Sex Ratio in family names, a tool for measuring migration. A historical study of case (1573-1643).

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The current status of Catalan surnames is the reflection of several demographic, historical, and cultural processes that started as early as the late Middle Ages, and the examination of such proves to facilitate the reconstruction of population behavior in the past (SÁNCHEZ-COMPADRE, 2001).

Catalan surnames arise in the XIVth and XVth centuries associated to strategies of consolidation and transfer of ownership. In these centuries, Catalan second names, nicknames and aliases were fixed in each family, becoming from that moment onwards "family names" inheriting them from father to children in a patrilineal via (BACH I RIU, 1988).

The relationship between surnames and demographic and historical phenomena is especially important during periods of high mobility, such as the XVIth and XVIIth centuries in Catalonia. For instance, between 1497 and 1626 population in Catalonia raised from approximately 220,000 to 475,000 inhabitants. This population expansion cannot be solely attributed to the natural growth of the population. It was boosted by migrants, mostly young men, from the Kingdom of France (1550-1650). These individuals came to Catalonia attracted by the differences in salaries between France and Catalonia, the relative depopulation, and the security offered in contrast to the French religion wars (1560-1598) (NADAL & GIRALT: 1960). As a result of these migration flows, Catalan onomastic —especially family names—experienced a series of alterations, which led to variations of surnames prevalence and distribution between men and women.

Our contribution focuses on the analysis of the above mentioned relationship between surnames and population behaviors, aiming to study how imbalances among surnames distributions by sexes in the XVIth and XVIIth centuries could be a consequence of the French migration to the Barcelona Area during this period.

Area and Data

For this study the Barcelona Historical Marriage Database (BHMD) has been selected. This database is based on the data-mining of the *Llibres d'Esposalles* (marriage books), a marriage

register collected between 1451 and 1905 in the Barcelona Area¹ (CABRÉ & PUJADAS-MORA, 2011).

Specifically, one period from the BHMD comprised from 1573 to 1643 has been used. This part of the period has the richest information in all the BHMD, comprising 61,361 marriages and 7,661 different surnames (1,787 were carried by French migrants). During this moment *Llibres d'Esposalles* included information on the names and surnames of grooms and brides as well as their parents' names. Also *Llibres d'Esposalles* introduced occupations, marital status, and respective origins and / or residences of grooms, fathers of grooms, and fathers of brides, and a notation indicating if the parents were alive or not at the moment of their children's marriage.

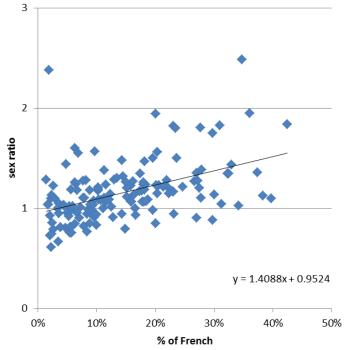
Results

Some preliminary findings are included in the abstract. Graph 1 shows the relationship between sex ratio and French migration. The increase of the sex ratio by surnames is closely related to these surnames carried by a high number of French grooms. The majority of surnames have a sex ratio above one, as well as these with the highest imbalances are carried by French grooms.

These results would confirm the idea that the massive entry in the XVIth and XVIIth centuries of French grooms into the Catalan marriage market produced a bias in the sex ratio. In this sense, these surnames with a high sex ratio could have high chances to be migrants who came from the Kingdom of France in the Early Modern Period. Moreover, through the imbalances among surnames distributions by sexes, immigrants may be estimated within population, knowing its origin or not. Consequently, the study of these aforementioned differences by sexes is a useful demographic tool not only to estimate the intensity of migration flows, but also to understand its effect on the population dynamics.

As this is a work in progress, we expect to present some more results at the EPC2014. Relationship between surnames and sex ratio will be plotted inside the territory by localities, identifying the migratory attraction poles of the time. Furthermore, we intend to analyze distributions of surnames according to their levels of sex ratio throughout the studied period. We expect to observe that surnames with higher male sex ratios increase their number between 1573 and 1643 as a consequence of the patrilineal transmission system of surnames.

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Source: BHMD. 150 most common Catalan surnames (1574-1643). Sex ratio is calculated by comparing the number of grooms and brides who carried the same surname. The % of French corresponds to the number of grooms who indicated in the Llibres d'Esposalles that their origin was France.

References

BACH I RIU J. (1988) Els cognoms catalans i la seva història. Cap Roig, Barcelona.

CABRÉ, A.; PUJADAS MORA, JM. (2011). "Five Centuries of Marriages (5CofM). A project of historical demography in the Barcelona area". *Papers de Demograpfia*, 368, 1-24.

CHESHIRE, J, LONGLELY P. MATEOS, P. (2009) Combining Historic Interpretations of the Great Britain Populatin whith Contemporary Spatial Analysis: the Case of Surnames. Department of Geography, University College, London.

NADAL, J.; GIRALT, E. (2000 [1960]) *Immigració i redreç (Els francesos a la Catalunya dels segles XVI i XVII).* Eumo, Vic.

PROST, M., BOËTSCH, G; RABINO-MASSA, E. (2005) "The limitations of the isonymic method. From the model to an actual application on a computerized register (Vallouise 1350-1899)." *International Journal of Anthropology*, 20, 3-4 2007 224.

SÁNCHEZ-COMPADRE A. (2001) "Biodemografía: Una apuesta para el estudio de las poblaciones" *Revista de Demografía histórica,* 19, 1, 71-86.

Graph 1. Relationship between foreign origin of family names and sex ratio