

# The matrimonial behavior of a rural population in Haute-Vienne, France

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## Abstract

Although biodemography prefers to focus on isolated human populations, in our analysis we have considered an opened community, neither culturally nor geographically separated from the nearby communities. The aim of the present study was to reconstruct the degree of consanguinity and assess the level of openness of a certain French population through the observation of its people's matrimonial behavior. Marriages and, in general, the choice of the partner, are often affected by culture and society which affect, in the end, the community's genic pool.

## Introduction

The population we have observed lives in a central area in France, in the center of Limousin (Haute-Vienne), in which there are 5 rural neighbor villages: Châteauponsac – the state capital – Rancon, Balledent, Saint-Amand-Magnazeix and Saint-Sornin-Leulac, 40 km away from Limoges. Starting from demographical data traced from 12,000 civil certificates (births, deaths and marriages) recorded and stored in the town archives in the state capital, we have been able to reconstruct the evolution and the demographical development of this community from 1740 to 1970: this historical period corresponds to the transition from the *ancien régime* to the modern social state and it represents an important moment for the French countryside. In that period it was, in fact, highly populated so that migrations within the country or to the US soon became a signifying phenomenon.<sup>1-3</sup>

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## Materials and Methods

We have selected a sample made of 100 married couples in the area in the early 20 years after World War II (1951-1970) with at least one farmer out of the two partners. The reconstruction of family names has led to the analysis of matrimonial behaviors affected by particular social evolutions and cultural changes which impacted the biological structure of the sample. This reconstruction has not been worked out with classical methods, but we have worked as follows:<sup>1,2</sup> i) each couple represents a *fiche* which has been given a numerical identification code; ii) each *fiche* has been *linked* according to the *parents/children* relationship to the others; iii) the result has been an overturned pyramid family structure; iv) the history of the family has been divided into generations corresponding to a 30-year period for a total amount of 8 generations.

We have carried out micro-analytical analysis on such organized data focusing on endogamy and exogamy divided by each generations and we have assessed consanguinity within the sample. We have started from marriage certifications in which, in addition to the names and the age of the partners, the original places, the occupation of the husband and possibly both parents' occupations were recorded. Wives' occupations were rarely reported. Results have finally been explained by cultural and social aspects which were typical of similar populations.

## Results

We have started the study by questioning on where the men of the village got married and, as a consequence, what the level of endogamy and exogamy of the sample was. We have considered: i) endogamy in Châteauponsac (both the partners are from the village); ii) endogamy in the area (one of the partner is from a nearby village); iii) exogamy (on of the partner is from out of the area); iv) other (unknown origin of the partners).

Results have been reported in Table 1 and expressed as percentage: it is interesting to notice how the choice of the partner was made according to geographical neighborhood which means that most of the marriages were endogamic among people of the same village (on the average 40.3%, with a 50.4% peak in the second generation) or nearby villages (on the average 38.5% with a 44.80 peak in the fourth generation). Exogamy has instead very low values with a 17.6% peak in the seventh generation and on the average 9.75%.

For a further analysis we have considered two types of marriages: *husband vs wife* and *wife vs husband*; in the first case, the husband comes from out of the village, while in the second the wife is a foreigner. Similarly to modern times, the marriage is celebrated in the

wife's original village with an important presence of endogamic marriages:<sup>4,5</sup> as a matter of fact, this can be pointed out in Table 2 and the values are on the average the 77.7% for husbands' endogamy and the 81.3% for wives'.

These results comply with previous analysis on this population where low endogamy and high exogamy were observed, although a high *valley endogamy* was found,<sup>1,2,6</sup> since marriages often occurred among people of nearby villages as in the case of alpine populations: in Bellino (Cuneo) in the Piedmontese Alps or in Fontanigorda (Genoa) in Ligurian hinterland, the percentage are on the average 5.59 and 20.0%, respectively.<sup>7-9</sup> In our sample, marriages occurred according to a regional-based endogamy, since it remained stable in all generations from 7.4 up to 17.6% with values constantly lower than 20%.

Then, we have tried to understand what the choice of the partner was and how it impacted the sample from a biological perspective; in other words, we have considered the degree of consanguinity. This data was occasionally available since it was rarely reported in certifications;<sup>10</sup> therefore, we have manually observed the genealogical tree the presence and the kinship degree. The early results have been reported in Figure 1; in 46 genealogies more than 20 blood-related marriages are present, in other 21 they are >30. This means that if within each genealogy there are 125 couples (distributed in 7 generations), in 46 genealogies the 15.75% of couples are made of blood-related partners and in 21 the percentage increases up to 23.62%. Therefore, in 67 reconstructed genealogies, *i.e.* 67%, one fourth of marriages occurred amongst blood-related partners.

