for the period 1850-1865. This proposal was accepted and a committee was established. The progress of the project was discussed regularly at the society's annual meeting. However, only two of the planned five volumes appeared. One of the reasons was the incompleteness of the available sources. The project died a slow death. Without the back-up of the authority of a government statistical organisation, no improvement was to be expected.



#### Graph 1.

Membership of the Dutch Statistical Society, 1857 to 1892. Source: Lists of members in the *Staatkundige en Staathuishoudkundige Jaarboekjes* (Political and Economic Yearbooks) for 1857 to 1892.

The size of the society's membership as well as its composition are revealing. **Graph 1** illustrates the development of the size of the membership. In the initial years the number of members grew, and then remained steady from 1860 to 1863. A period of growth can be discerned up to 1879. Membership reached its peak of 746 members in 1889. The number of members decreased for the first time in 1890. In 1886 Anthony Beaujon, the director of the national statistical institute discussed later, could write: "Compared with the membership numbers of similar societies in other countries, these 652 members – an extraordinarily large number for a population of four million – constitute a statistical force that will be the envy of many countries" [Stamhuis, 2008b, p.142: "Die 652 leden - een buitengewoon groot getal op eene bevolking van vier millioen, in vergelijking met het ledental van dergelijke genootschappen in het buitenland - zijn eene statistische kracht, die menig land (...) ons moet benijden"]. It is not easy to understand why the Society attracted so many people. It is most unlikely that all the members were professionally engaged in statistics. It was apparently a popular organisation and it may have been prestigious to be a member.

The educational backgrounds and occupations of the members give insight into their interest in statistics. What groups can be distinguished? Was the growth caused by a specific group and did the composition of the membership change over time? At first it is clear that most members came from the educated strata of society: during the whole period of its existence more than two-thirds had an academic degree. Secondly, the political preference of a sizeable proportion of the members seems at first sight liberal or socialist. The society maintained a keen interest in the improvement of the situation of the lower classes of Dutch society, a common interest in these political circles [Van der Velden, 2008]. A glance at the membership lists makes it clear, however, that the most prominent socialists were not members. In spite of this, they did have a positive attitude towards statistics: the anarchist and socialist F.J. Domela Nieuwenhuis (1846-1919) was to plead repeatedly for a reliable official statistical organisation. However, for the time being they did not join the society. When, at the end of the nineteenth century, the socialists lost their revolutionary zeal, they would however take part in statistical activities.

Year	Mr.	Dr.	others
1857	24	7 (5 med.)	3
1861	48	11	18
1869	166	50	89
1877	270	52 (32 med.)	131
1884	343	58	214
1892	374	51 (at least 23 med.)	262

Table 1.

Membership composition of the Statistical Society, classified by academic degree: Mr. (Master of Law), Dr. (Ph.D. and medical doctors) and others.

Source: Lists of members in the *Staatkundige en Staathuishoudkundige Jaarboekjes* (Political and Economic Yearbooks) for 1857, 1861, 1869, 1877, 1884, 1892 and various biographical sources.

The membership can be divided into three subgroups: jurists, people who had completed a study of law and therefore had the degree of *Meester in de Rechten* (Master of Law), abbreviated as Mr., a small group with the degree of Doctor, 'Dr.', and a group without an academic degee. **Table 1** gives an overview of the composition of the membership. Some of the doctors were medical doctors, others had a Ph.D. in a different field. We discovered that there were 32 medical doctors among the members in 1877 and at least 23 in 1892, and moreover that in 1877 there were three, and in 1892 five, doctors of mathematics.

Jurists were in the majority in the Statistical Society. With only one exception the Council always consisted entirely of jurists. In addition, it was mostly jurists who introduced the topics discussed at the annual meetings. The jurists formed the dominant group in the society in all respects. Within this group the position of professors of statistics in the society can be characterised as dominant and very influential. The presidents of the society were mostly professors of statistics. The topics at the annual meetings were usually introduced by these professors; the minutes make frequent mention of De Bosch Kemper, Vissering and other professors.

