**Image of neighborhood, self-image and sense of community**

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## Abstract

The present study was carried out on a sample of residents of three Italian cities ($N$ = 1031) to pursue two aims: (a) to explore the relationship between the images of the community of residence and sense of community, and (b) to investigate the relationship between self and neighborhood images. In order to identify neighborhood and self-image, free associations of words to the statements “my neighborhood is” and “I am” underwent a cluster analysis; then a correspondence analysis between these two types of representations and the sense of community level was performed.

Results showed a relationship between the subjective image of the neighborhood and sense of community, but did not point out a clear relation between self and neighborhood images. Theoretical and empirical implications are discussed.


Key words: Image of neighborhood, Self-image, Sense of community.

Among various places, the city has a peculiar position in the research: Lynch's (1960) pioneer study on the image of urban spaces showed that the images of cities are the socio-cognitive product of individuals and social groups; they are intersubjective and contain emotional, evaluational and meaning related aspects. Lynch (1960; 1976) outlined the concept of city image as constituted by three different components: *identity* (the distinctiveness of a place, the qualities that distinguish it from any other place), *structure* (the mental representation, spatially outlined) and *meaning* (subjective feelings attached to physically distinctive locales).

Following Lynch's study, additional research was performed on the importance of spatial elements in the representation of the city (the structure component) (Arragones & Arredondo, 1985; Marchand, 2003; Milgram & Jodelet, 1976; Nenci, De Rosa, Testa, & Carrus, 2003). The identity and meaning components were investigated and developed in the extensive literature on sense of place (Hay, 1998; Jorgensen & Stedman, 2001; Tuan, 1980), place identity (Breakwell, 1999; Feldman, 1990; 1996; Fried, 2000; Gustafson, 2001; Korpela, 1989; Proshansky, 1978; Proshansky, Fabian, & Kaminoff, 1983; Twigger-Ross & Uzzell, 1996; Uzzel, Pol, & Badenas, 2002), and place attachment (Altman & Low, 1992; Brown, Perkins, & Brown, 2003; Giuliani, Ferrara, & Barabotti, 2003; Hidalgo & Hernandez, 2001; Manzo, 2003, 2005).

In this article, we try to define the linkages between the subjective image of the neighborhood (e.g. its salient perceived features) and the meaning associate with the self-concept on the one hand, and with the sense of belonging to the neighborhood on the other. We therefore focus on two key domains: the salience of place for the self-concept and the salience of place for the sense of community.

## Self, identity, and place

The theme of the self has caught the attention of social psychology since its very early stages.

The study of the self has to be traced back to James' *Principles of Psychology* (1890). The significance of James' contribution lies in the established relationship between mental life and the outside world: According to his perspective, social self is intertwined with concrete situations and individuals, mutually exchanging ongoing feedback messages. Mead (1934), conceptualizing the connection of self and society as a dynamic process filtered by cognitive activities, provided a theoretical basis to the theorization of self.

More recently, social cognition considered the self as a social-cognitive knowledge structure representing the set of self-related cognitions acquired through experience and encoded in memory (Kihlstrom et al., 1988).

Generally speaking, three main uses of "self" are distinguishable: (a) the processes involved in reflexivity; (b) those involved in self-regulation; and (c) people's knowledge and feeling about themselves, resulting in self-image, self-belief, and self-concept (Leary, 2004). As far as the last use is concerned, the complexity and multiplicity of cognitions referring to the self as an object have been underlined by Neisser (1988), who appropriately depicted the self as a set of schemas. Moreover, self-concept also refers to past or future, to possible selves (Markus & Nurius, 1986; Markus & Wurf, 1987) as well as to actual, ideal and ought self (Higgins, 1987).

While social cognition emphasized the intra-psychic dimension of knowledge, the European socio-constructionist approach asserted that a specific social dimension is embedded in identity. Then, social identity is definable as one's knowledge to belong to certain groups together with some emotional and value significance of the group membership (Tajfel, 1982).

Environmental psychology enlarged the scope of Social Identity Theory and suggested that place can be regarded as a salient category for the development of identity: place identity, indeed, has been regarded as an aspect of social identity, derived from processes of identification, cohesion, and satisfaction (Valera & Pol, 1994). Proshansky et al. (1983), in their seminal work, proposed that place identity is a cognitive structure which contributes to self-categorization and social identity processes. Subsequently, many others works drawn on this framework (see among others

Fried, 2000; Gustafson, 2001; Pretty, Chipuer, & Bramston, 2003; Sarbin, 1983). Recently, Twigger-Ross and Uzzell (1996, p. 206) stated that "all aspects of identity will, to a greater or a lesser extent, have place related implications".

Place identity can be achieved by place identification, as residents identify with and work to sustain a good quality of their residential environment (Lalli, 1992; Uzzell et al., 2002). Two aspects of place identity stand out as very important: the perceived distinctiveness of the neighborhood compared with other places, and its role in the individual and collective memory. Thus, distinctiveness and continuity are fundamental elements in conceptualizations of place identity (Korpela, 1989; Lalli, 1992; Uzzell et al., 2002). These two elements, according to Gustafson (2001), play also a big role in Breakwell's (1986; 1996) Identity Process Theory.

Based on the place identity framework, the images of cities and neighborhoods were related to the residents' self-image: "place identity develops from acts of locating oneself within environmental contexts throughout daily routines as well as during exceptional circumstances. One's residential community can have personal meanings that are constructed such that the experiences and images of the place constitute a symbolic extension of the self " (Pretty et al., 2003, pp. 274-275).

Lalli (1992) pointed out that the processes of identification together with the symbolic functions of objects and environment make possible the partial equivalence of individuals and their environments, or attributes of them: it becomes "possible to consider certain points of reference, such as spatial ones, in terms of self-definition, i.e. to view them as aspects of one's own identity" (p. 291). Then, according to Lalli each urban agglomeration carries its own attributed traits and images, anthropological and psychological characteristics which, though associated with the city, are extended to its inhabitants. Similar considerations apply to each single part of a city, and particularly to the neighborhood, which may be considered as a sub-place of the city (Bonnes, Mannetti, Secchiaroli, & Tanucci, 1990).

## Sense of Community

As maintained in the literature on place identity discussed above, the image of the place in which one lives is accordingly related, not only to the self-image, but also to emotional bond and the sense of belonging to the territorial and relational community. Although the environmental psychology studies extensively used the concept of place attachment to define the affective tie linking individual to places, we decided to focus on the sense of community.

