

Measuring of shared music schemas: bringing together the structural and lifestyles analysis through networks of correlated music genres

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Abstract

Research into the meaning of cultural classifications has usually distinguished between cultural schemes—discourses—and taste groups. Cultural schemes classifies cultural expressions according to the meaning individuals attribute to them and have favoured structural analysis conducted with Geometric Data Analysis methods. Taste groups, instead have been approached as descriptions of groups of individuals' taste patterns combining the cultural schemes found in the structural analysis through clustering methods (van Eijck & Lievens 2008). In the former case one classifies cultural expressions, in the latter, individuals. But the structural analysis implicitly supposes that all individuals share the same schemas of cultural classification, and the clustering, loses the shared cultural schemes.

However whether all individuals share the same schemas of cultural classification is an empirical matter and its interpretation, a theoretical one. May be the seminal work of Bourdieu (1984) is one of few works that implicitly acknowledges the existence of heterogeneous cultural schemes, that we calls habitus, however he is only interested in the homology between the spaces of cultural practices, preferences and social space. This means that he was not interested in whether young and middle age individuals differ in the way they classify cultural expressions, holding constant their social classes.

One way of overcoming this limitation is applying a new family of methods called Relational Class Analysis (Goldberg 2011). RCA aims at measuring and revealing shared cultural schemes. However, instead of using Goldberg's measure of relationality to quantify how much two individuals share a cultural schema, we use Pearson's correlations between individuals music tastes to form a matrix for a valued network, where the nodes are respondents and ties between them are their pairwise correlations. We used corclass package (Boutyline 2013) implemented in the R language and Environment for Data Analysis (R Core team 2014). Then we partition the network via Newman's (2006) eigenvector-based modularity maximization algorithm, which assigns individuals to groups so that Pearson's correlation are high within groups and lower between them.

The data for our study came from a Spanish survey on habits and cultural practices for 2006-2007 (see Ministry of Culture (2007) for technical details). Individuals interviewed were asked about the kind of music they normally listen to. They were offered 21 music genres to choose from. The survey also recorded the educational level, occupation, age, gender, personal situation, and city-size.

Preliminary results shows that CCA identifies three classes in these data which are presented in **Figure 1** The first class features practically no negative correlations between the genres while there are few weak negative correlation toward ballad. This class could be named as "Omnivore-Univore". The second class located by CCA appears to be defined by an opposition between newer musical genres (e.g. rap, house, electronic music and hardrock) on one extreme, and more traditional ones (e.g. opera, jazz, blues, opereta, lirical and classical music.). This class can be identified as "Contemporary-Traditional". The third class shows omnivorousness among different genres with clear exceptions of Spanish and foreign poprock. We call this class "Anything (but) Spanish poprock". Afterwards using Multi Correspondence Analysis (MCA) we map genre and social class spaces, and explain underlying homology between them. **Figure 2(a)** shows music genre space and **Figure 2(b)** plots survey observations in the same space.

Keywords— Shared cultural schemas, network analysis, correlation networks, cultural measurement, survey data.

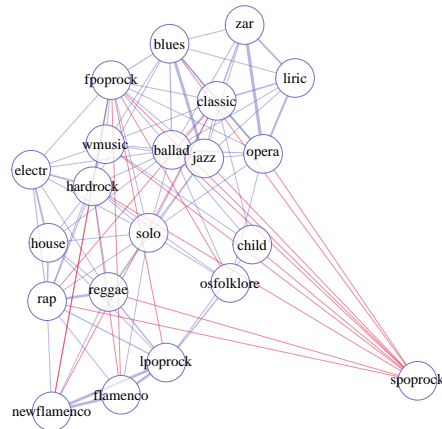
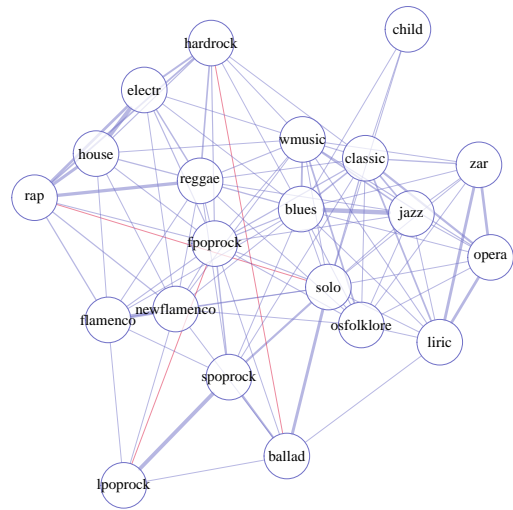
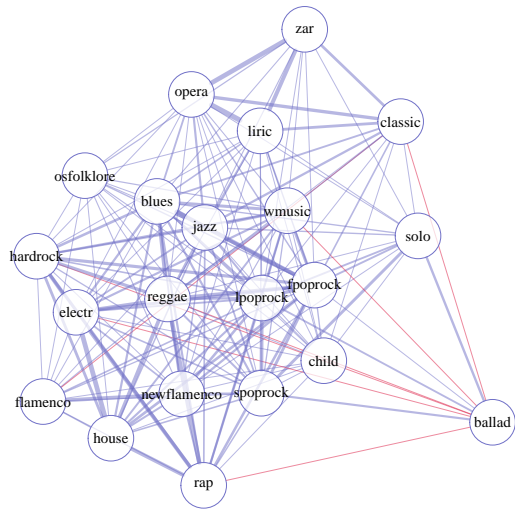


Figure 1: Music Genres Networks

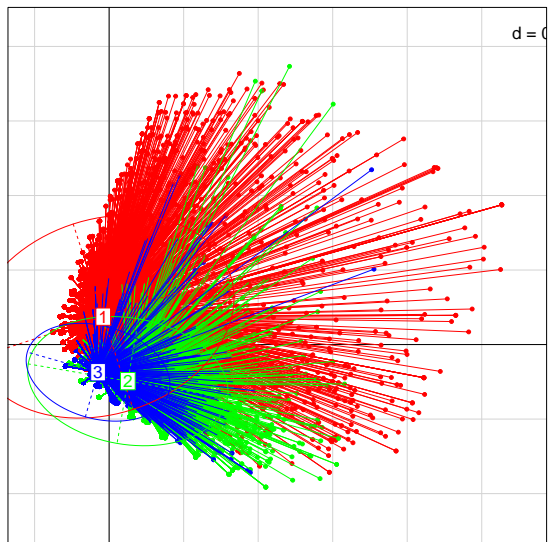
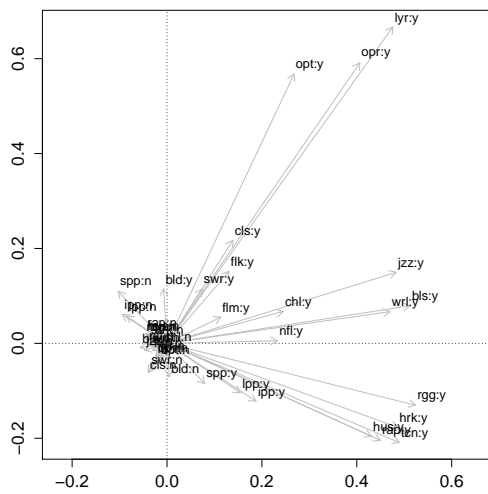


Figure 2: Genre Spaces

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