

Neighbors and Neighborhoods. The Effects of Proximity and Educational and Economic Status on Personal Networks in Argentina

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Abstract

In this paper, we present results of a national (7 cities) personal network study carried out in Argentina during 2006. The relation between sociability and neighborhood is examined, stressing the idea that neighborhood unfolds as a complex, multidimensional phenomenon that spreads from past experience to present relations, creating new connections but also consolidating existing ones. Additionally, the interplay among economic status, educational status, personal ties and neighborhood sociability is explored, summarizing descriptive analysis of the information gathered after a name generator based survey.

Key words: Sociability, Economic status, Educational status, Neighborhood, Personal networks

I. Introduction

While in theoretical terms, social network analysis and personal network studies are bound to the classical sociological concerns of Simmel's sociability (Simmel, 1949 [1910]), as well as Durkheim's 'social tie' (Durkheim, 1984 [1893]:104), in practical terms personal network studies led interpersonal relations research to quantify and make explicit observation of ties and exchanges that had never been made before (Degenné y Forsé, 1999).

Personal network studies have focused on investigating a specific dimension of the broader concept of sociability: Everyday relations and interactions. Within such a domain, the link between everyday life and neighborhood soon emerged. Nevertheless, two restrictive patterns are often recognizable in these studies. First, the topic of neighborhood has often been assimilated into the problem of poverty, thus investigating 'slums' and low-income neighborhoods but excluding middle class and high-income neighborhoods (for comparison or specific research). Second, neighborhood was frequently defined as the social space of 'neighbors', excluding the relationships or experiences that occur in nearby homes to people not considered merely neighbors.

This article summarizes the information obtained through a personal network module in 7 large cities of Argentina. In 2006, we designed and applied a module (questionnaire) for personal ties as a household survey *Encuesta de la Deuda Social Argentina* (ODSA, 2007). The goals regarding the neighborhood and sociability that this module was designed to cover were:

- 1) Analyze the relationship between personal ties and neighborhood. Specifically, to estimate how relevant the neighborhood was today in people's daily lives in large urban centers of Argentina.
- 2) Investigate the relevance of neighborhood through a multi-dimensional approach. That is, not to

consider only the part of the neighborhood the people identified as 'neighbors', but also to look at the geographical distance of other people, as well as the current and past experiences relating to the neighborhood.

3) Explore the relationship between elements of social structure (economic capital, educational capital, age and gender) and the pervasiveness of personal ties within the neighborhood. We were interested in verifying assumptions about the relationship between poverty and neighborhood, and between residential isolation and poverty that were prevalent in the literature.

4) Following the separation of economic and cultural capital proposed by Pierre Bourdieu (Bourdieu, 1994), we wanted to test whether differences in the relation between personal networks and neighborhood could be identified for those types of capital.

An outline of the paper follows. Section II briefly reviews the literature bridging the neighborhood and personal relationships. Section III describes the characteristics of the survey as well as the sample and the variables used in the analysis. Section IV summarizes the information obtained by the survey about personal relations by educational status, economic status, age and gender, organized by type of personal tie, origin and geographical distance. Section V relates the initial goals to the evidence, discussing some theoretical and practical implications.

II. Neighborhood and personal networks

Since the advent of the Chicago School concerns (Park et al., 1925; Wirth, 1928), and even before that (Engels, 1987 [1845]), neighborhood has been identified as a key concept for understanding daily life in the metropolitan landscapes. People inhabiting large cities often center many of their activities –from daily consumption to children’s education– within the limits of their neighborhood, reproducing both neighborhood features and typical local profiles.

However, even when the link between poverty and neighborhood was substantially sustained by empirical research (Wilson, 1987; Jenks & Mayer, 1990; Ainsworth, 2002), Chicago school scholars have been often criticized for treating each neighborhood as a closed (independent) social space, omitting forces that may influence the local space at the city, country and cross-country levels (Gravano, 2005).

The definition of the neighborhood as an open, multidimensional phenomenon, however, is still controversial (Hipp et al., 2012). While Schwirian identified in existing literature the usage of the neighborhood alternatively as a natural area, a social area and a system of interaction (Schwirian, 1983), Gravano suggests that the literature describes the three key dimensions of neighborhoods as neighborhood being a space (physical and administrative), a scene and a functional element (Gravano, 2003).

It’s worth noting as well that personal relations and the neighborhood have been linked through different approaches. Three of them are briefly summarized: Studies of residential segregation, studies on social capital, and studies on ‘networks’ (personal networks, social networks and social support networks).

