

Scholars and Literati at the National Academy of Sciences, Letters and Arts of Bordeaux (1712-1793)

David de la Croix Fanny Dock

IRES/LIDAM, UCLouvain

This note is a summary description of the set of scholars and literati who participated in the National Academy of Sciences, Letters and Arts of Bordeaux from its inception in 1712 to its dissolution in 1793.

1 THE ACADEMY

In the early 18th century, a society of amateur musicians was founded in Bordeaux. This society gathered people from affluent families and was called *Académie des Lyriques*. While they would wait for a concert to start, various topics would be discussed such as history, literature, and physics. This led to the creation of the National Academy of Sciences, Letters and Arts of Bordeaux in 1712. The valuable help of Henri-Jacques Nompars de Caumont, the Duke of La Force, was requested, and he was appointed the first protector of the Academy. The founders of the Academy comprised several members of Parliament including Jean-Baptiste de Caupos, Andre-François-Benoit Leberthon, and Antoine de Gasc, who was the first director in 1713. The Academy aimed to provide a place of influence, exchange of ideas, and reflection to accompany the great intellectual movement of the Enlightenment (Roche 1978). In 1716, the Academy welcomed Louis-Charles Montesquieu, one of the most renowned personalities of the time, who was elected annual director on four occasions. By 1793, the Academy was dissolved as a result of Abbé Grégoire's motion voted by the Convention on 22 April 1793 in the wake of the French Revolution, and its assets were nationalized.

2 SOURCES

In 1912, Paul Courteault published an article in the *Actes de l'Académie Nationale des Sciences, Belles-Lettres et Arts de Bordeaux* which lists the members of the institution from 1712 to 1912. Paul Courteault was a French historian and writer who devoted most of his work to the history of the city of Bordeaux. He was the president of the Academy from 1912 to 1948. Some members were referred to by their surnames, which makes it difficult to identify them. The use of a second source was necessary to refine the list of members. *Tables historiques et méthodiques* was written by Jules Gères and A.R. Céleste in 1879. It contains a list of the members of the Academy, as well as the list of directors and protectors of the institution.

3 SOME STATISTICS

Table 1 displays some descriptive statistics. There are 246 scholars and literati. The year of birth is known, sometimes approximately, for 62.2% of them. The mean age at appointment increases over time. Longevity is steady, with a mean age at death close to 70 years. The birth place is known for 51.2% of the individuals. For them, the median distance between place of birth and Bordeaux is 356 km, and increases over time, showing the growing reach of the Academy. This growing reach is confirmed by both quality statistics. 38.6% of the scholars have a Wikipedia page (in some language), and 53.3% of them have left a footprint in the catalogues of the libraries of the world,

Worldcat, either by having published some work, or by having been the subject of published books and articles. These two numbers increase from the first to the second period.

Period		nb.	% birth year	mean age	mean age	life exp.
Start	End	obs	known	at appoint.	at death	at 30
1686	1733	50	54	37.5	70.3	67.1
1734	1800	196	64.3	42.1	69.4	67.4
1000	1800	246	62.2	41.4	69.5	67.6
			% birth place	median distance	% with	% with
			known	birth-institution	Wikipedia	Worldcat
1686	1733		40	163	26	36
1734	1800		54.1	381	41.8	57.7
1000	1800		51.2	356	38.6	53.3