With respect to the medical doctors, when Vissering first proposed the institution of the Statistical Society in 1857, it was immediately decided to widen its scope by including other people interested in statistics, and in medical statistics in particular. This plan was put into practice: while 22 of the 23 yearbook contributors were still jurists in 1856, five of the 34 contributors to the 1857 yearbook were medical doctors. They and later medical doctors belonged to the so-called hygienist movement. The number of medical doctors among the members increased to 32 or a few more, but then stagnated. From the contents of four yearbooks (1850, 1863, 1873 and 1884) it is apparent that medical doctors did not use the yearbook to publish their articles, and the list of topics discussed at the annual meetings also confirms that the society was not their discussion platform. By 1893, the first year in which the society no longer concerned itself with statistics, almost all the medical doctors had left the society.

politics and administration (including the colonies)	85
education	16
independent professionals (including trade and industry)	38
other	3

Table 2. Professions of new members of the Statistical Society Source: Reports of the annual meetings in 1865, 1873, 1874, 1875, 1881, 1886, 1887, 1888. See for exact references [Stamhuis, 1989, Appendix 3, 252-255].

In the course of time relatively more and more people without academic degrees were admitted to the Society. Whereas before 1877 the majority of candidate members were jurists, between 1884 and 1892 more people without a degree than jurists entered the Society. Information is available on the professional backgrounds of the non-academic candidates for the meetings in 1865, 1873, 1874, 1875, 1881, 1886, 1887 and 1888. **Table 2** shows the composition by some relevant categories: politics and administration, education, and independent professionals. The largest group consisted of people from politics and administration, both in the Netherlands and in the colonies. The members of the group who worked in education consisted of inspectors and teachers. The independent professionals were often engaged in trade or industry.

## 5 The Statistical Institute



Figure : Cartoon of the Abolishment of the Statistical Bureau in 1878. This *Torentje* (Small Tower), now the Prime Minister's office, symbolizes the government. The cartoon is entitled: A time of cleaning-up. Statistics are no longer the Government's business.

Source: De Nederlandsche Spectator 1878, No 18, p. 140.

As was mentioned before, after the abolition of the State Statistical Committee in 1861 the Statistical Society applied for and received corporate rights. The closure, in 1878, of the official Statistical Bureau established in 1848, also affected the Society (**Figure**). The Society discussed what it could do to fill the gap the government had created [Stamhuis 2008a, 65-68]. N.G. Pierson's question was debated: 'Would it be desirable and possible for the Society to establish a statistical institute?' Pierson was professor of political economics and statistics at the University of Amsterdam and an active liberal politician. Pierson answered the question in the affirmative, but the other participants disagreed; they believed it was the responsibility of the government. At a further meeting a few years later it had to be concluded that official statistics was still entirely insufficient. When Pierson proposed collaborating with the University of Amsterdam, which was willing to contribute financially, his plan was accepted.

The *Statistisch Instituut* (Statistical Institute) was established in 1884; its task was to be the collection, processing and, if possible, international comparison of statistical information. The lawyer Anthony Beaujon (1853-1890), who was extraordinary professor of statistics at the University of Amsterdam, was appointed director of the institute. In addition to the director and a secretary, who could both only devote part of their time to the Institute, one minor official was appointed. There was no money to employ more staff. In addition to the annual dues of the members, a small amount of money received from the government and from other sources was available for running the Institute.

From the start the new Institute's workload was sizable. The Society's Yearbook was transformed into *Bijdragen van het Statistisch Instituut* (Contributions from the Statistical Institute), which was published several times a year. This publication offered information on various countries, mostly arranged in one statistical table with meticulous references to the sources. The Institute maintained good contacts with the government, which regularly needed information that the Institute could provide.

The director of the Institute developed various initiatives for new surveys, which, because of the financial position of the Institute and its private character, had to rely almost entirely on voluntary co-operation. For the statistics of the prices of some consumer goods a member of the Society collected the data, and the results were published annually [Statistisch Instituut, *Bijdragen van het Statistisch Instituut* 2 (1886) 17-39; 3 (1887) 93-115; 4 (1888) 26-45; 5 (1889) 68-87; 6 (1890) no information; 7 (1891) 34-53; 8 (1892) 62-81]. In an attempt to obtain information about wages in various sectors of society, the Institute sent 11,000 questionnaires to farmers, through the mediation of the *Hollandsche Maatschappij van Landbouw* (Holland Society for Agriculture), and 300 to textile manufacturers. However, when the first figures became available, the director had to warn that satisfactory results could not be expected in the short term.

