Multiple Senses of Community in Migration and Commuting: The Interplay between Time, Space and Relations
Isidro Maya-Jariego and Neil Armitage
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Multiple Senses of Community in Migration and Commuting

The Interplay between Time, Space and Relations

Isidro Maya-Jariego
Universidad de Sevilla

Neil Armitage
Uppsala Universitet

abstract: This article explores the relation between multiple senses of communities (M-SOC), time and relationships. Modern communications have weakened the traditional relationship between physical setting and social space, enabling participation in multiple communities simultaneously. Physical presence is no longer necessary or a guarantee for participation. This article is based upon a simple premise, that while as individuals we give meaning to our realities across a complexity of communities, our relations are continuously situated in time and space. Time participating in one community is time not spent participating in another. Additionally we are continuously holding a dialogue with time, both interpreting the past and assessing the future. Emigrating and commuting are social phenomena that are both concerned with the physical movement of individuals between social spaces, with contrasting distributions of time and relations across social spaces. Data obtained from two separate survey populations – immigrants (N = 200) and commuting university students (N = 208) from the same town – provide the empirical basis of the article. UCINET was used to map respondents’ personal networks and calculate relational variables. M-SOC, measured with the Sense of Community Index (SCI), was correlated with (1) the distribution of time, (2) the future expectations of and (3) relational variables across multiple communities. In the case of foreigners, the number of years living in Spain was a significant predictor in three different hierarchical regressions of the sense of community with their neighbourhood in the sending country, their neighbourhood in Spain and the community of expatriate compatriots. For commuters, the average time spent daily in the city of residence, the average degree of their personal networks and the presence of people from the city of residence in their personal networks were all positively associated with the sense of community of the city of residence.

keywords: commuting ✦ identification ✦ migration ✦ personal networks ✦ sense of community ✦ time
The concept of sense of community is the belonging to a group or a community based upon the perception of similarity among members and where reciprocal relations facilitate the satisfaction of individual needs (Sarason, 1974). McMillan and Chavis’s (1986) conceptualization of a sense of community is constructed from four interdependent components. The first, membership, represents a demarcation of who belongs and who does not in the community; it provides emotional security and a means of identification. It is also characterized by a level of personal investment and the sharing of a symbolic system between fellow members. Influence represents the dialectic interaction between the individual member and the community; where members, through self-expression, are able to influence other members and hence the community; simultaneously members are being influenced by the community they construct together. Integration and fulfilment of needs, the third component, is a realization that individual and community needs are reciprocal; individuals’ needs are fulfilled through membership, not to the detriment of the community’s needs. The final component, shared emotional connection, refers to the fact that members share significant experiences within the community, be they positive or negative, and these experiences are a part of the community’s shared biography that help unite existing members and socialize new ones.

The sense of community (SOC) concept was primarily concerned with territorial communities, analysing SOC in specific towns (Prezza et al., 2001; Prezza and Costantini, 1998) and urban neighbourhoods (Chavis and Wandersman, 1990). Research expanded the concept to other arenas such as the workplace (Brodsky and Marx, 2001), schools (Pretty et al., 1996), university campuses (DeNeui, 2003; Lounsbury and DeNeui, 1995, 1996; Royal and Rossi, 1996) and specific relational communities and groups (Sonn, 2002; Sonn and Fisher, 1996; Zaff and Devlin, 1998). The majority of these empirical studies used the 12-item Sense of Community Index (SCI) (Perkins et al., 1990) or contextually-based adaptations in operationalizing McMillan and Chavis’s conceptual model. The literature measuring single communities acknowledges that the amount of time one has resided, worked, studied or participated in a given community and age are variables to consider when analysing sense of community (Buckner, 1988; Chavis et al., 1986; Glynn, 1981; Prezza and Costantini, 1998). Though it has not proven necessary for these studies to contemplate that their respondents, be they residents, employees or students, had alternative social spaces of interaction where time was detracted from the single community of the researchers’ interest.