Table 1: Summary statistics by period

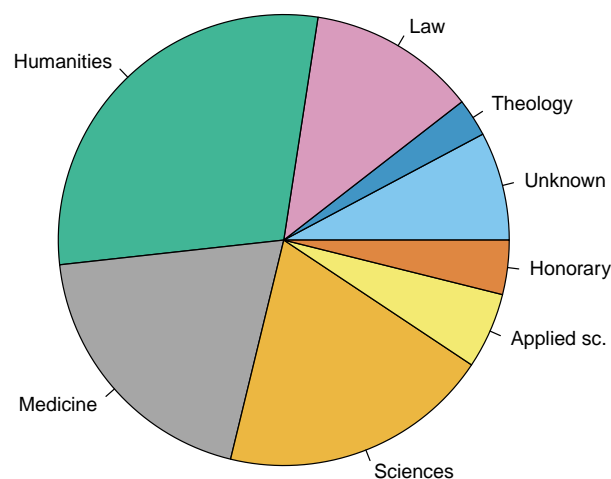


Figure 1: Broad fields at the Academy of Bordeaux

4 FIELDS

Figure 1 shows the relative importance of fields, broadly defined. The main fields at the Academy of Bordeaux were humanities, medicine, and sciences. Together, they account for almost three quarters of the occupations of the Academy. From the inception of the institution, tensions existed between scientists and humanists. It caused the splintering of the *Académie des Lyriques*. Besides the active scholars and literati, the “honorary” members were those who were added to the institution with no clear scientific identity.

5 PLACE OF BIRTH

Figure 2 is a plot of the places of birth of all the ordinary members of the Academy of Bordeaux. It shows it was not a strictly local academy, as it recruited members far beyond the borders of France.