First, the study of segregation has been often used to try to connect neighborhoods in terms of their urban integration (Duncan & Duncan, 1955; Cortese et al., 1976; Massey & Denton, 1988; Morgan, B. y Norbury, 1981; Goodman, 1985; Dawkins, 2004; White 1984; Wong 2002). Recent studies have updated the segregation map of many Latin American cities (Kaztman, 2001; Kaztman & Retamoso, 2005; Groisman & Suárez, 2005, 2006; Sabatini et al., 2001; Torres, 2009; Rodríguez & Arraigada, 2004; Salvia & De Grande, 2007). as poverty and inequality levels rose rapidly after neoliberal policies were implemented in the region (Sabaté, 2000; Kaztman, 1999; Salvia, 2001; CEPAL, 2001; CEPAL/CELADE, 2002). Segregation studies usually calculate coefficients –like Duncan’s segregation index (Duncan & Duncan, 1955)– to estimate (after census data) the levels of diversity in a population’s geographical distribution. As a problematic feature of segregation studies, it can be outlined that they mostly derive negative consequences of segregation for low-income districts, but are vague at analyzing the implications (positive or negative) of segregation configurations for middle class or high income neighborhoods. A significant strength of this approach is that it provides comparable isolation measures for any city where census data is available to process at the leve of a district, a census track, a block or any similar small-sized geographical unit. Despite this strength, a limiting factor of this type of information is that census data tend to monitor attribute data of the target population (occupational status, gender, age, and so on), thus making it difficult to incorporate relational information in the segregation arguments (such as the dynamics of the ties with family members and friends, daily interaction outside the neighborhood and so on).

Second, some of the literature on social capital literature has deepened the understanding of the connections between the interactions in the neighborhood and personal outcomes. Social capital has been investigated and criticized from different perspectives (Woolcock, 2001; De Filippis, 2001, ONS, 2001; Bagnasco et. al. 2004; Sabatini, 2003), organized in two wide areas of interest: institutional or community level social capital (usually related to trust and collective assets or

capacities of a group), and personal social capital (focused on individual interactions and relations).

Among the latter, personal relations seen as social capital facilitating access to resources in the neighborhood have been examined since the 90's with diverse results (PNUD, 1998; Burt, 2000; Lin, 2001, Van der Gaag, 2005; Atria et. al., 2003; Forni y Nardone, 2005; Sabatini, 2008). Organizations like CEPAL and the World Bank have found in social capital a powerful concept to incorporate into their analysis of the informal exchanges of goods and services that people mobilize to organize their daily needs in view of the lack of other economic resources (Grootaert, 1998; Lederman, 2001; Atria et al., 2003).

Finally, social support networks, personal networks and social networks studies also focused on the conditions and effects of socialization in everyday life. These studies investigate everyday interactions, thus often informing about neighborhood and community dynamics.

- Social support studies (similar to social capital) focus on the beneficial consequences of personal relations. However, while social capital is sometimes treated as a community level asset, social support refers to interpersonal relations, and specifically focuess on ways in which people help each other rather than giving an account of 'resources through relations' (House et al., 1988; Enriquez Rosas, 2000; Maya Jariego & Holgado, 2005; Mickelson & Kubzansky 2003; Agneessens et al., 2006; Lin et al., 1979; Lieber & Sandefur, 1998; Van der Poel, 1993).

- Personal network studies investigate methodological and substantive topics about how people create, maintain and use personal relations (Fischer, 1982; McCarty et al., 1997; Espinoza, 1999; Wellman y Potter, 1999; Grossetti, 2005; Ferrand et al. 1999; Lee et al. 2005; Molina, 2005; De Grande & Eguia, 2008). Personal network studies do not necessarily care about how useful those relations are, but rather concentrate on the dynamics and structure of personal relations. Typical aspects they describe are the origins and type of existing relations, and the interrelation of personal relations with more formal/institutional structures, as well as the standard network indicators and features in personal networks (size, degree, transitivity, centrality, betweenness).

- Social networks studies group together a wide variety of research, sometimes conceptually and empirically overlapping with social capital, social support and personal networks studies. However, the term 'social network' can refer to a wider range of relations, mapping the interactions between people and institutions, and describing large networks such as the Internet blogs, traffic dynamics or co-citation structures. Among those studies, the relevance of space (physical distance) has been outlined as a covariate, reinforcer or modifier for social space forces (Latané et al. 1995; Molina et al. 2012; Doreian & Conti, 2012). Consequently, people who are close to each other are more likely to create relations (Preciado et al. 2012, Daraanova et al. 2012; Schaefer, 2012) that are more influential, and promote participation in activities in well-known places or where there are people they know well (Ioannides & Zabel, 2008).