The importance of the SOC concept is based upon two assumptions: that a positive sense of community is believed to be beneficial to individual well-being, facilitating social relations and opposing anonymity and
loneliness, and that greater community participation is beneficial for
democratic society in general (Prezza and Costantini, 1998). The current
article does not intend to question these assumptions, but believes that by
exploring the complexity of individuals’ multiple communities, which
differ in type (relations) and in intensity (time) over the life course, the
SOC concept will be in better condition to support these positive aims.

Multiple Communities and Multiple Senses

Hill (1996) suggested that SOC research is needed across settings as soci-
etal changes and modern technological development are opening up new
communities for individuals to express themselves and find meaning
(Prezza and Costantini, 1998). Weisenfeld (1996) acknowledged that as
individuals we interact and develop relationships in numerous settings
and thus possess multiple identities that are interdependent across multi-
ple communities, suggesting that community is a place of intersubjective
reality where diversity among members is both beneficial and necessary
for community development. She also conceptualized community
belonging based upon ‘macro’ and ‘micro’ belongings, where a larger
‘macro’ community encapsulates (providing communality) any given
array (diversity) of ‘micro’ subcommunities. It is conceivably possible to
draw this dichotomy between macro and micro subcommunities to
analyse, for example, the sense of community at a transnational level,
such as being a citizen in the European Union (EU) down to subcommu-
nity membership in a neighbourhood parents’ baby-sitting group.

Brodsky et al. (2002) additionally add that multiple communities are inde-
pendent (separate) of each other or interdependent (overlapping) with
each other. Residing in one town and commuting to work in another town
that has a separate political administration are examples of two inde-
pendent territorial communities. Though if the towns are dependent
upon each other, one for employment opportunities and the other for its
labour force, then these communities are interdependent. Together
Weisenfeld’s and Brodsky et al.’s theoretical models facilitate an analysis
of multiple senses of community (M-SOC).

M-SOC research has started to explore independent communities and
micro subcommunities in one macro-community setting. Pretty et al.
(1994) measured SOC among students in their home neighbourhood and
their schools, two independent communities, finding correlations between
the senses of community. Though they did not find sufficient evidence to
support their hypothesis that sharing a relationship across these two com-

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non-membership in a smaller, specialized learning group, and the SOC of two groups based on membership or not of the learning group for the macro setting of the school. They found that a positive SOC as a member of the learning community correlated with a positive SOC for the school, though unfortunately they did not measure the same student’s M-SOC across communities (Brodsky et al., 2002). Brodsky and Marx (2001) studied two micro subcommunities within one macro community, students and staff at a job training centre, and a second independent macro community, their respective neighbourhoods. They concluded that both students and staff could differentiate between their communities, but that the meaning assigned to these communities, their SOC for each, was embedded in the relation between them. Obst et al. (2002) explored the M-SOC of participants from all over the world attending a science fiction convention, measuring SOC for their fandom community of interest and their respective neighbourhoods, two independent communities. They confirmed their hypothesis that SOC would be greater in the community based on shared interest than residence, providing support to the discussion that in late modernity communities of interest are of increasing salience (Prezza and Costantini, 1998; Wellman, 2001). The literature on M-SOC supports the notion that individuals’ interpretation of single communities, one’s SOC for each one, are interdependently constructed through participation in multiple communities, be they territorial or relational.

**Time and Multiple Social Spaces**

If we take the premise that time spent in one community is time not spent in another community, we respect that time simultaneously facilitates participation in multiple communities and limits the number we can physically participate in and maintain. Modern communication technology has brought new methods of participation, both opening new social spaces of interaction, and enabling easier maintenance of existing social spaces (Rheingold, 1991; Wellman, 2001). An individual’s physical presence is no longer a prerequisite to participate in and develop a sense of community for a particular social space (Obst et al., 2002). Community participation has been conceptualized in relation to definite community activities, such as neighbouring (Farrel et al., 2004; Prezza et al., 2001), networking (Wellman, 2001) and political participation (Davidson and Cotter, 1989), behaviour that is seen to enhance a sense of community in a single community. This study does not aim to question these assumptions but highlights and explores the notion that participation in one community is time detracted from participating in other communities, hence there exists a ‘fragmentation of allegiance’ (Hughey and Spear, 2002: 71) between communities.
Time has not been neglected in the study of SOC. Sarason (1974) initially indicated that communities would change across time and space (Bess et al., 2002). McMillan and Chavis’s sense of community model takes into account that a level of personal investment, a commitment of time, is a necessary aspect of membership, and that shared experiences, history, are essential for constructing a shared emotional connection. Garcia et al. (1999) additionally stressed the importance of history in developing a sense of community among neighbourhood members. Using time use surveys, Ravenera and Rajulton (2003) examined social cohesion and individual integration by analysing economic inclusion, political participation and social belonging of Canadians at mid-life. They found that the length of stay in one community, both for native Canadians and immigrants, though to a lesser degree for immigrants, was positively related to political participation and social belonging. They speculated that sense of belonging is an ‘end product’ that is ‘engendered by greater inter-action and contact with community members’ (Ravenera and Rajulton, 2003: 11).