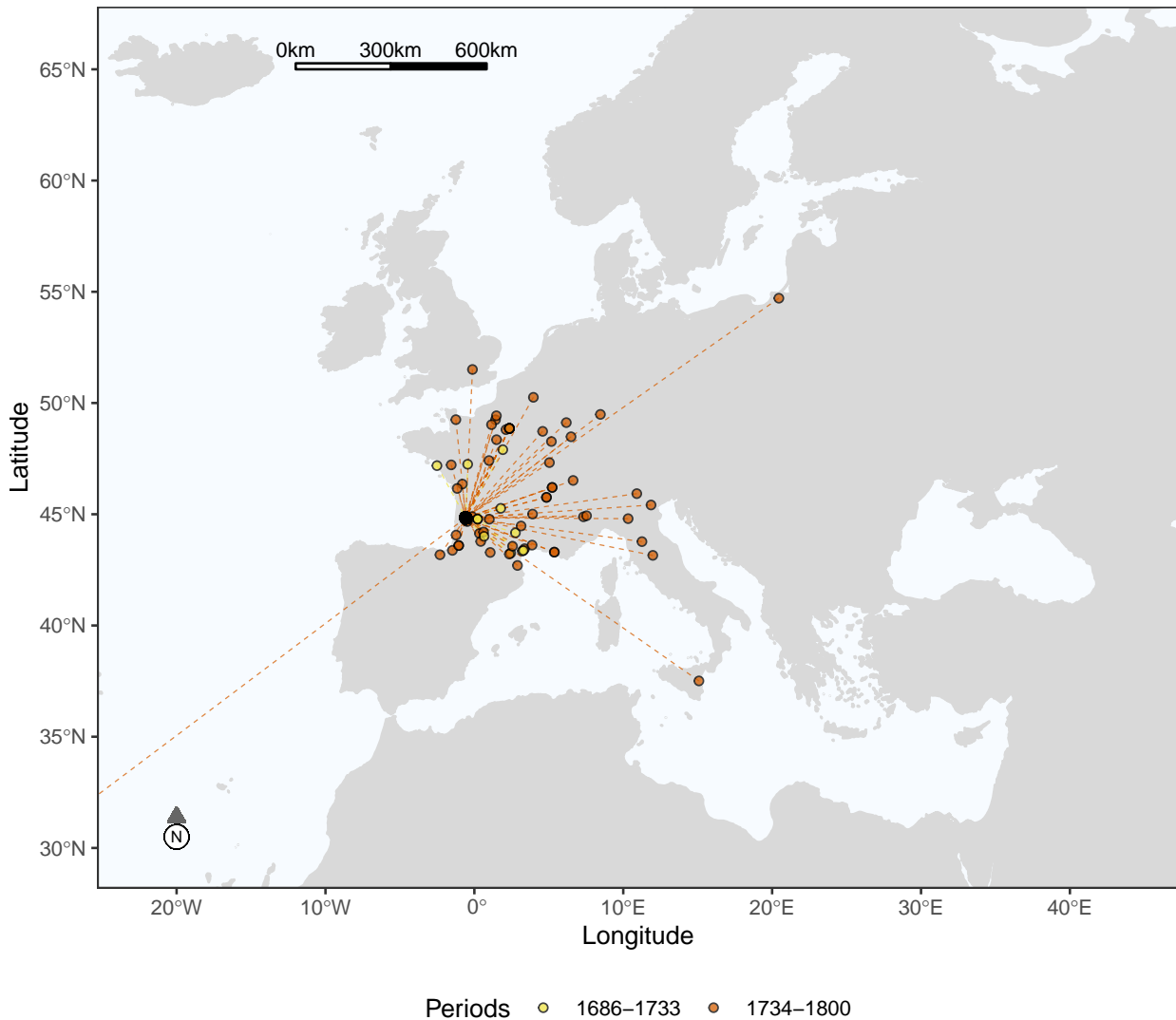


Figure 2: Places of birth of the ordinary members of the Academy of Bordeaux

Figure 3 shows the origin of the corresponding members. These members were mainly from France, probably more so than the ordinary members, which is unusual.

