Social networks analysis and politicians in France between 1871 and 1940
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Social networks analysis and politicians in France between 1871 and 1940.

This communication is based on the results of my doctoral thesis in contemporary history, entitled “The renewal of a political elite. The elected representatives of the Marne during the Third French Republic between 1871 and 1940”, presented in 2008 and partially published in 2012 under the title The Heredity in Republic. Politicians and their families in the department of the Marne (1871-1940). The main problem evoked in the initial study was the question of the renewal of the political elites during the Third French Republic and our starting point was the two extremely famous quotations of two leading players of this Republic. The first one is the one of Léon Gambetta stemming from a speech pronounced in Grenoble in September, 1872: “Yes! I sense, I feel, I announce the coming and the presence, in the politics, of a new class of society which is for the affairs since about eighteen months, and which is far, certainly, to be lower than their predecessors”. The second one is the one of Marshal Philippe Pétain, then Head of French State, in October the eleventh 1940 pronounced during a radio speech in which he said that he intends to establish a new order in which “the real elites will be reborn [because] the past political regime put years to destroy [them]. [Those elites] will constitute necessary frameworks for the development of the well-being and the dignity of all”. That’s why our initial question was: Is there during this Third French Republic a renewal of the political staff? Is it possible to emphasize evolutions in the socio-political recruitment of this staff?

Since few decades, in contemporary history, the politicians’ analysts used the prosopographical method. Christophe Charle gave in 1980 the most simple, clear and complete definition of this method when he wrote: “the prosopographical aim consists in drawing up the collective biography of a body or a group of persons by setting up and crossing individual notes.”

I used this method too and tried to add the social networks’ analysis assets. To take advantage of these two methods, it was necessary to define a corpus slightly different from that generally studied.
The objective of this communication is to emphasize both the method used in this research and the main obtained results. First, I'll speak about the corpus, then about the empiric method I have used and finally the main conclusions I have found.

1. A Corpus

First, I suppose necessary a little reminder about the French administrative and political organization. France is subdivided into departments. Every department is divided into “arrondissements”. Every “arrondissement” is divided into districts. Every district is divided into municipalities.
Every level possesses elected representatives within the framework of political institutions: in the municipality is the City Council managed by the mayor; districts are represented to the District Council (arrondissement) and to the General Council (county, department). The first one takes care of matter in the municipality, the second in the districts included in the “arrondissement”; the third takes care of the department. Each “arrondissement” appoint members of Parliament (deputies and senators) to represent themselves in the national institutions which sit in Paris.

Our research is a new and integral analysis from the French local politicians (district’s and county’s counsellors, parliamentarians and among them those who were mayors too). Usually, the studies on the politicians analyze either the members of Parliament, or the local elected representatives but rarely both at the same time and according to the same problematic objective. That’s why the specialist from the University of Bordeaux Bernard Lachaise said in 2008 that this study is an integral analysis from the French local politicians.

This integral analysis table allows to put in relation the local basis of the members of Parliament and to bring to light certain practices of domination of the political public space. Nevertheless, it cannot apply to a wide scale and thus confines to limit the analyzed spaces: we chose the department of the Marne, in east northern France.

Between 1871 and 1940, 493 men were in power in one or several levels of the department of the Marne.

2. An empiric method

The prosopographical method applied to the study of the contemporary French politicians is really tested as shows it the multitude of publications using this method. The prosopography defined by Christophe Charle appeals to the use of several methods or secondary sciences in particular those of the genealogy, when it is possible.
For 19th and 20th centuries in France, the genealogical data are numerous, important and relatively reliable.

In front of the corpus, the use of the prosopographical methods was an obvious fact, the knowledge of the historiography and the epistemology of the history was necessary but it remained a problem: how to go farther? How to show if the renewal of these politicians is real, deep or superficial?