As regards the relation between M-SOC and time, to our knowledge it has been previously mentioned but not yet explored in the literature. Roberts et al. (2002) suggest future research is required into how greater time spent by individuals in virtual environments is detracting time from and effecting territorial communities. Brodsky et al. (2002) suggest that time distributed between one’s multiple communities is likely to be related to both positive and/or negative aspects of those communities. Investing time interacting and sharing experiences with others is seen to develop senses of community. However, it remains to explore how multiple senses of community are related to the distribution of time across multiple social spaces, ones that individuals may or may not have chosen to spend time in.

Relations across Time and Space

Sagy et al. (1996: 659) suggest that an ‘individual’s local network influences sense of community’. Building on Kasarda and Janowitz’s (1974) theory, they hypothesize a positive correlation between the relational ties an individual has to a community and their SOC. Although Sagy et al. found no substantive evidence in their own study, evidence does exist of a positive relationship between social support in one community and SOC (De Federico de la Rúa, 2003, 2004; García Faroldi, 2004; Prezza and Costantini, 1998; Lubbers et al., this issue, pp. 721–41). From these findings, we would suggest that while relational ties are potential sources of social support, instrumental and/or emotional, they are by no means a guarantee for positive relational dividends and hence a sense of community.

Hughey and Speer (2002: 73) suggest one method to analyse relational ties more closely is through the use of social networks, implying social
network concepts can potentially provide direction ‘to help communities navigate shifting allegiances’. They argue that an ecological perspective of community is facilitated where the sense of community relates as much to future potential relationships as the ones we currently have. These future relationships potentially provide new resources for the individual and the community to define and adapt to new needs. Our interpretation is that the authors are in agreement with Weisenfeld (1996), who argues that community:

...is rather a dialectic and dynamic process, in which shared needs and group processes built across time afford intergroup diversity, disagreements, and fluctuations in dimensions such as participation in collective actions, among others. (Weisenfeld, 1996: 337)

These authors suggest that an individual base of relationships that are heterogeneous, spanning multiple communities, is as important as cohesion for both individual and community adaptation. According to Giddens (2002), individuals continually hold a dialogue with time, interpreting past experiences and assessing future risks and possible adaptations. Applying multiple community concepts, we hypothesize that multiple senses of community lie at the intersection of two interdependent, overlapping communities, the history of individuals (distribution of time) and future, in and across multiple communities.

Future time-space assessments will no doubt also be influenced by factors outside the control of the multiple communities of participation, and hence expectations relating to one’s present and potential future social spaces are also in flux and conditional. However it remains to explore how expectations that involve a redistribution of time across multiple communities, such as to relocate for work or studies, relate to current relational ties in and across multiple communities, and hence one’s sense of them.