Our choice was made on the basis of two considerations:

a) further clarifications are needed on the relationship and the differences between place identity and place attachment; on the contrary, significant overlapping exists. Twigger-Ross, Bonaiuto, and Breakwell (2003), for instance, suggested that place attachment is developed first, at a very early age; subsequently it is incorporated in identity and therefore undergoes the adjustment processes enabling the continuity of identity across environmental changes. Korpela (1989) viewed attachment as the core component of identity, whereas Proshansky et al. (1983), because of their cognitive perspective, did not recognize a specific role to attachment. Some authors, such as Lalli (1992), considered attachment as a component of identity, others regarded it as one of its predictors (Pretty et al., 2003). Eventually, attachment and identity were also considered as sub-dimensions of a larger construct, *sense of place* (Jorgensen & Stedman, 2001).

b) the term and the concept of "community" refer to several intertwined dimensions of places: physical environment, relational bonds, symbolic connection, political influence, and cultural heritage. In comparison, "place" stresses the physical dimension above the others. Hence, the concept of community contains the concept of place but integrates the environmental dimension with all the components that make a geographical area a liveable and meaningful place to live in (Levine & Perkins, 1987). Consequently, compared to place attachment, sense of community seems to be a more exhaustive indicator of the tie between people and the urban environment they live in.

Sense of community (SOC) was defined by Sarason as "the sense that one was part of a readily available mutually supportive network of relationship" (Sarason, 1974, p. 1). Sarason stated "the psychological sense of community to be the overarching value by which to judge efforts to change any aspect of community functioning" (Sarason, 1974, p. 160). People need to feel this community membership and any social change fostering it increases individual wellbeing and the quality of the social life.

Sarason did not refer explicitly to territorial community, and its sense of community definition applies also to relational and organizational settings (e. g. Burroughs & Eby , 1998; Obst, Zinkiewicz, & Smith, 2002). Nevertheless, empirical research mainly investigated this concept inside different kind of territorial community, from block to the whole city (see Brodsky, O'Campo, & Aronson, 1999; Davidson & Cotter, 1986; Doolittle & MacDonald, 1978; Perkins, Florin, Rich, Wandersman, & Chavis, 1990; Prezza, Amici, Roberti, & Tedeschi, 2001; Puddifoot, 2003).

The success of this construct comes from its implications for planning and social intervention evaluation. As predicted by Sarason (1974), sense of community is related to various indexes of quality of daily life, such as life satisfaction (Prezza & Costantini, 1998), perception of safety and security (Perkins & Taylor, 1996), social and political participation (Chavis & Wandersman, 1990; Davidson & Cotter, 1989; Florin & Wandersman, 1984), and even individual ability to use problem-focused coping strategies (Bachrach & Zautra, 1985). In comparison, the link between sense of community and the subjective image of the neighborhood has not been studied to a sufficient degree.

McMillan and Chavis (1986) offered a clearer and more articulate theoretical model of sense of community as made up of four dimensions (i.e., Membership, Influence, Integration and Fulfillment of Needs, and Shared Emotional Connection). After nearly 20 years, McMillan and Chavis' model remains the primary theoretical anchorage for most studies on sense of community. Recently, the model has undergone thorough and in-dept examinations, which did not support the four components structure (Chipuer & Pretty, 1999; Long & Perkins, 2003; Obst et al., 2002).

Though several authors agree that sense of community should be a multidimensional concept there is still no agreement on the identification of its components (Long & Perkins, 2003; Obst et al., 2002; Puddifoot, 1994; Tartaglia, 2006).

In Italy, sense of community has been operationalized as a unifactorial construct, as it results from the validation of the Italian Sense of Community Scale (ISCS, Prezza, Costantini, Chiarolanza, & Di Marco, 1999). This scale is adapted from Davidson and Cotter's Sense of Community Scale (1986), that is one of the operationalization of McMillan and Chavis' model.

In the present research we used this scale that proved in several studies to be a good global indicator of the tie between people and their neighborhood considered as community of residence (Prezza, Amici, Roberti, & Tedeschi, 2001; Prezza, Pilloni, Morabito, Sersante, Alparone, & Giuliani, 2001; Zani, Cicognani, & Albanesi 2001).

## Goals

Based on the considerations set forth above, the present study has two goals.

The first objective is to explore the relationship between the images of the community of residence (neighborhood) and sense of community. The second objective is to investigate the relationship between self-images and neighborhood subjective conceptions. To the best of our knowledge, this link as well, though amply borne out from the theoretical standpoint, has not been empirically analyzed.

Among the various possible kinds of territorial communities, we decided to gather our data with reference to the neighborhood, which many authors indicate as a psychologically relevant community inside big cities (Bonnes et al., 1990; Prezza et al., 1999). In most Italian cities "neighborhood" identifies a meaningful urban area with an established identity, acknowledged by residents; this area does not necessarily correspond to a district, that is an area that has official boundaries for administrative purposes. Although a neighborhood may encompass a large urban section, it is psychologically much more relevant than the street block. Hence, given the historical

and urbanistic tradition peculiar of the Italian cities, neighborhood seemed to be the most appropriate sub-urban unit of analysis to investigate residents' sense of community.

Two hypotheses were assumed:

1. We expected neighborhood images to be related to Sense of Community (SOC), i.e. that people have a high level of SOC when their representation of neighborhood is positive, and a low level of SOC when their representation is negative.

2. We expected neighborhood and self-concept to be related. According to the theoretical assumption underlying urban related identity (Lalli, 1992), we expected residents to use a similar pool of adjectives to describe themselves and the neighborhood they belong to.

## Method

We investigated neighborhood images of participants living in three Italian provincial capitals differing in size, features and geographic location.

The research was carried out on a sample composed of a total of 1031 participants: 414 living in Turin (in the north of Italy), 317 in Lecce and 300 in Palermo (both in the south of Italy). The participants were contacted by selecting several blocks within four neighborhoods of Turin, five in Lecce and five in Palermo and asking residents for their cooperation.

Within each city different neighborhoods were selected in order to represent the whole city. Both peripheral and central areas of the cities were selected. For each city, the total number of participants was parceled out among the residents of the main peripheral and central neighborhoods, so that a balanced sample (by sex, age and neighborhood of residence) was selected in each of the three cities.