The Institute organised a survey of workers' budgets in 1886, with the central question: "the prosperity of the masses: is it increasing or decreasing; and by how much?" [Stamhuis, 2008a, p.67: "de materieele welvaartstoestand der groote massa van ons volk; verbetert hij, of gaat hij achteruit; en in welke mate?"]. The director thought that with the assistance of the Society's members the institute would be the right organisation to conduct such a survey. He stated that if the 652 members of the Society were willing to contribute, then "the certain and undeniable light that can only be shed by statistics, will illuminate many issues that are still in the dark" ("dan kan over allerlei thans nog in het duister verkeerende vraagstukken dat stellige onafwijsbare licht worden verspreid, dat alleen door de statistiek kan worden gegeven") [Stamhuis, 2008a, p.67].

This grand idea for large-scale investigations turned out to be too comprehensive to be successful. Two years later the director had to report that he had not yet received many reactions, and after that there were no further reports. When the director concluded in 1890 that it was not possible for the institute to collect data, this experience must have contributed to his conclusion. He stated:

"The Institute will (...) be obliged to abandon that part of its task pertaining to the independent collection of statistical data, for in the present circumstances it simply cannot be done. The Institute asks politely, sends out hundreds of questionnaires, and seldom or never receives a reply. If it is to receive responses to such requests, it must have government authority, and access to government bodies which can provide information." [Stamhuis, 2008a, pp. 67-68: "Het Institut zal (...) verplicht zijn dat doel zijner taak, het zelfstandig verzamelen van statistische gegevens, neder te leggen, want het is eenvoudig in de gegeven omstandigheden niet te doen. Het doet beleefde vragen, verzendt honderden formulieren ter invulling, en ontvangt zelden of nooit een antwoord. Om op zulke vragen antwoord te krijgen moet men bekleed zijn met staatsgezag, en beschikken over Regeeringsorganen die inlichtingen kunnen geven"].

The director concluded that a private bureau could not do the work of an official authority; it lacked the money, the organisational capabilities and the authority.

An additional reason for the unsatisfying passivity of the Society's members was that they became less and less interested in practising statistics. In the early 1880s the Society's secretary had already complained about the unwillingness of the members to write statistical articles. And now, in 1890 the statistical institute's director had to conclude that volunteers did not respond to the request to participate in the statistical investigations by the Statistical Institute. These developments together indicate that statistics gradually disappeared from the society's members' perspectives. Notwithstanding this disappointing conclusion, the institute succeeded in gaining such an international reputation, that in 1934 Henninger referred to it in his account of statistical societies.

### 6 The demise of the Dutch Statistical Society

In the end the government also became convinced that the private Statistical Institute could not do the work of an official institution. In 1892 a satisfactory official central organisation of national statistics was established when the Central Commission for Statistics was created, followed in 1899 by the foundation of the Central Bureau of Statistics (CBS). When the Council of the Statistical Society heard about the first developments in 1892, it was delighted and it organised a special meeting [Stamhuis, 2007, pp. 323-324; Stamhuis, 2008b, 148-149]. According to the society's president, H.P.G. Quack, the establishment of the Central Commission for Statistics was, on the whole, in line with the society's wishes, and the Statistical Institute could now be abolished. The Council had even asked itself whether the Society should be dissolved. After all, one of its main goals, well-organised official statistics, seemed to have been achieved. However, the Council concluded that this step was too far-reaching. The president gave two reasons for this decision: first, he was uncertain whether the government would continue its policy of compiling reliable official statistics, phrasing his doubts as follows:

"One might say: the government is now doing the work, why should we bother? On the other hand, generally speaking, competition - in this case as far as we are

concerned on a small scale – is a useful thing. And then – it has happened before – in the vicissitudes of politics the structure erected so boldly by the government may be ruined again. ... If this should happen, our Society will still be here, if it keeps its framework, to pick up the pieces and continue the statistical work" [Stamhuis, 2008b, p.148: "Men zou kunnen zeggen: de Staat doet nu het werk, waartoe spannen wij ons in? Doch in't algemeen kan men zeggen, dat concurrentie ook hier, wat ons betreft op bescheiden schaal, nuttig is. En dan – wij hebben het meer gezien - door de lotswisselingen der politiek kon wel eens het door de Regeering nu zoo kloek opgerichte gebouw te gronde gaan. ... Welnu dan is altijd onze Vereeniging, wanneer zij haar kader behoudt, daar, om de draad weder op te vatten en den statistischen arbeid voort te zetten"].