This article explores the dialectic relationship between time, relations and multiple senses of community, arguing that time both facilitates and limits participation across multiple communities and therefore influences the relationships we develop, maintain or lose and the support we receive from them. Simultaneously the support we receive from relationships across multiple communities influences the distribution of time and our expectations for these social spaces, ones we may not have chosen to spend time in. We suggest therefore that an analysis of personal networks may aid an exploration into how individuals negotiate their continuous relationship between time and multiple social spaces. See, for instance, studies of communities as social networks in Fischer (1982), Grossetti (2005) and Wellman (1999). The impact of the network approach for the understanding of communities is also discussed in Maya-Jariego (2004).
Emigrating and Commuting

Emigrating and commuting, be it for employment, study or love, are contrasting examples of social phenomena where time is clearly physically distributed between social spaces. The physical distance travelled between social spaces is generally far greater during emigration than commuting, and therefore emigration often represents a clear demarcation in time from the initial social space in one’s home country to the new social space in the host country. As Sonn (2002: 205) describes, this transition, voluntary or involuntary, ‘often entails the severing of community ties, the loss of social networks and familiar bonds – it can mean the loss of taken for granted sources and systems of meaning’. Research involving immigrants has concentrated on methods of adaptation to the host country, where identity continuity, integration and building a sense of community are key concepts (Ravenera and Rajulton, 2003; Sagy et al., 1996; Timotijevic and Breakwell, 2000). Immigrant groups consisting of similar others based upon ethnicity and culture are potentially sources of meaning that are influential for adaptation to the host country (Sonn, 2002) and identity adaptation (Abbey, 2002). These relational micro communities are social spaces where potentially shared cultural understandings, symbols and histories are reconstructed in the wider macro community of the host country, characteristics that develop a shared emotional connection (Sonn, 2002). However, it should be recognized that these groups are not homogeneous entities, there is in-group diversity, where members also identify and find meaning from multiple alternative social spaces (Sonn, 2002). Commuters, who divide their time on a daily, weekly or monthly basis between the social spaces of residence, work, study or recreation, have not attracted as much attention within community literature. M-SOC research has measured SOC across social spaces, between neighbourhood and school/job training centre or interest group (Brodsky and Marx, 2001; Obst et al., 2002; Pretty et al., 1994), though it has not analysed how time or relationships distributed between multiple communities relate to M-SOC.

Emigrating and commuting are temporal activities located in a specific time and space, where future expectations may involve a redistribution of time and relationships across social spaces. Immigrants at first may not see themselves as immigrants, they may feel socialized into the host country, or like EU citizens, free to move between member states. Second, they may expect to return to their original countries or move to a third. Commuters similarly may expect to reside and work in one locality or even emigrate in the future. Individual expectations regarding future participation in social spaces will differ both in type and intensity. Reimer (2000) explored the impact of job relocation among 60 persons, finding evidence for both positive and negative psychological effects of relocation. He argues that while many experience feelings of empowerment through learning to
adapt to new social spaces, many simultaneously maintain a strong ‘sense of home’ and a willingness to return to established relationships. Milligan (2003) explored how nostalgia was utilized by employees to overcome identity discontinuity that arose from a change in workplace location, providing a means to gain identity continuity across social spaces. We suggest that such findings provide evidence that individuals give meaning to their relational lives through the interpretation of previous experiences and the assessment of future risks and possible adaptations in their multiple communities of participation. It remains to explore how time and relationships across social spaces associated with emigrating and commuting relate to multiple senses of community.

In this article, we compare the process of identification with multiple territorial and relational communities in two different groups experiencing a transition between social spaces: international immigrants and metropolitan commuters. In both samples, we examine the relative impact of time spent in alternative social spaces and personal network characteristics on the identification with different communities.

Methods

Participants and Communities

The data were obtained from two separate studies upon the personal networks of foreigners residing in Seville and Cádiz (Spain) and university students that commute between Alcalá de Guadaíra and Seville.

Participants in the first study were 200 foreigners residing in Spain. They were from Argentina, N = 67; Ecuador, N = 59; Germany, N = 37; and Italy, N = 37. The age range was 16–60 years with a mean of 36.37 (SD = 9.93), and the group comprised 79 males and 121 females. The average of years living in Spain is 4.66. Most of them are recent migrants, but there is also a small subsample of workers and students who will only stay for a short period in Spain. Participants provided information about their membership in three distinct communities: their local neighbourhood in Spain; their local neighbourhood in the sending country, before coming to Spain; and the community of compatriots residing in Spain.

