

August Ludwig von Schlözer

**Doctrine of the State in Its Main Parts,
in Excerpts and Coherence**

Part 2. General Statistics

**The Theory of Statistics
together with Ideas about the Study of Politics in General**

The first issue. Introduction

Translated by Oscar Sheynin

Göttingen
Wandenhoeck & Ruprecht
1804

August Ludwig von Schlözer

**StaatsGelartheit nach ihren Hauptteilen
Im Auszug und Zusammenhang**

Zweiter Teil. Allgemeine Statistik

**Theorie der Statistik
Nebst Ideen über das Studium der Politik überhaupt
Erstes Heft. Einleitung**

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Translator's Introduction

Terminology

Constitution, Verfassung = either constitution or structure of state.

In some instances my choice of the proper translation was possibly wrong

Regierungswissenschaft = science of governing, practical politics

Staatsgelehrsamkeit, Staatsgelahrheit, Staatslehre = doctrine of the state

Staatskunde = statecraft, university statistics

Staatsrecht = public law

Staatsverwaltung = management of the state

Volksrecht = international law

General remarks. August Ludwig von Schlözer (1735 – 1809) was a prominent scientist who had lived and worked for many years in Russia, a circumstance which is readily understood by his numerous references to Russian matters. At the end of his *Dedication* of this book he himself listed the three academies (including the academy in Petersburg) whose member he was.

Schlözer is positively characterized in the *Great Sov. Enc.*, and A. I. Chuprov (1910, p. 27), the father of the generally known A. A. Chuprov, called him *a man of a great mind and extensive knowledge*.

I am only concerned with the statistical part of this book and state at once that the book is unsatisfactory. Nevertheless, it acquaints the reader with the state of statistics as understood in continental Europe of that period (the turn of the 17th century) which is really important. Interesting are also some of Schlözer's statements, for example (§ 15-11): *Statistics and despotism do not get along together*.

Schlözer was a follower of Achenwall. He discussed *the notion of statistics* and its *theory*. Like Achenwall, he understood statistics as a description of remarkable features of the given state, i. e., of its qualitative and quantitative indicators. Contrary to Süssmilch (1758) and ignoring Daniel Bernoulli's study (1766) of smallpox epidemics and the not quite safe inoculation, he overlooked the emerging medical statistics about whose history see Sheynin (1982). At least until the 20th century population statistics had been somehow leaving it aside although even Leibniz is known to have been interested in problems concerning public hygiene. Among remarkable features Schlözer should have mentioned the attitude of the nationals to inoculation.

Schlözer barely mentioned population statistics, only applied mean values in passing and entirely ignored political arithmetic. He evidently separated it from statistics, but then he should have discussed that separation just as he (clumsily) studied the differences between statistics and other sciences. A grave methodical mistake!

Then, the construction of many sentences is careless and sometimes faulty and bibliographic descriptions are horribly inadequate although I managed to establish almost all of his incomplete references. In accord with the custom of the time, quotations in Latin, French and English are left without translation and many phrases (again, apparently for the same reason) are inserted in French. The print quality is bad and many words are difficult to read.

I strongly suspect that Schlözer had not read his text after compiling it at one go. Indeed, in § 29 his description of the difference between studying at home and travelling is incomprehensible, and in § 20 he discusses a serene seizure of a country by bayonet and canon!

I also suspect that he never valued this book. I found its critical discussion by Russian statisticians, especially by A. G. Obodovsky in 1839 (Druzhinin 1963, p. 109) whereas his support of the normanist theory was rejected by some Russian and by Soviet historians. Wikipedia passes it over in silence. If I am not mistaken, it is now felt that the Scandinavians played an important but not decisive role in the creation of the Kievan state.

On the other hand, Wikipedia praised him (as A. I. Chuprov did, see above). It mentioned his *enormous activity* and the essential influence of his lectures and books. It also quoted Schlözer's witty remark:

The lifestyle determines, climate and nutrition create, the sovereign forces, the priest teaches, and the example inspires.

Particular remarks

Contents. Several remarks are necessary. **1.** The title page of the book states that it constitutes the first issue (erstes Heft). No other issue was ever published. **2.** The main text of the book (after its Dedication) begins by a title and subtitle which fall out of the contents, see Note 1 to § 1. **3.** Schlözer had mistakenly numbered his sections of Chapter VI and I have therefore inserted §§ 23bis and 24bis.

Germany. It did not then exist as a single entity. Schlözer, and apparently his contemporaries understood Germany as the entire German world and at least Schlözer somehow included Sweden and Denmark as well. See also Note 1 to § 4.

Literature, literary. If not concerned with humanities, these words apparently meant science, scientific.

Notation S, G, n in bibliographic descriptions. It means that an English translation of the source in question is downloadable from file n on my website www.sheynin.de (which is being copied by Google: Google, Oscar Sheynin, Home).

Notes: Not all of Schlözer's notes were provided in small type. In translation, his notes are only distinguished by the type of the print of their numbers. Thus, 1 and 1 mean that Note 1 was provided by Schlözer in small and usual type respectively.

Stat. This is how Schlözer spelled the word *Staat*. He explained this novelty (apparently never used by anyone else) in Note 3 to § 1.

Main notions and relations between some sciences

Statistics. Following Achenwall, Schlözer decided that statistics is the embodiment of the remarkable features of the studied state (§ 14). Indirectly, it was the same as statecraft (§ 1). One of the main parts of the *new statistics* was the positive (?) public law (§ 4, Note 2).

The study of causes and effects. It does not concern statistics (§ 5, Note 2), statisticians are only required to collect facts, but that study enlivens his reports and, anyway, he often has to name the effects to prove that his facts are significant (§ 23b-5 and (indirectly) a quote from Achenwall in § 3). If possible, the statistician establishes the

connection between two phenomena as between cause and effect (§ 15-7). General impression: no clear-cut statement.

The theory of statistics. Only mentioned in § 6. Theoreticians of statistics ought to explain its essence and its relations with other sciences (the very beginning of § 24bis). The theory of statistics is its main element and it means compilation and study of the statistics of a country (§25). Schlözer had not connected the theory of statistics with the study of the sources of statistics (§ 24).

The theory of statistics really is theoretical statistics which is broader than mathematical statistics since it additionally includes the collection and preliminary investigation of data.

Statistics and political arithmetic. See my General remarks above.

Statistics and history. History is statistics flowing and statistics is history standing still (§ 23bis-6). At the same time (§ 26) statistics is somehow a part of history, one of the historical sciences (the first phrase of § 24). Apart from biographies of kings and descriptions of battles history ought to study the life of the people and the development of the society and thus to study the remarkable features of the given state (§ 26).

Only indirectly it followed that history (and therefore statistics as well) ought to study causes and effects. Then (§ 14-3), see also Note 4 of the same section and § 15-12, it is necessary to compare one state with another and the changes of a state in time, see also. This means that statistics should not stand still and Schlöser's pithy saying in § 23b-6 thus becomes senseless.

Statistics and politics. See below.

Statistics and medicine. See General remarks above.

Politics. This is the doctrine of the state (the first phrase in § 27). The course in politics (and therefore of politics itself) has a historical and a philosophical part and the latter is naturally subdivided into four sciences. Two of these are public law and practical politics or the science of government. On the contrary, I believe that that subdivision is artificial.

Statistics and politics. Achenwall (end of § 33) *separated statistics from the political chaos* but it is its important assistant (§ 1); statistics is a part of politics (title of book and Dedication). I repeat (see above) that one of the main parts of the new statistics is the positive public law.

Schlöter had not eliminated the *political chaos*; statistics occurs to be a part of both history and politics, so what about the relations between the two last-mentioned sciences? And the relations of statistics with other sciences remain muddled.

Acknowledgement. I have incorporated some important remarks/corrections offered by my brother Leonid.

Dedication

To Mr Charles de Villers

Corresponding member, Göttingen Scientific Society¹

Only you, my noble master and friend, are able to testify that I am thus increasing the 999 statistical papers and notes of every kind which have been appearing in the previous ten years in all the cultural European realms and even in Spain, by the next one, the thousandth. Even eleven years ago, in the preface to my book (1793, p. XI), I have announced a *Theory of statecraft*. However, owing to many reasons, I had given up those ideas and only our instructive conversations about this subject during those years were able to revive them.

Already from the Contents you will see that exactly here has begun the investigation which you had wished me then to undertake. We were both enthusiastic that, as luck would have it, this new science, statistics, was just the science which fuller than almost any other one was suited without presumptions or stupidity to bring erudition and government into mutual confidence.

Nowadays, this science is living in France. Prefects of the 108 *départements* populated by 200,000 – 400,000 people each, are sending their statistics to the government. France has a Société de statistique with 42 members and publishes *Annales de statistique* (see beginning of § 6).

We are gratefully pleased to find much important and previously unknown data in the published *statistiques*. However, it seems that they

1. Had not been sufficiently comprehensive. Especially in the anthropological proportions they do not achieve the contents of the Swedish or Prussian lists.

2. The new data are not presented either uniformly or in accordance with the best specimens.

3. In general, French authors deviate from others and especially from us, Germans, in defining the concept of statistics.

You, the celebrated and happy negotiator of closer ties between the German and the French science, as a learned French minister² called you, has pondered over everything worthy of investigating. Mr. Chantreau³, the history professor at the Fontainebleau military school, had recently begun a large study⁴ entitled *Science of History* which contains

A general system of knowledge necessary for acquiring before studying history and the method to be followed when working on this kind of investigation.

Replace everywhere *history* by *statistics* and you have an expression of my plan. (I am not discussing how Chantreau executed his plan.)

As soon as we agree about the notion of statistics we ought to determine what belongs to it and what does not. And as soon as you agree with the proposed three main parts of statistics (see § 18), I will discuss the *power* of a state in my second issue⁵, introduce specimens

and tables and offer an excerpt from Süßmilch's classical book. Incidentally, it is clear enough that these pages are written for the beginners in our science and, moreover, for German readers. For them, wordiness and minor details are useful, but for other readers this can be disagreeable. However, even if in these pages you wish to find something worthy for asking the opinion of your readers, then, I will have to request imploringly to *shorten* my account from nine sheets (Bogen) to four, and, at the same time, to *increase* their number by your own ideas.

Do not consider my description of *politics* in general as an improper deviation from statistics. It ought to be definitely only understood and treated as a *part* of politics, otherwise it can degenerate into a plaything. In the end I expounded even on the education of future politicians or civil servants in the narrow sense, and this needs additional excuses. However, I also had special reasons and [my decision] will always be *words said at the right moment*.

The most part of this issue was already printed a year ago, so that I can only use a lot of superb, especially French materials which came later, when continuing my work.

Göttingen, 20 Apr. 1804

August Ludwig von Schlözer

Member, Imperial Russian Academy of Sciences, Petersburg, from 1765

Member, Royal Swedish Academy, Stockholm, from 1768

Member, Electoral Bavaria [Academy?], Munich, from 1769

Notes

1. Charles Francois Dominique Villers, 1765 – 1815, philosopher. In the main text, Schlözer twice wrongly called him von Villers.
2. The learned minister: apparently Jean-Antoine Chaptal, 1756 – 1832, statesman, chemist, Honorary member of the Petersburg Academy of Sciences.
3. Pierre Nicolas Chantreau, 1741 – 1808, a chamberlain, a person of encyclopaedic knowledge
4. In 1804, his work (1803 – 1806) was only partly known
5. Schlözer never published that second issue

An Attempt to Determine the Concept, the Main Parts (the Scope and Boundaries) and Methods of Statistics¹

Introduction

I. The Beginnings and the Name of the Science

1

According to its object statistics is the name of a quite new science. Its materials already existed in bits and pieces from the time when governments, history and travelogues had appeared. However, only Achenwall in Göttingen, in 1749, began to present the scattered materials into a scientific form, to unite the essential data under a single point of view and orderly bring them in a closed system.

That science had thus become an important assistant of the elevated science of governing. Achenwall was my teacher and I was honoured to succeed him in 1772. In the last quarter of the 17th century, his predecessors were Conring, Oldenburger, Bose and Becmann, and

Otto in 1726 in Utrecht but none of them achieved completeness or system.

Statistik, *statistique*, what a barbarous name²! Vox (word) *hybrida*, neither Latin, nor German or French. However, it is in general usage not only in Germany but in each enlightened European nation. Frenchmen and Englishmen (Brion de la Tour and *Monthly Review* have in 1789) and others naturalized it in their languages. It pleased the father of statistics to give a shapeless name to his well-proportioned baby (without going red, although never using it in the titles of his handbooks). The German language together with its sisters is perhaps the only one in which the peculiarity of this science can be expressed by a single word: *Staatskunde*³ (statecraft) which differs from *Staatslehre* (doctrine of the state), from public law and history of the state. Every other language has to help itself by less expressive or even improper oblique references: *connaissance politique*, *present state of ...*, *political geography etc.*

Notes

1. It is difficult to say what does the title *An Attempt to Determine ...* refer to. Then, the *Introduction*: this is the title of the entire first issue (see title of book) and the running title.

Until the 18th century *only bits and pieces ...*? Moreau de Jonnès (1847, Chapter 1) described the important data collected in the antiquity (see Note 1 to § 4) and even mentioned the existence of *Numbers* in the Old Testament. See also Ploshko & Eliseeva (1990, § 1.1). Humboldt (1847, Chapter 1) noted the existence of *political arithmetic or, in latino-barbare, statistics, an extremely difficult science and in most part conjectural*. He wrongly equated both sciences, but at least he seems to be the first who indicated their connection. It is very proper to note that Schlözer never mentioned either Petty or Graunt, or political arithmetic. Graunt (1662/1899, p. 397), however, stated that

A clear knowledge of all these particulars and many more [...] is necessary, in order to good, certain and easie Government and even to balance Parties and Factions both in Church and State. But whether the knowledge thereof be necessary to many, or fit for others than the Sovereign and his chief Ministers, I leave to consideration.

Baron de la Tour (1743 – 1803) was a geographer and demographer; Veit Ludwig Seckendorf (1626 – 1692), a statesman and scientist; Hermann Conring (1608 – 1681), a physician and statesman, the main forerunner of Achenwall; Gottfried Achenwall (1719 – 1772) is sufficiently known, cf. also Sheynin (1997).

2. I found this barbarous word first of all in Oldenburger (died in 1678), professor in Geneva, in his notorious book (1685, p. 824, t. 4 of his *Thesauri*). He called the celebrated Seckendorf *egregium statistam* (praiseworthy statistician) *christianum*. Then, Thurmann (1701): *Bibliotheca statistica* (= politica). Schl.

3. Can someone tell me when was the word *stat* (French *état*, Italian *stato*, English *state*) introduced in its present meaning into modern languages? Ancient languages had no word for this concept; *res publica*, *civitas*, *regnum*, *imperium* had only expressed the various kinds of states. And when had the word *Reichs-* and *Landstände* acquired the meaning of situation (status)? And why almost the entire German world is spelling this clearly exotic word *Staat* rather than *Stat*? Why then not *Daame*, *Maanen*, *Haase*, *Naase*, *Naamen* (woman or lady, ghost, hare, nose, names)? Schl.

And Schlözer dropped that second *a*! O. S.

II. The Meaning of, and the Necessity for the Announced Investigation

2

It is *worthwhile* to determine the concept, the range and the methods of this science. Clever governments are beginning to summon it from the studies of scientists. Would not these governments render themselves an important service by scientifically discussing various problems with their governor generals, governors, prefects, regional elites, public servants responsible for foundations of all kinds, et al? Problems concerning the best methods of compiling the required yearly statistical reports should be discussed so that

1. Nothing *superfluous* ought to be included. However,
2. Everything about the situation of the territory which the government can use for fulfilling its duty, i. e., for favourably influencing it, should be included.
3. The form of the reports should simplify the compilation of future reports and ensure the reliability of their data. Then, the government overburdened by its work will easier survey its entire duties.

Is it however necessary to carry out such investigations? This question can be answered by quoting extracts from quite different and partially strange opinions of celebrated authors about the concept and the scope of our science. We need a general principle for asking the following questions: Is such-and-such material necessary? Or, it does not at all belong to statistics? And how to deal with it for discovering that?

I only know the titles of the writings Pauli (1750) and Nettelblad (1773). The latter considered the difference between Statskunde (statecraft), Statsrecht (public law), Statsgeschichte (history of the state) and Statslehre (doctrine of the state) or politics.

III. Various Opinions about the Concept and the Range of Statistics

3

German authors of statistical handbooks (their titles are best established by Meusel (1790 with later additions) which are indispensable for each statistician to have them once and forever. These authors offer the following definitions or descriptions.

Achenwall (1749, somewhat shortened in the later editions):

Statistics is a perfect example of everything that really occurs in a civil society and its territory. Our intention requires a restriction of this explanation. The main usefulness of our science consists in that it teaches us to see how fortunate or unfortunate is a realm whether considered by itself or according to the intention (?) of other states. [...]

Therefore, to statistics only belongs that which influences to a noticeable degree the welfare of a state, which can either hinder or promote it. I am calling all this by a general word: what is remarkable. We intend to recognize how such facts are caused and thus to create a science. Statistics therefore contains "a thorough knowledge of the remarkable features of a state".

