

What Sociology owes to Numbers

Human Sex Ratio at Birth for Halbwachs and now

by Marie Jaisson

English translation by Karl Van Meter revised by the author
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During that era, sociologists didn't hesitate to measure themselves with mathematicians and biologists. They maintained a tumultuous fraternal relationship with ethnologists and the new historians. They also entered the anti-Fascist arena. In debates involving themes of race and civilization, they exposed themselves to odious adversaries and even thieves ready to recycle bits and pieces of results into totalitarian social techniques.

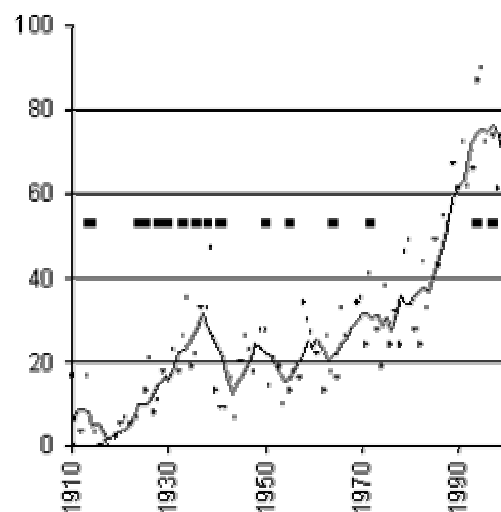
In 1934, at the request of historian Lucien Febvre, who had appealed for a “comparative demography of the mankind” from a “global” point of view (terms used by Febvre), Maurice Halbwachs sought the cooperation of three members of the French National Statistical Office (SGF) – Alfred Sauvy, Henri Ulmer and Georges Bournier – to write the third part of volume VII of the *Encyclopédie française*, entitled “From the Standpoint of Number” (“Le Point de vue du nombre”). Published in March 1936, it was released in May of the same year, during the “Front populaire” government, six months after Alexis Carrel's *L'Homme, cet inconnu* (*Man the Unknown*), and two years after Adolphe Landry's *La Révolution démographique* and Alfred Lotka's *La Théorie analytique* (*Analytical theory of biological populations*).

The work was soon forgotten. It was even forgotten by the *Encyclopédie française* when, in 1966, the attempt to make a detailed index of this volume VII was abandoned, even though a summary was being published of the twenty volumes in which the scientific and scholarly elite of the Third, Fourth and Fifth Republics had successively written. Should one therefore be surprised by the superficiality of the rare commentaries the work has caused up until now among historians of the Twentieth Century, social science historians or sociologists?

To evaluate its impact according to the criteria present at the time of publication, or even -- why not? -- according to our own current criteria, one must engage in some in-depth research which has now been finished (1). It has benefited from the recent development of work concerning the *Encyclopédie française* (2) and the renewal in France and Germany of the history of social sciences over the past ten years. This research has also found increasing interest among French and German historians and sociologists concerning the work of Maurice Halbwachs (see the accompanying graph).

It is also necessary to appreciate the scientific event that the publication of *Le Point de vue du nombre* constituted when seen from several perspectives.

References to Halbwachs' work (1877-1945) during the 20th Century in German, English and French social sciences (3)



In 1936, Halbwachs summarized some thirty years of research on the quantitative foundations of sociology. In an attempt similar to that of François Simiand, he tried to disengage himself from the way Durkheim had founded “social facts” through the use of numerical regularities. But differing from his colleague, Halbwachs founded his new social morphology by taking seriously the concepts of chance and probability. His preferred example is the analysis of secondary sex ratios (*i.e.* at birth), a question discussed by scientists since the Eighteenth Century. Over the long run of three centuries of works on the regularities of enumerated moral and social phenomena, Halbwachs deliberately replied to the providentialist conception of the Eighteenth Century according to which regularities manifested divine intervention, on one hand, and to the mathematical conception of the Nineteenth Century, on the other hand, that maintained that the sex at birth was probabilistic with a known frequency favourable to males, about 51 or 52 percent.

In the background of Halbwachs works, *Le Point de vue du nombre* is at the crossroads of several lines of analysis: a redefinition of social morphology, an investigation of the relation between groups and their topographic spaces, a study of mental representations and memory. This work is also situated in the plan of Lucien Febvre's for the Volume VII of the *Encyclopédie Française* and takes on the meaning of a state-of-the-art summary of knowledge intended to instruct an informed readership aware of scientific developments. It was important to provide this readership with a series of critical adjustments concerning the simplistic theses concerning races, peoples and migratory phenomena, theses widely held among laymen and scientists, and notably exploited by National Socialists in Germany. And finally, *Le Point de vue du nombre* strongly contributed to the redefinition of a sector of social sciences -- demography -- when previous statistical models were falling apart and before their reestablishment in the 1950s. By conjugating these different contexts, one can thus measure the tenacity of this sociologist in his research, his capacity to adapt to the intellectual and scientific circumstances of the time, but also, despite undeniable implicit effects, the small echo of his most fundamental explicit results both before, during and after World War II.