This has pointed out a high level of consanguinity, which has been confirmed by the observation of possible marriages amongst first

cousins, uncles/aunts and nephews/nieces, second cousins, *etc.* described by ecclesiastical code. In this case, the early two generations since data were not complete, but in the other case the evolutions turns out to be irregular, as it is possible to see in Table 3. Percentage are high (on the average 24.96) in IV degree unions, which means third cousins with a 26.5% peak in the fourth generation and a minimum of 20.8% in the seventh. Only the eighth generation, the last one in the 20<sup>th</sup> century, has more uniform values with no first cousins unions and ½ and with lower values in II and III degree unions, 7.4 and 6.2% respectively. These results comply with what has been observed in other populations where the kinship degree was distributed in similar ways: at the beginning few unions from the 4<sup>th</sup> degree onward which then increased in time, since in the early generations marriages occurred amongst closer blood related partners; while in the late generations the blood relation disappeared, whereas III-IV and IV unions increased.<sup>9</sup>

## Discussion

Regional based endogamy and a high degree of consanguinity within the sample make it more similar to an Alpine population than a population living in a plain area.<sup>11</sup> The partners choose each other because of physical proximity, blood relations, and social and cultural aspects, not because of either the geography of the area or the density of population.<sup>10,12</sup>

In fact, we have noticed that the partner was chosen by his/her social

**Table 1. Calculation of endogamy in the country and the surrounding area.**

Generation*	Endogamy		Exogamy (%)	Other (%)
	Châteauponsac (%)	Surrounding area (%)		
1	47.40	36.40	14.7	16.20
2	50.40	39.50	9.70	0.40
3	32.40	38.60	10.70	18.30
4	35.70	44.80	7.40	12.10
5	36.90	37.80	13.30	12.00
6	39.40	35.60	10.60	14.40
7	36.40	39.90	17.60	6.10
8	43.50	35.00	8.70	12.80

\*Each generation corresponds to 30 years.

**Table 2. Endogamy (the partner is from the same village) and exogamy calculated for husbands and wives.**

Generation*	Husbands		Wives	
	Endogamy (%)	Exogamy (%)	Endogamy (%)	Exogamy (%)
2	72.7	27.3	85.7	14.3
3	81.6	18.4	88.5	11.5
4	83.3	16.7	89.3	10.7
5	76.6	23.4	81.4	18.6
6	77.9	22.1	76.3	23.7
7	74.3	25.7	74.6	25.4
8	77.7	22.3	73.1	26.9

\*Data in % do not refer to the first generation since in this case no helpful information was found to understand the origin of the partner.

proximity, amongst people who live in the same rural context. As a consequence, it was easier that two blood-related people could get married since they were engaged in the same economic activity, which increased among landowners who could confirm their properties.

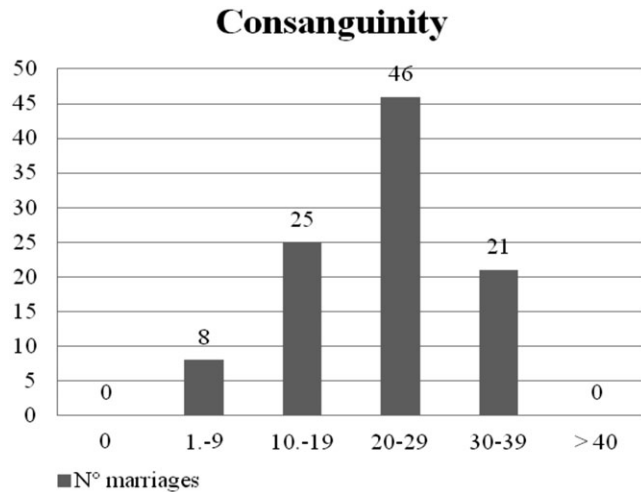


Figure 1. Number of blood-related marriages in genealogies. X axis shows the number of blood-related marriages; y axis the number of genealogies.

In order to demonstrate this data, we have considered three types of marriages according to the husband's occupation and the occupations of both partners' parents, which means that we have assessed the distribution of marriages between: husband and wife, both landowners; the husband as landowner, not the wife; the wife is a landowners' daughter, not the husband.

As it is possible to notice in Table 4, the choice of the partner seems to be influenced by the occupation since we can observe that the marriage occurred amongst people of the same social class (on the average 56.4%); whereas few cases (lowest values in the 4<sup>th</sup> generation: 12.41%) in which the wife, landowners' daughter, got married to a man who did not own any property. It is very likely that this was a strategy not for dividing the property but for preserving the heritage which has been confirmed by historical data: French countryside has been involved in great property reinforcement process although in lower level than in other European countries. The number of properties did not increase not only in the area but all over France.<sup>13</sup>

## Conclusions

In conclusion, we can state that the matrimonial behavior of this sample followed social rules which strongly affected the population from a biological point of view since the consanguinity was fostered even if it was not either a culturally or a geographically isolated population.