Social support, personal network and social network research often investigate aspects of sociability in substantive areas that do not rely on neighborhood as a crucial dimension, such as when studying health (Lin et al., 1979; Castro et al., 1997), psychological well-being (Gencoz y Ozlale, 2004; Kenneth et al. 1978; Martínez García et al., 2002), friendship (Mcpherson et. al., 2001; De Federico de la Rúa, 2003; Stevens & Van Tilburg, 2011), access to labor markets (Granovetter, 1973; Feldman & Murmis, 2002) and political behavior (Zuckerman, 2005; Szwarcberg, 2012).

This article empirically explores the connections among neighborhood and personal relations, linking distance to interactions, but also considering neighborhood as a functional (socially stratified) space and as a social scene for making acquaintances and socializing.

III. Methodology

A. Survey sample

The information used in this article comes from the *Encuesta de la Deuda Social Argentina* (ODSA, 2007). This survey has been administered annually since 2004 in various large urban centers of Argentina to collect information on human development indicators¹.

Households for the sample are selected using a stratified sampling procedure. Using the National Census demographic data and cartography of 2001, a set of 250 sample points were randomly chosen. Field representatives then visited each sample point to identify 6 addresses (houses / apartments) to look for respondents. Up to two visits were made if the respondent was not home; replacement addresses were provided when there were no eligible respondents or when they were not willing to answer the survey. Quotas of gender and age were followed to keep the sample proportional to each city's known distribution.

B. Name generator

In 2006, a onetime module of personal networks was applied to all adults responding to the survey (n=1500). Similar to

Burt's General Social Survey module (Burt, 1984), this module was based on a single item name generator related to personal networks, with many items applied on each name enumerated.

The reasons for relying on a single-item for eliciting the names of the *alteri* followed Burt's rationale for the General Social Survey (1984, p. 322). In a household survey scenario, the fact that personal network modules (even using a single name generator) requires a lot of time to complete is crucial. As the name-generator technique gathers information for each name that is mentioned, the number of items grow rapidly as more contacts are elicited. Moreover, using a multiple-name generator strategy requires dealing with duplicated names during name elicitation, thus augmenting the complexity of the field and the chances for errors and misleading information.

The name generator item was:

Often, people turn to friends, family, co-workers or acquaintances when they need advice or help in situations that be difficult to resolve without them. Among your acquaintances, not including those who live in your home, please, tell me only the first name of someone you depend on under such circumstances. (ODSA, 2006)²

The total number of names mentioned was registered, and then up to five names were investigated in terms of the characteristics of the '*alter*' and the tie. The attributes gathered for the *alteri* were gender, age and education attainment. The attributes gathered for the tie were frequency of contact, duration, origin, type, distance from ego's house to the *alteri*'s houses, content of the relationship (personal talk vs. non-personal talk) and level of knowledge among the *alteri*³.

During the study, a total of 1448 ties were collected and investigated (i.e. about one tie on average per person).

Analysis

During the analysis, the following variables were chosen to group the personal relations gathered by the name generator previously described:

- Educational status: Educational status is included both as a proxy for the position of the respondent in social stratification (cultural capital) and as an indicator of individual's path through formal institutions. It is expected that educational experiences influence lifestyle preferences and goals, and also provide specific opportunities to socialize with others in the field (teachers, professors and students). Educational status is measured by the highest educational achievement of the respondent (ego). For data analysis, educational status has been grouped into three categories: Low, Medium and High.

- Low: up to 7 years of education (only elementary school or less)
- Medium: 8 to 12 years of education (i.e. high school studies)
- High: more than 12 years of education (i.e. university or tertiary studies).

- Economic status: Economic status is relevant to the creation and maintenance of personal relations, not only because of the costs that may exist in taking care of specific aspects of the relationships, but also because economic status is linked to lifestyles (consumer habits, clubs, entertainment, holiday places) that by themselves guide exchanges within certain sorts of 'class boundaries'. To identify the category of economic status for each respondent, we calculated the total monthly income per equivalent adult in its household⁴. Then, we grouped respondents in tertiles, being at the highest tertile those with income per equivalent adult above AR\$610 (US\$ 198) and at the lowest tertile those with income per equivalent adult below AR\$285 (US\$ 93).