[Schlözer continues to describe Achenwall's opinion but not in inverted commas anymore; not italicized by me anymore:]

We should attempt to pick out carefully from the countless heap of things those which

- indicate the advantages or defects of a country, the power or the weakness of a state

- glorify or damage the gleam of the crown, indicate whether the subjects are rich or poor, enjoyable or displeased, lovingly or hatefully disposed to the government
- reveal whether the reputation of the monarch at home and abroad is dreadful or scornful

- elevate one state, shake another one and runs down yet another state
- predict a long life to one state and the destruction of another one

In short, reveals everything that can help to form a sound viewpoint on a realm and to serve better the sovereigns.

In the sequel, Achenwall applies a general single but powerful expression *remarkable feature*.

Welch (1749) does not define [statistics] but invariably applies the expression constitution of the state and lists everything which he reckons there.

Neither does Toze (1767) define it but *lists* that with which statistics is usually dealing.

Curtius (1780) provides neither definition nor description.

Remer (1786): *The science of the constitution of various states.*

Lüder (1792): *A statistician describes the situation of a state at present or in a certain moment of time.*

Meusel (1792): *The science or knowledge of the present political constitution of a state.*

Sprengel (1793): *The historical science which entirely and reliably describes the present or normal situation of a people.*

The Achenwall picture of our science is evidently the most definite and fruitful. It sets up a *principle* and points out the need of *completeness* and at the same time of cutting off all the *inappropriate*. Unexpectedly, all the sons of that father of *statistics* have abandoned him.

4

In 1782, the Prussian state minister von Herzberg read out a report in French in the Berlin Academy of Science. It was entitled *Reflections on the internal strength of states and their relative power*. Here is its beginning [Schlözer translated it into German].

The knowledge of the political constitution¹ of states which is usually called statistics belongs to the fashionable sciences of our time which, especially since a few years ago, became generally popular. It has even almost replaced public law² which had been a governing science from the beginning of this century to its middle.

Many scientists, whose situation in the world allows them to judge states by their territories, think that, while sitting in their studies, they are able to estimate quite precisely the strength and the relative power of various realms by the vastness of their territories or the number of their people. They measure the area of the territory of a state in square miles on a globe or a map³, then calculate the population either by issuing from the lists of births and deaths or, when such information is lacking, by the number of the square miles of the territory.

When it became possible to examine precisely and objectively one or another state, it was often found, however, that such calculations were quite wrong. It would not be difficult for me to refer to the statistical tables which have appeared some time ago in various collections on copper-plate engravings and show that the population and therefore the power of one or another state was estimated in most various ways and that it often occurred that its previous estimation by square miles⁴ had doubled the population. It appeared as though being equal or even larger than the known and surpassing populations of neighbouring states.

The population of a state is so different from that of another state so that any of its estimates based on the territory of the country expressed in square miles (! Schl.) is necessarily very risky and indeterminate. Their application is only allowed when a result of an actual count of the inhabitants in a certain number of square miles is known^{5,6}.

Estimates based on the lists of births and deaths became admittedly more reliable since the governments of most European countries have begun to compile them with the highest possible precision and care. Nevertheless, only those governments can obtain quite reliable data on population which often repeat the counts with the highest possible precision and compare them with those lists. In any case, I think that it is possible to prove that, even having correctly calculated the territory and the population of a state, it is still impossible to determine properly its power as compared with other states. I rather believe that it is necessary to take into account three other circumstances which can even better lead to a proper judgement. They are:

- 1. The location of the state*
- 2. The form and the essence of its government*
- 3. The national nature of its inhabitants⁷*

Notes

1. Political constitution. The adjective, *political*, is too restrictive since it is usually understood only to include the matters with which the government is usually directly dealing. And even more restrictive: with those topics which mostly have to do with the strength and power of the state as compared with other states, i. e., with the strength of the regular army, alliances with foreign states, finances etc. Sinclair (see § 5) applied the expression *matters of state*. In old times statistics had only dealt with these matters.

Cicero (*On the laws*, III, p. 8) [Schlözer provides a long Latin quotation].

Tacitus (*Annals*, book 2, chapter 11):

The Roman emperor August collected summaries of the riches of the empire, on the number of its citizens and of its allies able to carry arms, of its fleet, taxes and other items of public revenue, usual expenses and compensations of citizens. All this August had written down in his own hand.

[I have translated these lines from the French text of Moreau de Jonnès (1847, Chapter 1). They at least approximately correspond with the Latin text provided by Schlözer. Unlike Schlözer the French author highly appreciated the work of August. O. S.]

Sueton. [Instead of the Latin text provided by Schlözer I can only refer to the English translations of two of his writings (1913; 1957). O. S.]

We should not forget the marvellous but lost statistical investigation of the same emperor [August]. [Schlözer provides a few words and a name in Greek but the Greek text was badly printed and I was unable to read it. O. S.] It was not a military conscription since it mentioned women. See also Socrates: Xenophphon of Athens., *Memorabilia*, Book 3, Chapter 6.

The veteran-minister apparently thought about these incomplete statistics. Even in the definition, the abovementioned (§ 1) Otto, as it seems, had discussed it: *notitia rerum publicarum* (that is how he called statistics – Schl.) *est Scientia, quae versatur in perspicendis rationibus* [Edit. IV, 1739, *est cognitio summaria rationum*], *quibus singulae civitates gubernantur*. [Statistics is a science which deals with transparent rational things, is the sum of rational knowledge, which is only governed by civil law (?). O. S.]

The new statistics avoids the word *political* or generalizes it to include everything which interests the *polis*, the state, in each important sense. Schl.

2. Positive public law remains a main part of the new statistics and was not therefore replaced by statistics. Schl.

3. Calculations of areas by measurements on a map are only possible if the map is compiled in an area-preserving projection.

4. Even 30 years ago in Germany and still oftener in England, see for example Young (1772), statistical calculators spun premises out of thin air, then necessarily admitted false conclusions and thus created a prior statistics. However, I have not recently seen such statistical nonsense as for example calculations of the population

by the number of square miles or presentation of, say, Sweden as a more populous country than Germany since its territory is larger. Schl.

5. Such estimations had never been tolerable. What happens if the number of inhabitants on a square mile between Göttingen and Münden which belongs to the most populous region of Germany, will be carried on to the Lüneburger Heide? Or, if the population of the French département Landes will be judged by the island Isle de Rhé⁸? Schl.

6. Herzberg actually mentioned the principle of sampling. Even in 1786 Laplace estimated the population of France (and repeated his reasoning in Chapter 6 of his *Théorie analytique des probabilités*). See Sheynin (1976, pp. 158 – 161). And even Graunt (1662, Chapter 11) applied elements of sampling.

7. Invariably power and strength! This only constitutes a part of the public happiness, and even so, not always. Do not there exist states, all-powerful against the outer world, whose people are miserable? And the number of inhabitants alone is not a criterion of power [as von Herzberg stated – O. S.]. How did 40 years ago feel themselves the six million Neapolitans when Prussia had five million? And 24 mln Frenchmen as compared with twelve million in England? To determine the entire measure of happiness of a people much more data are required than the three mentioned circumstances, viz., a complete statecraft. Schl.

8. Münden, a city in Lower Saxony. Lüneburger Heide, most of its territory is a national reserve, also in Lower Saxony. Isle de Rhé, an island off the western coast of France.

5

Sir John Sinclair edited the 20 volumes of the *Account* (1791 – 1799) and wrote in vol. 20 (p. XIII) about the prehistory of this work:

Many people were at first surprised at my using the new words Statistics and statistical, as it was supposed that some term in our own language might have expressed the same meaning. But in the course of a very extensive tour through the northern parts of Europe, which I happened to take in 1786, I found that in Germany they were engaged in a species of political inquiry to which they had given the name of statistics; and though I apply a different idea to that word, for in Germany¹ statistical meant an inquiry for the purpose of ascertaining the political strength of a country, or questions respecting matters of state; whereas the idea I annex to the term, is an inquiry into the state of a country for the purpose of ascertaining the quantum of happiness enjoyed by its inhabitants, and the means² of its future improvement; yet as I thought that a new word might attract more public attention, I resolved on adopting it, and I hope that it is now completely naturalised and incorporated with our language.

Notes

1. The Baronet³ certainly had not read even a single German statistical handbook (compendium), otherwise he would have been unable to say that we restrict the object of this science by *political power*. Even our authors who include the word *political* in their definition (§ 3), nevertheless deal with objects entirely different from *matters of state*. Schl.

2. Here we have a peculiar science separated from statistics, *practical politics*, the *doctrine of governing the state*, or the *science of governing*. We separate them like the learned physicians separate anatomy and pathology, physiology and therapeutics⁴. For example, a governor general as an author of a statistical report about his province informs the government about the whole number of those who died among the recently confined women. Whether this mortality is unnaturally high and how to control this evil belongs to other authorities although there also exists the *statistique raisonnée*, see § 23bis-5. Schl.

3. Baronet is a hereditary title awarded by the British Crown.

4. Physiology does not belong to medicine.

6

I am only acquainted with the 1802 issue of the *Annales de statistique ou Journal général d'économie politique, industrielle et commerciale, de géographie et histoire naturelle, d'agriculture, de*

physique, de hygiène¹ et de littérature published by L.-J.-P. Ballois. Even so, until now, I am only acquainted with it by reading the *Allg. geogr. Ephemeriden* (Weimar, Jan. 1903). Here is an excerpt from this source:

Annales de statistique is a journal specially destined to present the *tableau réel* (the real [statistical] table) *de la France* in respect of the territory and its subdivision; population; products of the three kingdoms of nature²; the state of literature concerning sciences and arts; industry and commerce and their means; commercial navigation; the state revenues; the productive forces of the land and the sea; etc. [This was written in its original French; the following is in German and ends with an inverted comma.]

Statistics has two parts: it describes the territory and the art of diligence (Kunstfleiß). The English had first discovered it (derselben) (? See § 5. Schl.). The number of inhabitants, agriculture, art of diligence and meteorology belong to the theory of statistics³.

P. 264. [There was no page number for the previous excerpt. The text was in French.] *For France, statistics is a new science which means that it does not at all yet obey routine, prejudices or the spirit of the systematic which is so pernicious for the progress of sciences. Until now, statistics had not at all changed its principles or confounded its elements, which is very ordinary for a deep study. The need to collect the materials before constructing, to become educated before teaching it, or in a word, at present, the system of this science saves the theory.*

There is much that I do not understand. What is the *théorie* of statistics, what are its *principes* and *éléments*; And how can we *altérer* the former and *confondre* the latter? The entire *nature* of our science consists in *creating* and *collecting* reliable *materials*. However, it is necessary to know all the materials useable for a certain goal, to separate the useable and the useless; to understand the art of discovering the first and correcting it. Then, the art to present it more clearly. And should not the spirit of *systématique* be indispensable and far from pernicious for the science? It is easy to see that I only apply the term *système* as the opposite of *confusion*.

It will be a dreadful task for the minister of the interior to think out yearly 108 statistical reports compiled disorderly and not uniformly. The most refined *mecanisme* [I translate it as *system*] exists in the tabular form whose most perfect specimen seems to be yet unknown in France⁴. And how can *statistique* in France be a *science neuve* I do not see either. Its name is new, but the collections of Piganiol de la Force (1719, second edition 1765), of Count Boulainvilliers⁵ (1727), abbot Expilly (1762 [1764?]) and many others, although incomplete and disordered (lacking a *système*), belong to the most useful statistical writings of the previous century.

Notes

1. *Hygiène*: apparently public or social hygiene, the precursor of ecology (Sheynin 2009, § 10.9.1).

2. The three kingdoms of nature: the vegetable, the animal and the mineralogical kingdoms.

3. Schlözer mentioned meteorology undoubtedly since Lamarck had studied it from the statistical viewpoint and even mentioned *météorologie statistique* (Sheynin 2009, § 10.9.3). The subjects mentioned here by Schlözer were partly alien to each other. And I hold that the theory of statistics is the same as mathematical statistics and that therefore until the mid-20th century statistics had no theory in the modern sense.

4. The origin of tabular statistics is connected with Anchersen (1741). It could have served as an intermediate link between words and numbers, but Achenwall was

apparently opposed to it. Anyway, he (1752, Intro.) stated that he had *experienced a public attack* against the first edition of that book (published in 1749 under a previous title) by Anchersen. *Tabular* statisticians continued to be scorned, they were even called *Tabellenfabrikanten* and *Tabellenknechte* (slaves of tables) (Knies 1850, p. 23). When describing Russia in 1734, I. K. Kirillov used many tables, but his work was only published in 1831 (Ploshko & Eliseeva 1990, pp. 65 – 66). Schlözer's opinion apparently implied that tabular statistics became recognized.

5. I have established two writings of that author (1727; 1727 – 1728).

7

A short time ago there appeared in Paris a *Société de statistique* with 42 scientists comprising its membership. Its first sitting took place on 1 March of this year and its goal is

To collect and treat statistical data pertaining to France and other countries.

It has a president and vice-president, a permanent secretary (the abovementioned Ballois) and a savings account (Kasse). The society is subdivided into six commissions with seven members each. They also choose other members and correspondents. The commissions are working on the following subjects (*Allg. Literatur Zeitung Intelligenzbl.*, 1803, No. 65):

1. Physical and medical topography¹
2. Statistical meteorology² and natural history
3. Population and public aid institutions
4. Agriculture and farming (Ackerbau und Landwirtschaft)
5. Industry, trade and public works
6. Public education and fine arts

I am now leaving that society, the first of its kind in the whole cultural world³. If you wish, I will compare my systematic arrangement of the subjects of statistics with the just mentioned.

Notes

1. Topography is the geographic and geometric study of a locality.
2. About meteorology see Note 3 to § 6.
3. The London Statistical Society was only established in 1834.

8

In the excerpts from Clament (an X) published in the *Allg. geogr. Ephemer.*, May 1803, pp. 566 – 576, we find:

Many of those who are inclined to work voluntarily invariably confuse geography¹ and statistics. It is necessary to determine their dissimilarity.

[Here follows the appropriate place from Sinclair's utterly false idea (§ 5) about the German understanding of statistics which was at the same time parroted in the *Decade* (1794 – 1807). Clament also states:]

We should not however think that in Germany the conditions in the industry and agriculture have been so completely forgotten that they only consider the political conditions. We ought to adopt here an exception and reveal this characteristic dissimilarity in the different directions of the spirit of observation in both countries. [...] Statistics, since it is invariably restricted to a certain country, always differs from geography which first of all considers the Earth both in general by itself and in relation to other celestial objects. Geography rapidly runs through one country after another (! Schl.). When it throws a fleeting glance on the population and produce, it satisfies itself with the indefinite and even mistaken (!! Schl.).

On the contrary, statistics proceeds step by step, from one community to another to collect statistical data from enlightened citizens and officials and thus to draw a

complete picture. In addition to these diverse ways statistics differs from geography in the treatment of separate subjects. It describes the moral state² of a country much more accurately [than geography]. Then it goes into much more detail about topography (? Schl.), more accurately describes agriculture and business and formulates proposals for land-reclamation (? Schl.)³. [...]

After these brief parallels between the two sciences which are not rivals but sisters we still ought to remark that many are terrorized by the word statistics and believe that the science which it indicates is magical. This mistake is partly caused since statistics is still incompletely and little known and partly because its name has an alien face. [At the end the author proved that (Schl.)] statistics has no sectarians or mysteries and is free from charlatanism or systematic self-will and brotherly borrows reports from everywhere⁴.

Here as well much is shrouded in mystery or even incomprehensible. An epigrammatist in the *Decade* (1794 – 1807) declared that statistics is exactly what was formerly called geography; only fashion brought about its new name. Most of those who described the earth attempted to allay the dryness of their pure geographic material by introducing statistical news which apparently explains the mistake of that author. The same happened even with our Büsching⁵, the great reformer of geography from 1754 onward (five years after Achenwall had begun to determine the concept of statistics). Everything was thankfully borrowed from him the more readily since in those times real statistical data were very scarce.

Clament admitted that the two sciences were different, but in which sense? His ideas here were partly outrageous. And they were taken in by his severe reviewers in the *Ephemerides*.

Notes

1. Geography had been then understood as an encyclopaedic collection of data on the nature, population and economics of various regions. Economic geography became separated after WWII. Spottiswoode (1861) first introduced elements of statistical geography.

2. Herzberg (§ 4) thought it necessary to study the *national nature* of the population. Knies (1850, p. 24) quoted German authors (without naming them) who, in 1806 and 1807, declared that statistics ought to study the national spirit, love of freedom, talents and peculiarities of public figures and ordinary citizens of a given country.

3. Here, Schlözer apparently does not agree with making proposals.

4. According to modern understanding, stellar statistics, for example, belongs to astronomy and medical statistics, to medicine. I believe that they are the applications of the statistical method to astronomy and medicine respectively.

5. Anton Friedrich Büsching (1724 – 1793), theologian, geographer, pedagogue.

9

Breton (1803) offered yet another notion of statistics, see the reference to him in the *Allg. Literatur Zeitung Intelligenzbl* (1803, No. 240, p. 419). I have not yet seen Donnant's paper about statistics (*J. de Paris*, an XI)¹. In Germany, we also have many historical and statistical travelogues, surveys (*aperçus statistiques*) etc. Their authors seem to have either a rare or simply no notion of this word.

Note

1. I found the book Donnant (1805).

IV. An Attempt to Discover a Definite Notion about Statistics

In other words, an attempt to answer the question: what belongs to statistics, or to a statistical description of a people or a region? What does not belong? And why, in both cases. Does statistics differ from geography, physics, natural science etc. and how? Allow me to begin in a somewhat elevated tone.