The traditional training of the historians in France doesn’t take into account these themes of analyses of networks. Thus to go beyond the simple genealogy and beyond the compilation of the individual index forms, I found natural to use certain methods of analysis of the social networks and in particular to use certain software of social mapping; and in particular Pajek from Vladimir Batagelj and Andrej Mrvar, developed at the university of Ljubljana. Pajek is a program for Windows, for analysis and visualization of large networks.

The file management of more than 72.000 individual index forms for about 10.500 different patronymics from less than 500 initial politicians required this appeal to the most appropriate tools. The contributions of the genealogical analysis were essential to bring to light the relations between the members of family, but the traditional software of genealogy are not enough successful for measuring the scale of networks and the relationships between the family’s groups.

It is thus the combination of these various methods: genealogy, prosopography and analysis of the social networks which was useful to emphasize the real relations maintained between the politicians and to measure the renewal of the political elites between 1871 and 1940.

That’s why, the chronological frame of the study wasn’t limit to the period 1871-1940 but takes into account a vast period included at a minimum time between 1800 and 1940, to measure the relations and closeness of kinship but also the importance of the political impact of ascendants and collaterals (brotherhood, brothers in law, cousinhoud, and so on).

This is a new analysis’s method allocated to an historical research. In the thesis’s report Patrick Cabanel (University of Toulouse) mentioned that this work “gave to the politics’ historians a ‘model’". In the same time, Bernard Lachaise (University of Bordeaux) wrote that “this work will become an essential tool – and really exemplary in certain respects – for the history of the political elites during the French Third Republic.”

3. Main results

To evoke the most important results, I urge you to take an example among the others; starting from a simple relation of relationship easily and quickly emphasized thanks to the genealogy.

Let’s start from the couple made up for Nicolas Charles Amédée Arnould (born in 1827) and Marie Eugénie Adeline Noël (born in 1839). In 1856, they had a named girl Marie Louise Cécile. In 1857, is born Marie Eugénie. Adeline Noël dies on March 26th, 1860 to Sainte-Menehould. Her husband dies on July 10th, 1869 to Jubécourt in the department of Meuse (Maas). Both girls are then entrusted to their maternal uncle Jean Alfred Noël, owner to Remicourt and mayor of this municipality from 1871 till 1896.

In 1876, to Sainte-Menehould, the elder daughter marries Paul Charles Alfred Bertrand, member of our corpus. In 1879, the younger become wife of Adrien Charles Moulin. At this moment, the network of marriage is

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1 Rapport de soutenance de thèse, 2 décembre 2008, p. 7.
2 Ibid., p. 8.
extremely simplistic as show it the family tree and the network builds according to the algorithm of Fruchterman-Reingold.

Paul Bertrand is mayor of Sainte-Menehould from 1888 till 1892 and deputy of the Marne from 1889 till 1910. Adrien Moulin is mayor of Sainte-Menehould from 1903 till 1912 then from 1914 till 1915; he is also General Counselor of the district of Sainte-Menehould from 1904 till 1910. The important mandates of both brothers-in-law ended in 1910. Paul Bertrand practised as attorney; Adrien Moulin was a solicitor (notary). In 1879, Paul Bertrand witnesses the wife of Adrien Moulin (his sister-in-law) during the marriage.

In 1876, general Félix Appert witnesses Cécile arnould as friend. In reality, if he is friends of the wife or his family, he is also a cousin to the fifth degree of the husband because Paul Bertrand is the son of the doctor Louis Christophe Bertrand (1815-1870), stemming from Marie Louise Thérèse Grelet, native of Saint-Rémy-sur-Bussy quite as her mother Nicole Perchenet and his grandmother Marguerite Appert, herself the girl of Jacques Appert (1681-1744), owner to Courtisols. Marguerite Appert (1713-1791) is the elder daughter of a four children siblings and her most immediate younger sib is Jacques Appert (1714-1790). This one is father of Nicolas Appert (the seventh child on eleven, 1750-1804), grandfather of the farmer Augustin Appert (1790-1861) and great-grandfather of general Félix Antoine Appert (1817-1891).