- Age: Sociability is known to be largely dependent on the individual's life cycle. As age correlates to participation in typical states and spaces of interaction (e.g. school, workplace, retirement), it is used in the analysis to control its effects in the sociability outcomes described. The variable used is the age of the respondent, grouped into three categories: 18-35 years, 36 -55 years, 56 years and more.

- Gender: Whether the respondent (the 'ego') is classified as male or female. In the XX century, women have progressively acquired rights leading toward equality in educational institutions and labor market participation. In 2001 in Argentina, 42.3% of the economically active population were women, while 57% of people taking university education were women⁵. However, gender remains a major dimension in organizing domestic and public activities, end-consumer products, labor market profiles, entertainment and –much related to all of them– personal relations. As such, it is expected that gender may signal different behaviors regarding personal ties and neighborhood influence. The information was processed using the SPSS 13.0 package. Statistical significance of differences among categories was determined by t-tests (95% confidence). The resulting 'p' values are indicated inline through the analysis when differences proved significant (p < 0.01).

IV. Results
Summary

Figure 1. Summary of personal networks sample by educational status, economic status, age and gender. Argentina, 2006 (selected cities).

	Respondents (n)	Respondents declaring no ties	Respondents (N)	Personal ties (count)	Personal ties (average)	Personal ties (standard deviation)
Educational status						
Low	560	302	3,956,622	383	0.68	0.93
Medium	543	237	3,831,772	537	0.99	1.15
High	397	139	2,803,596	528	1.33	1.37
Economic status						
Low	500	249	3,532,661	397	0.79	1.05
Medium	500	230	3,531,773	469	0.94	1.14
High	500	199	3,527,556	582	1.16	1.27
Age						
18-35	556	205	3,926,265	686	1.23	1.35
36-55	516	236	3,641,621	454	0.88	1.04
56+	428	237	3,024,103	309	0.72	0.98
Gender						
Male	773	381	5,461,879	690	0.89	1.16
Female	727	297	5,130,110	758	1.04	1.17
Total	1500	678	10,591,990	1448	0.97	1.17

Source: Author’s calculations based on data from the *Encuesta de la Deuda Social Argentina 2006*.

In Figure 1 a description of the sample is shown. Given the name generator used, the number of ties enumerated was rather low compared to previous studies, with an average of 0.97 ties per respondent. From the overall sample (n=1500), 45% of the respondents declared having no ties to look for when in need of help or advice. For the purpose of this article, where characteristics of personal ties are examined, only respondents declaring relations are considered in the analysis. The educational status, economic status and age variables have been grouped in order to ensure enough cases in all its categories, having similar size for all categories and yet retaining substantial meaning (i.e. low educational status means primary education or less).

Even when higher status is related to more personal ties available both for economic and educational status, in the case of educational status the number of personal ties per respondent shows the lowest and highest levels in the table, ranging from 0.68 for the Low group to 1.33 for High group.

Regarding age, the number of personal ties decline as people grow older, starting at 1.23 ties per respondent in the youngest group, falling to 0.72 ties per respondent for the 56-and-above group.

Type of personal tie

The type of personal tie is related to the role structure established between the respondent (ego) and the persons enumerated by the respondent. It is expected that the role of a relationship (being friend, father, etc.) sets some guideline for the content, frequency and other characteristics of the relationship. The 'neighbor' category appears here as a tag for people who live or lived close to the respondent, not being signaled as s friend, mate, coworker or kin. The questionnaire offered a list of 9 possible roles (plus an 'other' category), which has been grouped into 6 categories in Figure 2 (plus an 'Other' and a 'Non-response' columns).

First, it's worth pointing out that friendship is the more frequent type of tie declared, covering 60% of the personal ties enumerated. Under the figure of 'friend', variations by educational status range from 54% to 63.8% ($p < 0.005$) and by economic status they range by 56.3% to 62.5% (Figure 2).

The greater changes by status are observed in the role of neighbor, which rises to 11.1% in the lower educational stratum from 2.1% ($p < 0.001$) in the higher educational stratum (similar variations are observed by economic status). Also significant is the fall of kin participation when educational status increases, ranging from 30.7% to 21.2% ($p < 0.005$), which is not replicated in kin participation along economic status.