11

A natural man is a man of *society*. Without it, the durability of his existence is as unthinkable as even his origin. But the kind of society in which he is randomly thrown forms him, makes him either a *Jameos*¹ or a Newton, a cannibal or a saint.

From its beginning about which we do not know and cannot even surmise² the human race came through three consecutive main kinds of societies, the domestic society, civil society and in a state.

1. The domestic or family society: among both genders, parents and children, possibly among the *vollbürtigen* (of the same parents) and destitute. Everywhere people live in families. The story of Sonnerat (1783, Tl. 2, p. 87) is a fairy tale or a misunderstanding.

2. The civil society, a *tribe*. Feeling their weakness, families unite and rise to sociability; they unite their forces, together take care of their needs, drive off their enemies. But still each housefather remained his own master, free and independent from everyone. No one ordered, only advised. Our pioneers have not discovered any special region where people had not lived in that way socially.

Thus lived the old Gauls and Germans and almost all the Europeans before their subjugation by the Romans. At best, they admitted a *principatum* but not a *regnum* [kingdom]³, see Caesar (2002, VII, 4). Just the same, in recent times, the inhabitants of Greenland, Kamchadals and Chuckchi⁴ and, still in our time, millions of the natives in America.

3. The society of a state, or a state. The increase in the united families and their rise to their own culture and the simple unification of their wills would not have been enough for the aims of a society. Everyone wished to be happy but when pursuing that aim most people have either none or a perverted will. And they must leave to one, or to some of them

1) the right on certain occasions to *wish* for everyone

2) in emergencies, the power to enforce his/their will

These operations transform the civil society to a *state* or attach it a *government*. Most, although not all, nations in the world are living in that way which should therefore be natural. The small number of those nations which still do not, are natives. The states ought therefore to be very perceptively necessary for mankind since we find them in the very beginning of our history and even in many still semi-barbarian people⁵.

Statistics is only possible for groups of people and only such groups are worthy as its object. Natives only have natural history [are only its object] which however is very interesting for the connoisseurs of human nature.

Notes

1. *Jameos* is somehow connected with cave; here, it apparently means *caveman*.

2. Scientists had long ago begun to study this problem.
3. The German translation, Kaisertum, which I found, does not fit the context.
4. Christian Schlözer (1823/1827, p. 20n) noted about 60 years earlier (which means approximately in 1763) that his father showed that the names Negro, Siberian etc. were meaningless.
5. It seems that Schlözer based himself on the theory of social contract, but he (also in § 12) essentially simplified the necessary considerations. Some of them are simply childish.

12

Two features of all states of the not quite primitive world are universal; they have a general goal and form.

1. The aim of an individual is to find happiness for himself. Everyone who joins the state has this aim. More precisely, individuals join the state to attain that aim which was impossible for an individual weakling. And so, that individual clings to millions of his fellow men to form a mass of millions of forces.

2. That mass can only work its wonders when it is united and effectively led. This means, when it is led, governed and ruled. Since the greater part of people is stupid or malicious, the tightest possible unification of forces or its effective leadership can only be achieved if the leader (the sovereign, the ruler, the ancient Greek *tirannos* [tyrant]) is endowed in certain cases with right and might to compel.

3. And for his [the individual's] fellow citizens an advice (§ 11) becomes an absolute order. To obey it is the blind duty of obedient citizens (μ) as [the sovereign] will thunder together with the Greek *kaziks* of Homer¹. This right and this might which is enforced physically or bestially (sometimes only the might as long as it keeps) determine the general form of all states.

And so, all the states are only identical in two features, but they infinitely differ in a thousand other respects. What a difference in the territories and yields of their lands and in the number and qualities of their inhabitants! A learned observer classifies these many differences according to the relation of the items to each other. And so appears a large number of separate descriptions of a state.

Descriptions by the physicist, the geographer, the naturalist (botanist, zoologist, mineralogist²), by the historian, antiquarian, economist, publicist, teacher of religion and by a dozen others, each keeping to his own field. Even in a tiniest state they will find sufficient material for description filling whole volumes, and each reader who is experienced in the same field [as one of them is] will find there instruction and pleasure.

Notes

1. Cacique, a leader of an indigenous group in some regions of Central America (later, in the Western Hemisphere). A Greek *cacique* is a metaphor.
2. These three specialists describe the corresponding kingdoms of nature.

13

And now we establish that for each realm and each of its provinces there can appear 20 or still more such conceivable special skilful descriptions. Each item contained there will have its value since it belongs to the complete knowledge of the land. And we call each,

without any exceptions, a *remarkable feature*, but cast aside the trifle, the *minutieux, monotone, insipides* details. Each insect, each plant interests a professional entomologist or botanist just because they are an insect or a plant.

The scientist who lives in alien branches of science naturally takes no notice of them (except when there exist special causes; when for example a philologist [or a botanist] discovers that a described plant can be identical with another plant encountered in the works of Theophrastus¹ under another name). However, he does not despise it, but only decides that, what is useless for him, can often be of much interest to others. It is therefore desirable that each realm has such a list of 20 special descriptions. However,

1. Taken together as a complete whole, will it then acquire the name of statistics, or statistical description of a realm? In that case statistics will be an embodiment of everything that geography, meteorology, the study of manufactures etc. report about a state. A really voluminous work! (And when deleting the *everything* to achieve a more malleable collection of excerpts for statistics of every remarkable feature, then I ask further: what should geography, meteorology etc. give to our science², what should be taken away from them and according to which rules?) Or,

2. Has statistics its own, completely different data which is alien to the taken from other sciences as for example botanical remarks to commercial?

None of either. All the data for which the statistician is searching, should also be in those 20 special descriptions if they are supposed to be complete. However, since each compiler had his own aim, I imagine one other aim which no one of the former compilers had but which is of a convincing importance and worth. The scientist who studies the state, either a practical worker or a theoretician, enters as the 21st man with the intention to elicit only those features which *apparently or conceivably influence the welfare of a state in a larger or smaller measure*. He takes for himself only these and orders them properly one after another.

Notes

1. Theophrastus (371 – 287 BC), a Greek philosopher and naturalist.

2. In 1857, the International Statistical Congress (*Congrès* 1858, p. 310) published a questionnaire naively entitled *Éléments qui les sciences naturelles fournir à la* [ought to provide for] *statistique*. See also Sheynin (1980, p. 332).

14

Such a plan would be worthy for three scientists of the state (Statsgelehrten)¹.

1. An official says: I ought to head the departments responsible for the power of the state. How can I achieve this without knowing them? I should ready them and first of all reveal much by my know-how. This power is incessantly changing and I ought to pay attention carefully and continuously to its decreases and increases which will allow me to hinder the former and promote the latter. The study of all occurrences of any kind is my duty.

2. The ordinary citizen thinks: I ought to love my fatherland but how is it possible without knowledge? It certainly has advantages over other countries, but I ought to know them to be glad and thankful. It also certainly

has some faults and weaknesses which I can possibly rectify by word and deed, is this not the duty of a citizen?

3. A cosmopolitan says: I wish to measure the happiness of the people (*the quantum of happiness* enjoyed by the inhabitants, see § 5) as properly as possible. I will compare the states, one with another, according to the degree of the prosperity or misery [of their inhabitants]. Oh, what an elevated mathematics!

Each of the three apparently has his own aim, and are they not just as apparently worthy of attention? They need to know the land which is achieved by studying the presumed collection of the 20 special descriptions. However, they get the feel, measure the pulse, so to say, of the thus discovered statement, and single out if it, of this statement, what influences the welfare of the state. But to achieve this aim it is necessary to possess a peculiar tact and a practised eye, which only other scholarly knowledge can engender. And thus enters the statistician. He is not the state entomologist, but, when he discovers a *woodworm* which threatens to destroy the priceless forests of his fatherland, he is not ashamed to include this fact in detail in his yearly report to his government². This entomological trifle became a remarkable feature of a state.

And the Iceland moss and veronica are also remarkable features if they are indigenous to Portugal or Spain but still are prescribed [ordered? The verb *verschreiben* has two meanings] from without³.

And so, here is the definition long ago discovered by Achenwall but now more precisely developed: Statistics of a land and people is the embodiment of the remarkable features of the state. Who wishes to study them, or ought to begin by selecting them

1) Isolates from the innumerable quantity of remarkable features only those which essentially are features of the state.

2) Make visible those features, whose specifications are not obvious.

3) Arrange all his data so that they will be easily surveyed, the overall conditions of the state can be judged and their quantitative comparison with the conditions at other times or with other states made possible.

So what does *not* belong to statistics and what differs it from many descriptions of other (andern)⁴ lands and people? The compiler of reports leaves to aesthetes picturesque descriptions of delightful areas, and neither does history, even of antiquity, concern him. (Except the description of cases such as travellers from afar yearly spending in poor Rome several hundred thousands scudi⁵.) Geographical data, as for example, *England is an island*, are statistical only when they show British omnipotence. This explains the difference between pure and dry geography⁶ and, if such a name is admitted, political geography.

So what does *necessarily* belong to statistics according to the definition above if the old and much of the new statistics is disregarded? Except the never doubted objects and certainly including the management of the state, both as it should be in all its branches and as it really is? Does the happiness of the citizens less depend for example on the judiciary than on all other causes taken together? And who risks weighing the weal and woe of a people without taking into account the constitution (the form of the government)? Poland, with a population of 12 *mln* and other main sources of power is nowadays going down solely because of the form of its government⁷. Germans (conceived as a single unit) are one of the three great nations. The German nation is hardier than the French and better cultured than the Russians. During the latest two years they, with their great power, have becoming the laughing stock of Europe solely because of the form of its government! *Exoriare aliquis nostris* (try to praise something of ours)!

Or, should we as a nation wish for a Corsican [for Napoleon] to save us from damage, disgrace and shame?

Notes

1. No one of these three was a scientist.
2. That fact should have been immediately reported.
3. This example is incomprehensible and testifies to Schlözer's carelessness.
4. How did other countries enter (also a few lines above)? Even Leibniz, in a manuscript of 1680 recommended to compare different states or different periods in the life of the same state (Sheynin 1977, p. 224). Quetelet (1846, p. 297) noted however that states were apparently pleased to prevent any comparison by publishing their reports in various forms.
5. I had not found any appropriate scudi and neither can I comment on this unnecessary example.
6. Geography ought to explain, and does explain its data, otherwise it would not have been a science. For example, to explain why there are so many lakes in a certain locality. And there exists a connection between those data and the geology of the same region.
7. In 1795, Poland was partitioned (for the third time), and Schlözer's conclusion about that state is incomprehensible. And what kind of a government could have existed in a non-existing single Germany?

15

The following remarks can also preliminarily serve for further elucidation (Erläuterung) and recognition of the accepted definition [of statistics].

1. Truth is naturally the first and necessary property of a statistical statement. But fact is a stubborn creature, as an Englishman had expressed it, and a statistical fact is the most stubborn. This explains why untruthfulness is all the time overlooked in the statistics of most kingdoms. The cause of this fact is that the study [of statistics as a science] began a few decades too early¹.

30 years ago our curiosity about such knowledge became boisterous but reliable data were extremely rare since in those times people had generally shied away from publication². Presupposing however that data must become some time available, they had been created as though a priori on the grounds of estimation and conjecture and stated with true impudence. Numbers for the areas of whole kingdoms, for the populations, import and export etc. were taken out of thin air or from unreliable travelogues. I have repeatedly seen much older foolishness like the number of people on God's Earth, the area of all the dry land, the ratio of births and deaths, when these numbers were yet unavailable. The reader was glad when he only encountered rounded numbers and had not suspected that mostly they were grossly fabricated.

Nowadays a legion of authors of pocket calendars disseminate them among the general public; the *Tabellenmacher* partly engrave their false statistical data on copper³; the searchers of proportions (especially in economics) bombarded the readers craving for knowledge with monstrous ratios. And thus the new investigations have been exposed to the danger of becoming absurd. With a just contempt the better educated businessmen look down on the *lectern and study room statisticians*, as they named those researchers. Today the main rule is valid:

2. The most important statistical data can be only collected by the government rather than by private citizens. The areas of whole kingdoms are determined trigonometrically; the total area of the cultivated land by geometric measurements⁴; the yields of grain, wine, silk, and a hundred other items, – all this can only be collected and published by the government by order and appropriate institutions.

Every happiness for us, statisticians of the new century! How carefree (or ignorant) had been most governments with respect to such matters only a generation ago! The uncountable monarchs did not know the number of their subjects; and when they nevertheless did know it, they treated it as a top secret which the neighbour and all the more the public should not know⁵. The enlightenment made the monarchs more careful and candid. The dishonourable difference between the government and statistics collected in universities disappeared. An author does not know what the minister knew and had been idling too obviously. Only sometimes he was able, by applying his art of treatment [of what?], he tells the minister something new. If he [the minister] needs genuine official news and is compelled to elicit them from private enlightened citizens (*citoyens éclairés*, see § 8), search travelogues or even find them in newspapers, *gleich dem terminierenden Kapuziner*⁶, he names and appreciates his source and prudently shelters himself by remarking *relata refero*.

3. Even the data published by the government itself or approved by it can be wrong. Decrees and fines cannot force out the truth. The authorities ought to give the appropriate officers detailed and clear directions and skilfully compiled specimens for submitting the required news, and all this should be easily, mechanically and uniquely executed⁷. But still, governments, especially during their first years in office, before these prescriptions become fully implemented, should remain prepared that clumsiness caused by carelessness and even intention will allow mistakes to creep into population, church and commercial lists⁸.

4. Data can be correct but almost useless if indefinite as when not expressed, as mostly required, numerically. *The city has flourishing manufactures which employ a grand nombre d'ouvriers*, or, a *prodigieuse quantité of silk is produced in rural areas*, etc. Such are the favourite phrases of many authors of many travelogues who wish to say something without knowing anything.

Many translators are cruel to their readers in another way: they discuss [French and German units of areas as though they were identical].

5, 6. Many items are real remarkable features of a state but seem not to be of that kind. Inversely, many items do not deserve to be thus named, but the ignorant turn to them all their attention.

Two remarks are important, mainly for young travellers. They attempt to study people and countries and therefore to become able to claim a position as a state officer. They begin without any preparations *le tour de l'Europe (à l'Anglois* [in the English manner]). However, during their travels they do not turn their attention, do not find out, do not study what they should have observed, found out or investigated. They were instructed at court festivities, audiences and

assemblies but never heard about such problems (and consequently are not interested in them) as: Can the peasant read and write? Can he sacrifice [as taxes] 1/5 or 1/3 of his miserable income to the state? Is torture still usual?

7. Much data seem insignificant and is overlooked. Their importance is hidden and can only be discovered by deduction. Talent and erudition of a statistician appear here. The richer is his knowledge of every kind, the oftener and sometimes suddenly he discovers a connection between two phenomena as between cause and effect⁹, a connection which would have never crossed the mind of a *homme des lettres* [man of letters] without any other qualifications.

In itself, the clothing of a nation is not a state remarkable feature. However, if a corset which are trendy among women and children in the Hautes-Alpes lead to *consequences extrêmement facheuses chez les femmes enceintes* [extremely troublesome consequences for pregnant women] ([Laumond an X] *Statistique du dépt. des Hautes-Alpes*, p. 18), then these corsets become a state remarkable feature.

8. The observer overlooks other material if it only occurs separately and rarely. Its importance only becomes clear by summing up all the small numbers which only the government can provide. Should an institution for taking care of deaf mutes be established in each large state? These unfortunate people, as we are usually thinking, are extraordinarily rare, but in Germany alone their total number was recently estimated as 25 thousand¹⁰.

A baby is smothered in his sleep by his mother or oftener by a carefree wet nurse. Such unhappy cases do not occur often and at least not often become known. The Swedish tables counted and discovered that the mean yearly value for nine years was 650 deaths. Therefore, in a ten times more populous country, 6500 cases of such sorrowful deaths? And how many cases have been covered up?

For preventing them a device Arcuccio widely used in Italy is recommended. It has the merit of being described in the *Phil. Trans. Roy. Soc.* and the *Abhandlungen* of the Swedish Academy of Sciences. The medical board of Stockholm had even ordered models of that simple device and sent them to each *Landshauptmannschaft* [main commune?].

9. To know the number of dogs in a kingdom is usually unnecessary. But if hunger threatens a province? Or the finance minister proposes to restrict the number of disposable dogs¹¹? And here we have a new rule: that, which was not a state remarkable feature at one time, can become such at another time and under other circumstances.

10. Is our science even nowadays less free from charlatanism (as compared with § 8)¹²? It includes many much worse weaknesses, much ignorance and untruthfulness showed in a great many cases. Ridiculous cases are unworthy of any censure, but there are times when, and circumstances under which they can become important and even dangerous.

Göttingen [in Lower Saxony] is situated in *Westphalia*, tells us the *Dictionnaire Encyclopédique*. [...]

In the Hanover corps there is a regiment which is constantly at the disposal of the English East India trading company there.

This could have happened almost as likely as that a Swiss regiment for centuries has been serving the French and Spanish etc. armies as a mercenary unit which, however, is not true. And why is it allowed to publish such an uncouth lie which can, according to circumstances, become poisonous, in a respected newspaper? Nevertheless, the world history provides much more essential examples. It is really permissible for the honour of our science to maintain without exaggeration that only statistical ignorance (expressed in publications) often led to revolutions, to irreplaceable disadvantages for a whole nation and other nations had been then unintentionally tempted into garish injustice.