Participants of the second study were 208 university students at the Universidad de Sevilla and Universidad Pablo de Olavide (both in Seville). The respondents reside in Alcalá de Guadaíra, a town with around 65,000 inhabitants 15 km outside the city of Seville, and commute an average of 21 times per month to attend the university. They are single (96.6 percent) and live with their parents (94.3 percent). The age range was 18–53 years with a mean of 23.26 (SD = 3.9); comprising 74 males and 134 females. Participants provided information about two distinct communities: the city of residence (Alcalá de Guadaíra) and the city where they study (Seville).
In both studies, the multiple communities measured were chosen in relation to time and relational aspects associated with emigrating and commuting. We acknowledge that these communities may not encapsulate the total diversity of our respondents’ multiple communities, but were selected according to the objectives of the research.

**Measures and Procedures**

In both studies, research materials consisted of a questionnaire including items assessing, among other measures, basic demographics (age, gender and conditions of living), the Sense of Community Index (SCI) and several questions to derive a personal network of 25 alters.

In the first study, foreigners provided information about the time living in Spain and the expectation of living in Spain or the sending country in the future (among other options). In the second study, the university students were asked about the time spent in Seville/Alcalá each week, and the expectation of living and/or working in Seville or Alcalá in the future (among other options).

The original 12-item version of the SCI (McMillan and Chavis, 1986) was applied, with a Likert-type scale ranging from 1, strongly disagree, to 4, strongly agree. The SCI is an adequate, widely used and sound measure of overall psychological sense of community (PSOC), with items that refer to membership, influence, emotional connection and needs fulfilment (Chavis and Pretty, 1999; Chipuer and Pretty, 1999; Obst and White, 2004, 2005). Given that measuring the reliability of the dimensions of the scale has been more problematic (Obst and White, 2004, 2005), we use in this study the overall score, ranging from 12 to 48. To measure foreigners’ PSOC, information was provided on: (1) the neighbourhood where they live in Spain, (2) the former neighbourhood in the home country and (3) the relational community with fellow compatriots in Spain. The university students were measured for: (1) the city of residence (Alcalá de Guadaíra) and (2) the city where they study (Seville). Questions in the scales were adapted according to the community being examined. The internal reliability for each scale was moderate, with Cronbach alpha ranging from .64 to .82, with an average of .72.

The Arizona Social Support Interview Scale (ASSIS) (Barrera, 1980) was applied to obtain a list and characteristics of support providers. The ASSIS assesses six social support categories (personal feelings, material help, advice, positive feedback, instrumental help and social participation) and may be used to obtain indices of social support network size and composition. It has been used in other studies with a variety of adult populations (Barrera, 1981; Tetzloff and Barrera, 1987), and it has also shown cross-cultural validity (Martínez et al., 2002; Nemoto, 1998; Sherraden and Barrera, 1996; Zea et al., 1995). In this study we use as variables the
number of support providers from Alcalá and the number of support providers from Seville (in the case of students), and the number of compatriot or Spanish support providers (in the case of foreigners).

After obtaining a list of support providers with ASSIS, the respondents were asked to complete the list until reaching 25 alters. Then a matrix of 25 × 25 actors was built, in which the respondent codified each pair from 0, ‘no relationship’, to 2, ‘very related’. The matrix was computed with UCINET 6.0 (Borgatti et al., 2002) and average centrality measures of each network were derived. We computed the average degree, closeness, betweenness and eigenvector centrality of each personal network. These average indices are a proxy to the structural properties of the personal network itself (and not direct information of the sociometric position of the respondent). The information was entered and computed as attributive data with SPSS 13.0.

Centrality is a measure of how connected the node is to other nodes within the network. Degree is the number of direct ties for each node. Closeness of a node is the inverse of the sum of all distances to all other nodes. A single alter is highly close if they are connected by short paths to many other alters. Degree and closeness measures tend to be strongly correlated. Betweenness is the number of shortest paths between all alters that a node lies upon. For a more detailed treatment of centrality measures and their computation, see Faust and Wasserman (1999). In this study, we consider the average centrality of all nodes in the personal network, taking into account the three different ways of defining centrality mentioned above.

We also used as variables the number of personal network members from Alcalá and the number of personal network members from Seville (in the case of students), and the number of compatriots or Spaniards in the personal network (in the case of foreigners).