Of the participants, 47.7% were male and 52.3% female, the average age was 40.28 years (S.D. = 13.37). The majority of the participants were workers ($N$ = 769, 74.7%), but there were also students ($N$ = 122, 11.8%), retired people ($N$ = 88, 8.5%), and a small percentage of unemployed people ($N$ = 52, 5%). Concerning educational level, the majority were high school graduates ($N$ =

457, 44.3%) followed by college graduates ($N$ = 317, 30.7%) and people with a lower level of education ($N$ = 257, 24.9%).

Data were gathered by means of a self-report questionnaire including three sections.

1. Free association of words with the statement "my neighborhood is", in order to investigate the subjective images of the community of residence. Respondents were requested to answer using five words.

2. The Italian Sense of Community Scale (Prezza et al., 1999), a unifactorial scale composed of 18 items (e.g. "I like the neighborhood in which I live"; "This neighborhood gives me an opportunity to do a lot of different things"; "Many people in this neighborhood are willing to give help if somebody needs it"; "It would take a lot for me to move away from this neighborhood"); in the study, the scale showed good internal coherence (Cronbach's alpha =.84); the mean score was 48 and the standard deviation 9.32.

3. Another free association of words with the statement "I am", in order to collect self-images.

This last association was placed at the end of the questionnaire in order to avoid the self-anchorage effects.

The questionnaire was filled in directly in the residents' homes or in the places in which they were contacted, and took about 15 minutes to complete.

We performed a three-step analysis on the data collected. We first grouped the responses to each free association item by means of a descending cluster analysis. This kind of analysis enabled us to identify a variety of neighborhood and self images which were shared by groups of participants. Subsequently, a correspondence analysis was performed in order to express, through a graphic representation, the relationship between the lexicon and the clusters. These two steps were performed by means of Alceste 4.6 software. The descendant cluster analysis performed is based on the lexical co-occurrences among the simple proposition of the text (Reinert, 1983). In this case the simple proposition are the responses of the different participants. This software enabled to test the association between clusters and particular subgroups of participants. We selected subgroups

according to age (younger than 30; 30-45; older than 45), sex (male, female), city of residence (Turin, Palermo, Lecce), and level of SOC (high, medium, low).[1]

Finally we cross-matched representations identified by means of a Multiple Correspondence Analysis (Homals procedure in SPSS 8.0). In this last analysis, we inserted four categorical variables: images of the community, self-images, level of SOC and city of residence.

## Results

### *Subjective image of neighborhood*

Altogether we collected 5206 words in reply to the statement "my neighborhood is", including repeated words. Among these words there were 995 different forms[2] and 594 Hapax.[3]

Table 1 shows the words most used by the participants and the relative frequencies.

We chose to analyze only the forms which occurred at least 25 times. Because the total of the sample is about 1000 respondents these forms are the ones used by at least 2.5% of the respondents. We did not include in the analysis the forms used by less than 2.5% of the sample, because we did not consider them representative. On the whole, 2645 words (51% of the total) were analyzed. No lemmatization[4] was performed; the textual corpus was subjected to descending hierarchical classification, a technique which enables progressive subdivision of the set of responses into classes characterized by the use of a similar lexicon.

The cluster analysis enabled a good proportion of the responses--exactly 779, equal to 76.9% of the total of the responses--to be classified into four clusters.

As this is an iterative process, it can be described by means of a dendrogram, showing the successive cuts which led to the final classification and highlighting similarities between different classes.

Figure 1 shows the dendrogram with the classification of neighborhood images; observation of its structure immediately reveals two pairs of similar clusters.

Comparing the within-cluster occurrence of the words with their overall occurrence on the total of classified responses by means of a chi-square test enabled identification of the words characteristic of each cluster, offering a key for its interpretation. In line with the first objective of our study, and in order to determine whether the participants whose answers fell into one cluster may have some common features, we took into account the SOC score. Our aim was that of verifying whether there may be or not an association between a certain SOC level and the development of specific representations of neighborhood.

Each cluster is characterized by a set of distinctive words which identify its main features and marks it. Even if each word has a chi-square value indicating the strength of its association to a cluster, we labeled each cluster according not only the meaning expressed by the words showing the highest chi-square value, but also according to the global meaning expressed by the whole set of distinctive words. A comprehensive view was therefore granted.

Based on the considerations set forth above, cluster 1 was labeled as *TRANQUIL* (see Table 2). Respondents emphasize in their description of the neighborhood, on the one hand, the absence of chaos and noise, and on the other, the distance from the city center. They therefore convey the general image of a small and partially isolated peripheral area, characterized by a limited content of both positive and negative environmental stimuli--and especially by emphasis on the absence of the latter, i.e. of stressors.

This cluster contains a significantly high number of responses given by participants with a medium level of SOC (57 out of 269, $\chi 2 = 2.65$).

Cluster 3 (see Table 3) was defined as *WELL CARED-FOR* and contains a significant number of responses given by participants with high SOC scores (144 out of 277, $\chi 2 = 53.33$). The description particularly focuses on the characteristics of the neighborhood which make it pleasant to live in. These characteristics refer, more than to strictly physical attributes, to elements subjectively perceived by residents as important to good quality of life: cleanliness, the presence of services and public green spaces, the perception of living in a part of the city where one does not feel

endangered. All in all, what emerges is the image of a neighborhood which expresses a good level of residential satisfaction.

Clusters 1 and 3 are both examples of positive images of the neighborhood. By contrast, clusters 2 and 4--whose characteristic words appear in Tables 4 and 5--provide representations which tend to be negative.

We defined cluster 2 as *NEGLECTED*; this cluster is characterized by a significant number of responses by participants with low SOC scores (61 out of 228, $\chi 2 = 25.02$).

The image which emerges is that of neighborhood principally distinguished by two elements: several signs of environmental decay – represented by dirtiness, poor care of buildings and, more generally, of the surroundings – and a certain social vivacity, manifested in terms of multi-ethnicity, high population density, traffic, large spaces. As a whole, the neighborhood is perceived as a stimulating place, full of activity and social change, but it is also seen as poorly cared for and rather neglected.

Cluster 4 was defined as *CHAOTIC* and – like cluster 2 – includes a significantly higher number of responses by participants with low SOC scores (70 out of 228, $\chi 2 = 3.61$). This is a neighborhood in which all of the main urban stressors interact: words like noise, pollution, crowds, traffic indicate that, in the perception of the residents, this neighborhood requires considerable adaptive skills. With reference to city planning, the neighborhood is described as an elegant, central area, characterized by the presence of considerable commercial activity. In summary, cluster 4 depicts the image of a neighborhood which is hard to live in, due to the psychological and practical resources required of its residents, but which is also beautiful, rich and sought-after.