During half a century the Prussian power had been gradually but greatly increasing and the ruler of that state was not anymore le Marquis de Brandenburg¹³ as he was still called in 1672 in France. But in 1740 the Austrian Cabinet did not know it¹⁴. Maria Theresa remained inflexible on Friedrich's just claim and lost a small kingdom.

After the death of Peter the Great Russia retained its gained territory. The ignorant Jan Hagel who in 1738 had slipped into the Stockholm parliament declared war, – the weakened dwarf declared war¹⁵ against his neighbour, the strengthened giant!

In the War of the Austrian Succession [1740 – 1748] the French minister of the day had been warned that Russia will be drawn into it, but he replied: *What can the Arian* [the empress Elisabeth – Schl.] *do to us?* But she compelled Loius [XV] the Beloved of France [1710 – 1774] to make a dishonourable peace at Aix-la-Chapelle (also called peace at Aachen).

Still dearer had the Turks atoned in 1768 and 1787 for staying behind in their knowledge of Russia. [Other barely understandable examples pertaining to ancient history followed.]

11. Statistics and despotism do not get along together. Innumerable weaknesses of the country are mistakes in governing the state. Statistics shows it, thus checks the government and even becomes its prosecutor. The despot harshly perceives this since he sees a list of his sins in such statements.

The history of our science provides noticeable examples of how gloriously had it flourished in many countries then suddenly disappeared once more¹⁶. When the satrap reports untruths or passes in silence the weaknesses of the country of which he himself was perhaps guilty, – who then will expect that the enlightened patriots raise their voices against him since they are afraid of the satrap's long arm? And when the honest statistician is chased from his rostrum he is replaced by his bastard sister, the *chronique scandaleuse*, which proclaims truths and lies pell-mell and in any case breeds tyrants.

12. On the contrary, an honest statistics continuing year after year is like a barometer of civil liberty as well as an unsuspected and documentary eulogy to a wise government. Uncountable blessing in the country is the result of its work. The citizen now discovers documented information in numbers about the growth of the

population and the increase of exports; about the decrease in the number of serious crimes and consequently of death sentences etc. What a sweet reward for good regents! They begin to study the yearly reports about their kingdoms and even learn them by heart.

So many have never appeared before! as one day stated Friedrich I (der Einzige) after a glance in a church list at the sum of all the births in his kingdom. *Only eight have run away* (emigrated – Schl.) *in the previous year*, as I heard the last but one Duke of Württemberg say.

13. An inappropriate concealment can have many causes. It happens out of fear. The Polish government banned the publication of Polish history written by Dlugosch because it began by a correct description of the geography of the country and included news like *The invasion of the enemy can be useful*. This ban was occasioned by shame.

The German free city [of the Holy Roman Empire] whose decay had been also ever clearer indicated by the [decreasing] number of its inhabitants prevented its usual weekly paper from continuing to include its usual information about the yearly births, deaths and marriages. However, in the latest war, some German states had to pay dearly for such mysteries. The journalists had disseminated utterly false exaggerated news about the power of each Land. Their governments were too careless or had a too high opinion about themselves (vornehm) for favouring the public by corrections. Then came the enemy and pillaged the inhabitants according to the utterly false journalistic information.

14. The concept of statistical remarkable features is relative: what really deserves to be remarkable for a small Land or a single district of a large Land (for example, when separate villages are supported by an unwise pilgrimage to a wonder-working image) is not always sufficiently worthy for the entire whole. A small stream should not be forgotten in a topographical description, but its inclusion [on a small scale map] is damaging.

15. There certainly exist statistical truths in the strictest sense. However, even when the data are numerous, no one will always require, with a mien *des goût de précision* [of a feeling of precision], arithmetic precision. [Translated according to the context.] Indeed, I read in my Russian papers:

In 1761, from Astrakhan on the Caspian Sea there were sent southward 303,000 Russian and 40,000 foreign needles totally worth 152½ roubles and in 1762, 1,066,500 and 2,530,800 needles respectively totally worth 2504 roubles 85 kopecks.

It is quite probable that there had been a few or even a few thousand needles more or less than stated. The zeros at the end of those numbers arouse suspicion but nevertheless I feel that these data are credible and useful in many respects.

The two last remarks, **14** and **15**, are included to protect the reader, when necessary, against chicanery and doctrinairism. But there certainly exist data whose small errors, even less than a hundred units, are not allowed.

Notes

1. Why too early was bad? And why statistical facts are most stubborn? On this point it is opportune to quote Humboldt. In 1838, as quoted by Knies (1850, p. 145), he stated:

In the political household, just like when studying natural phenomena, numbers are always the decisive, the last relentless judges.

2. This statement, as also much else, is not documented.

3. Did only tabular statisticians publish false data? In § 24bis Schlözer evidently changed his mind and even at the end of § 4 he positively referred to statistical tables.

4. In both cases, measurements were made by geodesists and Schlözer's description is not good enough.

5. Wargentin (Nordenmark 1929, p. 249) indicated that in Sweden up to ca. 1766 the lists of births and deaths had been considered as top secret. Quetelet (1853, p. 542) recalled that the (Belgian) minister of the interior *strangled* one of his early contributions since he was afraid [somewhat justifiably] of a harmful influence of the statistics on criminality. Herrmann (1809/1963, pp. 60 – 61) considered concealment useless and harmful since in particular it engendered libel.

6. Official information from private citizens?

7. Standardisation should nevertheless leave room for initiative.

8. Intention is a special cause. Then, lists of population had often been the same as church lists.

9. This phrase indirectly testified that statistics ought to study causes and effects.

10. Here and below relative numbers would have been much more instructive.

11. Both examples are unworthy.

12. No, statistical ignorance is far from being the only cause. History knows many examples of the actions of those responsible which were based on intrigues, political or private considerations, see for example Sharon (1981, p. 265) and Steven (1989, p. 297ff). Here is Sharon's opinion (1989, p. 222) about Israel's national hero, Moshe Dayan, as a soldier and the Minister of Defence:

The most courageous man on any battlefield and the least courageous [a coward] at taking a stand in public.

Then, statistical information is often neglected when it contradicts subjective opinion, it can be incomplete and in any case it requires interpretation. It is also proper to mention Chernoff & Moses (1959, p. 1):

Today's statistician will more likely say that statistics is concerned with decision making in the face of uncertainty.

13. The last Marquis de Brandenburg was Friedrich III in 1688 – 1713. In 1701 he became king of Prussia and founded the kingdom of that name.

14. Rather: had not properly appreciated it. Maria Theresa (1717 – 1780), sovereign of several countries including Austria and Hungary. Friedrich II of Prussia invaded and took Silesia. Unsuccessfully, she tried to recover it during the Seven Years' War (1756 – 1763).

15. Schlözer refers to the Swedish-Russian war of 1741 – 1743.

16. *In 1801, the French minister of the interior, Lucien Bonaparte, established the first proper statistical bureau and Napoleon as First Consul supported it. However, after becoming emperor, he began to consider the publication of statistical data with suspicion. The Bureau had been weakening and faded away until the 1830s.*

A. I. Chuprov, father of the better known A. A. Chuprov (1910, p. 60).

V. The Main Parts of Statistics and Their Most Appropriate Arrangement

16

Even if the author of a statistical description of a state most carefully separates the superfluous from the necessary, he will be still overwhelmed by facts. So when so many magnitudes are involved, plan and order in their partition are essential. And if [independent] descriptions ought to be processed to form a single whole, or one such whole ought to be compared with another, then uniformity of their arrangements is infinitely advantageous.

Suppose that until now nothing is determined. Three descriptions of the same state are, even if their underlying conceptions of statistics are

identical, and all of them describe almost the same facts, but still each arranges them in his own way. For example, Achenwall described Spain¹ under the following sections:

1. History (does not belong to statistics. Schl.)
 2. Territory. Rivers. Provinces, abundances and shortages. Neighbouring states in other parts of the world
 3. Inhabitants. Their number and character
 4. Public law. Main laws of the kingdom. Succession to the throne. Age of majority. Management of the kingdom. Accession to the throne. Rights of the government. Estates. The higher nobility
 5. The structure of the court and government. The titles of the king and his children. Coat of arms. Statistics of the court. Orders of knights. State councillors. Kirchenwesen. Inquisition. Erudition. Laws, administration of justice. Diligence and manufactures. Internal and foreign trade. Trade with colonies and Europe. Coinage. The king's income, general and provincial pensions. Incomes, their decline and betterment. Land and sea power
 6. Interests (Taxes?).
- Forgotten: relations with other powers. Schl.

Sprengel [1793]. Area, climate, borders, mountains and rivers, provinces: produce, shortages. Neighbouring countries in [either of?] three continents and their produce. Population. Main laws, age of majority. Regency, coronation. Constitution. The real situation. Titles and the coat of arms. The court, statistics of the court. Orders of knights. Government, Kirchenwesen, inquisition, ecclesiastic public law. State of the sciences. Laws, administration of justice. Factories and manufactures. Internal trade, trade with colonies and Europe. Coinage. Bank of S. Carlos. Finance. Provincial pensions. Income from America. Total Spanish income. State debts. Land and sea power. Agreements with other powers

Meusel [1792]. He isolates two categories. I. Parts of the state, territory and people. 1. Area. 2. Borders and subdivision. 3. Produce

II. Government: its form and institutions of seven categories

The authors of *French* statistics have either no plan or each has his own plan². Thus, the statistics of département Bas-Rhin [Laumond an X] begins with the culture of the madder dye plant and tobacco, then mentions forests, paper mills and printing works, describes the history of printing, mentions the titles of all the books which were published in Strasbourg³ during the latest eighteen months, indicates two places die berühmte Strasburger Gelehrten samt ihren Werken an und schließt mit München und Vorschlägen, wo nicht die deutsche Sprache im Elsas ganz auszurorten, doch die französische selbst auf dem Lande mehr in Gang zu bringen⁴.

Notes

1. But which countries do the other German authors (see below) describe? Somewhat later Schlözer's son (Shlözer C. 1823/1827) listed similar objects. I (Sheynin 2014/2016, pp. 20 – 21) provided their summary. O. S.
2. German authors (see above) also had their own plans.
3. Strasbourg was a German city in 1871 – 1918.
4. For me, the translation of these lines proved too difficult.

17

There should be order, plan and a complete system if our science must solve the problem of measuring the happiness of a people and its advances and relapses. Who only disorderly collects isolated facts one after another¹ about the number of people, their culture, agriculture etc. and submits his collection under the name of statistics to the public or his seniors eradicates the entire essence of science and unity.

That order is not wholly arbitrary. The parts of the description ought to be complete, natural and interrelated. Everything which is

qualified as a state remarkable feature should be casually contained in one of these parts. However, the important parts ought to stand out and the less important only inserted into them.

I doubt whether the quoted examples of ordering the material sufficiently satisfy these requirements. Still, instead of criticizing and arguing I will only provide my own arrangement and justify it.

Note

1. This is also an order, but a bad order.

18

The knowledge of a state is wholly expressed by the formula *vires – unitae – agunt*¹. And all the conceivable differences between states [the conceivably different states] can be without any strain brought into exactly these three categories.

1. Vires. The degree of the strength of a state, the source of all the common blessings, the strength either natural or acquired by art, the main power. I subdivide it into four parts: *people, territory, produce, money in circulation*.

2. Unitae. The kind of unions of strength: people, form of government, structure, constitution of the state

3. Agunt. The real application of the united mass of the strength. The composition of the government and its institutions. Governing of the state

Whether and how all the objects of statistics are brought without strain into those three categories, where are for example culture, commerce, hospitals, Ehren-Enter-Beile [honourable battle axes?] of the order of knights, meteorology etc. is shown below. That a complete and interrelated whole emerges from that ordering is already seen at a glance².

Notes

1. Many authors had been keeping to that formula or pattern. I am told, however, that its proper translation is extremely difficult.

2. It is also extremely difficult to understand those masses of strength or to agree, for example, that battle axes and meteorology should be considered side by side.

VI. Different Methods of Treating Statistics

19

The treatment of our science occurs in three different ways. The official creates it, the private author only collects it, and the theoretician seeks advice from both about the art of creation and collection.

20. The Creator

When will we arrive at last at obtaining the *main statistics* created and published under public authority of all or at least all most important European states? Nowadays, I do not know even one such statistics. If my idea of a main statistics is correct, anyone will hardly doubt whether such is possible to compile, useful or even necessary. I will explain that idea by a fictitious example.

Suppose that a little while ago a barbarously (ignorantly) governed state (Georgia, Moldau and Walachia, Galicia and Lodomerien, Lithuania, Egypt, Greece etc.)¹ fell to a cultivated government. The

country is a state of the third size with ca. 2½ mln inhabitants. It is subdivided into eight provinces with 200,000 – 400,000 people in each. Suppose also that in spite of all the countries' barbarism each of its villages has a cleric and a chief (for example, a mayor), both literate.

After a successful peaceful (ruhiger) seizure of the country by bayonet, twelve-pounders and manifests, the first trouble of the new regent will naturally be to become acquainted with his acquisition either for its benefit or to suck it out. He will preliminarily only achieve this aim by employing and sending out the following specialists².

A mathematician cum physicist. He will measure the territory and find out its real area, determine the polar altitude [and therefore the latitude] of the most important places and the boundaries of the provinces. He will also describe everything natural: the flow of the rivers, the height of the mountains, the climate.

A geographer. He will establish everything changed by man, will name and count the towns, villages and the main streets, measure and count the area of the cultivated land, the forests and waste ground.

A naturalist. He will find out all the produce of the three or four kingdoms of nature. For him, knowledge of mining is especially recommended.

An economist. He will describe the agriculture, find out how the people feed themselves, how they live and dress. Handicraft and trade are so insignificant that he can challenge the need of their description².

Meanwhile, the number of the inhabitants will be counted by the mayors, the clerics taught the compilation of lists of births, deaths and marriages. The degree of culture of the nation or its lack will be revealed all by itself and by the observations mentioned above. For the time being, its study does not require any special scientists.

And so, four emissaries were necessary for a first study. Each ought to be a skilled master of his speciality. The expansion, which almost all the sciences have experienced in the new times, do not leave room for a pansophist, a universal scientist, for no *ex omnibus aliquid* [*Jack of all trades*; end of full quotation: *master of none*]. The most skilled mathematician can judge as naively as a child judge the wrong way round about agriculture³.

The emissaries should be paid, but who refunds them their small expenses which are often more than compensated by a discovery (for example, of mineral water or coal)?

Much of the summary of all the general data which I call main statistics never changes as for example the polar altitude, most of the boundaries, the flow of rivers etc. and therefore do not require any special repeated descriptions.

Notes

1. Georgia and Greece had not been barbarous, and perhaps some of the other countries as well. Incidentally, Schlözer had listed countries and regions one after another. Lodomerien is a historical region in the north-western Ukraine.

2. A serene seizure by bayonet and cannon? By a government rather than by a country? By a country whose inhabitants possibly belonged to another ethnical group and/or professed another religion?

Four specialists rather than four expeditions sent out for many years (cf. § 21). Climate alone can only be established by a long sequence of years. Land surveyors were absent and geographers named everything which certainly had been already named. Sheer nonsense flavoured by unnecessary trifles (see below). This however seems to be Schlözer's method of instructing beginners.

3. Cf. Chuprov (1922/1960, p. 416):

Mathematicians playing with statistics can only be defeated by statisticians armed with mathematics.

21. [The Creator (Continued)]

The work on that main statistics will last ten years and the information gained will only be general, superficial and to a large extent only half true¹. Then however appear the governor generals of the provinces with their yearly statistical reports (*Tableaux annuels, Annuaries*) which gradually complete and correct the data and go into details. The government institutions multiply and improve their work and all the branches of the government get their own departments. Only there the governor general, who is not a universal scientist, will obtain the necessary reports and his experienced editor create their whole².

All the eight provinces thus form a great entity, the main statistics. Over the years it will be corrected and widened and each five or ten years a new edition will be compiled. The details in the provincial reports will be shown in tables and the appropriate mean values calculated. Over [the latest] 30 years each state which claimed to be cultural had issued their calendars. Along with those calendars, will not a regularly published or, better, an incessantly continuing publication, of what I call the main, or state statistics be of a high value and practically very useful for the people, government and foreign countries?

During several generations the former barbarous country will be elevated even to the level of literal culture. Apart from elementary schools, there exist now educational institutions of a higher rank, gymnasiums (in the German sense) in the cities and universities common for some provinces. How many employees [of those universities] will then nach ihrem Vorgänge without being called or paid ask to perfect the study of their fatherland?

And now the work will be subdivided: one will devote his life to domestic botany, another, to meteorology etc. Whole volumes of special descriptions will appear (cf. § 12). Isolated observations will be published in journals and almanacs (which each province ought to have³). From then onwards the superficial will have to give way to the thorough and the truth and completeness will irrepressibly advance.

Our investigation has a natural appeal, it flatters curiosity (*curiositas naturalis*, Linnaeus) and extremely little is needed to start up fully this noble drive, to direct it most advantageously for a whole nation to begin thinking statistically.

Note

1. In the beginning of § 20 Schlözer stated the opposite.

2. In my fictitious example I have chosen a country which should have been brought out as a whole from its crude existence. It is infinitely easier to realize that idea, if deserved, in the case in which a country has a flourishing literary culture of another kind and much statistical material is already available and even people

living in the *große Hause* read statistical descriptions of their own and foreign countries as their favourite topic. Schl.