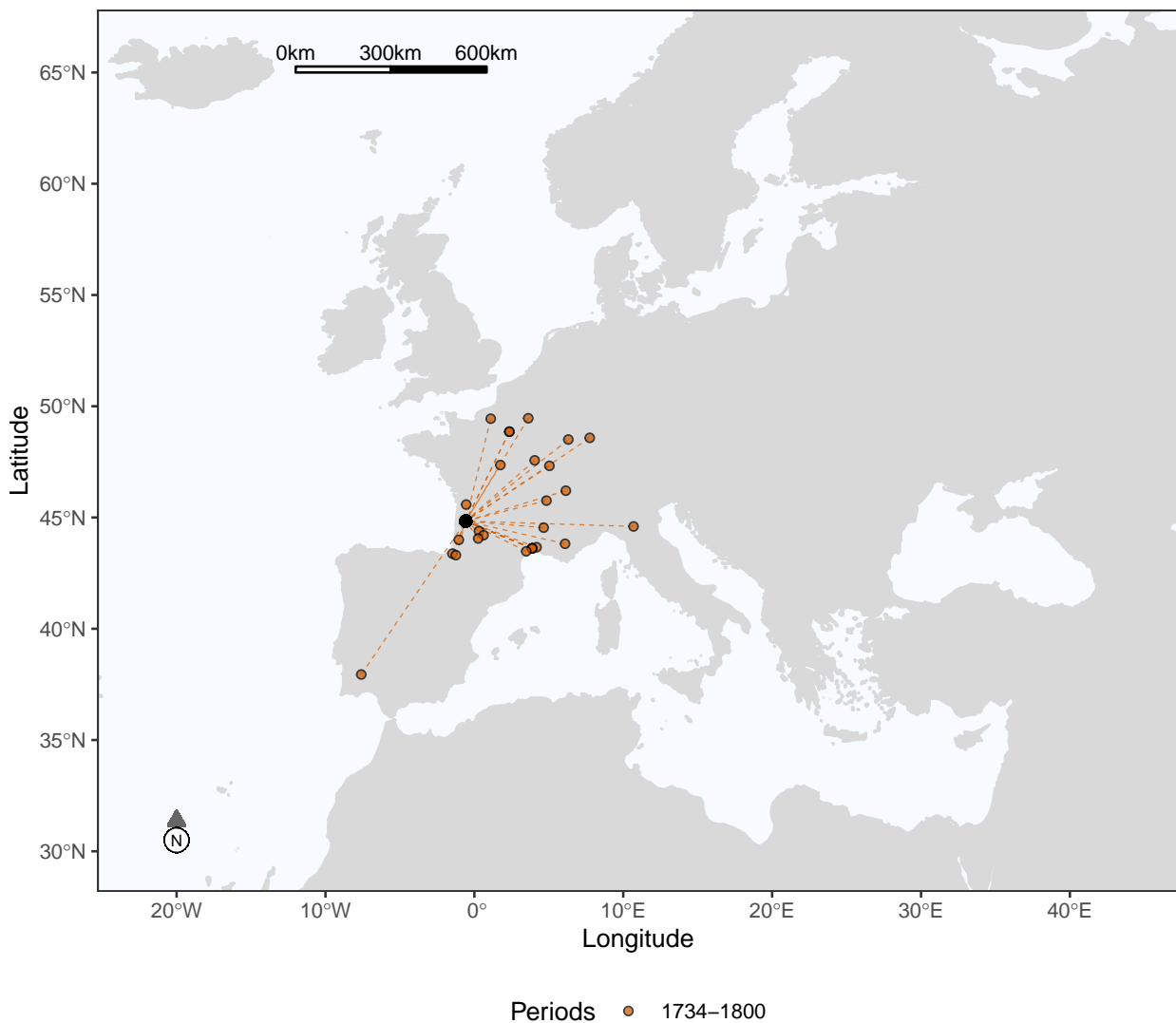


Figure 3: Place of birth of the corresponding members of the Academy of Bordeaux

6 HUMAN CAPITAL OF SCHOLARS AND LITERATI

For each person in the database, we compute a heuristic human capital index, identified by combining information from Worldcat and Wikipedia using principal component analysis. Details are given in the Appendix. Figure 4 shows the names of all the scholars with a positive human capital index. The vertical green lines (rug plot) show the distribution of all scholars, including the obscure ones, over time (counting from the beginning of their active life).

Figure 4 shows that the quality of the Academy is not just due to a few superstars, as there is a mass of very active people just below them.

7 TOP 5 SCHOLARS

We now provide a brief overview of the five scholars with the highest human capital index.

Charles-Louis de Secondat de la Brède et de Montesquieu (Bordeaux 1698 – Paris 1755) was a French political thinker and writer of the Enlightenment. He wrote major works combining history and philosophy, including *De l'Esprit des Lois* in 1748. He was the innovator of what would later be named the principle of the separation of powers. He is one of the philosophers of the political and social organisation on which modern societies are based. He was nominated to the Academy of Bordeaux in 1716 and was elected annual director on four occasions, in 1718, 1726, 1735 and 1748.

Bernard-Germain de Lacépède (Agen 1756 – Epinay-sur-Seine 1825) was a French naturalist and zoologist. He wrote numerous works on natural history, notably on marine fauna. He was also known as a politician in Paris. He began his political career as a deputy in the Legislative Assembly in 1791. He became its president from 28 November to 9 December 1791. He was the president of the conservative Senate. He joined the Academy of Bordeaux in 1785. He was also listed as a member of many European Academies, such as the French Academy of Sciences and the Royal Swedish Academy of Sciences, among others.

Joseph Jérôme Lefrançois de Lalande (Bourg-en-Bresse 1732 – Paris 1807) was a French astronomer. He devoted himself to the study of the planets of the solar system. In 1759, he published a corrected edition of Edmond Halley's tables. He was appointed director of the Paris Observatory in 1795 and held this position until his death. He contributed to the popularisation of astronomy. He was nominated to the Academy of Bordeaux in 1774, while being a member of prestigious academies of his time, including the French Academy of Sciences and the Royal Society of London.