The evolution by age shows complex variations, with an increase of the family and neighborhood components as people grow older, increasing from 19.3% to 32% ($p < 0.001$) and from 2.1% to 10.1% ($p < 0.001$) respectively. At the same time, friends show a maximum of 70.2% at younger age, decreasing around 52% after age of 56 ($p < 0.001$).

Regarding gender differences, women exhibit relationships more tied to their families, by opposition to men who seem more connected beyond family spaces. Men show more friendship bonds (65.7% of friends between men and 56.2% between the women, $p < 0.001$), and while 18.7% of the male ties are with relatives, women present 29.6% of their bonds reserved for family interactions ($p < 0.001$).

Figure 2. Personal ties distribution for type of relation by educational status, economic status, age and gender. Argentina, 2006 (selected cities).

Type of relation (% per row)	Friend	Kin	Neighbor	Boyfriend/ Girlfriend	Coworker/ classmate	Professional services	Other	NR
Educational status								
Low	54.0	30.7	11.1	1.2	1.9	0.0	0.4	0.7
Medium	62.4	23.1	4.2	2.5	6.7	0.3	0.4	0.5
High	63.8	21.2	2.1	3.6	5.6	2.0	0.7	1.0
Economic status								
Low	56.3	25.1	9.0	2.1	4.6	0.9	0.4	1.6
Medium	62.2	25.9	3.7	1.6	4.7	0.4	0.9	0.5
High	62.5	22.7	3.9	3.6	5.6	1.1	0.2	0.3
Age								
18-35	70.2	19.3	2.1	3.3	3.7	0.7	0.6	0.0
36-55	51.7	26.9	6.7	2.0	9.0	1.6	0.5	1.6
56+	52.8	32.0	10.1	1.7	2.0	0.2	0.3	0.9
Gender								
Male	65.7a	18.7a	5.2	3.2	5.6	0.6	0.8	0.4
Female	56.2a	29.6a	5.4	2.0	4.5	1.1	0.3	1.0
Total	60.7	24.4	5.3	2.6	5.0	0.9	0.5	0.7

Source: Author's calculations based on data from the *Encuesta de la Deuda Social Argentina 2006*.

To sum up, even when neighbors were the third most mentioned type of tie, its participation of 5.3% over the total number of ties would suggest a low relevance of neighborhood in the urban scenarios investigated. However, as mentioned

earlier, sociability in the neighborhood can include present and past experiences, and be related as well with many relational contents. In order to evaluate these connections, we will next to examine the role of neighborhood in the creation of personal ties.

Origin

The origin of personal ties was examined by asking the respondents how they met the person they had mentioned. A total of 8 possible ways were offered (plus an ‘other’ category), which have been grouped into 5 categories in Figure 3 (plus an ‘Other/Non-response’ column).

As Degenné et Forsé has pointed out, the idea that social relations are organized in circles is not new (1999: 55). Even when people can meet randomly on the street, or can introduce themselves individually one to another, the most usual way of connecting to people is by participating in existing ‘social circles’ which can vary in nature, ranging from schools to offices, from grocery stores to local community places.

In this analysis, the places that people declared as the more common sources for originating relations were grouped into a ‘places’ category, representing the social spaces or social circles identified as more influential to everyday relations. They are locations (social and physical spaces) that provide stable contexts for interactions, thus guiding and facilitating sociability.

People known ‘in the neighborhood’, workplaces or educational institution make up 56.4% of the ties, while 14.3% of the personal ties of the sample correspond to contacts through people they know well.

When observed by educational and economic status, higher status corresponds to higher participation of educational sociability in the origin of personal ties, in spite of socialization through the neighborhood. While socialization happened in 40% of the ties ‘in the neighborhood’ for the lower economic status strata, only 18.1% of the ties declare this origin in the higher status strata ($p < 0.001$).

As it was to be expected, this relation is stronger as the educational status increases, as it implies more exposure to direct forms of educative institutionalization. Sociability ‘in the neighborhood’ is at 13,7% in the lower stratum, while it reaches 41.5% in the higher stratum ($p < 0.001$, Figure 3).

With regard to the relation between age and neighborhood ties, the participation of such ties remains stable around 26% between the two first categories (18 to 35 years, and 36 to 55 years), and shows an increase of almost 10 percentage points in the 56 years and up category($p < 0.005$).

The distributions by gender are different in ties originated at the family and at the neighborhood. Whereas for men the personal ties obtained in the neighborhood reach 32.8%, for women they occur in smaller proportion (24.6%, $p < 0.005$). This difference seems compensated by a greater level of participation of women in family circles as a source of relations (Figure 3).