The second reason not to dissolve the Society, according to the president, was that the Society could change its focus. In addition to statistics, economics had always also been an important field of interest of the society. It could now dedicate itself more to economic topics alongside statistics. If this course was adopted, both the statutes and the name of the Society would have to be changed. The president proposed a new name, *Vereeniging voor Staathuishoudkunde en Statistiek* (Society of Economics and Statistics). The discussion of this proposal was brief and the Council's proposals were accepted by acclamation.

Before 1892 the Society had devoted its attention to both statistics and economics. Although it advertised itself as a statistical society, it was in reality also an economics society. The topics discussed at the annual meetings were more or less equally balanced, although in the course of time a shift towards economics became visible. The name of the yearbook published until 1884, *Political and Economic Yearbook*, was also a reference to this broader interest. Although its content can be characterised as mainly statistical, some articles were economic in nature.

The year 1892 would turn out to be a turning point. From that year onwards, the Society advertised itself as statistical as well as economic, but at the annual meetings only economic topics were discussed [Mooij, 1994]. Although the Society was seemingly still interested in statistics, in reality this was not the case; in fact the Society abandoned statistics. That was apparently also the impression given to the outside world, as we may conclude from Henninger's statement in 1934 that a Dutch Statistical Society did not exist.

It was not until 1945 that a new Dutch Statistical Society was established. This society was much more mathematically oriented than its predecessor. Five years later, in 1950, the original statistical society changed its name to the *Vereniging voor de Staathuishoudkunde* (Society of Economics). Its name is now the *Koninklijke Vereniging voor de Staathuishoudkunde* (Royal Society of Economics) [Mooij, 1994].

The question now arises why, nevertheless, Henninger had the impression that in 1934 statistics was in a strong and healthy state in the Netherlands. The answer must be that Henninger was no doubt aware of the prominence of Dutch statisticians in the international statistical world. This in turn raises the question what, in the absence of a Dutch statistical society, was the source of inspiration of those Dutch people who were prominent in the ISI.

Before 1885, the international presence of Dutch statistics had been limited. Between 1885 and 1891 the regular publication of the Dutch Statistical Society's institute was "the main way in which the Netherlands kept a finger on the pulse of developments in official statistics in other countries" [Van Maarseveen, 2008a; Van Maarseveen 2008b, quotation on p. 143]. After the establishment of Dutch central official statistics in 1891, the visibility in the international arena increased. This was to a great extent due to C.A. Verrijn Stuart, the successor of Beaujon as director of the statistical institute, who, in 1899, became the first director of the Dutch central official statistical bureau and in 1907 also the secretary general of the ISI. It was even more due to H.W. Methorst, who succeeded Verrijn Stuart both as director of the central Dutch statistical bureau in 1906, and as ISI secretary general in 1908. One of the most important things Methorst did was establishing in 1913 the Permanent Office of the ISI and housing it in the building of the Dutch central statistical office. Until 1939 he combined the directorship of the Dutch statistical office with that of the Permanent Office.

The conclusion is that the Dutch statisticians who were most prominent in the international scene, were also the most prominent ones in Dutch official statistics. Dutch official statistics, embodied in the Central Statistical Committee and the Central Statistical Bureau, functioned as the basis from which the statisticians were active and influential at the international level. This connection was apparently so strong and fruitful that a statistical society as a source of inspiration was not necessary.