Correspondence analysis enabled graphic representation, in a two-dimensional space, of the relationships between the words (in the rows of the matrix) and the clusters (in the columns). This analysis enabled us to extract two principal dimensions. The first one has an eigenvalue of .44 (47.99 % explained inertia), the second has an eigenvalue of .28 (30.26 %).

Figure 2 shows classified words and clusters plotted on a two-dimensional graph. The horizontal axis defines the contrast between negative and positive images of the neighborhood. These representations are polarized according to how people perceive and evaluate the neighborhood from the standpoint of suitability for human living.

The vertical axis describes the contrast between the characteristics typical of a well-to-do neighborhood (top part of the graph) and the characteristics typical of a working-class neighborhood (bottom part of the graph), with reference to both physical-morphological and functional aspects.

Each of the four clusters is located in one of the four quadrants of the graph; in general terms, the areas considered as working-class are evaluated positively as *TRANQUIL* and negatively as *NEGLECTED*, whereas those of higher status are positively defined as *WELL CARED-FOR* and negatively as *CHAOTIC.*

*Self-image*

Altogether we collected 4841 words in reply to the statement “I am”, including 1206 different forms and 669 Hapax. Table 6 sets forth the words most used by the participants and the relative frequencies.

In this case as well, we used in the analyses only forms which occurred at least 25 times, for a total of 1995 words (41% of the total). The feminine forms of the adjectives were transformed into the masculine, in order to rule out gender differences due to the characteristics of the Italian language (which, for the majority of adjectives, include gender-differentiated forms).

The cluster analysis enabled 686 responses, equal to 68.9% of the total, to be classified into four clusters.

As may be seen from the structure of the dendrogram (see Figure 3), one of the four clusters was initially separated from the others and may therefore be presumed to have a radically different configuration.

Cluster 1, besides being different from the other three, is also the most difficult to interpret (see Table 7). Participants' self-description is only minimally based on individual character traits (stable qualities); attributes mostly refer or may be linked to transient situations (being tired, happy, busy), or to aspects relative to ascribed roles (being young, female). In any event, because neither being female or being young can be considered as variables associated with this cluster, the interpretation which we gave to it was based on the global significance of the other attributes: curiosity, commitment, fatigue. These adjectives lead back to an idea of dynamism, to a self-description in relation to some kind of activity. Accordingly, the cluster was defined as *DYNAMIC*.

Cluster 2 (see Table 8), defined as *DESIRABLE*, provides a self-description in exclusively positive terms. The attributes used make reference to both the aesthetic plane (beauty, height) and characteristics considered socially desirable (intelligence, likeableness). This pool of adjectives, offering a superficial and poorly articulated self-definition and conveying an ideal self-image, was principally used by men (66 responses belong to this cluster, out of 304 classified; $\chi 2 = 13.06$) and by participants less than 30 years old (51 out of 254, $\chi 2 = 4.90$).

Clusters 3 and 4 provide more complex self-images, principally based on a combination of personality traits. Cluster 3 (see Table 9) was labeled *EXTROVERTED*, as the majority of the traits with the highest $\chi 2$ were related to the interpersonal dimension (extroverted, generous, altruistic, sociable, cheerful). The description provided, in any event, goes beyond the meaning of this label, as it also includes adjectives (such as "stubborn", "moody") not related to the domain of sociability. This cluster included a significant percentage of responses by interviewees whose ages ranged between 30 and 45 (93 out of 218, $\chi 2 = 2.70$) and by women (154 out of 377, $\chi 2 = 2.50$).

Finally, cluster 4 (see Table 10) was termed *CONSCIENTIOUS*, because it refers to a self-description principally characterized by attributes such as honesty, attention, patience, courteousness, reservedness and commitment in one's professional activity. By contrast to the representation provided by cluster 3, which may be defined as relationship-oriented, this cluster

appears more task-oriented. It includes a significant proportion of responses by participants more than 45 years old (55 out of 194, chi-square = 2.01).

Correspondence analysis between words and clusters was not very helpful from the standpoint of a more in-depth study of the relationships between the clusters (see Figure 4).

The first dimension extracted (eigenvalue = *.42*, 38.71 % explained inertia) confirms the contrast between the first cluster and the other three. This contrast may be partially explained based on the fact that all of the adjectives located near the right-hand pole of the graph (corresponding to cluster 1) are more closely related to the self in the here-and-now than to the dispositional traits of the self.

Conversely, the second dimension (eigenvalue = *.38*, 35.48 % explained inertia), appears to distinguish rather clearly between adjectives which have to do with the ideal self (grouped together in the bottom part of the graph) and adjectives which describe the real self (scattered in the top part of the graph).

*Relationship between neighborhood and self images*

In order to explore the relationships between the various neighborhood and self images (the second objective of the study), we performed a correspondence analysis between the four sets of modalities (corresponding to the clusters) of the two variables.

In addition, two further variables were included in the analysis: (a) the SOC score (high, medium and low) which, as found in our first analysis, was significantly associated with the various images of neighborhood; and (b) the interviewees' city of residence (three cities: Turin, Lecce, and Palermo). Considering the culturally significance of North-South differences in Italy, the latter variable was inserted in order to observe which neighborhood and self images prevailed among the residents of the three cities.

Analysis of the correspondences enabled the extraction of two dimensions capable of explaining the approximately 31% of inertia (dimension 1: eigenvalue = *.39*, 15.53% inertia

explained; dimension 2: eigenvalue = .*36*, 14.29%). Figure 5 shows the various modalities of the variables plotted on a two-dimensional graph as a function of the two dimensions extracted.

The spatial location of the images of neighborhood and self seems to reject the hypothesis of a close relationship between the two representations. If that was the case, the clusters relative to images of the neighborhood and those relative to the self-descriptions would tend to be superimposed or, at the very least, would be located close to each other.

If we consider the horizontal distribution of the neighborhood images, we will see that the clusters designated as *Well cared-for* and *Neglected* are arranged on the left half of the axis, and those designated as *Chaotic* and *Tranquil* are on the right half. This contrast may be explained in terms of the different weight attributed to several characteristics perceived with regard to the residential environment: in the first pair of clusters, the descriptions favor the dimension of "beauty/ugliness"; the second pair favors the dimension "stress/relaxation".