Figure 3. Personal ties distribution for origin by educational status, economic status, age and gender. Argentina, 2006 (selected cities).

Origin of the personal tie (% per row)	Places		Referred		Direct	Other, NR
	Elementary, high school or university	Workplace	Neighborhood	Through a friend, girlfriend, boyfriend or kin	A kin	
Educational status						
Low	1,1	7,2	41,5	13,8	32,0	4,5
Medium	13,9	11,7	33,8	13,9	21,2	5,6
High	35,2	9,2	13,7	15,2	20,7	5,9

Economic status						
Low	10,3	7,7	40,0	10,9	26,3	4,8
Medium	14,3	9,0	31,5	15,3	23,8	6,1
High	27,0	11,5	18,1	15,8	22,3	5,3
Age						
18-35	28,9	6,0	26,8	15,0	18,5	4,9
36-55	10,2	14,9	26,3	15,5	26,9	6,1
56+	6,7	10,0	35,4	11,2	31,4	5,4
Gender						
Male	19,1	11,2	32,8	12,9	18,4	5,6
Female	17,5	8,2	24,6	15,6	28,9	5,2
Total	18,3	9,6	28,5	14,3	23,9	5,4

Source: Author’s calculations based on data from the *Encuesta de la Deuda Social Argentina 2006*.

Geographical distance

In addition to past experiences that led to the creation of personal ties (the previous way we introduced to track the relevance of neighborhood) we investigated the distance between the house of the respondent and the enumerated persons.

As the exact separation could not be easily calculated during the interview, and as its meaning could vary from city to city due to different transportation facilities, we evaluated the possibility of recording the amount of time it takes to go to the enumerated person’s house. However, there was no guarantee that the same method of transportation would be used to cover the distance (as is more common with traveling to work), thus producing more confusion on how to respond to the item. Finally we decided to state a metric scale, trying to determine whether both persons lived close enough to walk in a few minutes (up to 2km⁶), to take a bus or train, or whether they lived in different cities (more than 50km⁷ away). The resulting scale is shown in Figure 4, and its results can be described as follows.

As we had expected, higher levels of economic or educational status are associated with higher chances of keeping personal ties at greater distance. Relations are the product of past experiences, and it is not uncommon that remote experiences require economic resources and are often related to going someplace to be educated (e.g. high school, university).

In the case of the economic status, the personal ties that are located within the same city but at more than 20 blocks (2km) go from 25.4% to 43.4% ($p < 0.001$) as the status increases (Figure 4). For the educational status, the variation is still larger, ranging from 19.4% to 45% ($p < 0.001$).

Nevertheless, it is possible to indicate that even in the lower strata, the level of people outside the neighborhood and in the same city never falls below almost one fifth of the total of ties (19.4%). This argues against the thesis of total isolation of the people with fewer resources due to the effect of the neighborhood.

The variables of age and gender show smaller variations in the patterns of geographic location in comparison to the differences by status. In terms of age, the maximum of personal ties outside the neighborhood (more than 2km and less than 50km) is registered in the population between 36 and 55 years, and the minimum appears in the category of 56 years and above (38% and 24.5% respectively, $p < 0.001$).

According to gender, the differences for relations within the same city are smaller but yet significant, showing men with 35.6% of their personal ties outside the 2km range and women 29.3% ($p < 0.01$).

Figure 4. Personal ties distribution for geographical distance to the *alteris*' house by educational status, economic status, age and gender. Argentina, 2006 (selected cities).

Distance to the house (% per row)	Up to 20 blocks (2km)				20 blocks to 50 km	More than 50 km
	Less than 5 blocks	5 to 10 blocks	11 to 20 blocks	Total		
Educational status						
Low	48,8	17,7	7,4	74,0	19,4	6,6
Medium	35,3	18,4	12,4	66,1	29,1	4,8
High	22,0	12,5	14,7	49,2	45,0	5,8
Economic status						
Low	48,6	13,0	9,1	70,7	25,4	3,9d
Medium	38,0	17,5	12,3	67,8	24,4	7,8d
High	21,2	17,0	13,5	51,6	43,4	5,0
Age						
18-35	35,2	14,9	12,0	62,2	32,1	5,7
36-55	28,3	15,0	12,4	55,6	38,0	6,3
56+	39,9	20,2	11,1	71,1	24,5	4,4
Gender						
Male	31,1	17,1	11,1	59,2	35,6	5,2
Female	36,8	15,2	12,7	64,7	29,3	6,1
Total	34,1	16,1	11,9	62,1	32,3	5,6

Source: Author's calculations based on data from the *Encuesta de la Deuda Social Argentina 2006*.