The family network densifies slightly but it isn’t enough complex; that’s why the algorithm of Fruchterman-Reingold isn’t more relevant than the family tree to understand the links between these three individuals.

Félix Appert is thus general having participated in the conquest and in the maintenance of law and order in Algeria in the 1840’ then in the Crimean War and having supported the siege of Paris in the fort of Champigny in 1870; but he was also an ambassador of France in Saint-Petersburg from 1882 till 1886. During this lapse of time,
he is also General Counselor of the district of Dommartin-sur-Yèvre from 1871 till 1891, dates its death to Passy, western suburb of Paris.

Let’s go back to Jacques Appert, brother of Marguerite. By the descendants of his daughter Pérette, Jacques Appert is the direct forebear of Armand Justin Appert-Raulin (1864-1946). As for Marie Joséphine Appert (born in 1829), she lets in her collateral branches to the cousinhood of Lorin and Herbillon; families suppliers of politicians: Louis Julien Lorin (born in 1879), Louis Allyre Herbillon (born in 1873) and Paul Henri Roger Chamontin (1893-1944). From this moment, and even if the network of cousinhood is not extremely complex, the algorithm Fruchterman-Reingold shows in a relevant way the role of the family Appert like pivot in this network, which is at the same time family and political network. But especially, it shows that the alliances and marriages made from the patronymic Appert towards the patronymic Chamontin, stage families which send or will send several politicians to the local or national assemblies during the Third French Republic.
By these marriages, the concerned geographical area increases. The municipality of La Chepppe and the district of Suippes are the places of election of Allyre Herbillon and his son-in-law Henri Chamontin. Justin Appert-Raulin is elected mayor of Oiry and District Counselor of the district of Avize. Julien Lorin, for one, confirms the presence in the district of Dommartin-sur-Yèvre. Together, these politicians accumulate 87 years of municipal management, 29 years in Districts’ Councils, 30 years in General Council and 21 years in Parliament.

The relations of kinship between elected representatives of the Third French Republic are thus real, but from there to say that there is a seizure of the political seats, a real nepotism and a real impact of the lineages on the local political scene, there is a step. This step begins, when we look at the collateral on the side of the wives Arnould. By their grandfather Nicolas Philogène Noël (1813-1875), the sisters Arnould enter cousinhood by branches Gauchez, Caquot and Dommanget with seven other members of the corpus - without considering the marriages made on the side of Marie Eugénie Lambert (1812-1839), nor those made in the circle of acquaintances of the couples mentioned in purple on the family tree. These seven others are: Jean-Baptiste André Blot (born in 1832), Georges Charles de Chartongne (born in 1855), Louis Amédée Lambert (born in 1860), Paul Eugène Edmond Chevallier (born in 1846) and Paul Narcisse Fernand Chevallier (born in 1875), Charles Hippolyte Joly (born in 1827) and Louis Léon Maurice Fauquenot (1880-1957). Almost all these politicians integrate the family group thanks to a marriage which they contract with a member of the family network. The completeness of the mixed family tree (ancestry and descendants) so obtained becomes from now on practically impossible to comment as is. Certainly, it shows the reality of the cousinhood and the degrees of cousinhood, but knowing that it’s still incomplete (because of the couples mentioned in purple), it becomes inchmeal impossible to have a real overall view. At this moment the algorithm Fruchterman-Reingold shows also and partially its limits. Certainly, the graphic representation of the network emphasizes some important elements: the pivot’s role of some families: Appert, Arnould, Gauchez, Dommanget and Caquot. And we can even say that the vertebral column of this group finds an essential rooting point with the family Caquot. Nevertheless, this algorithm which provokes the aversion of nodes and the spring’s role of the links that’s why it isn’t the most suitable for this study.
That’s why we preferred the algorithm Kamada-Kawai which emphasizes more branches with regard to the others. Thanks to this graphic representation, we note that the entry of these seven individuals shows the concentration of mandates in the northeast of the department of the Marne, in the districts of Suippes (in blue), Ville-sur-Tourbe (in fuschia), Sainte-Menehould (in pink) and Dommartin-sur-Yèvre (in green); these last three districts composing the arrondissement of Sainte-Menehould. In this arrondissement, the closer or distant cousins, direct cousins or cousins-in-law (after marriage) of the sisters Arnould occupy at least an armchair among nine of Districts Council, except during the short period between 1931 and 1936. There are even three (Hippolyte Joly, Jean-Baptiste Blot and Edmond Chevallier) to represent two different districts and the family between 1887 and 1892; they thus occupy a third of the available seats during these six years.