### 7 Conclusion

In this article, I first went into the multilayered meaning of statistics in The Netherlands by discussing two approaches to statistics; one of German and one of French origin, the first emerging in a collectivist and conservative culture and the other developing in a more individualist and liberal culture. Then I discussed the establishment of the Dutch Statistical Society in 1857, the composition of its membership, and its most important undertakings. Finally I considered the demise of the Statistical Society and paid attention to the fact that Henninger, the author of an article on statistical societies, in 1934 pointed to the fact that a Dutch statistical society did not exist, but also noticed that Dutch statisticians were very influential in the international statistical arena. I explained this unexpected phenomenon by pointing to the strong national official statistical organisation after 1891 and the close relationship of this organisation with international statistics.

I now return to the main question of this paper, *viz.* whether the existence and the demise of the Dutch statistical society can be explained by the multilayered meaning of statistics. I have shown that the approach of statistics within the Dutch statistical society was in line with the German *Staatenkunde* and that the other approach was entirely absent in the society. This became clear after the discussion of the composition of its membership. Only lawyers were influential within the society and they had been taught statistics in accordance with the German approach. And in the Dutch statistical society topics discussed and papers presented could often be considered as economic rather than statistical. The more mathematical French approach apparently did not take a foothold in the Statistical Society.

The two approaches turned out to be incompatible. Elsewhere this has been explained by pointing to the different intellectual traditions from which they originated [Stamhuis and Klep, 2004]. Here I suggest, following Hacking's characterization of German and French statistics, that the different cultural and political origins also played a role.

Is it possible to conclude that the dominance of the German *Staatenkunde* and the absence of the French 'Numbers and Equations' can explain the demise of the Dutch society? The answer must be that it can explain it to a limited extent. Elsewhere I have

compared the Dutch Society with the London Statistical Society (later the Royal Statistical Society) and concluded that, although a more probabilistic approach emerged in the English Society in the 1890s which was certainly an additional *raison d'être* of that scientific society, other factors were probably more important (Stamhuis, 2007, 328-330, Stamhuis, 2008b, pp. 151-156]. Official statistics was established much earlier in England than in The Netherlands. As a result the English statistical society did not identify itself with the absence of official statistics in the same way that the Dutch society did. From the start members played a more active scientific role, by doing statistical research and presenting statistical papers. This will have influenced their view of the content of statistics in a more quantitative direction. In addition, it wasn't only lawyers who actively contributed to the society. Medical doctors were also influential, whereas they were almost entirely absent in the Dutch society. In The Netherlands, the absence of well-organized official statistics must have been an important explanatory factor, in addition to the one-sided view of the content of statistics.

I will conclude with an observation that goes beyond the Dutch borders: the dominance of *Staatenkunde* in the field of statistics was not a typically Dutch phenomenon. *Staatenkunde* originated in Germany and in the nineteenth century it was still prevalent in that country [Hacking 1990, 125-132]. In Britain, John Sinclair's *Statistical Account of Scotland* played an important role in the introduction of statistics. Sinclair wrote his account after he had visited Germany, where he had come into contact with German *Staatenkunde* statistics [Pearson ed., 1978]. The questionnaire that he compiled for his account contained 166 questions, many of them really requiring essays to answer. Sinclair's *Account* therefore indicates that German approach of statistics had considerable influence in Britain. German influences can also be discerned later, in the discussion about the task and the role of the London Statistical Society during its foundation in the 1830s [Cullen 1975, 77-90, esp. 85-87].

In other countries such as France, the German influence can also be discerned. An illustration of this is the edited 1805 translation into French by Donnant of 'Theorie der Statistik' by the German statistician A.L. Schlözer (1735-1833), published the year before. The French and the Dutch situations show similarities. The Dutch translation of Schlözer's book, by the professor of statistics H.W. Tydeman, appeared in 1807 [Falguerolles 2011; Donnant 1805; Schlözer 1804; Tydeman 1807].

Statistics apparently started in several European countries as a very broad and multi-layered field of knowledge. It is not always recognized that in several countries this phenomenon influenced statistical developments for a long time.

### Acknowledgements

Thanks to Antoine de Falguerolles for the relevant exchanges about the French and Dutch translations of Schlözer's *Theorie der Statistik* and to an anonymous reviewer for useful comments. I thank Bas and Tina Jongeling for their corrections of the English.

### References

Cullen, M.J. (1975) The statistical movement in early Victorian Britain, The foundations of )empirical social research, New York.