3. A doubtful statement.

22. [The Creator (continued)]

How will it be if the country is large and subdivided into 80 or more provinces rather than in eight? The work will be immense and planning all the more necessary. But then, the advantage for the science becomes greater to the same extent if the governments of those nations will be pleased to take care of the necessary work.

I mention only one such advantage. A great constant order worthy of surprise and study is governing the lives and deaths of humanity¹. Anthropology, natural law, finance, but its precise discovery can be only expected by statistical means. This order is concealed and deceives us in details, but the numbers become the clearer the more reliable are the proportions for the whole, for example, between the births and the living, between the births and the deaths of both genders and even between the various illnesses (see below²).

Until now, generally speaking, only three countries have mostly determined such proportions, Sweden, Prussia and Denmark. All the three are, however, countries of the third size (Prussia, until 1773). Neither Spain, nor England, both of them countries of the second size, had done anything³. All the required wishes had been long ago sent to the three great monarchies, Russia, France and Austria. If only they had reached Zavadovsky⁴ and Chaptal! They would have certainly fulfilled them.

Notes

1. Schlözer certainly borrowed this statement from Süßmilch.

2. That order is embodied in various proportions. Schlözer did not however return to the stated subject.

3. In 1772, Prussia essentially strengthened as the result of the first partition of Poland. In England, Arbuthnot and De Moivre studied the sex ratio at birth (and the latter, by issuing from that problem, derived the first version of the central limit theorem). Then, Schlözer should have mentioned Gregory King, 1648 – 1712, see Pearson (1978, pp. 101 – 113) to say nothing about Petty, Graunt and Halley whom he ignored.

4. Petr Vasilievich Zavadovsky, 1739 – 1812, a statesman.

23. The Collector

Until now, not each government provided either its inhabitants or foreigners with a complete and authentic description of the state remarkable features. It would be a commendable work if done by private authors, but they are unable to accomplish it (§ 15).

They only collect (and what they can add to the collected from their own observation is insignificant as compared with the whole). My reasoning presupposes an already available stock of statistical materials and not quite a crude state (as the Crimea had been under the khans). And the quantity and quality of that stock coupled with the skill of the authors to detect and apply it proficiently determine the value of a statistics as well as of its authors.

This, however, is the main question: where are the sources from which a proper statistician creates his materials? Here begin the criticisms of our science which ought to become ever stricter for the

author, the statistician, to remain meritorious. Nevertheless, it is unconceivable how thoughtless even famous authors proceed with statistical statements. They often casually cast adventurous materials and either do not cite anyone so that the reader ought to take their words on trust, or refer to witnesses of whom they should have been ashamed.

But why do we only discuss statisticians? A very extensive number of ordinary people who never published anything meddle nowadays in statistics. Erudite societies as well as those who are sitting in beer cellars discourse upon the ways of the world. Famous political intriguers so often fall flat on their faces not since they do not know the rules of deductive reasoning but mostly because their premises, cock and bull stories, are unsuitable. They unhappily accepted such stories believing someone who dared to inform them about a snug statement the more so if it was published in a newspaper.

Even the educated sometimes forget themselves, and we formulate a more general question: What happens when an important subject (for example, how much paper money is circulating in Russia and in England; who will succeed to the throne if the Prince of Wales will have no sons; does there exist a single free peasant owning land property in the kingdom of Naples; how large is the money allowance of European soldiers in Bengal; etc.) is broached in a conversation and the opinions differ? How will each justify his propositions, to which authorities will he refer? And if the authorities differ as well, which of them should he choose to achieve certainty?

All those authorities with which a proper statistician can achieve respect both for his statements formulated in publications and discourse, all those sources from which he ought to, or in the last resort (the only one with reservation) may issue? I enumerate five such sources: official documents; state notes; descriptions of the country; travelogues; and newspapers. Just in that order follow their merits and reliability.

24. [The Collector (Continued)]

1. Official documents. Statistics, just like other historical sciences¹, has its true official documents which had been for a long time open to the public but not sufficiently applied. We have reliable collections of the main agreements between rulers and population², of peace treatises, negotiations about borders, treatises about alliances by Dupont, Martens [G. F. Martens, 1756 – 1821] and many other authors. Such collections exceptionally ease fundamental studies. Just the same, the documents about the administration of justice of all the cultured nations.

Also, the structure and instructions of other state collectives are almost nowhere concealed. However, the richest statistical treasure is contained in the directions about all the branches of government which are everywhere published separately. Who will not preferably take them into consideration? How different is, for example, the freedom of the press in Russia from Paris or Berlin? Of the obligatory publication in Copenhagen and Vienna? I would not like to ask any author of a travelogue about such problems since there exist relevant

published instructions. Naturally, the application of this wonderful source is very difficult. Indeed,

1) In most states the number of such instructions is immense. How much time and trouble require their statistical treatment!

2) They rarely surface in foreign countries and none arrive in bookshops. Excerpts in newspapers are not sufficient (and scientific correspondence becomes ever less bearable since some governments, primarily in France and Prussia, began to transform the postal service which previously benevolently and leniently treated its customers into an intentional source of revenue).

In many countries the separate publications are sometimes reprinted in collections which find their way into the bookshops and libraries.

3) Naturally, all these instructions are compiled in the pertinent languages. What an army of languages will be necessary for someone who wishes to acquaint himself by documents at least with Europe! In this respect, German investigators have an important advantage over those of other nations. The Dutch, Swedish, Danish and English are easy for them. And Latin, with which they were coached from childhood, will rapidly lead them to the Spanish, Portuguese, Italian and French languages. Only Slavic languages will be as difficult for them as German is for the French.

4) And who is considerably versed in a foreign language still has to battle with officialese and the artificial language. A man can read Voltaire in prose und Vorsa (?) [in French] but still in many places of a [French] instruction in finance or manufactures he will be helpless even with best dictionaries.

2. State notes. Thus I call all the rest which is not a document in the strictest sense but published under official authority which directly or obliquely influenced their appearance. Among such documents are deductions (Deduktionen), state calendars, intelligence bulletins and even papers from court newspapers if they concern statistical matters.

Reports which the government requires from wholly organized state boards are as authentic as official documents. Also the reports which some specialists (Geschäftsmänner) compile about the departments which they head but only if such reports are signed by themselves and made available to the public. Thus, Herzberg³, Heynitz (1786) and Necker (1784). Many English *pamphlets* are of the same worth. Ministers often provide material even if they had not compiled it themselves.

For a long while I deeply trusted all the so-called *official reports* since I assumed that no government will without damaging its honour accept clear and often *notorious* falsehoods from its officers and publish them as though compiled by the government. However, what I had especially experienced fourteen years ago shook my former submissive trust. [I found out that] there are times and situations when some part of such authorised lies become necessarily known whereas the other injured part had to be concealed, at least for the time being.

3. Descriptions of the country as opposed to all travelogues about foreign parts. In our time, each nation with printing facilities has a domestic stock, and most of them, a rich stock of news concerning the

country. And the inhabitants (in most cases justifiably) know their fatherland better than any foreigner⁴. Therefore, if only we can surmount the accompanying difficulties such as mentioned, for example, in section 1 above, we mostly study Swedish and Portuguese statistics by Swedish and Portuguese publications respectively.

In many cases, out of national pride or ignorance of the situation in other countries the inhabitant will exaggerate or, out of fear or interest, even falsify and keep silent about much. All this is known but does not depreciate the general rule [?].

These were the three most reliable sources of statistical truths but they are not sufficient. The two following sources are just as indispensable but require a still more diligent criticism.

4. Travelogues. Thus I call all that, contrary to what is reported by the inhabitants about their countries (cf. section 3). An inhabitant can travel all over his country and describe it as Linnaeus and Young did⁵ but such cases belong not here, but to that same section 3.

For countries lacking culture travelogues are the only source [of statistical information], but for other parts, only a supplementary substitute applied in the last resort and only if the traveller does not report by hearsay.

The public is being overwhelmed by such descriptions of every kind, especially during the latest twenty years, and there will be even more of the same after each fair. There are great differences between excellent, good, tolerable, bad and downright awful travelogues. For classifying them, i. e., for being able to determine the author whose facts and numbers may be repeated without fear or disgrace, it is necessary to be a knowledgeable statistician.

Even 30 years ago most statistics written by Germans about foreign countries had been almost only rhapsodies [enthusiastic stories] extracted from travelogues. Now, however, we are more careful.

5. Newspapers. I write this word with a feeling of deep respect. Newspapers are one of the greatest vehicles of culture which made us, the inhabitants of Europe, Europeans. It is fitting that even now the French and the Germans are arguing over the honour of their invention⁶. Nevertheless, the human race had been unable to enjoy them before two other important novelties were introduced, printing houses and postal services. What would have been especially our newest daily statistics without newspapers?

In the Middle Ages there could have existed and declined states which became known to people living a few hundred miles apart only after the passage of some years. Nevertheless, we do not say anymore as [J. J.] Schmauss did in 1740 in a printed notice about his lectures in Göttingen that *We mostly learn the newest history from newspapers* [and statistics, mostly or only from them? Schl.]

Narrow-minded is the man who does not read newspapers, but still more narrow-minded if he considers that a message is true just because *it is stated in a newspaper*. One should understand the work of a large newspaper. We should know that the publisher, the editor and the correspondents differ. The last-mentioned are usually those from whom even the most skilled editor ought to depend.

For a long time now, London alone publishes 38 different newspapers and in 1792 fifteen million copies of them had been

printed in the country. In Germany, the desire to read newspapers is not so strong but the influence of German newspapers on the ideas and way of thinking of our nation is nevertheless powerful and it will therefore become either enlightened or uneducated⁷. It is the lower stratum of the readers of newspapers that suffers mostly, and since it constitutes the majority, it deserves to be instructed by special booklets in the art of reading newspapers. For example, tell them who is so often the source of important news which are introduced by *it is said that*? That source is certainly an insignificant unknown person in a coffee house whose twaddle stealthily heard a correspondent and sent it to his newspaper.

The man from the lower stratum should be warned against believing at face value that the entire country is already rejoicing at the new regent who was thrust on them thus mocking the previous regent. It is possible that the general rejoicing was a banal invention or that a dozen German Lazzaroni⁸ agreed to rejoice for the usual taler etc. Actually, reading newspapers is an art which the statistician learns as a gratitude for the many boons which he enjoys in the process^{9,10}.

Notes

1. An important statement!
2. It was rather necessary to mention the *social contract*.
3. Schlözer indicated the title: *Mém. hist. sur la monarchie prussienne*. I have only established a few kindred books of that author who was also called Hertzberg.
4. Even they will know their own fatherland only superficially and sometimes wrongly. Witness Soviet citizen who idolized their bloody tyrant. And great many Russian people of nowadays have not understood their own recent history! As to foreign intelligentsia of the 1930s, it had been blind or turned a blind eye on Soviet events (Sheynin 2003, § 4). *The greater part of people is stupid or malicious* (Schlözer, § 12-2).
5. Thomas Young, 1773 – 1829, a person of encyclopaedic learning.
6. The first French newspaper appeared in 1631. In Germany, a *relatively regular* newspaper began to be issued in 1609 (*Great Sov. Enc.*, third edition, vol. 5, 1971, columns 1878 – 1879. There exists an English translation of that edition (1973 – 1983; New York and London).
7. As far as I know, German newspapers became meritorious since they reach the most ordinary people in spite of their almost own defect (dem so leicht, wenn es die Finanz erlaubte abzuhefen wäre) in that at the same time they deliver an intelligencer bulletin for their neighbourhood [?]. And it seems distressing that one of the most famous newspapers, which had actually taken off to the rank of world-class, so often requires its readers in Tobolsk, Constantinople [Istanbul], Batavia, Baltimore etc. to read about a swindler hidden under a pseudonym who announces a healing powder, *pulvis confortativus*, from some secluded nook; about a wife of a sexton in Mecklenburg who gave birth to a stillborn son, – and to pay for such news. Still, this does not harm statistics but three other customs of many German newspapers have a pernicious influence on the people.
 - 1) The long-windedness, the and , with which court celebrations, genealogical changes which change nothing in the world, travels to and fro, gracious government notes, presents of snuff-boxes, appearances of virtuosos and actresses etc. All this accustoms the reader to the spirit of trivial matters, to the study of trifles and to overlooking the really important (see § 15-5).
 - 2) The incessantly repeated long-winded pedantic officialese and deferential style: *Your [...] Majesty have been* (plural! Schl.) *most mercifully pleased to ...* This strengthens the German slavish spirit. Since the Peace of Westphalia [of 1648 which ended the Thirty Years' War of many nations – O. S.], under Hermann's offspring, that spirit has gobbled up everything around it.
- As though the worthy historical style, the majestic *la Roi ordonne* (the king commands) was less appropriate. Even under the Bourbons it was a generally

11 applied officialese which each sensible man willingly rendered to the mighty of this world.

3) The editors are not always guilty when some German newspapers disseminate lies about, and essentially belittle other German nations and, on the contrary, refuse to publish corrections. They, the editors, not rarely find themselves cowardly censored by weak governments and sin under duress. Schl.

There likely existed (exists) one more custom: an overemphasize of sensations. The following saying is attributed to a few different people:

When a dog bites a man, that is not news [...]. But if a man bites a dog, that is news.

The news should have been the number of people bitten yearly by dogs. O. S.

8. Lazzaroni: the poorest people in the kingdom of Naples.

9. Some authors add a sixth source of information: innumerable collections and journals. All by themselves or together with other elements they present statistical contributions. However, these collections are only *supplementary means* rather than *sources* of science. Collectors are not responsible for the correctness of their items which should be preliminarily checked against the five actual sources. Schl.

10. And now statistics emerges as an independent and very serious, vast and burdensome study. The true *layman* is able to ease any science. He plays with statistical contributions, reads them as novels to kill time and does not bother with proofs. Schl.

Cf. Note 3 to § 20. O. S.

23bis [The Collector (the End)]

From statistics in general I return to statistical authors. Such an author applies all the five mentioned sources if only he has them at hand and is sufficiently diligent and skilled for critically applying them. He writes books and booklets called *Statistics*. However, the kind, the range, form and methods of those sources are truly numerous. I am listing some of them perhaps not always naming them most appropriately.

1. General statistics of whole states. We would have naturally wished to have a *complete*, as far as possible, statistics of each state. And if a government itself does not participate in that work (§ 21), then compiled by an inhabitant.

At present, I know only one such statistics (von Schwartner 1798).

2. Special statistics of separate parts of a state. If the general statistics should be complete and precise, such separate statistics of large states ought to be completed beforehand. For a state whose all parts have absolutely the same structure and government institutions (like in France nowadays) the second and third main sections of their special statistics become unnecessary¹ although not for other states which originated due to coalitions with their new regions having preserved their previous rights. Neufchatel² has a completely different structure as well as management than all the other Prussian provinces.

3. Yearly reports of French prefects which prefer to call them *statistiques*. They should be considered as initial sources, as *contributions to special statistics* of the respective provinces and as private works. When someday all these reports are duly ordered they will be honourably placed under state notes (§ 24-2).

4. German *university statistics*³ as it is being taught for 55 years in Göttingen and for a shorter period in most of the other German universities. Achenwall had chosen eight European states (Portugal, Spain, France, Great Britain, Holland, Denmark, Sweden and Russia) and briefly described them. His choice was not the happiest.

Especially notable is that that German teacher had at the very least left out Austria and Prussia. But still many of his followers have been satisfied to keep to that choice.

In The Introduction Achenwall described the concept, the main parts and main objects of his science. Some later authors (Toze [1767], Meusel [1792]) treated Europe as a whole before going on to separate states. Toze included Poland, Meusel described eighteen European countries. Lüder [1792, pp. 1 – 244] in great detail and eruditely explained the objects of statistics.

5. Justifiable or, if you will, pragmatic statistics. In essence, statisticians are only required to collect *facts* [and numbers] (§ 14)⁴ but is not bound to provide causes and effects. However, he often has to name the effects to prove that his facts are statistically important. And in general he lacks life and interest if he does not include in appropriate places the history of [?] causes and effects.

Spain has 11 *mln* inhabitants, a surprisingly small figure for a place of bliss! But why? How utterly different was Spain even three hundred years ago⁵, so what hinders nowadays the growth of its population? Everywhere the governor generals will be probably required to note the causes of the more important phenomena in their provinces as well as to suggest professional means to prevent evil effects.

6. Previous statistics. Usually statistics is only understood as the present situation of a state, but why not some previous situation? History is statistics flowing and statistics is history standing still (see below)⁶, so why should we prevent statistics to stay wherever, and as long as we wish? This means that we choose the time of some previous year or a century which differs from the previous and next periods. French statistics under the last of the Bourbons, how does it contrast with all other periods, with the present state of the monarchy as well! The same under Franz I during the crusades⁷ etc. Actually, we have such previous statistics even from antiquity, only under names which not everyone will suppose to mean statistics: *antiquitates persicae, graecae, romanae, germanicae* etc.

7. World statistics. I have no ideas from Gatterer (1773). He (p. 43) understands it as *the totality of individual and special statistics at a given period of all known states* (on p. 21 he counted 24 – 26 of them). Gatterer believes that a simple addition of all such statistics provides a single whole just *like the pearls on the neck of Phyllis*⁸.