Let’s go back to the couple Caquot-Musquin, mentioned in purple: five new politicians enter the relatives: Pierre Dominique Lambert (born in 1838), Charles Arsène Tilloy (1822-1879), Antoine Eugène Tilloy (1850-1909), Paul Eugène Marcel Duhal (1884-1979) and Benjamin Maucourant (1843-1905). There is continuation of the network such as he can be drawn according to the algorithm Kamada-Kawai, making of the family Musquin a new essential node (vertices).
Politically and geographically, these five new politicians still strengthen the weight of the family within the framework of the arrondissement of Sainte-Menehould and quite particularly in the district of Ville-sur-Tourbe. The sustainability and the longevity of the group at the head of the cantonal and departmental affairs are really important. And we didn’t develop in this example all the relatives and the cousinhood. The presence is very important especially in the Districts’ Council and first of all in the arrondissement of Sainte-Menehould. (60 years + 49 years + 25 years).

From the initial family unit, we showed direct and indirect (by marriage) relations of cousinhood between several but a limited number of politicians. Let's looking from another ancestry we showed the contribution of the family to the departmental political scene. Then new branches seemed and gave other politicians to the arrondissement and to the department.

Nevertheless, these politicians are only a few among of numerous other who go by different names and patronymics but who integrate all the same family group through doubled marriages. Between these families suppliers of politicians, other families are associated by marriage serve relay. Numerous links exist between these patronymic families. That's why we can use the concept of Sippe, concept of medieval history defined by David Herlihy: “The Sippe came to be a cognatic, extended family unit.” The definition of Sippe used by Régine Le Jan and the medievalists specialists of the High Middle Ages and the Merovingian and Carolingian nobilities refers to the constitution of a group of relationship as unique and particular to the aristocracy which assembles several connected families thanks to relationships of blood, marriage, alliance and friendship. The group forms then a social, family and of public interests network. Transposed into the social and political realities very different from the 19th century, this concept proves the seizure of the power and the elective seats by groups of widened, noble or prominent citizens relationships, until the borders of the 20th century.

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In this vast network of cousinhood and kinship, which we’ll call *Sippe*, exists a real centre inside which the relations between individuals are numerous, multiple and complex (in yellow on the graph). It’s also possible to spot a first peripheral fringe (in green on the graph) with which the families of the heart of *Sippe* maintain more cowardly, more distended, less doubled but real relations; finally there is the second peripheral crown (in white on the graph). The members of this second crown practically have no direct family links with members of the corpus in the heart of *Sippe* but only links with some families and politicians of the first peripheral crown.

During the period considered as our heart of target: the Third French Republic from 1871 to 1940, 274 politicians of the corpus belong to this *Sippe*. These members sit 120 years in the Senate, 286 years in the Chamber of deputies, 1225 years in the Districts’ Councils. More than those impressive data and values for themselves, we have to compare the rates with the whole corpus: these politicians correspond to 55,58 % of the members of the corpus, they occupy armchairs to the Senate and to the Chamber of deputies during 62,5 % of time; they sit in the General council during 53,44% of available time and 66,56% of time in the Districts’ Councils. During this period ever less than 13 members of the family are present on 32 or 33 seats of the General Council. The family’s impact is considerable: ever less than 39% of seats is occupied, with a maximum about two-thirds at the beginning of the Third French Republic. This impact is real in almost all the department whether it’s in the General Council or in the Districts’ Councils. If this impact is enormous, you should not forget that these politicians and their ascendants entered in fact in the politics’ game for a very long time, or in the national, departmental or municipal institutions. To prove this aspect, we’ll take as example the members of the network elected on the arrondissement of Sainte-Menehould or those natives of the northeast of the department and their ancestry. This partition of the general network includes then 174 politicians mandated between 1800 and 1940.