Table 3. Distribution of blood-related marriages within the genealogies.

Type of union	F	Kinship degree (Ecclesiastical code)	Generation					
			3 (%)	4 (%)	5 (%)	6 (%)	7 (%)	8 (%)
Uncle/aunt-nephew/niece	1/8	I-II	0.00	0.00	0.00	0.00	0.00	0.00
Closely related cousins	1/16	II	11.3	2.2	5.7	3.6	9.7	7.4
Closely related cousins and 1/2 cousins	1/32	II-III	29.7	6.7	12.5	4.2	2.5	0.0
Second cousins	1/64	III	28.2	16.4	8.9	15.9	17.4	6.2
Second and 1/2 cousins	1/128	III-IV	22.6	24.3	21.1	16.6	15.7	19.4
Third cousins	1/256	IV	8.2	26.5	23.4	24.7	20.8	21.2
Third and 1/2 cousins	1/512	IV-V	0.0	23.9	20.6	19.4	15.7	24.0
Fourth cousins	1/1024	V	0.0	0.0	7.8	15.6	16.9	21.8

Table 4. Calculation of marriages among land owners.

Generation	Period		Marriages among landowners (%)	Husband landowner not the wife (%)	Wife, landowners' daughter, not the husband (%)
	From	To			
2	1760	1789	62.34	22.3	15.36
3	1790	1819	54.04	28.1	17.86
4	1820	1849	59.12	28.47	12.41
5	1850	1879	69.21	15.8	14.99
6	1880	1909	51.8	17.89	30.31
7	1910	1939	43.78	26.9	29.32
8	1940	1969	54.5	27.15	18.35

## References

1. Boëtsch G. [Parenté et consanguinité en Limousin]. In: Boëtsch G, ed. [Écologie Humaine]. [Book in French]. Aix-en-Provence: Laboratoire et d'Anthropologie ed.; 1985. pp 19-41. Available from: [http://documents.irevues.inist.fr/bitstream/handle/2042/41259/BEH\\_1985\\_3-4\\_19.pdf?sequence=1](http://documents.irevues.inist.fr/bitstream/handle/2042/41259/BEH_1985_3-4_19.pdf?sequence=1)
2. Boëtsch G. [Conditions de vie et comportement démographique d'une population agricole limousine]. [Article in French]. *Norois* 1986;130:217-27.
3. Chesnais JC. [La transition démographique. Etapes, formes, implications économiques]. [Article in French]. *Population* 1986;41: 1059-70.
4. Lucchetti E, Manfredini M, Boëtsch G, et al. Changes in marriage seasonality among some European rural populations. *Int J Anthropol* 1996;11:73-8.
5. De Iasio S, Pizzetti P, Lucchetti E. [Rottura degli isolati: effetti dello spopolamento in popolazioni dell'Appennino esaminate tramite le serie dei cognomi nei battesimi (1850-1950)]. [Book in Italian]. In: *Atti del Convegno S.I.De.S.*, 2006. pp 35-45.
6. Mangiapane G. Analysis of marriages in Limousin (France). *Int J Anthropol* 2010;25:99-109.
7. Lasker GW, Chiarelli B, Masali M, et al. [Grado di isolamento genetico misurato in base all'isonimia e alle distanze matrimoniali in Bellino]. In: Chiarelli AB, ed. [Popolamento e spopolamento di una vallata alpina]. [Book in Italian]. Firenze: Unione Antropologica Italiana ed.; 1976. pp 171-176.
8. Melleri R, Rabino Massa E, Boëtsch G, Bley D. [Fontanigorda: una comunità ligure aperta verso l'Europa]. [Book in Italian]. Rapallo: Emiliani ed.; 1995.
9. Girotti M. [Étude de biodémographie sur une population rurale de la Haute-Vienne (Limousin-France)]. [PhD Thesis in French]. Marseille: Université de la Méditerranée de Marseille ed.; 2010.
10. Boëtsch G, Prost M, Rabino Massa E. Evolution of consanguinity in a French Alpine Valley: the Vallouise in the Briançon Region (17th-19th centuries). *Hum Biol* 2002;74:285-300.
11. McCullough JM, O'Rourke DH. Geographic distribution of consanguinity in Europe. *Ann Hum Biol* 1986;13:359-67.
12. Sutter J, Tabah L. [Fréquence et répartition des mariages consanguins en France]. [Article in French]. *Population* 1948;4:607-30.
13. Chesnais JC. [La démographie]. [Book in French]. Paris: PUF; 1990.