

Comparison of Venice friendship network between 18th and 19th century: a marital acts analysis.

Daniele Vallotto

May 5, 2021

Abstract

The area of interest of this work is historical demography. In order to understand how macro events in history affect social fabric, a possibility is to describe differences in time and space of social relation. Marital acts from the 18th and 19th century are well preserved even if they are handwritten. Furthermore, marital acts are dated which gives informations about friendship between grooms and witnesses. In addition, there are more details about them including the most important one that is the place of origin. That is why —with the aim of tackling our problem of investigate how social fabric changed in Venice after Napoleonic occupation— marital acts are used to measure friendship bonds in time and space. For this purpose, data from parish of San Marziale in Venice has been digitized. The best way to represent this kind of data is through a net where the nodes are all different parishes which are mentioned in the acts. Not only networks are complex data to be processed, but also to deal with small sample size and sparse data matrix is not an easy task. Once a differences matrix between social nets before and after year 1797 has been computed, the edges are described through a Bayesian regression model with a Skellam distribution. Therefore, this model quantifies the effect to the response for each different dyad of parishes and the distance in space between the place of origin of every friend.