Results

Preliminary Analysis
Table 1 presents the means (M) and standard deviations (SD) for each scale in each community, for both studies. The city where the students reside (Alcalá) and the residence neighbourhood of the foreigners in Spain obtained a similar average score of around 30 (out of 48). The identification of the foreigners with the former neighbourhood in the home country had the highest score of the five scales, whereas the city where students go to university and the compatriots’ relational community showed an average score below 30.

A paired-sample t-test showed that students reported more positive PSOC with the city where they reside than in the city where they attend
university (\(t_{1,209} = 7.6, p < .0001\), two-tailed). In the case of the foreigners’ sample, the PSOC with the neighbourhood of the sending country was significantly higher than for the other two referent communities (Spain versus home country, \(t_{1,199} = -5.52, p < .0001\); and Spain versus compatriots \(t_{1,199} = 4.474, p < .0001\), both bilateral), whereas the compatriots’ PSOC showed the lowest mean (home country versus compatriots, \(t_{1,199} = 9.917, p < .0001\), bilateral).

There is no significant correlation between the PSOC in the city of residence and in the city where they study (\(r = .041, p < .556\)). There is no correlation either between the PSOC in the actual neighbourhood in Spain and in the former neighbourhood in the sending country (\(r = .199, p < .123, N = 200\)). But the PSOC with the compatriots’ relational community is positively correlated with the sending (\(r = .194, p < .006, N = 200\)) and receiving (\(r = .250, p < .0001, N = 200\)) neighbourhood scales. It seems that the expatriate community is somehow overlapped with the sending and receiving neighbourhood and, as a consequence, may act as a bridge between both worlds. Perhaps this is also the case for the community of university students from Alcalá de Guadaíra in Seville, but we have no data on that last referent.

As is presented in Table 2, significant correlations between sense of community and time, composition and relational variables were observed. Overall, these covariations are equivalent for foreigners and commuters.
First, the time spent in the new place after relocation is negatively associated with the PSOC in the former referent community, both in migration and commuting. The number of years living in Spain is inversely related both to the identification with the neighbourhood of the sending country \((r = -0.216, p < 0.01, \text{bilateral})\) and with the expatriate community \((r = -0.153, p < 0.05, \text{bilateral})\). For commuters, the distribution of time is also clearly related to sense of community: those who spend more time in the city of residence (i.e. Alcalá) show a stronger identification with Alcalá \((p = 0.257, p < 0.01, \text{bilateral})\), whereas the contrary is true for those who spend more time in the city where they study \((p = -0.255, p < 0.01, \text{bilateral})\).

Second, the relative presence of endo-group members after relocation is positively associated with the PSOC in the former referent community, both in migration and commuting. The foreigners that have a higher number of compatriots in the personal network and in the social support provider subset also express a stronger identification with the sending country and with the community of compatriots. Also in the case of commuters, the identification with the city of residence is positively associated with the number of people from Alcalá in the personal network.

### Table 2 Correlations of SCI Scores with Indices of Time/Space and Relations

<table>
<thead>
<tr>
<th>Variables</th>
<th>Study 1 Students (n = 199)</th>
<th>Study 2 University students (n = 208)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distribution of time between social/territorial spaces</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time in Spain</td>
<td>.160*</td>
<td>.257**</td>
</tr>
<tr>
<td>Time in Alcalá</td>
<td>-.216**</td>
<td>-.092</td>
</tr>
<tr>
<td>Time in Seville</td>
<td>-.153*</td>
<td>.095</td>
</tr>
<tr>
<td>Composition of the personal network</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Endo-group</td>
<td>-.68</td>
<td>.266**</td>
</tr>
<tr>
<td>Exo-group</td>
<td>.129</td>
<td>-.223**</td>
</tr>
<tr>
<td>Composition of the multiplex support providers subset</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Endo-group</td>
<td>-.089</td>
<td>.076</td>
</tr>
<tr>
<td>Exo-group</td>
<td>.123</td>
<td>-.198**</td>
</tr>
<tr>
<td>Average centrality measures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree</td>
<td>.044</td>
<td>.219**</td>
</tr>
<tr>
<td>Closeness</td>
<td>.084</td>
<td>.168*</td>
</tr>
<tr>
<td>Betweenness</td>
<td>.048</td>
<td>-.140</td>
</tr>
<tr>
<td>Eigenvector centrality</td>
<td>.022</td>
<td>.102</td>
</tr>
</tbody>
</table>

*p* Significant at \(p < .05\) (bilateral); ** significant at \(p < .01\) (bilateral).
other hand, an inverse relationship is observed when we take into consideration the number of Spaniards (for foreigners) or the number of people from Seville (for university students). These data are presented in Table 2.