On the vertical axis, on the other hand, we find--as set forth above--a differentiation between the negative images of the neighborhood, located in the top part of the graph, and the positive ones, located in the bottom part. The SOC levels follow a similar course: low scores are located on the top half of the axis, high scores on the bottom half. This parallelism confirms the association between the various SOC levels and the type of neighborhood image.

As far as self-images are concerned, the plot shows two pairs at opposite corners of the graph: the *Extroverted-Desirable* pair in the lower right quadrant, the *Dynamic-Conscientious* pair in the upper left quadrant. This positioning may be explained by the existence of two superordinate categories within the definition of self: one involving a socially oriented self-perception, and the other more focused on intrapersonal traits.

Self and neighborhood descriptions show a different distribution among the participants from the three cities. Among the residents of Turin, the most frequently observed self-image is of the *Dynamic-Conscientious* type and the most frequently occurring image of neighborhood is of the *Well cared-for-Neglected* type. Among the residents of Lecce and Palermo, on the other hand,

self-descriptions of the *Extroverted-Desirable* type and images of neighborhood of the *Chaotic-Tranquil* type appear to prevail.

## Discussion

The results of the study confirm the existence of a relationship between the image of neighborhood and sense of community, which appears to be stronger where the images of neighborhood are positive and weaker where they are negative. The residents who provided positive descriptions of places, accordingly proved to have a more marked sense of belonging to the human and physical community defined by their own place of residence; on the contrary, those who associated it with negative traits were characterized by a weaker emotional bond with their neighborhood. This outcome supports the main results of Brodsky's (1996) work, in that it shows that residents who negatively perceive their residential environment can distance themselves from it; this distancing manifests as a poor sense of community. Sense of community, then, is translated by people into investment in the place in which they live (Sarason, 1974; McMillan & Chavis, 1986), but this investment is linked to how the place is perceived and represented, with regard to both its physical and its social features.

At present it is not possible to specify the exact nature of the relationship between the image of neighborhood and sense of community, but only to state that an association exists; a hypothesis which postulates a reciprocal effect is possible. We believe this result is relevant, as it confirms that, from a psychological point of view, there is no clear separation between the cognition and evaluation of the physical environment (subjective image of neighborhood) and those of the relational environment (sense of community). On the contrary, the two dimensions appear to be strongly interrelated.

The data also show the connection between the representative and affective dimensions of the places in which one lives; the images of neighborhood freely provided by participants correspond, to a great degree, to the affective qualities of places. The traits which characterize the four images

confirm the importance of some bipolar dimensions, which participants consider fundamental when putting into words the emotional experience aroused by places (Russell & Pratt, 1980; Perugini, Bonnes, Aiello, & Ercolani, 2002): "relaxing/stressful" and "pleasant/unpleasant", actually correspond to the general categories to which descriptions of the neighborhood such as *Tranquil/Chaotic* and *Well cared-for/Neglected* may be assigned.

The results of our analysis also seem to indicate that while the residents of cities in the south of Italy (Palermo and Lecce), irrespective of the type of neighborhood in which they live, tend to provide descriptions of their neighborhood predominantly centered on the "relaxing/stressful" dimension, the descriptions by residents of the northern city (Turin) tend to be centered on the "pleasant/unpleasant" dimension.

In general terms, the differing importance ascribed to the dimensions on which the residents base their respective environmental preferences can be explained by the environmental schema they have activated. As a matter of fact, their affective evaluation is particularly based on subjective experience, rather than on the characteristics of the physical environment, as suggested by Purcell (1986). According to his model (the *Schema discrepancy model*), the affective evaluation of an environment depends on the degree of deviation from the typical example (prototype) which participants are used to keeping in their mind. It may accordingly be held that residents of the cities in Southern Italy included in our sample activated a prototypical neighborhood schema principally characterized by the "relaxing/stressful" emotional descriptors, while respondents living in Turin activated an environmental schema more defined by attributes belonging to the "pleasant/unpleasant" category.

This datum may suggest, albeit rather vaguely, that different territorial and cultural contexts (such as those which characterize the contrast between Northern and Southern Italian inhabitants) generate different representations of places of residence, which may originate not only from characteristics peculiar to each individual context, but from more general cultural aspects.

In the Italian culture, the north-south dimension represents much more than a geographical indication; it corresponds to the identification of a stereotype applied to population groups, which implies the possession of certain individual characteristics, the adoption of certain lifestyles, the sharing of certain values. Neighborhood and self-descriptions provided by the interviewees confirm some components of the aforementioned stereotype, especially those associated with the "southerners". The importance of the "relaxing/stressful" dimension is in line with the representation, and the self-description (both by ordinary people and by some social theorists; see Cassano, 1996) of southern society as "slow" and "relaxed". The descriptions of individual characteristics also reinforce several conventional beliefs belonging to the ordinary sense, which ascribe to southerners a rather extroverted personality and a tendency to "warm" social interaction.

Concerning the second objective of our study, we did indeed find a relationship between self and neighborhood images, although the kind of relationship found is different from the expected one. In fact, by contrast to what would have been expected on the basis of the urban identity theory (Lalli, 1992), participants did not describe themselves in terms of a set of attributes common, or even similar, to those used to describe their own neighborhoods.

When self-descriptions were examined irrespective of the neighborhood images, two dimensions stood out as the anchorages for self-concept: The actual *vs.* desired continuum and the situational *vs.* dispositional continuum. Both these dimensions referred to a multi-faceted self-concept, but none of them showed a clear linkage to the environmental context of neighborhoods. Nevertheless, when the interlacement of self and neighborhood images was taken into account, then it became apparent that participants described themselves according to one of the two underlying dimensions organizing the neighborhood descriptions: "beauty/ugliness" and "stress/relaxation".

The image of the neighborhood based on the dimension of pleasantness was associated with a self-description based on intrapersonal aspects. Conversely, the socially-oriented self-concept was

characteristic of respondents who described their neighborhood based on the relaxing/stressful dimension.

To conclude, the study presented in this paper showed some interesting possibilities for further examination. On the one hand, it will be interesting to continue to explore the connection between cognitive and emotional dimensions of the representation of the community in which one lives, and the effects of those dimensions on both the theoretical level and on more practical aspects (architecture, city planning, social life).