The honoured diplomatist got lost in a field completely alien to him. However, just after that he repeated his efforts to rearrange it.

8. The statistics of Büsching. This is the title of his booklet (1758): *The Preparation for a Thorough and Useful Knowledge of the Geographical Features and the Structure of the State of European Kingdoms and Republics which also is a general outline of Europe*.

It became exceptionally and deservedly successful: its sixth edition appeared in 1784. It is a real statistics, although not of some separate states but ordered according to statistical objects. For example, he showed and compared the kind and magnitude of sea power of all people, the output of all copper mines in Sweden, Hungary, England, Japan etc.

The plan of this work is excellent and there also are some data about countries about whose statecraft we only have fragmentary evidence. It is all the more surprising that Büsching's useful plan had no followers although it allows to think about world statistics. Lüder, in the mentioned [?] introduction and Beausobre (1773), translated by Albaum (Riga, 1773), provided some useful material about that statistics.

Notes

1. Schlözer possibly referred to the sections in the beginning of § 18.
2. Neufchatel is a canton in Switzerland. In 1707 – 1848 it belonged to Prussia.
3. In English, university statistics is another (possibly better known) name for statecraft.
4. On causes and effects see our Introduction. Chuprov (1909/1959, p. 80n) called this particular statement (*only facts and numbers*) naïve. In § 14 the restriction to *facts and numbers* was only implied. A remarkable feature in France is that 246 varieties of cheese are produced there, so *how can you govern such a country?* (De Gaulle's pronouncement).
5. No explanation provided.
6. See my Introduction.
7. The Bourbons ruled France in 1589 – 1792, 1814 – 1815 and 1815 – 1830. Franz I was king of France in 1515 – 1547. Crusades in Europe took place in the 12th – 13th centuries (Northern and Albigesian crusades). Schlözer's phrase is only partly understandable.
8. Phyllis, a heroine of Greek mythology.

24bis. The Theoretician

The theory of statistics does exist¹ and could and should be described. We are still not unanimous about the essence of statistics (§§ 3 – 9), or about its difference from geography and its kindred sciences, or about the objects belonging to it and their treatment. To investigate and when possible to establish this is the *first* goal of the theoretician. See §§ 10 – 15 for my own attempt to achieve this.

Second, to collect definite data requires art. What and how to ask? The government ought to keep books and calculations about the yearly growth or decline of the population, but why should it investigate that same problem in detail? Does it need to know the number of babies born out of wedlock or of triplets, the total number of stillborn babies, suicides², of the drowned? To know the number of males aged 17 – 24 years in the whole country and their height?

The *how* requires even more skill³. It is difficult to compile a hundred questions about an object (for example, about vine-growing in the whole country) or to answer them. Therefore, general tables are in use. They are extremely advantageous⁴. A whole page in folio can be almost at once glanced over instead of reading many pages of a book. They provide fine specimens or *models*. A talent can find everything himself, but it will require much time to achieve a possible degree of completeness.

However, tables are more difficult to compile than it is thought. And it is very difficult to replace a faulty model by a better one. We learn from other nations which have already tested such models for a whole generation and therefore became more skilful. We should adopt lists of population and church lists from the Swedish, of industry, –

from the Prussians, and military lists from the Austrians, improve all of them and alter them in accord with local peculiarities.

Notes

1. See my Introduction.
2. Lamarck (1820, p. 226) stated that a suicide is an ill person but only a bit later Casper (1825, pp. 3 – 95) statistically studied suicides. He (pp. 13 and 48) published data for Prussia, estimated the number of suicides among the drowned (p. 20) and compared the number of suicides in Berlin with the weather (p. 34). On p XI he stressed the importance of that topic:
Instead of transient moral sermons [...] I provided clear facts and insistently recommend them to the high authorities.
3. Nowadays, the art of interviewing is considered extremely important.
4. Cf. Note 3 to § 15. On the origin of tabular statistics see Note to § 6. Schlözer omitted graphical means of statistics which A. F. W. Crome (1753 – 1833), professor of statistics and public finance, had been applying in Giessen (Hesse), see Ploshko & Eliseeva (1990, p. 26). Better known is William Playfair, see Royston (1956). Funkhauser (1937) offered a general investigation on the history of the application of these means.

25. [The Theoretician. The End]

All the instructors of statistics in German universities include some kind of theory in their courses, but only as introductions from which they hastily go over to the eight states¹ and list their remarkable features. I turn this order around and treat theory as the main object. At the end, and only as a test, I describe how the theory ought to be applied in practice. I describe the statecraft of some greater state if my listeners are interested.

In that way the beginners learn better than when being taught by the previous method, they learn to study the statistics of a country and how to compile it if, for example, there is no statistics of their own fatherland. They can also grasp the essence of the new statistics. Finally, they are informed about the authors who will acquaint them with the names of the main objects of their science, they get many models of tables, good and bad, and, by comparing 'them, become able to compile even better ones. They become knowledgeable readers of newspapers, attentive travellers and authors of reliable travelogues.

Note

1. See § 23bis-4.

VII. Relations of Statistics with History, Politics and the Art of Travelling

26

History is not just biographies of kings, precise chronological register of the throne-changing wars and battles, descriptions of revolutions and alliances. Such was the taste of all the people in Middle Ages, and we, Germans, had been writing in that poor taste even half a century ago until the British and the French awakened us by better examples.

Had I also possessed all the undoubtedly useful knowledge [in addition to the abovementioned], I would have known (which I indeed wish to know in the first place) how during those times had been the

nation living (the people is everything, *le peuple est tout*), was it happy or poor, what was the state of its agriculture, trade and other branches of subsistence, how did its industry originate or does it stagnate, what had the government change, whether advantageously or detrimentally, in the administration of justice, finance etc.?

All that belongs to the real state remarkable features (§ 14)¹. The historian ought to indicate the departments of the government responsible for the power of the state, and he therefore ought to be a statistician. In other words, history is everything and statistics is its part². A history of many centuries should be subdivided in a natural way in suitable periods and the remarkable features of the state ought to be isolated in a narrower statistical sense [?] in each of them. This will provide us with the same number of separate (old) statistics (§ 23bis-6).

Notes

1. Here, the features somehow describe variable phenomena.

2. In some obscure way this statement should match Schlözer's pithy saying (§23bis-6), see also my Introduction. And why did he restrict the range of historical research?

27

Politics is a doctrine of the state (Staatskunde)¹. This short word, state, is as full of ideas as justice, nature, magnitude, religion. During their development, each of these notions gave birth not to one, but to many kindred sciences (jurisprudence, physics, mathematics, theology²). There exists therefore a *cursum politicum* (a course in politics) just as in *justice*, *theology*, etc., and who wishes to master them will have to spend a few years.

The course in politics has a historical and a philosophical part. The *historical part* studies separate states in their present or past condition. How those states really are (wie sie wirklich sind) is taught by *statistics*. How did it *happen*, what kind of states (was sie wirklich sind) is indicated by the history of the state (in a narrower sense [?]). Thinkers are inclined to *causas cognoscere rerum* (find out the causes of things) which tightly connects the two sciences.

The *philosophical* part ought to solve the magnificent problem: how *should* states *be* organized? The essence and the aim of the human arrangement called *state* ought to be determined by the nature of people which also specifies the institutions (Geschäfte) of the state. The necessary mutual rights and duties of the rulers and the obeying ought to be established beforehand. Many quite different forms of government are possible and, if possible, the most usual of them should be described and judged by the consequences. The whole philosophical part is thus naturally subdivided in four sciences.

1) Metapolitics³. This is my name for a sketch of natural law, a segment of anthropology in which the man belonging to a state is described in his physical and spiritual essence and considerations about his ensuing rights and duties and the causes which compel him to enter the society of the state (§ 11) are provided.

2) Public law. Demonstration of the mutual enforced duties and rights according to the social contract⁴.

3) The doctrine of the state structure, the forms of government, the constitution. This science is historical⁵ insofar as it only describes the possibly or actually existing forms. It will be philosophical if it risks to determine the sturdiness or dangers which follow from its necessary or random acts.

4) The *science of governing or practical politics*, the doctrine of managing the state. It orderly registers all the institutes which have the right and might to execute the government duties and indicate the essence of these institutions, the means which ensure that they can most expediently function.

Notes

1. Staatskunde (statecraft) which is the same as statistics, differs from Staatslehre (doctrine of the state), see § 1.

2. Schlözer had not listed *many* sciences.

3. Metapolitics is a hardly understandable term, cf. metaphysics. See also the title of Schlözer (1793).

4. The social contract was also implied a bit previously (rights and duties). I have also mentioned it in the Note to § 11.

5. History is not restricted by descriptions. About twenty years later Christian von Schlözer, the son of his eminent father, correctly remarked that only narrow-minded people believe that history is restricted by description of facts and does not need general principles (Sheynin 2014/2016, p. 18).

28

A natural connection between all those sciences is readily seen. They constitute a single whole which completely exhausts their main objects. The statistician is here indispensable first of all in the doctrine of constitution¹ and the science of government. How can he notice the particular features of the form of government without knowing the forms of many other governments? How can he speak about justice, police, manufactures, finance etc. without having a thorough knowledge of them?

Note

1. Is this yet a new discipline (also mentioned below)?

29

If he has such knowledge and possesses his own private means or if a liberal government aids him, he begins his fourth course in political studies¹ and goes travelling. Until then, he only had a notion about remarkable features of a state from lifeless texts and the travel will offer him an unthinkable breath of air. A thousand ideas which he carries will develop. Each cultivated foreigner whom he encounters will happily and proudly trouble himself to increase his amount of information and to correct his opinions.

However, the immeasurable usefulness of travels under due circumstances and mostly for those who educate themselves to become state officials is a trite expression. But suppose he has no possibilities to travel and remains at home (bleibe er daheim). He experiences no hard feelings with regard to his own, to his family or fatherland and does not show his ignorance of foreign parts.

That the heavy cost of travelling is lost (verloren sind) is the least evil², but he does not return as ignorant as previously, according to the

simple German saying, *Eine Gans flog über Meer* etc. (a goose flew over the sea). On the contrary, proud to have seen many things, that is, to have viewed and marvelled at but had not observed (*nicht observiert*). He will claim more justifiably than the less happy people who had not seen those objects but intensively studied and are therefore more useful for science³.

How can we help those who had only two courses behind them? According to the German manner, they had only completed school and gymnasium, or, being high up on the social ladder, have been educated at home but did not learn as much as a common boy in a good gymnasium. However, they went to experience *le tour de l'Europe* which is required by the *bon ton*; even more than that, since their birthright urged them to make a *carrière politique*.

So how can we help them, or can these poor guys be helped at all? If they are completely unprepared, give them instructions on how, by seeing and asking, during the travel itself, *en passant*, they can learn the entire range of politics.

This is the long since suggestion which, however, I believe to be not only *impractical*, but *harmful*. Where is that apprentice⁴ who goes travelling to begin learning his trade on the way? Where do the painter, architect, physician go without learning their job? This matter concerns the honour of the European culture, the happiness of the people. Indeed, it is impossible to understand how thoughtlessly, at least during many periods of time and in many countries the most complicated science, the *science of government*, has been treated, how it was thought that exactly in this branch of knowledge and moreover for the officials of the highest rank as many years of learning, of troublesome preparation, knowledge and exercise is needed as for executing a simplest mechanical art⁵; that, consequently, a simple joyful travelling about from one court to another, let it be (to seem respectful) with a scientific instruction in his pocket, for a young ignoramus who is hardly acquainted with school knowledge is sufficient to become an able state official.

Two noble Germans who wrote their contributions in foreign languages, initiated the proposal to give travellers, pursuing the mentioned aim but travelling without any preparation, a helping hand by including in that general instruction some statistical problems. These Germans were Count Leopold Berchtold (1789), knight of the military order of St. Stephen of Tuscany and Duchess Julie De Giováne (1797), née Baronne de Mudersbach, honorary member of the Royal academies in Berlin and Stockholm.

Both books had been written from the same patriotic viewpoint and according to almost the same plan. During their numerous travels they could have very often seen the pitiful sight of such young travellers whom De Giováne on pp. 12 and 94 and Otto (1726, Introduction) 80 years previously had described. These travellers were thought to be quite ignorant, but shouldn't they have travelled *to start sometime a political career*?

Count Berchtold believes to help those poor devils by offering them many questions about statistical, political and even historical matters which they should answer after returning home. These questions are

formulated in 37 sections (pp. 95 – 520) whereas the previous part of the book included excellent practical rules of the art of travelling in general. Until p. 186 there were 329 numbered questions, so they should have totalled more than one and a half thousand. Here are a few examples:

P. 95. *In what latitude is this country situated? [...] How is the country divided? [...] How many leagues are esteemed equal to a degree? [...] How many acres are employed for raising corn? Wheat? Barley? For pulse⁶? Vineyards? Forests? Roads? Rivers? Etc.*

P. 252. *Bank. Is there a bank in this country? What is its name? Under what reign has it been founded? And upon what occasion? [...] To what sum do the profits of the bank annually amount? Etc.*

Instead of formulating questions, the learned Duchess mentions the objects to which the travellers ought to pay attention. They are subdivided into 11 columns in a table measuring 4x3 feet published on thick paper. For example [Schlözer quotes it in its original French],

Banks. 1. *Public bank. The principles on which they have been established. The funds and the moneys kept there. Their sum total and its variation over the years.*
2. *Origin of these banks etc.*

But allow me to state my doubts concerning both these proposals and especially about the first one.

1. The travellers ought to bring back the answers not less than to 1500 questions which, for that matter, is not at all sufficient, but who among the mortals can keep in mind so many of these objects which were outlined without any connections between them, without an *enchainement systematique* (Berchtold 1789, p. 100)?

It would have been much easier had the young man read about the first notion of, say, banks in a proper contribution a lot of which we have; or, even easier, had he heard properly arranged lectures lasting five or six hours.

2. And how should he receive the answers to all those questions?

a) By lectures or studies? Studies ought to precede and conclude travels but not to be undertaken during them. The incessant rapid change of the objects blunts the mind, and pleasant amusements weary. Neither allows any serious study which is only possible at home or in a lecture hall.

b) By asking questions? Inexpressibly much can a traveller learn thus or simply in a conversation if a happy chance leads him to people who can, may and dare to answer him and if he really understands the not easy art of asking questions⁷. The main point is that he ought to have ten ideas at the ready so that twenty more can be connected to them. In Paris, the celebrated abbot Mably⁸ told me once:

I see that you understand a half of the matter and are therefore worthy of knowing the other half.

A rule about the working of a human mind follows: who knows nothing about something, is dumb, does not ask anything or break into a conversation between the knowledgeable. Take a traveller who understands minerals not more than fluxions to a mineral room and he will overlook just the most important specimen but begin asking the

most usual questions: how did minerals appear here and how much did they cost. Take him in a library where sometimes statues are placed, and (a true story!) he will ask about a faun whether it can duly represent His Highness. Moreover, being ignorant, he will not only talk nonsense but ask indiscrete questions. For example, ask the president [the seneschal?] of the palace how much money does the monarch keep, or ask the president of a bank how much cash does it have.

3. To answer those 1500 questions he needs not travel at all. The answers to 3/5 of them he should have known even as a school student from his Büsching (1758). And if he knows those answers he also knows without any instructions what else ought he to ask. And most of the rest is published in books which he should know.

How will a man look if he asks in Hamburg whether there are banks in the city; in England, if he asks how many archbishops are there in the country [two], and in France, what products do they produce. A foreigner whom he is asking will not deign to tell him anything instructive, or at best will refer him to the state calendar or other statistical ABC.

Finally,

4. Why do we need notes which are actually of doubtful value (Fragenwert) but only ought to be glanced over and should not be separated into a hundred or more questions? The ratio of men to women? Of the noblemen to the ordinary people, of the ratios of arable land, meadows and vineyards?

A learner does not know how to use those notes, this should be explained to him, he should also be told about church- and population lists and geometrical measurements in general. Then he will know how to find out in a foreign country whether they have such lists if not published.

Do not suggest to the young men that their outer *politur*, *vivacité* and *génie* (gloss, vivacity and natural ability), which is so impressive, coupled with travels and questions can wise them. Do not stretch a rug under them by such instructive questions and tables for their ignorance or laziness. Instead, let them learn beforehand for some years and thus to prepare themselves for their chosen area of work.

I express my deep respect to the learned lady for her unusually favourable judgement (p. 15) about my so-called board of travel (Reisekollegium). A whole section of her book (pp. 20 – 38) is called *des connoissances que le jeune homme doit acquérir avant que d'entreprendre ses voyages* (the knowledge that the young man ought to acquire before going travelling) and she requires very much. On p. 40 she says [here and below Schlözer quotes her in the original French]:

I always consider the travels of young men as an intermediate course in culture between studying in early youth (in school and gymnasium – Schl.) and occupying different positions in the society as citizens.

However, just after that she favourably speaks about university education if it is provided officially (behörig) and inserted between gymnasium and travelling:

I ought to add that if the universities are everywhere arranged as they are in Germany, and the students attend all the lectures as they do in that country, I will only say that the young men should not travel before having completed the university and heard out various courses there.

Notes

1. The first two courses are mentioned below; the third course is accomplished by completing university education. In § 34 Schlözer added a fifth course.