Pierre Bouguer (Croisic 1698 – Paris 1758) was a French mathematician, physicist, geodesist, and hydrographer. In 1729, he published *An Optical Essay on the Gradation of Light* which was an innovative essay. He made the first statement of the Law of Beer-Lambert on the attenuation of light. He was the inventor of the heliometer for measuring the seasonal variation of the Sun's diameter, and highlighted the Bouguer anomaly on gravity. He joined the Academy of Bordeaux in 1729. He was nominated to the French Academy of Sciences, the Royal Society of London, and the Royal Naval Academy of France as well.

Louis de Jaucourt (Paris 1704 – Compiègne 1779) was a French doctor, philosopher, and writer. He was one of the most prolific contributors to the *Encyclopaedia*. He wrote both on science and medicine, but also on history and society. His writings illustrate a great dedication to the principles of the Enlightenment. He was nominated to the Academy of Bordeaux in 1746.

8 RELATED SCHOLARS

Here we provide a brief overview of the five external members with the highest human capital index.

François-Marie Arouet de Voltaire (Paris 1694 – Paris 1778) known as Voltaire was a French writer and philosopher who marked the 18th century. He was a representative of the Enlightenment, and his era was marked by his publications and political struggles. In 1759, he published *Candide ou l'Optimisme*, a philosophical and ironic tale in which references to the academics of Bordeaux can be found. Voltaire's work includes plays, historical and philosophical writings, poems, stories, many polemical texts, and an important correspondence. He was a corresponding member of the Academy of Bordeaux from 1746.

Lazzaro Spallanzani (Scandiano 1729 – Pavia 1799) was an Italian priest, biologist, and physiologist. His research made important contributions to the study of body functions and animal reproduction. His work refuted the theory of spontaneous generation, which was a scientific breakthrough. He was a corresponding member of the Academy of Bordeaux from 1777.

Jean-Marie Roland De La Platière (Thizy 1734 – Bourg-Baudoin 1793) was a French inspector of manufactures in Lyon and an economist. He was Minister of the Interior in 1792. He edited the *Encyclopédie méthodique* about manufacturing and industry. During the Revolution, he was affiliated with the liberal cause, and wrote many articles with his wife, Jeanne Manon Roland De La Platière. He was associated with the Academy of Bordeaux from 1787.

Nicolas François de Neufchâteau (Saffais 1750 – Paris 1828) was a French writer, politician, and agronomist. He was a precocious poet and laureate of the Academy of Marseilles. He was a deputy in the Legislative Assembly and became its president in 1791. He was a member of the Senate, which he presided over from 1804 to 1806. At the end of his life, he retired from public affairs and occupied himself almost exclusively with agriculture and agronomy. He wrote a host of political, literary and agricultural publications. He was associated with the Academy of Bordeaux from 1783.

Jean Senebier (Geneva 1742 – Geneva 1809) was a Genevan Calvinist pastor and naturalist. He devoted his work to plant physiology, and he was one of the major early pioneers of photosynthesis research. He also wrote about the explanation of the experimental method. Among his influences was the Italian physiologist and experimental biologist Lazzaro Spallanzani. He was associated with the Academy of Bordeaux from 1777.

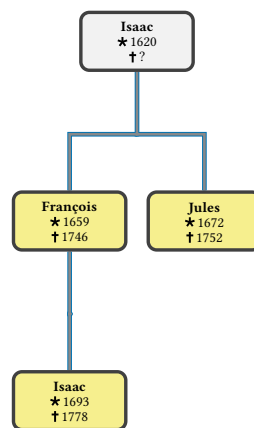


Figure 5: The Bellet family. Members of the Academy of Bordeaux in yellow squares

9 FAMILIES OF SCHOLARS

We counted 5 father-son pairs among the members of the Academy of Bordeaux. Among them, the Bellet Family counts three members of the Academy of Bordeaux and two pairs. François Bellet (1659) and Jules Bellet (1672) were members of the *Académie des Lyriques*. The brothers were part of the founding group of the Academy. Jules Bellet suggested asking for the help of the Duke of La Force Henri-Jacques Nompar de Caumont. Accompanied by Jean-Baptiste de Caupos and Isaac de Sarrau de Boynet, they went to the castle of La Force to request the creation of the National Academy of Sciences, Letters and Arts of Bordeaux. Finally, the letters patent were signed by the king on 5 September 1712.