All together

In Figure 5, a combination of geographical distance, origin and type of relation is shown. In the first column of every origin category (workplace, neighborhood, etc.) the number of personal ties for the category is shown, normalized to the total number of personal ties (% of total table). Next, the percentage of personal ties within the category that corresponds to someone living at less than 2km is calculated ('< 2km %').

We will first examine relations between geographical distance and type of relation, then between geographical distance and origin of the personal tie, and lastly between type of relation and origin.

About distance and type of relation (last column, named 'total') it's worth noting that friend and boyfriend/girlfriend are the categories with higher values (excluding the neighbor category) for 'less than 2km distance': 68% of all boyfriend/girlfriend lived within the 2km perimeter, and 64.66% of friends were under similar circumstances. Family has about half of the personal ties declared within this distance (51.58%).

Figure 5. Origin of personal tie and participation of ties within 2km by type of relation. Argentina, 2006 (selected cities).

Origin of the personal tie (% of total table) / less than 2km (% of cell)	Places						Referred		Direct		Other, NR		Total	
	Elementary, high school or university		Workplace		Neighborhood		Through a friend, girlfriend, boyfriend or kin		a kin					
	total %	< 2km %	total %	< 2km %	total %	< 2km %	total %	< 2km %	total %	< 2km %	total %	< 2km %	total %	< 2km %
Type of relation														
Friend	15.92	48.71	6.27	40.47	23.58	86.65	10.35	60.55	0.85	73.90	3.72	43.67	60.69	64.66
Kin	0.33	46.26	0.05		0.22	10	1.59	54.04	22.16	51.02	0.04	10	24.38	51.58
Neighbor					4.16	97.73	0.57	10	0.10	10	0.37	10	5.26	98.21
Boyfriend/ Girlfriend	0.46	78.39	0.10	10	0.31	36.50	1.29	71.93	0.23	64.71	0.17	53.97	2.56	68.00
Coworker/ classmate	1.56	45.91	2.85	40.30	0.17				0.14		0.30	10	5.02	43.15
Professional services			0.14				0.41	7.86			0.29	40.67	0.85	19.03
Other			0.04				0.12	21.49	0.06	10	0.27	16.32	0.52	29.18
NR			0.15						0.33	72.01	0.24		0.72	32.98
Total	18.30	49.28	9.63	39.61	28.48	87.31	14.33	60.56	23.87	52.29	5.40	47.86	100	61.44

Source: Author's calculations based on data from the *Encuesta de la Deuda Social Argentina 2006*.

Regarding distance and origin of the personal tie (last row, named 'total'), indirect relations (people you have met through someone you knew) is the category (excluding neighborhood) with more ties within a 2km distance (60.56%). This

expresses some level of transitivity of proximity when creating ties through people who are known well: not only people you know who live close to your house, but who also introduce you to people who live nearby. Family and educationally created ties are less locally distributed, but still about 50% of them are located at less than 2km.

The combination of type of relation and origin of the personal tie enlightens the composition of specific categories: While in the case of friendship the origin more usual for relations is neighborhood (23.58% of total number of ties), more boyfriends and girlfriends usually meet in educational institutions (0.46% of total ties).

V. Conclusions

First, it is important to stress that all findings in this paper are derived from the single name generator we used, i.e., when we say that the 'personal ties' or the 'personal networks' of our sample exhibits a certain trend or correlation, we are only trying to inform about the behavior of the specific type of relations our name generator could obtain. Networks of highly trusted relations can be selective by income while the networks of occasional contacts may not; educational status may play a role in this type of ties while it may not for family only contacts, and so on. However, we could learn from the data that beyond the features explicitly required by the name generator, the relations we came to elicit were in most of the cases long-standing relations (more than 5 years) and were relations where people would share conversations about 'important personal matters'.

Second, not only were educational status and economic status shown to be effective at discriminating sociability behavior towards neighborhood, but also age and gender appeared as powerful explanatory variables of the phenomena. The personal relations of women were more associated with family and nearby persons than men's relations. Likewise, the measurement of personal ties allowed quantifying these gender trends, indicating its currency, but also stating its limited force, i.e., even when women show more personal ties at neighborhood and family, they are far from being excluded from other circles of sociability. Many geographical distances and sources of personal ties are observed both for men and women.