2. I am unable to understand this.

3. Long since the *great house* acknowledged such unjustified claims and esteemed travelling about. Synesius [373 – ca. 414, O. S.], a philosopher and student of Hypatia⁹, the bishop of Ptolemais from ca. 410, wrote to his brother (1612, Epist. 54, p. 190):

Deinceps non amplius illinc [from Athens, Schl.] venientes, scientiarum atque eruditionis nomine adorabo; qui cum nihil a mortalibus nobis discrepent [...] nihilo minus inter nos, perinde atque inter mulos [μ] semidei, versantur [a demia and a demigod, a beggarly play on words, Schl.], pro eo quod Academiam & Lyceum [, where previously Plato and Aristotle had been studying although then only the system of science had been seen – Schl.] viderint. Schl.

4. Socrates, see Xenoph *Memorab. Sokr.* IV:

Stultum est arbitrari, non posse quem praestare vilissimis in artibus, ni idoneos fit magistres nactus; gubernandae vero civitatis notitiam, sponte sua & ultro hominibus obvenire. Schl.

5. Before the revolution [1789 – 1794, O. S.] a French minister of finance told the (future) Prussian minister von der Horst [Schlözer quotes this passage in its original French]:

It is difficult to imagine how easy it is to deal with finance. I have a secretary who has more than a hundred clerks. They report to him, and he makes excerpts and presents them to me. It is concluded in half an hour.

In 1787, Busch (Büsch) (1796, p. 496) repeated this story out of the mouth of the Prussian minister. Schl.

6. Pulses constitute a part of the legume family of plants.

7. See Note 4 to § 24bis.

8. Gabriel Bonnet de Mably (1709 – 1785), philosopher, historian, diplomatist.

9. Hypatia (370 – 415), mathematician, astronomer and philosopher.

VIII. Various Remarks about the Previous Development of Statistical Education and Scientific Politics in General As Stated by Some Authors including Those in the Cabinets of Rulers, Mainly in Germany and Now Taking Place in France and Russia

30

This year I found in the *Moniteur*, in an announcement about the famous *Appel aux Francois* etc. of von Villers, the following lines [Schlözer quotes them in their original French]:

In France, this science [statistics], without which it is simply impossible to become a statesman, a manager, or even a truly educated military man, is nowadays drawing general attention.

A statement pronounced at present in due time is worthy of an attempt to be explained. I restrict my comments to the words [...] *simply impossible to become a statesman, a state [!] manager [...]*. I would only replace [the implied] *statistics* by *politics* (understood in a wide sense which covers the entire doctrine of state). Indeed, being

torn away from the whole and praised for its usefulness it nevertheless becomes practically useless and can really degenerate into a plaything.

Bearing in mind this general sense, I am asking now: how old is this new viewpoint of the *Moniteur*? When had the opinion vanished that governing only meant *donner de ordres* (ordering)? And, if there exists an art of governing, can the human mind learn it just by routine and mechanically, like other mechanical arts? Since when governments themselves have grasped that scientific knowledge and particular study were needed for a real management just like for the judge, physician or school teacher; that ministers and other state officials also needed to educate themselves in the same way as scientists in other branches of knowledge did.

We will wonder after discovering how new are these ideas, how late they were perceived even by specialists (*Geschäftsmänner*), or which unusual means had been taken even when the need for serious preparation to attain that goal became generally admitted! How much time had to pass until the separate parts of the diversified studies have been separated from each other (national economy from finance etc.). And how much longer will it take until all these not too homogeneous parts reach universities and until Cabinets and offices will trust those parts as much as school records are when people apply for state service.

31

I have found the first trace of at least a project for preparing people to work as state officials in England (Burnet 1679, vol. 1, p. 269).

A Project of a Seminary for Ministers of State

At this time [1539] many were offering projects for noble foundations, on which the king seems very earnest; but it is very likely that before he was aware of it, he had to outrun himself in his bounty, that it was not possible for him to bring these to any effect. Yet I shall set down one of the projects which shows the greatness of his [of the] mind that designed it; that is, of Sir Nicolas Bacon¹, who was afterwards one of the wisest ministers that ever this nation bred.

The King designed to found a House for the study of the *civil law* and the purity of the *Latin* and *French* tongues. So he ordered Sir Nicolas Bacon and two others, Thomas Denton and Robert Cary, to make a full project of the nature and orders of such a *House*, who brought it to him in a writing, the original whereof is yet extant.

The design of it was, that there should be frequent *pleadings* and other exercises in the *Latin* and *French* tongues; and when the *Kings Students* were brought to some ripeness, they should be sent with his *Ambassadors* to foreign parts and trained up in the knowledge of *foreign affairs*; and so the House should be the *nursery for ambassadors*. Some were also to be appointed to write the *history* of all embassies, treaties and other foreign transactions as also of all arraignments and *public trials* at home. But before any of them might write on these subjects, the Lord Chancellor was to give them an *oath*, that they should do it truly, without respect of persons or another corrupt affection.

This noble design miscarried. But if it had been well laid and regulated, it is easy to gather what great and public advantages might have flowed from it.

First of all, Burnet reported, it would have advanced the *history of the state*, but it would have been all the more necessary to enlist the services of a good historian, since at those times all the monasteries, the only compilers of chronicles in England, had been closed.

This report about the failed plan of the great Bacon was considered very important and published: Seckendorf (1781); Kapp in his Introduction to Beehr (1741, Book 8), but then forgotten.

King Henry VIII [1491 – 1547, king from 1509, O. S.] tried to find learned officials at least for some of his pursuits. There had not yet been such rich citizens who would have paid the expenses for preparing their sons for state service (or they had not thought about it, just as it had been for a long time in Russia). The king had to establish a fund himself and those admitted would be therefore called Royal students.

But where should they study? England already had universities but in those times they had been just as useless for such goals as all the other European universities. And what should they, the students, learn?

1. Jurisprudence, and not only theoretically, but even practically. Until those times, from all branches of the science of management the science of justice was the only one which was treated scientifically. For a long time none other [branch of] politics had been able to elevate itself to it.

2. Latin. Not bad! Who reasonably learns Latin fills his head with a thousand other useful matters and unwittingly discusses all as a learned man.

3. French. In those times, that language, still so unpolished, was nevertheless becoming the universal language for state officials if not for the entire cultural world². But who will fail to note that the *mother tongue* was not even hinted at?

4. Foreign affairs. English envoys to foreign countries learn them *par routine*.

5. Students themselves had to learn how to describe history mostly only with respect to state trade. Still no thoughts about factories treating agricultural products or commerce, about scientific military science or finance, on public education etc.

But still, this very restrictive plan was not implemented. And for a centenary the school had not achieved the honour of assisting the education of the great British statesmen. The first instruction in this new but formerly missed matter, the management of the state, is mentioned in the parliamentary acts at the time of the rule of Queen Elizabeth [Elizabeth I, 1533 – 1603, queen from 1558, O. S.].

Notes

1. Nicolas Bacon, 1510 – 1579, father of Francis Bacon.

2. Here is Liapunov's opinion about the French language (his letter to Markov of 28 Oct. 1895 about the forthcoming French – Russian publication of Chebyshev's works, Archive, Russian Academy of Sciences, Fond 173, Inventory 1, 11, No. 12): those works should only be published in French since a Russian edition will be an *unnecessary luxury*; indeed, *each mathematician reads French*.

Alph. DeCandolle (1873) was able to foresee that English will become the international language of science.

32

We, Germans, have already essentially advanced in many very useful branches of science. However, we arrived very late to scientific politics, either in its theoretical or practical meaning. We already had

many universities and in some of them there also was a professor of politics (apparently because Aristotle had thus named one of the sciences which he created¹). But what had politics then meant? And what did all those *institutiones politicae*, a heap of which had appeared in Germany and Holland in the 16th and 17th centuries?

When speaking about practice, even the regents, especially of the protestant persuasion, had their sons educated in science, but the instructors had usually been candidates of the church department. They only taught, and could have only taught catechism and Latin. After the Thirty Years' War (from ca. 1650) here, as in many other matters, a revolution had occurred. Our regents and well-off nobility had felt the complete futility of the previous education and its utter uselessness. They began to take their sons away from the catechism and idleness, but where to? To the universities? No, they had nothing to do there. To send them to France, partly to learn *mores* (conventions) and, in addition, to study mathematics, architecture, military science, etc. Indeed, at that time there was some possibility of achieving this in Paris.

These travels of the German nobility to France, and mostly only to France, had been the general custom for more than 80 years and had an unthinkable (mostly negative) influence on our whole nation. The groaning contained in innumerable letters of the simple-minded Germans about the so-called cavalier travels are indeed known².

Later (about the beginning of the 18th century) it became heard from [German] princes, counts and nobility that they attended universities although not in Germany but in Holland, – in Leiden, Utrecht, where Otto (1726) read a course on a kind of statistics (§ 1), – and Switzerland (Geneva, Lausanne).

Indeed, German universities had not yet been worthy of having future regents or statesmen as listeners. They, the universities, certainly prepared superbly educated school teachers, judges and physicians, but not Kammer-councillors (who had been therefore chosen from scientific unions), not secretaries of Cabinets or emissaries. In 1670 – 1680 the study of *notitia rerum publicarum* (study of public matters [see also Otto (1726), O. S.] had been in full swing in the universities of Helmstedt (Konring), Jena (Bose) and Frankfurt/Oder (Beckmann) and probably included a short discussion of other parts of the course on politics. But the wild despotism which just then flared up crushed science (§ 15) and threw us almost a hundred years back.

There was no help from abroad. During 1640 – 1740 all sorts of political contributions, many of them of high value, had been published in England, but at that time German scientists knew English only a little more than nowadays Russian³. French was more generally known but the *Esprit de lois* (the Spirit of the Law) had been still based on Montesquieu's thought and chair⁴.

Notes

1. Aristotle created a doctrine of the state.

2. Did these complaints really amount to a negative influence on the whole nation?

3. Book catalogues of the main German (and probably Western in general) libraries are only compiled in the Roman alphabet which additionally testifies that Russian literature is not sufficiently used.

4. I am unable to understand this.

33

Finally the study [of politics] in our universities reached the next steps, spread over our universities, brought theory and practice in friendly connections and obviously changed the entire kind of education of future statesmen.

1. The thrifty king of Prussia, Friedrich Wilhelm [I] established economic professorships in Halle and Frankfurt/Oder (Morhof, 1688 – 1692, III, 3) had long ago published such a proposal) and recommended the lectures [of those professors] for all the students and assured that those who studies this science will be borne in mind for acquiring official positions.

In those times, the term *economics* seldom had a definite meaning, or, more precisely, it rather had infinitely many meanings. Actually, the entire practical politics had therefore an opened door to the universities. A rare phenomenon took place: students had therefore been studying not only the entire *Kameral* sciences [see § 34] but very heterogeneous sciences as parts of economics.

2. Therefore, the already essential stock of German useful writings in all the branches of the entire doctrine of the state had been gradually increasing. And we had also read and applied what the British, French and Italians taught. It was time to *arrange* the material, i. e., according to the German fashion, to compile *Compendia*. Under these circumstances there appeared at the same time two Germans. The first was Bielefeld (1760 – 1772), a courtier rather than professor. Here are excerpts from his book [Sxhlözer quoted tm in their original French]

Introduction, p. 3, § 5. I venture to propose the following. Reduce politics to a system. Collect the excellent materials now scattered and join their knowledge and experience, consult history and state figures and create thus, if possible, a science which could be taught at the right time to princes by their tutors and to young men in general by professors. This was the practice of Grotius, Pufendorf and Wolff^a with respect to the right of men and nature. [...]

The only merit which I claim is to be the first who attempted to investigate this matter according to a systematic plan. I invite the instructors of that art to perfect it. In magnis voluisse sat est (in essential matters it is sufficient auch sie gewollt zu haben); I leave the translation from that German to those who are capable, O. S.).

P. 4, § 6. *I am not afraid to admonish petty* (cf. § 6, Schl.) *men of letters who treat pedantically everything systematized. A system only eases the study of some matter, assists those who apply it to put the mind in order so that all objects with which our experience daily enriches us, find their natural and convenient places in our memory. This alleviates our inescapable weariness if we [do not] wish to obtain confusing and unmethodical knowledge.*

Reasonable pedantry leads to robust knowledge whereas simple reading or superficial study only ensure trumpery. A dazzling jargon of happy talents who promptly grasp the superficiality of science often shamefully disappears when faced with a professional man.

Bielefeld, a very ordinary inhabitant of Hamburg from a family of a shop-keeper (died in 1770), was introduced to Frierich I (den Einziger) when the latter had still been living in Reinsberg, then Bielefeld became the tutor of Prince Ferdinand and entitled *baron*. He

has the immortal honour of being the first to introduce scientific politics to the *courts*. He was a real and erudite scientist and had a character of a courtier. He wrote in French and his style was fully understandable and pleasant and his book was finely printed. Bielefeld circulated it to various courts including that of Ekaterina II who awarded him the order of St. Anne. Regents, ministers and chamberlains read it. Until then, they had no wish to read political books written by the fruitful Justis² or other German authors. Many of them, perhaps for the first time ever, began thinking that, in spite of what some scribblers had nattered, scientific politics could have been even practically not quite useless for their high occupations.

Bielefeld, as he proudly claimed, presented nothing less than a really complete system of the whole *cours de politique*. He touched most [of the necessary] matters, but many of them only superficially³ and all of them disorderedly, without definitely separating their extremely different parts one from another. Public law and the doctrine of constitution, how important are these parts, but he talked his way out of them on seven double pages (pp. 20 – 34)⁴.

The third, posthumous part of his book should have been a kind of statistics of the European kingdoms. What he supposed here and there about the future of some countries, for example, Sweden and Russia, should disgust any reader capable of thinking at any wish of becoming a political foreteller.

But it would be an impertinent ingratitude to blame strongly for this and other shortcomings a man who paved a way. However, we are 40 years younger and would be narrow-minded had we not advanced further. Bielefeld remains meritorious for representing the doctrine of the state as a science acceptable to the high and mighty.

And the second German epoch-making man⁵, professor Achenwall, is meritorious for being the first to plant politics (although in a completely another meaning) into universities. Here are quotations from his book (1761).

Introduction, p. 1. *Finally, I have ventured to compile an outline of politics [...] after I had for many years collected pertinent materials and repeatedly expressed my desire that a science so useful for general knowledge will not be so completely ignored by our universities. I [...] have outlined contemporary ideas and guided myself by them when reading the required lectures. My initial intention was restricted to providing just an indication of a suitable order of the main matters which belonged to that idea.*

The worthy man was acknowledged by his German contemporaries but remained unknown abroad. Already in 1749 Achenwall separated statistics from political chaos (§ 1), compiled a *Compendium* (although not entitled in the best way) and still shorter than usually are the *Compendia* of German professors. There, he only indicated the required matters and even included mere verbiage. But it was incomparably better systematized and ordered and more complete than Bielefeld's contribution. After introducing a more definite terminology he dealt with politics in general (pp. 1 – 11) and mentioned Bielefeld. On pp. 12 – 50 he discussed metapolitics⁶ (extremely briefly), public law and the doctrine of constitution. All the rest was practical politics or the science of government. From then

(1761) onward the study of politics for us, Germans, acquired a new image, induced a new kind of study and influenced governments as it is possible to prove and I venture to add a few observations about it.

Notes

1. Hugo Grotius, 1583 – 1645, jurist. One of the creators of international law. Samuel Pufendorff, 1632 – 1694, took in the ideas of Grotius and Hobbes, published a book on jurisprudence and history.

Chr. Wolff, 1679 – 1754, mathematician and philosopher. Following Leibniz, he attempted to create a general system of knowledge.

2. Johann Heinrich Gottlob von Justi, 1717 – 1771, economist and politician.

3. Above, Schlözer implied that Bielefeld had ordered his compiled materials, but now he refuted this impression. Cf. the title of Schlözer (1793).

4. This argument is not sufficiently justified.

5. I hesitate to consider Bielefeld as an epoch-making man.

6. See Note 2 to § 27.

34

A. Literature on the Study of Politics in Germany

In the immense range of that science there is perhaps no part which German authors had not treated. Exactly this is one of our advantageous sides and exactly it is least known abroad. Foreigners are respecting our literature for many years now and often comment on it. However, regrettably for us, Germans (and therefore for people of northern Europe), they often encounter correspondents who consider poets, novelists, actors as a measure of the scientific culture of a people. They report, for example, which verses had the Russians written, but not what did they discover in nature and in the world¹.

There is another circumstance. For a hundred years we had been remaining in disrespect since we had not published anything in folio. Now, the opposite has taken place. Many ideas are contained in university disputes and programmes, still more in journals and in the great number of booklets of all kinds. They [the ideas! O. S.] should be considered as an expansion of science and a correction of larger contributions [and the state of German science ought to be judged by all this]. We have a small number of those larger works as for example Busch (Büsch) (1800). Thousands of shorter papers on separate matters remain unknown to foreigners and we ourselves are not using them sufficiently. We have no new Bielefelds or Achenwalls who would have ordered all these wonderful materials accumulated during 40 years. In other words, we do not yet have a compendium of the entire politic which would have been possible but certainly surprisingly burdensome to achieve.

B. Study of Politics in the Universities.

How politics is being taught nowadays
in many German universities

We began to separate the great field of politics into regions. General public law would have only been an appendage of natural law and especially studied although together with the doctrine of constitution. The science of government or the entire practical politics is extensive and cannot be confined to a term. Some of its *main parts*, namely *police*, *national economy* and *finance* will be taught separately as the Kameral science. The same about *international law* (*cours*

diplomatie) with preliminary practical exercises for those who intend to follow a brilliant *carrière diplomatique*.