Donnant D.-F. (1805, an XIII) Introduction à la science de la Statistique suivie d'un coup-d'œil général sur l'étude entière de la politique ; sur sa marche et ses divisions

, d'après l'allemand de M. de Schloetzer, Professeur à l'Université de Goettingue avec un discours préliminaire, des additions et des remarques, Paris, Imprimerie imperiale.

- Falguerolles, A. de (2011), Les Précurseurs de la Société de Statistique de Paris » de Fernand Faure (1909), *JEHPS (Journ@l Electronique d'Histoire des Probabilités et de la Statistique* (Electronic Journ@l for History of Probability and Statistics) 6.
- Hacking, I. (1990) The taming of chance, Cambridge, Cambridge University Press.
- Henninger, W. (1934) Die nationalen Statistischen Gesellschaften, Algemeines Statistisches Archiv 24, 185-207.
- John, V. (1884, reprint 1968) Geschichte der Statistik, erster Teil. Von dem Ursprung der Statistik bis auf Quetelet (1835), Stuttgart, reprint Wiesbaden.
- Klep, P M.M. and Stamhuis I. H. (eds.) (2002) *The Statistical Mind in a Pre-Statistical Era: The Netherlands 1750-1850,* Amsterdam, Aksant.
- Lobatto, R. (1826-1849) Jaarboekje op last van Z.M. den Koning, The Hague.
- Lobatto, R. (1829) Over het bepalen der gemiddelde uitkomsten uit een groot aantal waarnemingen, *Jaarboekje op last van Z.M. den Koning over 1829*, 126-135.
- Lobatto, R. (1830) Beschouwing van den aard, de voordeelen, en de inrigting der maatschappijen van levensverzekering; bevattende tevens eene verklaring der ware gronden van berekening tot het ontwerpen van duurzame weduwen-fondsen, bijzonderlijk opgesteld ten dienste der ongeoefenden in de wiskunde, Amsterdam.
- Lobatto, R. (1860) Over de waarschijnlijkheid van gemiddelde uitkomsten uit een groot aantal waarnemingen, Archief uitgegeven door het Wiskundig Genootschap onder de zinspreuk 'Een onvermoeide arbeid komt alles te boven' II, 96-127.
- Methorst, H.W. (1902, reprint 1974) Geschiedenis van de statistiek in het Koninkrijk der Nederlanden, *Bijdragen tot de Statistiek van Nederland, Nieuwe Volgreeks 14*, edited by the Centraal Bureau voor de Statistiek, The Hague, reprint Wageningen.
- Mooij, J. (1994) Denken over welvaart. Koninklijke Vereniging voor de Staathuishoudkunde 1849–1994, Utrecht.
- Pearson, E.S.(ed.) (1978) *The history of statistics in the 17<sup>th</sup> and 18th Centuries against the background of intellectual, scientific and religious thought,* Lectures by Karl Pearson given at University College London during the academic sessions 1921-1933. A memorial volume, London.
- Petty, W. (1690, reprint 1899) *Political Arithmetick*, Londen. Reprinted in: C.H. Hull (ed.) *The economic writings of Sir William Petty*, 2 vols., Cambridge.
- Quetelet, L.A.J. (1835) Sur l'Homme et le Développement de ses Facultés. Essai de Physique Sociale, 2 vols., Paris.
- Randeraad, N. (2002) The Dutch Paths to Statistics 1815-1830, in: Klep and Stamhuis (eds.), *The Statistical Mind*, 99-124.
- Schlözer, A.L. von (1804) Theorie der Statistik, Göttingen.
- Stamhuis, I. H. (1988) The Mathematician Rehuel Lobatto Advocates Life Insurances in The Netherlands in the Period 1830-1860, *Annals of Science* **45**, 619-641.
- Stamhuis, I.H. (1989) 'Cijfers en Aequaties' en 'Kennis der Staatskrachten'. Statistiek in Nederland in de Negentiende Eeuw, Amsterdam/Atlanta GA.
- Stamhuis, I.H. (2002a) An Unbridgeable Gap Between Two Approaches to Statistics', in: Klep and Stamhuis (eds.), *The Statistical Mind*, 71-124.
- Stamhuis, I.H. (2002b) The Differentiation of Statistics and Political Economy: the Teaching of Kluit and Vissering. In: Klep and Stamhuis (eds.), *The Statistical Mind in A Pre-Statistical Era*, 171-191.
- Stamhuis, I.H. (2007) A Nineteenth Century Statistical Society that Abandoned

Statistics, Centaurus 49, 307-336.