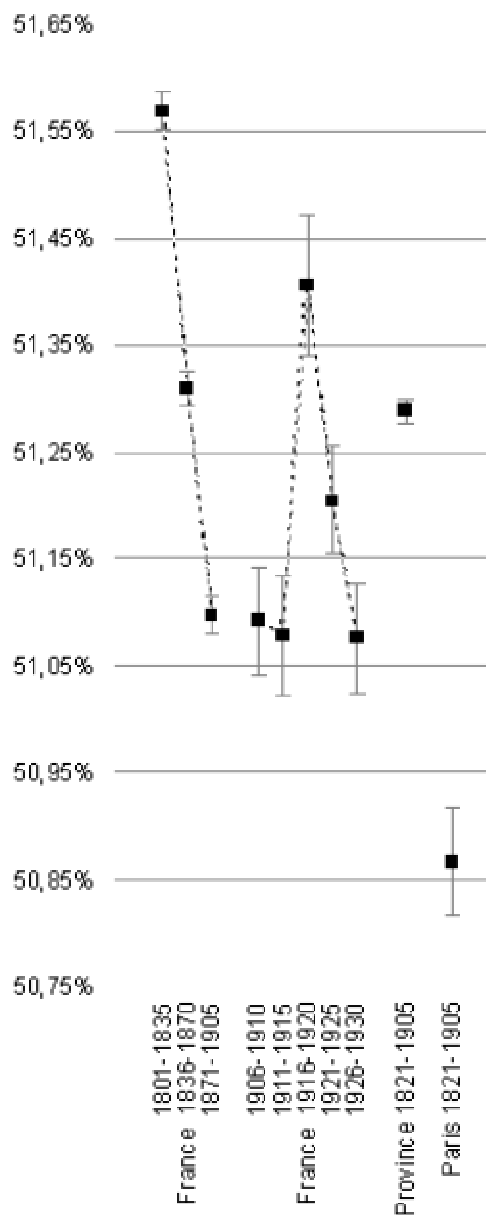
What has become of the notion of variability of the rate of male births which played a central part in Halbwachs' work? Scientific posterity did not pay much attention, forgetting it more than criticizing it. With this type of calculation, Halbwachs intended to show that the social sciences could be statistically grounded (he would have used the term “social morphology”). This is a first reason to read his work with great scrutiny and to consider to what extent it is important. A second reason is the renewed interest of the research community for sex ratio indicators, a consequence of the development of both biological and cultural studies of sex and gender (4).

“This is probably the first time that one is able to demonstrate in a definite manner that the variation observed in the rate of male births is not random”, wrote the author in 1936. However, these indicators were far from being reliable statistical estimators. Halbwachs' mode of reasoning incorporated factors such as data on the age difference between parents that one is nowadays compelled to abandon. It turns out that some results are still pertinent, and it is possible to test Halbwachs' conclusions, providing one's use a better indicator and by applying it to Nineteenth and Twentieth Century data sets.

We won't enter here into the empirical details and reflections which will be presented in the book. We will only mention a couple of results. The following graph characterizes them fairly well by presenting data from the birth register from 1801 until 1930, with a total of 115,248,327 births with a rate of 51.3% for boys and 48.7% for girls.

One can thus verify that the average rate of male births has decreased steadily throughout the Nineteenth Century (from 51.6% during the 1801-1835 period, to 51.1% for the last period, 1871-1905). This far exceeds the confidence interval. This rate has been increasing since World War I (from 51.1 to 51.4). It differed markedly in Paris, as opposed to the rest of France (50.9 as compared to 51.3). Here are true objects for sociological investigation. Halbwachs had already arrived at these conclusions, although by different and probably less assured paths. They were part of his analysis of the various forms of society. Therefore, it was relevant in 1936 to try to improve Durkheim's statistical objectivism. Halbwachs intended to do so trying to escape from flat positivism and from more or less explicit theological considerations. He attempted to provide an answer to three centuries of perplexity concerning the regularity of such phenomena. Thus, a "social fact" is present at the core of the apparently most natural fact, the sex of newborn babies.

Rate of male births in Paris and in France (1801-1930) (5)



1. Since 2001, this joint research has been done in the framework of the Unit 11 (history and populations) of the French National Demographic Institute (INED). The preparation of the resulting book is part of a project submitted to the CNRS in 2002 and for which Marie Jaisson, maître de conférences at the Department of Sociology of the University François-Rabelais (Tours), is currently associated with the LASMAS. The book is entitled: Maurice Halbwachs, Alfred Sauvy *et al.*, *Le Point de vue du nombre (1936)*, articles of Maurice Halbwachs, a critical study edited by Marie Jaisson and Eric Brian, with contributions from Walter Gierl, Jean-Christophe Marcel, Jean-Marc Rohrbasser and Jacques Véron, Paris, Editions de l'Institut national d'études démographiques, 2005 (in the series "Classiques de l'Economie et de la Population").

2. *Cahiers Jaurès*, n. 163-164, 2002; M. Bloch and L. Febvre; *Correspondance*, vol. 1, 1994, vol. 2 & 3, 2003 (editor, B. Müller).

3. The curve representing the mobile means over five years of the annual number of citations of Halbwachs' works (bibliographic analysis by W. Gierl).

4. I. C. W. Hardy (editor), *Sex Ratios: Concepts and Research Methods*, Cambridge University Press, 2002; M. E. N. Majerus, *Sex wars: Genes, bacteria and biased sex ratios*, Princeton University Press, 2003.

5. The thick black marks indicate sex ratios. The thin black marks indicate the probability intervals of confidence. Source: SGF, SNS, INSEE, INED.