Only in the second study did the average centrality measures show significant associations with PSOC. Both average degree \((r = .219, p < .01, \text{bilateral})\) and average closeness \((r = .168, p < .05, \text{bilateral})\) were positively related to identification with Alcalá. It seems that more cohesive networks are associated with a stronger identification with the city of residence. Perhaps the more diverse sample of the first study failed to document equivalent relations in migration.

We can formulate the hypothesis that, after relocation, spending more time in the new social space increases the proportion of non-local relationships in the personal networks, contributes to a slight expansion between different sociogeographical spaces and lessens the sense of belonging to the community of origin. However, the correlational nature of the study does not allow us to be conclusive in this respect.

On the other hand, other factors may be contributing to this process. As we have mentioned before, the expectations of living in the new country or the new city may have an impact on PSOC. In the foreigners’ sample, 56 percent of the respondents express the intention to stay and live in Spain in the future. The Spanish PSOC is significantly higher among those individuals that expect to live in Spain. In the university student sample, 22 percent of the respondents would like to live in Seville in the near future. Also, in this case, the Seville SOC is higher for those with the expectation of residing in the new city.

According to the preliminary analysis, four variables were selected for regressions. To reduce multicolinearity, one variable was selected from each category, opting in each case for the variable with the strongest associations with PSOC in both studies. The four variables were: (1) time spent in the new space after relocation (number of years in Spain/percentage of daily time in Alcalá); (2) number of endo-group members in the personal network (number of compatriots/number of people from Alcalá); (3) number of endo-group members in the support providers subset (of compatriots/number of people from Alcalá); and (4) average degree in the personal network. These four variables are named, respectively, ‘time’, ‘composition’, ‘support’ and ‘degree’ in Table 3.

**Predicting Psychological Sense of Community (PSOC)**

To investigate the relationship between time and relations and PSOC, a series of hierarchical regressions were run separately for each group membership, with overall PSOC as the criterion variable. In the regression for each group membership, the time variable was entered as the first step to examine any effect that the emigrating or commuting process may have on PSOC. In the foreigner sample, we used the time of residence in Spain, whereas with the university students we entered the percentage of week
time that is spent in the city of residence (Alcalá). Both are time variables that show, respectively, the variability in migration and commuting.

The variables representing composition, support and relational properties were entered as the second step to examine the predictive strength of each dimension of the personal relationships in PSOC, while controlling for the influence of the time variability (migration and commuting). The

Table 3  Beta Weights for Time, Composition, Support and Degree in Hierarchical Regressions Predicting PSOC in Each Community Group Membership

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Beta weight</th>
<th>$R^2$ change</th>
<th>Zero-order correlation</th>
<th>Partial</th>
<th>Semi-partial</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Study 1</strong></td>
<td></td>
<td></td>
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<tr>
<td>N in sending country</td>
<td></td>
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<td>Step 1</td>
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* Significant at $p < .05$ (bilateral); ** significant at $p < .01$ (bil.); *** significant at $p < .0001$ (bil.).

Note: All beta weights and correlations are taken from the final model.
overall model of time and the three variables of social relationships (composition, support and relational properties) as predictors of PSOC was significant for three (out of five) memberships: home country neighbourhood, $F_{(4,193)} = 3.923, p < .004$; compatriots’ relational community, $F_{(4,193)} = 3.548, p < .008$; and the city of residence of the university students, $F_{(4,203)} = 6.985, p < .001$. Table 3 presents the beta weights and correlations from the final model and the $R^2$ change for each of these analyses.