These politicians monopolize mayor’s armchairs in fifty municipalities for a total duration of 2386 years. Thirty eight of fifty municipalities are situated in the arrondissement of Sainte-Menehould, for a duration of 1917 years. The departmental political functions are partially monopolized by the members of the group, even if the appointment should make according to the good will of the central powers, according to the vote by a suffrage based on a tax qualification or by universal suffrage.

The District Council of Sainte-Menehould is extremely revealing of this monopoly. During the considered period (1800-1940), the only moment when the network isn’t present in the council is the short period included between 1826 and 1830. The rest of the time, at least a member is present (eighteen years long). At most of its influence, the network succeeds in placing eight of its members on nine available armchairs. This situation meets from 1871 till 1882 with Jean Baptiste Alexis Barrois (Dommartin-sur-Yèvre), Louis Théophile Brouillon (Dommartin-sur-Yèvre), Charles Hippolyte Joly (Ville-sur-Tourbe), Adolphe Michel (Sainte-Menehould), Frédéric Joseph Nidart (Sainte-Menehould), Jean Hippolyte Nottret (Dommartin-sur-Yèvre), Pierre Louis Petit (Ville-sur-Tourbe) et Charles Arsène Tilloy (Ville-sur-Tourbe).
It shows that the interests of the group can be protected, especially since the skills and competences are multiple. The analysis of the occupations gives evidence of it because we can find in this assembly the specialists of the legal questions and the agricultural questions (main concern in this very rural and little industrialized arrondissement). In 1871, four are solicitors, two are owners and two farmers. The distribution by district is even relatively fair with two solicitors and a farmer to Dommartin-sur-Yèvre, a solicitor and a farmer to Sainte-Menehould, and a solicitor and two owners to Ville-sur-Tourbe. This situation can’t surprise us because in the rural spaces, such as the arrondissement of Sainte-Menehould, the family networks include the local notability including as long the landowners, the doctors that the solicitors.

The most convincing results, stemming from this method of analysis, are the weakness of renewal of the political elite under the Third French Republic and the importance of the seizure of the local politics. Indeed, the local and departmental political space is put under guardianship by some allied families from which we can bring out a departmental Sippe which controls a great majority of seats and mandates within the framework of this republican system and leaning on a family tradition fixed firmly for a long time.

Conclusion

Thanks to the prosopographical method and the networks’ analysis assets, concerning a long period (1800-1940) we bring the proofs, that the Third French Republic (1871-1940) hasn’t been the theatre of a renewal of local and national political elites.

That’s why we can highlight a dichotomy between the spirit, the letter and the reality of the republican and democratic political space; this one opens the multitude of candidates’ possibilities but the reality of this opening is really tiny. A thorough statistical analysis via the R software, developed by the scientific community and hosted as "The R Project for Statistical Computing" by the Institute for Statistics and Mathematics of Wirtschaftsuniversität Wien, confirms this small opening and the close proximity between politicians and their families discussed in this study.

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4 See also about this analysis : « Prestige personnel et capital social familial au service du contrôle de l'espace politique local (1871-1940)”, in Frédéric Hurlet, Isabelle Rivoal, Isabelle Sidéra, Le Prestige. Autour des différenciations sociales, Paris, MAE Maison René-Ginouvès Archéologie et Ethnologie, 2014, pp. 243-254.