Listeners practise in German and French² by hearing out and reading reports and during missions abroad. Separate hours are devoted to statistics and history as well as to Kameral science and kindred applied technology, but there is no mention of many subsidiary or kindred sciences, foreign languages, mathematics, economics, or of a survey of positive jurisprudence etc. We call this *to complete a cours de politique*. With these matters we, sluggish Germans, spend two or three years in our universities³.

C. Political Upbringing

I mean the type of education usual in Germany for a young man not only to become one of the three previous classes of officers (school teacher, judge, physician) but also a member of state service in a narrower sense (Kammer-councillor, chief forest warden, secretary of embassy, minister). That man completes five courses.

1. He receives the initial school education just as all his fellow citizens without exception until age ten or twelve.

2. Then he enters a gymnasium and becomes acquainted with the ancient classical literature, mostly in Latin, learns elements of geography and history and obtains as we, Germans, call it, *fundamental knowledge*.

I do not dwell here on the different names or classification of these schools and gymnasiums or their innumerable modifications due to the different destination of the young men, and the same concerning education at home.

3. Now he is about sixteen or eighteen years old and for two or three years more studies in a university his chosen special branch of scientific knowledge.

4. If he belongs to the lucky people (§ 29), he goes travelling. Is it possible to doubt the usefulness of travel after such preparation? Many years ago a French academy proposed this question as a prize problem and awarded a negative answer!

5. After returning home, either from travelling or from the university, he applies to the *Landes Kollegio*, produces certificates from his instructors and is solemnly examined once or many times in his chosen sciences. In Prussia and Hanover the examinations are known to be mostly severe.

If he passes, he will be admitted as an auditor, Referendar (candidate for position in state service) or assessor (candidate for an administrative or judicial position). *Admitted* means works without payment in the field in which he studied and is experienced for a longer or a shorter time depending on his talent, diligence and behaviour. Sometimes, if he has a patron somewhere in the Kollegio, all this is omitted and he obtains a real paid position henceforth. Thus German boys and youngsters become state servants, *Volksmitregierer*. I call it the present German, or perhaps all-German way of education since it is the same in Denmark and Sweden. However, *Olim non erat sic* (it was not long ago) not here, at least not in *carrière politique* (§ 32).

Even now this German way of education differs from that in other cultural countries in many features, especially in the third course. Until most recent times it had been omitted, for example in Russia. In

Russia, France, North America⁴ and other countries reforms of the programmes of study and of the institutions of general education, especially those for preparing efficient state officers, are nowadays in the order of the day. Everything is moving. Many novelties clearly draw together our institutions. I will perhaps render a service to some foreign readers by explaining them our national words *studieren*, *Student*, *Universität*.

Notes

1. Derzhavin had written verses (and, much later than 1804, Pushkin and Lermontov as well). Among mariners we may mention in the first place Bering (a Dane by birth) and, among scientists, Lomonosov as well as Euler and Daniel Bernoulli (who regularly published his works in Petersburg).

2. German students certainly did not practise German and French the same way.

3. In 1774, Junker, the late German professor in the Paris military school, informed the cadets in a printed announcement [Schlözer published it in its original French]:

For those young men who destine themselves for state affairs [I announce] a course on political sciences containing the principles of natural law and universal jurisprudence, the rights of men, politics in its proper sense, the public law in Europe, and, in particular, of the Germanic empire coupled with a brief exposition of political history and constitutions of the main European states, interests of the princes and the duties of ambassadors and ministers.

The lectures will begin on 2 November and continue for four months three times weekly (six hours). The price of the course is 6 Louis to be paid in advance.

Seven main sciences in four months, three times weekly! However, in my copy, *four* is replaced by *five*. Schl.

4. North America includes Canada, but Schlözer hardly thought about it. So why did not he mention the USA properly?

35

Sometimes, when I tell foreigners that we only have a small number of governments [administrations] (Regierungen) in which some employees of state institutions from presidents (Präsidenten) down to clerks have not studied (studiert), they do not understand me. Actually, no other language except German, Swedish and Danish has the word *studieren* in our sense. (The French *étudier* in that sense is even now a Germanism.) Russians only have *learn* (uchitsa) which covers everything from elementary school to university. Ask a German artisan whether his son is still a school student or already an apprentice, and he will (always? O. S.) proudly answer: *No, he ought to studieren*, or, *he studiert already*.

Our own understanding of *university* had for a long time been also incomprehensible for foreigners. In the Paris university young men aged from ten to twelve had learned Latin and classical literature in other languages (§34: fundamental knowledge is achieved in our gymnasiums). They graduate being ca. sixteen, and after that they ought to educate themselves further in higher (?) and practical sciences by reading and other means. The celebrated De Guignes¹ spoke with me in 1774 about a completely different sense of our universities, finally understood me perfectly well and uttered a quite proper definition:

You, Germans begin in your universities at the point at which we stop and you go further.

Our German method of education has yet other peculiarities about which many foreigners are surprised.

1. The number of those studying is very large. For a region with total population of a million we may reliably suppose that in the mean year not less than 300 are studying in university (always one out of 1600 males [of 1700 of males of any age!]). Therefore, from 20 *mln* inhabitants there will always be 6000 [5880].

2. Everyone studies independently from his social standing. The sons of peasants and townspeople as well as old and new nobles. Hardly anywhere the officials (except courtiers) are, as previously, only from the higher stratum of the society. Connections and nepotism may still, as everywhere, influence, but birthright affects much less than formerly. However, our nobles began to study as seriously as ordinary people and therefore lay down their birthright and retain anew their former privileged position with respect to ordinary citizen.

3. The government does not pay for the student life or the cost of the study so that son studies at the expense of father. If the state needs a schoolteacher or a secretary, ten interested will apply for each opening whereas their long and expensive education did not cost the government even a penny. (At the time of Louis XV it was calculated that each officer graduated from the *Ecole militaire* had cost 20,000 louis. And how much should have been the Russian government spending long since for the education of its officials!)

Grants and other means of aiding exist everywhere but there are not enough of them and nowadays they are insufficient for ensuring study all by themselves. Some catholic countries are an exception. It was recently found out that in Vienna there is a fund with a capital of more than 4 1/2 *mln* gulden for students (presumably only for those who are preparing themselves to work for the church). The yearly interest on the capital amounts more than to 180,000 gulden which are distributed as grants.

Some precise calculations pertaining to many of our universities have been recently become available. It should be desired and hoped that such calculations will appear oftener since important conclusions will become possible by their comparison. I am now providing some pertinent data as a proof of my information formulated above.

In the large electorate Pfalz – Bavaria (population ca. 2 mln) in 1802 in two universities and five gymnasiums there were 1244 students who actually studied or had been determined to study. Among them were 244 noblemen (more than 1/5), 665 townspeople and 335 from peasants. For a poor student there always were two in a good situation. That number even after subtracting the gymnasiums students² is too large for a country of 2 mln and harms manufactures, handicraft etc. And the government had indeed taken measures to restrict extremely strictly the number of studying. Among the townspeople that number had already diminished, but it increased among the peasants who remained well-being during the latest years because of high prises.

(from the *National Zeitung*, 1803).

In the autumn term of 1802, in the kingdom of Sweden (with about 3 *mln* inhabitants) there were three universities in Uppsala, Abo and Lund with 1840 students in all of them. Among them there were only 85 nobles, but almost 500 were sons of preachers and 336 from peasants. Also, 104 aged less than fifteen and 343 aged 25 – 40 years and more. After subtracting them there remain 1393 proper students³. Among all of them 110 drew royal grants and 138, private grants (*Allg. Litteratur-Zeitung Intelligenzbl.* 1803, No. 191).

In Göttingen, in the summer term of 1784, 160 were entered, and among them a prince, 5 counts, 27 nobles, 31 from peasants and the rest were foreigners (Pütter 1788, Tl. 2, p. 376).

I omit other peculiar features which favourably influence not only our universities, but the whole present situation of German science and which von Villers touched in the *Spectateur du Nord*. For example, it was attempted to create a real *Universitates litterarum* (scientific) and instruct as much as possible *in omni scibili* (in all particular branches of knowledge). Also, to concentrate all the educational institutions in one place so that they will easier be able to support each other. Then, to arrange the scientific education so intelligibly and practically that it will be useful even for those who did not reckon themselves proper scientists (future merchants, factory owners, dyers, economists, forest wardens etc.).

The docents are not confined to a certain place for all their lives. They are not always the same, they are mobile, their salaries can increase. Their talent, diligence or *renommee* (fame) is noted and from time to time either their situation improves or they are called elsewhere to occupy more favourable positions. What a *migratio professorum* in and out of Germany is taking place exactly now! Those responsible are outbidding each other and the scientific commodities become therefore more expensive (as a minister expressed himself), but certainly better to the advantage of factories and the people.

Notes

1. Joseph de Guignes, 1721 – 1800, an orientalist.
2. The universities are not regrettably properly separated from the gymnasiums.
3. Why are the students of those age groups separated from the others?

36

In § 34 I described the five courses (or at least four if the travel is omitted) as the general method of education in Germany, mostly for those who intend to follow a *carrière politique*, but there are many exceptions about which I said enough in § 29. From year to year thousands are certainly thus educated and a very small number of them cut the university.

In the *J. de Frankfort* No. 24 for 24 Jan. 1804 I came across an article *Exposé de la situation de la république* etc. with information about a new institution in France, possibly similar to our course for auditors (§ 34)¹. [Schlözer quotes the text in its original French.]:

Another institution of the Conseil d'Etat is preparing people according to the government's choice for all the supreme branches of the administration: auditors for compiling regulations and laws and for inserting principles and maxims in the general rules. Always surrounded by witnesses and judges, often under the government's eyes, or during important missions, they begin to fulfil public duties with mature experience and reliability ensured them by their character, behaviour and tested knowledge.

I do not know anything about the structure of that institution.

Note

1. Schlözer referred to p. 131 of that § 34 but in vain.

The unusual tension is nowadays being experienced in Russia by the desire both to raise general enlightenment and especially to educate nationals for state service. This is known to the world and provokes general surprise and justifies serious expectations. The beneficial nature of that process becomes clearer after throwing a glance at what existed only a hundred years ago. A comparison with those times should lead both the Russians and the foreigners to thanks and best wishes.

Peter the Great found out that his people, even then numerous, were existing with respect to culture almost in the same state as the rest of Europe had been in the 14th century. Not a single school in the entire great realm, not a single university! Indeed, who will mention Kiev or the ecclesiastic seminaries¹. The great man had been for a long time thinking about arranging the management of the state in the Swedish and French manner. So he needed scientists or at least educated civil servants. But where could he find them? It was impossible to employ only foreigners whereas nationals could be chosen only gradually, beginning with adolescents and educating them.

It was also possible to educate adults, just as the military, *par routine*, then they will serve a certain number of years beginning from the bottom. This remarkable rule was entered in the *Table of Ranks* adopted on 22 January 1722. Büsching translated it into German, completely, as it seems, in his *Magazin f. neue Historie u. Geographie*, Bd. 7, pp. 349 – 360. [See *Table of Ranks* in Wikipedia. An English translation of 2016 is indicated there. An article thus named is in the *Great Sov. Enc.*, in vol. 25 of its third edition. This edition is translated into English, see Note 6 to § 24.

The *Table* is indeed a table of 14 grades of ranks and 19 sections of commentaries (the *Encyclopaedia* wrongly mentions 14). Schlözer had only repeated sections 13 and 14, but, since there exists an English translation of the entire *Table*, I only briefly comment on them.

Military ranks were declared higher than civil, since

It will be insulting for the military, who deserved it by many years of cruel service, to see an equal or even a higher person without [such] merit.

Children of noblemen are promoted from the bottom. Those who had studied and have been actually educated are promoted more rapidly and sent to foreign parts for practising. O. S.]

And so, at that time Russians did however study in universities, but where and how? And had these regulations of the great man been fulfilled (1722 – 1802), or were they, like so many other documents, ignored? Foreigners cannot yet answer this question reliably. It is only possible to say the following in general.

In the next twenty years the state had been to a large extent managed by foreign civil servants, mostly Germans. During those years crowds of them migrated to Russia and found their luck, deservedly or not. However, it can be justifiably stated that due care about Russian culture had not been manifested. Elizabeth (Elizaveta Petrovna²) is known to have hated Germans and, when foreigners

were necessary, preferred the French. She delivered a mortal blow to the national culture by her Ukaz³ which stipulated that no person of common origin can occupy a position higher than a secretarial in any state collegium⁴.

Here then was the emerged method of education. The rich nobles had been employing chamberlains or teachers for their sons and paying them unprecedentedly generously. Not rarely these were runaway French officers, but oftener simple artisans, hairdressers or man-servants. Even twenty years ago there appeared a Russian comedy in which the education of a son of a landowner by a French coachman was bitingly described. As a play, it is still beloved by the Russian public.

Nowadays those youngsters 16 – 18 years old harnessed by such coachmen learn to chat in French, read and even somewhat write, grasp some elements of geography and history from current French booklets. They certainly do not possess even a tenth part of the knowledge acquired by a sixteen-years-old German youth in a good gymnasium. And now the young ignoramus has a position in a state collegium with title and rank, not as was intended by Peter I, – from the bottom, – but at once positioned as a translator etc. and often even paid. And in that once determined for him position he vegetates, marks time, becomes promoted both in rank and payment and naturally feels himself as being in real service for which he should have been educated but how?

1. By reading. Indeed, anyone understanding the new languages can become highly educated given the present European literature. But does the young man understand the art of reading? Does he know which books he should read? Is he sufficiently patient for spending a few months to study a main source?

Infinitely less tedious, as compared with lifeless reading, is hearing a lively oral report. Reading ten books devoted to a single matter requires much time, but a docent can tell him their essence in a few hours. And a soft compulsion to be reasoning out a science in a definite order for a whole term will do the refugee (?) exceptionally well. The invariable possibility to clear up the obscure passages and resolve doubts by turning to the docent – how will it ease those who are really eager to increase their knowledge!

2. By travelling. Not a single word after what I had described in detail about the ill-starred travelling of the unprepared. Nevertheless hundreds of Russian nobles go to Paris and elsewhere travelling in the previous regrettable way (*Allg. Zeitung*, 1804, No. 100). But suddenly the spirit of Aleksandr I⁵ began fluttering over his nation. In the autumn of 1802 our Göttingen university was pleased to receive a Russian colony partly of young nobles and partly of otherwise respected families. Many of them had already been admitted in the abovementioned way to state service. They had decided to go travelling not *à la mode* (following the custom) but wishing to study *les sciences exactes*, which meant going to places in which they expected the required possibility (in the first place, to Göttingen or Paris).

They had been unusually well acquainted with other sciences as well (?) with which they had been somewhat occupied. However, they began studying these sciences once more and were exceptionally successful since the education in our universities includes an easy survey of separate sciences.

One of them told me after the first term as naively as Socrates that only now he understood that he knows nothing. All of his fellow citizens were of the same opinion. Consequently, instead of half a year as planned at first they came to the third term.

What had occurred meanwhile in Russia is discussed in Europe. The new educational institutions are obviously copying our German institutions. The sequence of attending schools, gymnasiums, universities and travelling is the same. These novelties are improved copies, for example in the existence of large charitable funds. Only for the beginning each of the new or renovated universities (in Petersburg, Moscow⁶, Kazan and Kharkov, not to mention Vilnius or Dorpat [Tartu]) has a fund with a yearly income of 130,000 roubles. There are 42 gymnasiums and 405 district schools. For all these institutions taken together the government allocates 1,319,450 roubles yearly. And, as I came to know, an institute of the *Département des aff. étrangères* (Ministry of Foreign Affairs) in Petersburg is created. The public will soon know about it.

Notes

1. See below about Russian universities. Why had Schlözer separated Kiev?

The Kiev-Mohila Academy was opened in 1632 (*Great Sov. Enc.*, third edition, vol. 12, 1973). In 1701, the Moscow School of Mathematics and Navigation was opened and the St. Peter's secondary school in Petersburg, in 1709. Its headmaster was Büsching.

2. Elizabeth (Elizaveta Petrovna), 1709 – 1761, empress from 1741.

3. I have not yet (!) seen this Ukaz and describe it according to innumerable travelogues which had certainly often deceived me. Louis XV also caused much displeasure by ordering that people of humble origin will not advance higher than lieutenant. Schl.

4. Fonvizin's play *The Minor* which Schlözer had in mind was staged in 1782 and published in 1783. The minor had three teachers, two of them Russians and one foreigner with a German name Vralman (Liarman) and German he was according to the context (not French!). The two Russian teachers taken together were acquainted with the elements (or elements of elements) of arithmetic, grammar and Christianity. Contrary to Schlözer, they were paid miserably.

Pushkin's hero Eugene Onegin from a poem of the same name (on which he began working in 1823), see the first stanzas of its Chapter 1, spoke and read French, danced properly and bowed at ease, so that the high society decided that he was clever and nice. In the mid-18th century Pushkin's hero of his *Captain's Daughter* was enlisted as sergeant in a prestigious regiment even before birth! His teacher, a Frenchman, had not taught him anything at all.

5. Aleksandr I, 1777 – 1825, emperor since 1801. At the beginning of his reign he was a moderate liberal.

6. Moscow University is older than the Petersburg University.

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