10 INTERSECTIONS WITH NEARBY UNIVERSITIES

Figure 6 shows that some members of the Academy were also professors at the University of Bordeaux. Although our data on the university are still incomplete, and a large crowd of obscure professors is still missing, the numbers are complete on the side of the Academy. Six percent of the academicians were also professors (14/246). This was probably a standard pattern for France, where academies were often unrelated to local universities. An exception was Montpellier, where 34% of the academicians were also at the university (see De la Croix 2020).

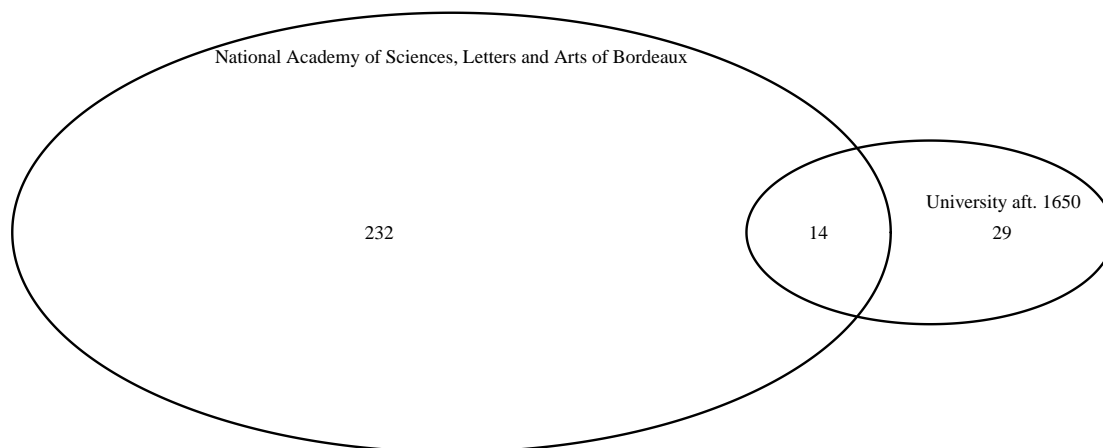


Figure 6: Intersections of the lists of scholars between the University and the Academy of Bordeaux

11 ANECDOTES

Another way to measure the notability of individuals is to look for signs of recognition such as street names, ... and crater names. Joseph Jérôme Lefrançois de Lalande, presented in our top 5, gave his name to a crater on the moon. Interestingly, de Lalande is also the name of a crater on Venus. It is named after the French astronomer Marie-Jeanne de Lalande (1768-1832), an illegitimate daughter of Joseph Jérôme.

Jean Betbeder, a member of the Academy and professor of medicine at the University, was born in Mont-de-Marsan. He tried to convince his fellow academicians that the mineral water from Mont-de-Marsan had therapeutic virtues. These waters became famous, but only for a short period of time (Suau 1991).

APPENDIX

The individual human capital index q_i of an individual i is given by:

$$q_i = -1.76 + 0.43 \ln(\text{nb. characters of the longest Wikipedia page}) \\ + 0.40 \ln(\text{nb. Wikipedia pages in different languages}) + 0.47 \ln(\text{nb. works in Worldcat}) \\ + 0.46 \ln(\text{nb. publication languages in Worldcat}) + 0.47 \ln(\text{nb. library holdings in Worldcat})$$

We assume that having no Wikipedia page is similar to having one page with a length of 60 characters and that having no Worldcat page is similar to having a page with one work in one language held by one library. The constant -1.76 normalizes q_i at 0 when there is neither a Wikipedia page, nor a Worldcat page. The weights (0.43, 0.40, etc) are obtained from the first principal component of the five indicators (De la Croix et al. 2020).

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