ELSEVIER

Jakob Bielfeld (1717–1770) and the diffusion of statistical concepts in eighteenth century Europe

Bernard Ycart

*Laboratoire Jean Kuntzmann, Université Grenoble Alpes and CNRS UMR 5224, 51 rue des Mathématiques,
38041 Grenoble cedex 9, France*

Available online 16 May 2015

Abstract

Published between 1760 and 1770, Bielfeld's writings prove that scholars of the time were acquainted with the concepts of both political arithmetic and German statistik, long before they merged into a new discipline at the beginning the following century. It is argued here that these works may have been an important source of diffusion of statistical concepts at the end of the eighteenth century. Bielfeld is now almost completely forgotten, and the reasons for his lack of fame in posterity are examined.
© 2015 Elsevier Inc. All rights reserved.

Résumé

Publiés entre 1760 et 1770, les écrits de Bielfeld prouvent que les concepts de l'arithmétique politique et de la statistik allemande étaient largement répandus parmi les savants, longtemps avant que les deux ne fusionnent en une nouvelle discipline au début du siècle suivant. On soutient ici que ces publications peuvent avoir été une source importante de diffusion des concepts statistiques à la fin du dix-huitième siècle. Bielfeld est de nos jours presque complètement oublié, et les raisons de cet oubli sont examinées.
© 2015 Elsevier Inc. All rights reserved.

1. Introduction

In the autumn term of 1921, Karl Pearson (1857–1936) started a series of lectures on the history of statistics. In the introduction, he vividly described the origins of the discipline and its naming.

To this hybrid discipline of statecraft, constitutional history and description of state constitutions, Gottfried A. Achenwall in 1752, for the first time as I am aware, introduced the word 'Statistik' as the name of a distinct branch of knowledge. That branch was not concerned with numbers nor with mathematical theory.

Meanwhile in England there was an entirely different movement. Captain John Graunt [. . .], who lived from 1620 to 1674, a clear century before Achenwall (1719–1772) [. . . and his] friend Sir William Petty [. . .] founded the English school of what was called 'Political Arithmetic'.

A hundred years and more later comes an extraordinary event. A Scotsman steals the words 'Statistics' and 'Statistik' and applies them to the data and methods of 'political arithmetic'. It was certainly a bold, bare-faced act of robbery which Sir John Sinclair committed in 1798. (Pearson, 1978, 2).

We now know that viewing English political arithmetic and German statistik as ignorant from each other, before Sinclair "boldly" synthesized them into a new discipline at the end of the eighteenth century, is too schematic. In the first half of the eighteenth century, political arithmetic has been described as a declining discipline in England by Studenski (1961, 40); see also (Deane, 1987). Its revival in the second half of the century was largely continental (Todhunter, 1865; Meitzen, 1891; Westergaard, 1932; Hacking, 1984). In Germany, even though the Göttingen school of statistik sometimes opposed mathematics (John, 1883, 670; Hacking, 1990, 24), political arithmetic was regarded as one methodological component in the very broad definition of statistik. It was actively developed in particular by Johan Peter Süssmilch (1707–1767) (Heuschling, 1845, 8; Hacking, 1984, 113). John Sinclair's monumental *Statistical Account of Scotland* 'was not a work of statistics in the modern sense but it was one in a looser version of the old German sense' (Cullen, 1975, 10). Neither was it the first one of the sort in Great Britain. Translations of German statistik books were available in English before Sinclair, such as (Büsching, 1762; Zimmermann, 1787). Arthur Young (1741–1820), who was perfectly acquainted with the techniques of political arithmetic, published his *Six month tour through the North of England* in 1770 (Young, 1770; De Bruyn, 2004), and it was recognized in Germany as a true work of statistik (Meusel, 1790, 24).

By the time Sinclair perpetrated his "bare-faced act of robbery", the concepts, vocabulary, and methods of both political arithmetic and statistik had long pervaded the whole Europe of Enlightenment. Ample evidence can be found in the books of a popular-science writer of the time, Jakob Friedrich Bielfeld (Freiherr von) (1717–1770), who wrote in French and signed "Monsieur le Baron de Bielfeld". In his *Institutions politiques* (Bielfeld, 1760a, 1760b, 1772), and *Les premiers traits de l'érudition universelle* (Bielfeld, 1767, 1770a, 1770b), the following can be found.

- a history of political arithmetic up to his time,
- the main concepts of political arithmetic (mortality tables, insurance, life annuities, tontines),
- a methodology for data collection, similar to the one Sinclair would implement 30 years later,
- a statistik of Europe,
- the first uses of the words *statistique* in French, and *statistics* in English.

The first objective of this article is to review Bielfeld's works on political arithmetic and statistik. Bielfeld never viewed himself as a scholar, nor did he pretend to expose the result of his own research: his writings are just a clear and synthetic exposition of what was generally understood in his time.

Nowadays, Bielfeld's name does not appear in authoritative histories of statistics, he is not among the "leading personalities in statistical sciences" (Johnson and Kotz, 1997), and does not have an entry in Burns' encyclopedia of science in the enlightenment (Burns, 2003). Few books cite him as being the first to use of the term 'statistic' (Cullen, 1975, 10; Nalimov, 1981, 208; Federer, 1991, 1; Headrick, 2000, 68; Agarwal, 2009, 1), whereas many more sources (e.g. Hald, 2003) cite Pearson and/or reproduce Sinclair's own version (Sinclair, 1798, xiii). As remarked by Reinert (2013), the man himself is by now almost completely forgotten. He has an entry in the *Allgemeine Deutsche Biographie* (Steffenhagen, 1875) and in