On the other hand, it appears necessary to conduct a more extensive analysis of the relationship between the cultural component, residents' self-image and the representation of the place in which they live, i.e. by studying samples of people sharing the same culture and living in the same place. The presence of different descriptions of self and context as a function of different territorial (and geographical-cultural) affiliations could also inspire the development of studies on the images of the residential community by groups characterized by different cultures, ideologies and values, in order to provide empirical support for the hypothesis concerning the existence of true social representations of places.

Moreover, a limit of the present work can serve as a starting point for future researches. In this study the concrete characteristics of the territory, which could be regarded as intervening factors (i.e. quality of buildings, socioeconomic level of residents, and demographic composition) were not taken into account. The influence of these variables on the relation between self-image, neighborhood image, and sense of community, needs to be investigated.

Similar future studies investigating the relationship between person and territory should address some crucial questions of methodology.

In particular, it will be necessary to identify the subjectively relevant environment on which such studies should concentrate: the block, the neighborhood, the city, the region, etc. (Cuba & Hummon, 1993). One of the limitations of our study lies in our assumption that the neighborhood

affiliation should represent a relevant identity element for the interviewees, while the relationship between the nested levels of identity requires a more precisely articulated conceptualization.

As remarked by Puddifoot (1995; 1996), independently of the explicit request made by the researchers, when people are asked about their sense of community, their responses tend to reflect a very personal mental territory which does not coincide with their physical place of residence or with a defined geographical territory (in this specific case: the neighborhood). Furthermore, the coexistence of multiple levels of identity (linked to the various territorial units with which people can develop processes of identification) implies that the subjective importance of each level is variable and must be repeatedly assessed.

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## Footnotes

[1] The sense of community scores are grouped in three categories (low, medium and high) using the 33rd and the 66th percentile of the frequency distribution as division points.

[2] *Forms* refers to the totality of different words occurring in the text, whereas *words* refers to the totality of words used.

[3] *Hapax* are the words occurring just one time in the whole text.

[4] Lemmatization is the process of recoding the graphic form of a word to his vocabulary headword (lemma).

Tables and Figures

Table 1.

*Images of the neighborhood: most used words*

| Words | Occurrences |
|---|---|
| Tranquil | 220 |
| Green | 161 |
| Dirty | 158 |
| Beautiful | 144 |
| Clean | 125 |
| Noisy | 117 |
| Traffic-congested | 111 |
| Chaotic | 108 |
| Central | 100 |
| Liveable | 92 |

Table 2.

*Neighborhood description, cluster 1: characteristic words*

| Word | Occurrence inside cluster | Total occurrences | Chi-square |
|---|---|---|---|
| Suburban | 58 | 77 | 188.75 |
| Silent | 47 | 56 | 176.38 |
| Isolated | 24 | 28 | 89.57 |
| Small | 20 | 29 | 52.57 |
| Tranquil | 54 | 202 | 13.71 |
| Working-class area | 15 | 37 | 13.20 |
| Tree-lined | 14 | 36 | 11.00 |

Table 3.

*Neighborhood description, cluster 3: characteristic words*

| Word | Occurrence inside cluster | Total occurrences | Chi-square |
|---|---|---|---|
| Tranquil | 138 | 202 | 95.44 |
| Clean | 88 | 115 | 77.82 |
| Well served | 50 | 58 | 57.47 |
| Beautiful | 88 | 127 | 56.74 |
| Liveable | 61 | 83 | 45.20 |
| Green | 92 | 144 | 44.33 |
| Safe | 37 | 47 | 32.28 |
| Cosy | 34 | 48 | 21.15 |

Table 4.

*Neighborhood description, cluster 2: characteristic words*

| Word | Occurrence inside cluster | Total occurrences | Chi-square |
|---|---|---|---|
| Multiethnic | 38 | 43 | 171.37 |
| Dirty | 57 | 129 | 86.73 |
| Neglected | 19 | 32 | 44.82 |
| Old | 16 | 25 | 42.56 |
| Working-class area | 16 | 37 | 20.34 |
| Big | 28 | 84 | 19.59 |
| Lively | 10 | 21 | 15.29 |
| Traffic-congested | 27 | 94 | 11.76 |

Table 5.

*Neighborhood description, cluster 4: characteristic words*

| Word | Occurrence inside cluster | Total occurrences | Chi-square |
|---|---|---|---|
| Noisy | 88 | 111 | 190.28 |
| Chaotic | 67 | 96 | 108.68 |
| Polluted | 36 | 47 | 66.30 |
| Central | 55 | 92 | 61.57 |
| Crowded | 33 | 44 | 57.97 |
| Traffic-congested | 52 | 94 | 47.50 |
| Dirty | 59 | 129 | 31.07 |
| Sought-after | 22 | 42 | 15.96 |
| Elegant | 18 | 38 | 9.41 |
| Commercial | 15 | 30 | 9.28 |

Table 6.

*Self-image: words most used.*

| Words | Occurences |
|---|---|
| Likable | 154 |
| Helpful | 113 |
| Cheerful | 101 |
| Sociable | 81 |
| Altruist | 78 |
| Intelligent | 72 |
| Generous | 70 |
| Good | 67 |
| Sincere | 72 |
| Sensitive | 61 |

Table 7.

*Self-description, cluster 1: characteristic words*

| Word | Occurrence inside cluster | Total occurrences | Chi-square |
|---|---|---|---|
| Curious | 39 | 43 | 133.17 |
| Female | 26 | 27 | 95.25 |
| Tired | 22 | 27 | 61.40 |
| Happy | 21 | 26 | 57.65 |
| Young | 18 | 25 | 40.27 |
| Busy | 24 | 42 | 34.79 |

Table 8.

*Self-description, cluster 2: characteristic words*

| Word | Occurrence inside cluster | Total occurrences | Chi-square |
|---|---|---|---|
| Intelligent | 58 | 63 | 297.83 |
| Beautiful | 37 | 41 | 178.36 |
| High | 21 | 32 | 61.31 |
| Likeable | 43 | 113 | 48.71 |

Table 9.

*Self-description, cluster 3: characteristic words*

| Word | Occurrence inside cluster | Total occurrences | Chi-square |
|---|---|---|---|
| Stubborn | 37 | 48 | 33.07 |
| Extroverted | 27 | 32 | 30.33 |
| Generous | 44 | 64 | 27.92 |
| Moody | 23 | 27 | 26.29 |
| Altruist | 47 | 73 | 23.74 |
| Sociable | 46 | 72 | 22.50 |
| Cheerful | 47 | 76 | 20.25 |

Table 10.

