

The “Barras Bravas” Dataset

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1. Overview

The *barras bravas* (Argentine hooligans) are the most fanatical and violent soccer supporter groups in Argentina. They are often engaged in bloody street battles in which they seek either to defend the honor of their club against other *barras bravas* or to control the economic resources of their own club.

The members of the *barras bravas* consider themselves to be the most fanatical and loyal members of the *hinchada*, that is, all the supporters that each soccer team has. The passion and loyalty of the *barras bravas* is demonstrated on the venue of each soccer match, where they are found cheering for their team, even if attending the match means making long journeys across the country. Another duty that a *barra brava* must fulfill is defending the club’s territory from any rivals: each club’s stadium is located in the heart of these territories, also known as *barrios* (neighborhoods).

Some of the *barras bravas* hold long-standing and well-known rivalries, as is the case between Boca Junior’s and River Plate’s *barras bravas*, “La 12” and “Los Borrachos del Tablón”. However, just as there are clashes between *barras*, there are also some strategic alliances that are forged with the sole objective of defeating and confronting common enemies. This is a phenomenon that occurs particularly among groups of supporters who are geographically distanced – they “become partners” in order to mutually support and/or defend themselves in their battles against a common enemy. This phenomenon can be studied by means of a multiple social network approach using the FANMOD software, available at <http://theinfl.informatik.uni-jena.de/~wernicke/motifs/>

The data was collected over a two-year period that combined field work and web research (from 2009 to 2011) at the University of Buenos Aires, and it consists of three kinds of network ties: rivalries among and alliances between *barras bravas*, as well as the number of games played by their football teams. There is also a set of attributes that includes the location (province and city) of

the stadiums of each football club.

Our hypothesis is that the existing competitiveness in soccer and the geographic proximity of *barras bravas* are the elements which foster rivalries. The idea that sports competitiveness actively promotes social conflict has been widely documented in anthropologist literature, and such hypothesis can be tested following an SNA approach. As a matter of fact, it has been observed that there is an existing correlation between the number of games played by the soccer teams and the rivalry ties against their *barras bravas*, as well as an elevated homophily between those *barras bravas* that belong to the same province or city.

Given the fact that the ties of the Rivalry Network depend on the existing ties of the Game Network, and considering that the Game Network is a small world, it follows that the Rivalry Network is also small and clustered. The Rivalry Network is the first known empirical negative network that exhibits small world properties.

2. Data Collection

The dataset consists of 247 nodes that represent the most widely known *barras bravas* in Argentina. In these networks, the nodes stand for social groups, not individuals, so all the network ties are relations between groups, just like the international relations established between countries in a global network.

The data concerning the rivalries, alliances and attributes of each of the *barras bravas* were collected by means of field work and from the website www.barras-bravas.com.ar (no longer available). The rivalries data and the alliances data were symmetrized through the minimum method so all ties are reciprocal. In most of the cases, only one individual identified an existing rivalry or alliance between his own group and others, so there are limitations to the validity of the data. However, the symmetrization of the data is expected to partially solve this problem.

The number of games played was collected from the Rec.Sport.Soccer Statistic Foundation (available at <http://www.rsssf.com>). This data represents the number of games played between the *barras bravas*'s teams over the past 10 years. The soccer tournaments in Argentina are divided into five different levels or categories (First A, National B, First B/Argentine Tournament A, First C/Argentine Tournament B, First D/Argentine Tournament C), and two geographic zones (the Metropolitan area of Buenos Aires, and the rest of the Country). The number of movements from one division to another is rather limited – as a result, a high regional clusterization is to be expected.

3. Data Files and Formats

All the data are provided in one Excel Workbook, *Barras_Dataset.xlsx*, which consists of 4 worksheets (tabs). Three worksheets (Rivalries, Alliances, Games) contain the relational data, which are provided in a full matrix

format. The attributive data (*Barras_attr*) is provided in a nodelist matrix format.

- Rivalries. Binary and symmetric data. The value of a cell represents the existence of a reciprocal rivalry.
- Alliances. Binary and symmetric data. The value of a cell represents the existence of a reciprocal alliance.
- Games. Valued and symmetric data. The value of a cell represents the number of games played among teams.
- *Barras_attr*. The following four attributes are provided:
 - o Name. The *barra brava*'s name.
 - o Club. The *barra brava*'s club. Useful as node label.
 - o State. The state where the stadium is located.
 - o City. The city where the stadium is located.

4. Data Details	
Response Rate	100%
Non-Respondent Bias	N/A
Theoretical Grouping	Negative Networks, Multiple Networks.
Publications Using These Data	<ul style="list-style-type: none"> • Bundio, JS. 2013. <i>Redes Negativas: el Pequeño Mundo de las Hinchadas de Fútbol</i>. REDES – Revista Hispana para el Análisis de Redes Sociales, • Bundio, JS. 2012a. <i>El enemigo de mi enemigo es mi amigo</i>. <i>Explorando los conflictos y las alianzas entre hinchadas de fútbol</i>. <i>Lecturas, Educación Física y Deportes</i>, 17(167), pp. 1-1. • Bundio, JS. 2012b. <i>El Pequeño Mundo de las Hinchadas de Fútbol</i>. In N. Kuperszmit, L. Mucciolo, T. Lagos Mármol & M. Sacchi (Ed.), <i>Entre Pasados y Presentes III: Estudios Contemporáneos en Ciencias Antropológicas</i> (pp. 236-246). Buenos Aires: INAPL. • Bundio, JS. 2011. <i>Conflictos y alianzas entre hinchadas argentinas: apuntes metodológicos para el testeo de hipótesis mediante Análisis de Redes Sociales</i>. <i>Lecturas, Educación Física y Deportes</i>, 16(155), pp. 1-1.
Data Context	Long-term anthropological investigation at University of Buenos Aires.
Respondents	Members of the <i>barras bravas</i> and soccer club's followers.
Nodes	The soccer supporter's groups known as <i>barras bravas</i> .
Edges	Rivalries and alliances between <i>barras bravas</i> and number of games played among their teams
Longitudinal	None
Temporality	Medium. The <i>barras bravas</i> network are continually evolve, so the validity of the data will attenuate over time, especially in the medium-long term.
Analytical or Pedagogical Utility	<ul style="list-style-type: none"> • Illustrating homophily with categorical attributes. • Illustrating small world properties in both, positive and negative networks. • Illustrating the QAP Correlation.
Known Issues	None