The analysis of age groups showed that the relevance of the neighborhood increases as people grow older, suggesting that neighborhood relations –people declared as neighbors, ties originated in the neighborhood as well as people who live nearby– are more available or desirable for the elderly than other kinds of relations. It is unclear, however, whether this prevalence of the neighborhood relations is better explained on the basis of durability or availability. That is to say, whether this kind of tie is stronger and better preserved over time than other ties, or rather that it is easier for older people to create such a tie, or a combination of both effects.

As for educational status and economic status, they showed similar trends all along the analysis, in terms of more relevance of neighborhood and more relevance of geographically close relations when approaching the lower strata. However, educational status consistently exhibited stronger differences of neighborhood significance between its lower and higher strata compared to economic status in all of the variables considered. It is possible that the specificity of educational status can be rooted in at least two factors. First, its experience based nature, i.e., that educational status is usually attained by long term learning processes that imply per se spending time with others (teachers, professors, students) thus having more impact in specific ways of establishing bonds. Second, educational status differs from economic status in that it implies more consistently the assimilation of symbolic elements that may affect the ability and interest to relate to certain people (e.g. people in the neighborhood). Education is directly related to the incorporation of manners, values and the past experiences of others. Furthermore, in the case of tertiary and university education, education is responsible for professional specialization, with all the social and personal singularities that such an experience may imply or promote.

Consequently, the effects related to trying to keep in touch with people or places farther from the residence area (such as affording higher transportation costs, gaining access to more diverse educational contents, developing more complex professional careers) associate the possibility of doing it with higher levels of social status (greater availability of capital). This process can work in both directions as it does in canonical examples of the benefits of social capital's diversity: higher economic status allows staying in touch with people outside the neighborhood, and those personal connections become relevant in job searches thus impacting future income levels. A similar reasoning can be developed for feedback between educational status and extra-neighborhood personal ties.

Nevertheless, the data presented in this article is far from identifying social closures (high segregation) between neighborhoods (such as ghettos), as, even at the lowest strata, about one fifth of the ties are outside the 2km range. This fact leads us to assert –for the set of cities investigated in Argentina– that it is both reasonable to recognize neighborhood as a key social space for sociability, and to visualize the relative freedom all people have shown to mobilize, create and maintain relations within the city but outside its neighborhood.

Finally, the thesis that the term 'neighbor' should not be used as the only way to map the neighborhood (i.e. my neighborhood is more than the set of my neighbors) has been confirmed and extended. Moreover, geographical distance to ties seemed also insufficient for characterizing the role of neighborhood in sociability. Many studies found in the literature review were concerned about the relation between social distance and geographical distance, and quite often they tried to understand how both levels relate in order to measure neighborhood personal ties by a combination, or an addition, of neighbor's qualities. Our study, however, does not focus primarily in that direction. Even when the relation of personal ties and geographical distance can be examined (there is more proximity of ties on lower strata and at the same time smaller personal networks), we wanted to focus on demonstrating that past experiences, valuation of tie (through type of tie classification) and physical distance were not redundant levels of information. On the contrary, they only partially overlap, and the relevance of neighborhood should not be restricted to those overlapping features: Neighborhood can be recognized at many levels, all legitimate and expressive fields of local, urban experiences.

Notes:

- 1 In 2006, the survey was applied in greater Buenos Aires, greater Cordoba, greater Mendoza, Bahia Blanca, Neuquén-Plottier, greater Salta and greater Resistencia.
- 2 In the original Spanish: "*Con frecuencia, la gente recurre a amigos, familiares, compañeros de trabajo o conocidos cuando necesitan un consejo o ayuda para situaciones que sin ellos serían difíciles de resolver. Entre sus conocidos, sin incluir a quienes viven en su hogar, dígame por favor, solamente el nombre de las personas a las que recurriría en este tipo de situaciones*"
- 3 For a discussion of the technique of name generators and household surveys, see Burt, 1984.
- 4 The 'equivalent adult' is a coefficient that represents how many people live in a household, weighting the people by gender and age after their nutritional expected needs. This coefficient takes as a standard unit the nutritional needs of an adult male between 30 and 59 years (Salvia, 2001:258). The total number of members in each house was adjusted to this coefficient to normalize income by the size of the household.
- 5 Source: Author's calculations based on data from the *Censo Nacional de Población, Hogares y Viviendas* (INDEC, 2001).
- 6 2km = 1.25 miles.
- 7 50km = 31.25 miles.

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