*Self-description, cluster 4: characteristic words*

| Word | Occurrence inside cluster | Total occurrences | Chi-square |
|---|---|---|---|
| Honest | 44 | 47 | 129.32 |
| Thoughtful | 20 | 23 | 49.78 |
| Patient | 28 | 41 | 44.76 |
| Worker | 29 | 46 | 39.18 |
| Helpful | 48 | 97 | 37.57 |
| Reserved | 19 | 28 | 29.37 |
| Kind | 20 | 31 | 27.81 |
| Active | 18 | 29 | 22.85 |

Figure captions

*Figure 1*. Neighborhood description: descendent cluster analysis, dendrogram.

*Figure 2*. Neighborhood description: correspondence analysis on words per clusters table.

*Figure 3*. Self-description: descendent cluster analysis, dendrogram.

*Figure 4*. Self-description: correspondence analysis on words per clusters table.

*Figure 5*. Neighborhood and Self-description, Sense of Community and City of residence: correspondence analysis.

*Figure 1.*

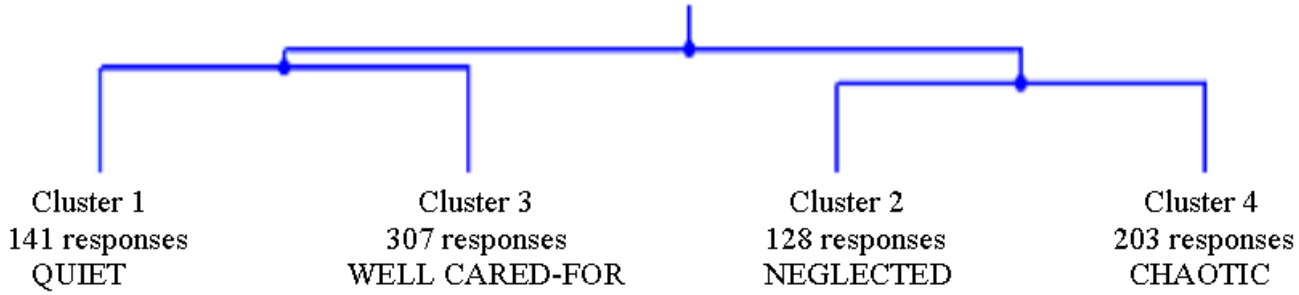

Cluster 1
141 responses
QUIET
Cluster 3
307 responses
WELL CARED-FOR
Cluster 2
128 responses
NEGLECTED
Cluster 4
203 responses
CHAOTIC

*Figure 2.*

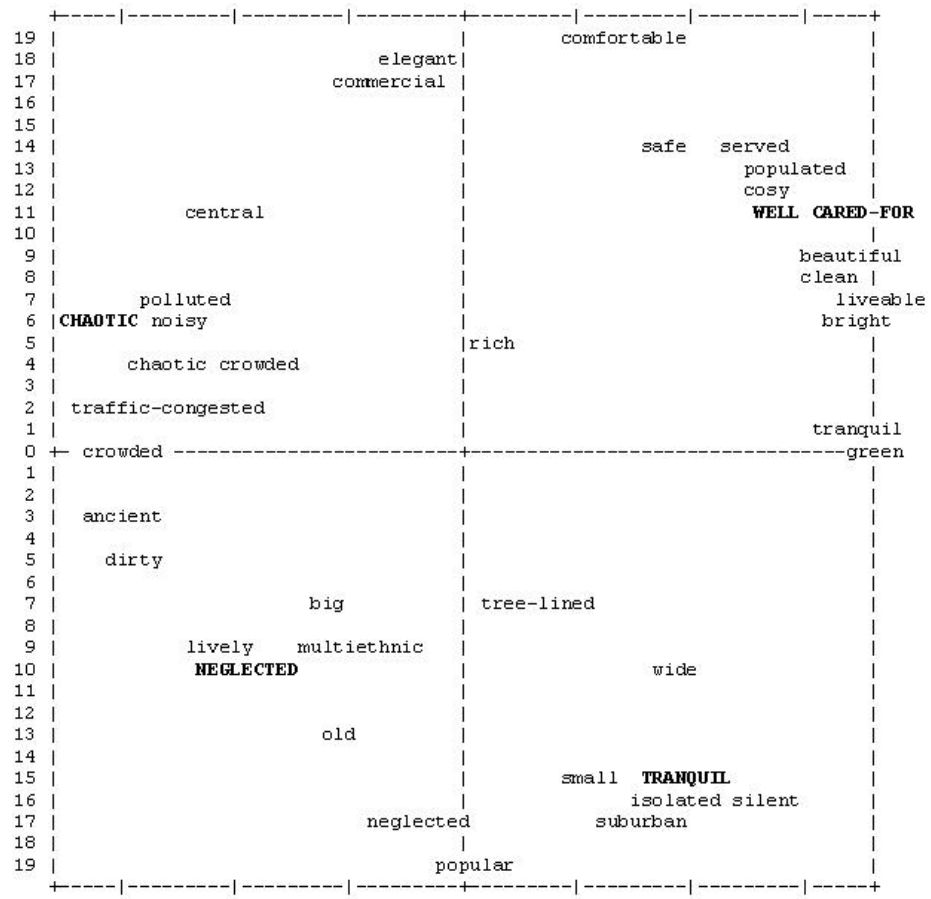

comfortable
elegant
commercial
safe served
populated
cosy
WELL CARED-FOR
central
beautiful
clean
liveable
polluted
CHAOTIC noisy
bright
rich
chaotic crowded
traffic-congested
tranquil
crowded
green
ancient
dirty
big
tree-lined
lively multiethnic
NEGLECTED
wide
old
small TRANQUIL
isolated silent
neglected
suburban
popular

*Figure 3.*

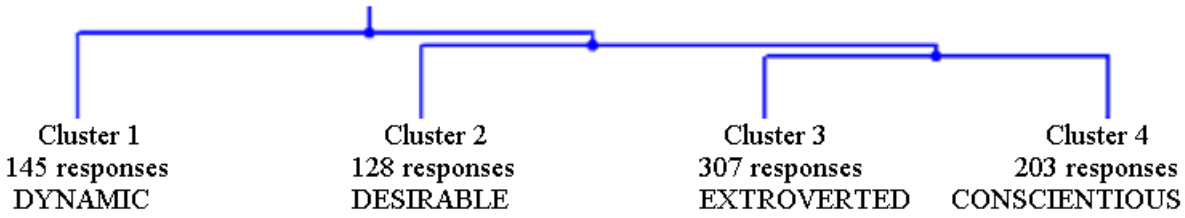

Cluster 1
145 responses
DYNAMIC
Cluster 2
128 responses
DESIRABLE
Cluster 3
307 responses
EXTROVERTED
Cluster 4
203 responses
CONSCIENTIOUS