- Stamhuis, I.H. (2008a) The Long Road to an Enduring National Organisation of Statistics. In: Van Maarseveen et al (eds.) *The Statistical Mind in Modern Society I*, 47-74.
- Stamhuis, I.H (2008b) Why Did the Dutch Statistical Society Abandon Statistics? In: Stamhuis et al (eds.) *The Statistical Mind in Modern Society II*, 133-158.
- Stamhuis, I.H. and P.M.M. Klep (2004) The Stubbornness of Various Ways of Knowledge was not Typically Dutch; The Statistical Mind in a Pre-Statistical Era, *Centaurus* 46, 287-317.
- Stamhuis, I.H., Klep P.M.M. and Van Maarseveen J.G.S.J. (eds.) (2008) The Statistical Mind in Modern Society. The Netherlands 1850-1940. Volume II: Statistics and Scientific Work, Amsterdam, Aksant.
- Statistisch Instituut (1884-1892) Bijdragen van het Statistisch Instituut 1-9.
- Tydeman, H.W. (1807) *Theorie der statistiek of staatskunde,* von A.L. Schlözer, Translated from German by Henr. Will. Tydeman, Groningen/Amsterdam.
- Van der Velden, S.H.A. (2008) Statistics and the Early Dutch Labour Movement (1870-1918). In: Van Maarseveen et al (eds.), *The Statistical Mind in Modern Society I*, 313-333.
- Van Maarseveen J.G.S.J. (2008a) For practice and science. The institutionalisation and expansion of Dutch official statistics (1892-1940). In: Van Maarseveen et al (eds.) *The Statistical Mind in Modern Society I*, 75-105.
- Van Maarseveen J.G.S.J. (2008) Co-operative but ambivalent: Dutch international statistical relations (1850-1940). In: Van Maarseveen et al (eds.) *The Statistical Mind in Modern Society I*, 131-155.
- Van Maarseveen, J.G.S.J., Klep, P.M.M. and Stamhuis, I.H. (eds.) (2008) The Statistical Mind in Modern Society. The Netherlands 1850-1940. Volume I: Official Statistics, Social Progress and Modern Enterprise, Amsterdam: Aksant.
- Vereeniging voor de Statistiek (1849-1884) Staatkundig en Staathuishoudkundig Jaarboekje.
- Vissering, S. (1849) De Statistiek in Nederland, De Gids, Second series 2, 1-22.
- Vissering, S. (1850) Redevoering over Vrijheid, het Grondbeginsel der Staathuishoudkunde, Leyden.
- Vissering, S. (1869) Limites de la Statistique, Compte-Rendu Général des Traveaux des 7e Congrès International de Statistique dans les Séances Tenues à la Haye en 1869, 9-15.
- Vissering, S. (1870) De Zevende Zitting van het Internationaal Congres van Statistiek, Gehouden te 's-Gravenhage, in September 1869, *Staatkundig en Staathuishoudkundig Jaarboekje voor 1870,* Amsterdam, 135-139.
- Vissering, S. (1875) Handleiding tot het Statistisch Onderzoek. Handleiding tot Wetenschappelijke Waarnemingen Ten Behoeve Van Reizigers, Koloniale Ambtenaren, Consuls en Andere Residenten in Vreemde Gewesten, Utrecht.
- Vissering, S. (1877) De Statistiek aan de Hoogeschool, De Gids part 4, 244-258.

Vissering, S. (1889) Verzamelde geschriften II, Leyden.

- Vissering, S. Statistiek, Manuscript, BPL 1517, University Library, Leyden.
- Westergaard, H. (1932, reprint 1968) Contributions to the History of Statistics, London, reprint New York.

Journ@l électronique d'Histoire des Probabilités et de la Statistique/ Electronic Journal for History of Probability and Statistics . Vol.6, n°2. Décembre/December 2010