*Figure 4.*

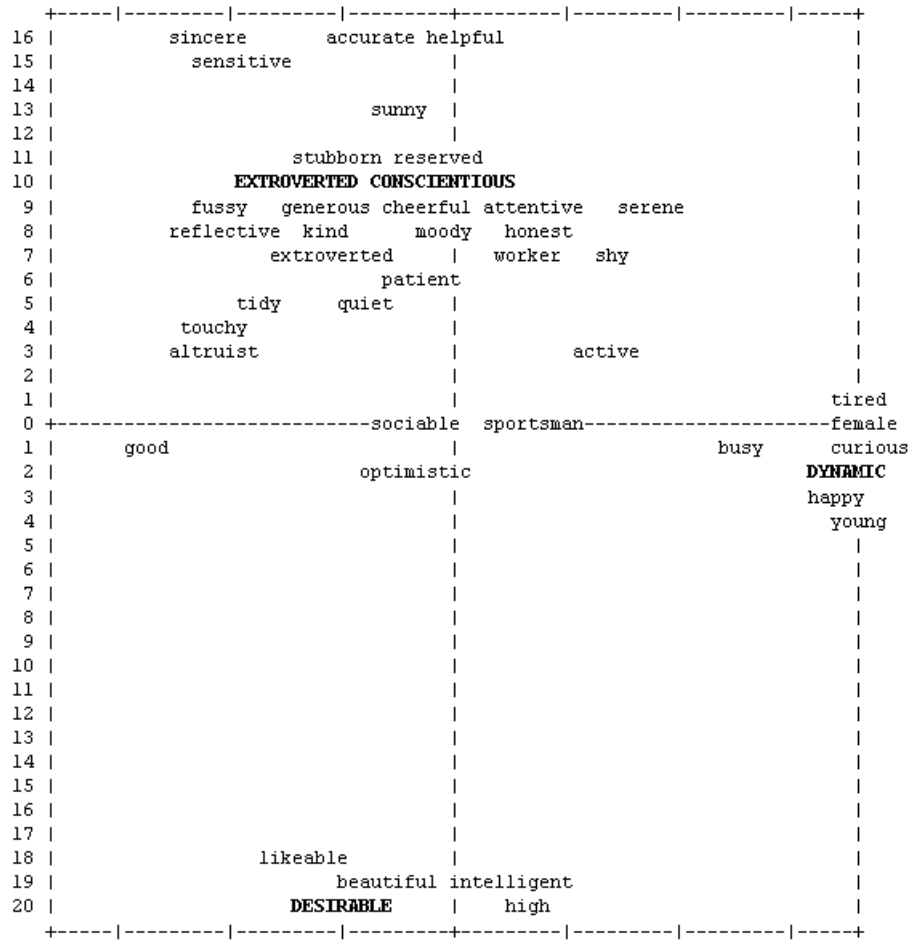
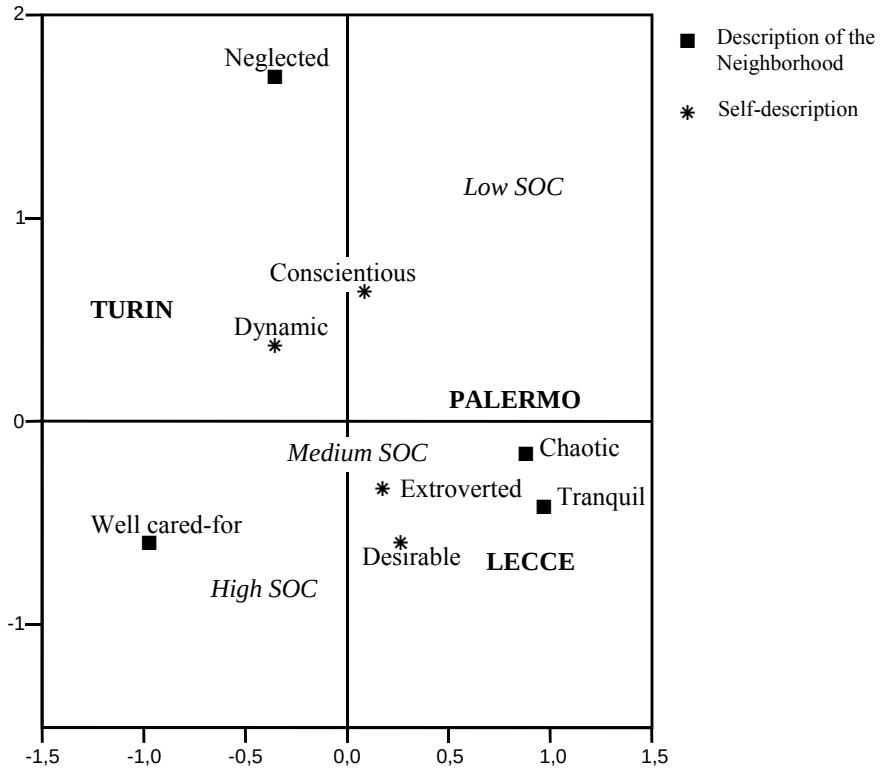

sincere
accurate helpful
sensitive
sunny
stubborn reserved
EXTROVERTED CONSCIENTIOUS
fussy
generous cheerful attentive
serene
reflective
kind
moody
honest
extroverted
worker
shy
patient
tidy
quiet
touchy
altruist
active
tired
sociable
sportsman
female
good
busy
curious
optimistic
DYNAMIC
happy
young
likeable
beautiful intelligent
DESIRABLE
high

*Figure 5.*


Description of the Neighborhood
Self-description
Neglected
Low SOC
Conscientious
TURIN
Dynamic
PALERMO
Medium SOC
Chaotic
Extroverted
Tranquil
Well cared-for
Desirable
LECCE
High SOC
2
1
0
-1
-1,5
-1,0
-0,5
0,0
0,5
1,0
1,5