As can be seen in Table 3, the model is a better predictor of the PSOC that works as ‘starting point’ for the participants in each case (rather than the new space of relations): that is to say, the city of residence of the university students, and the former neighbourhood in the home country of foreigners.

In the case of foreigners, the number of years living in Spain is a significant positive predictor of the identification with the neighbourhood in Spain ($F_{1,196} = 5.289, p < .05$), but a negative predictor of the identification with the neighbourhood in the home country ($F_{4,193} = 3.923, p < .005$). When accounting for the influence of time in Spain, there are no other significant predictors (beta = .139, $p < .058$) (with the exception of composition in the compatriots’ PSOC).

In the second study, time spent in Alcalá was a significant predictor of PSOC in the same city. However, even accounting for the influence of that variable, the composition of the network with people from the town and the average degree of the personal network were both significant predictors.

**Discussion**

The sense of community concept has been blamed for promoting a unitarian ideology of community (Weisenfeld, 1996), neglecting the importance of conflicts that, when negotiated, accept and facilitate diversity. We argue that our findings, using a multiple community conceptual framework, facilitate and support a definition of community that acknowledges conflict and diversity.

First, our findings show that the SOC for the initial territorial social space of reference for both immigrants and students, i.e. the neighbourhood in the sending country and Alcalá, were not related to the SOC for their alternative territorial social space, the neighbourhood in Spain and Seville. However in the case of the immigrants, the compatriot SOC was related positively with the sending neighbourhood SOC and negatively with the Spanish neighbourhood SOC. We suggest therefore that the compatriot relational community bridges and overlaps the two independent territorial communities for the foreigners, whereas Alcalá and Seville are two non-competing independent communities for the students.
The greater amount of time spent in the alternative social space, Spain for immigrants and Seville for students, correlated negatively with the SOC for the initial social space, the immigrants’ original neighbourhood and Alcalá. These can be interpreted as depreciations in the initial social space SOC, which, while related to the time spent in the alternative social spaces, were not substituted by reciprocal increases in the alternative social spaces’ SOC. These findings together with specific results regarding the immigrants and students are now interpreted.

The immigrants’ original neighbourhood in the sending country scored the highest SCI across all five communities examined. This was a retrospective measurement taken in Spain. At least in part, time spent in the host country is time detracted from relationships in the original country. However, compatriot relationships potentially provide a substitute forum where, as Sonn (2002) highlighted, systems of shared symbols are used to construct the shared history in the host society. We suggest that these relationships also provide an opportunity for experiences of adjustment to the new country and for future risks to be assessed and discussed. These forums based upon past membership in the initial social space are sources of support where nostalgia, used to overcome identity discontinuity (Milligan, 2003), is potentially reflected in the heightened original neighbourhood SOC in our results. Curiously, this heightened index is significantly higher among immigrants who have not visited, or visit less than once a year, their original country since their arrival in Spain (Maya-Jariego et al., 2005). The depreciation of the original neighbourhood SOC that seems to occur with more time living in Spain signifies in part a normalization of a nostalgic SOC, as identity continuity is achieved over time.

Other factors, such as the physical distance to the sending country, remain to be examined. The Latin Americans potentially experience ‘the severing of community ties, the loss of social networks’ (Sonn, 2002: 205) more due to the greater physical distance between social spaces and hence rely probably more on expatriate fellows to substitute this loss. In comparison, the Europeans can more easily maintain relationships in their original neighbourhoods due to the lower economic burden of visiting or returning home coupled with greater freedom of movement as EU citizens.

As we have mentioned before, it seems that the compatriot relational community bridges the initial social space with the new social space in the new country. At the same time, the expectation of staying in Spain is positively associated with the Spanish SOC. Nostalgia, as well as the initial referent community, may be represented in the original neighbourhood SOC, which tends to decrease with time. On the other hand, the relative balance between compatriots and Spaniards signifies a complex process where immigrants negotiate a ‘fragmentation of allegiance’ between communities in the macro context of the host country (Abbey, 2002).
more years of residence in Spain, taking the sample of foreigners as a whole, we have observed a slight decrease in the compatriot community index and an increase in the Spanish SOC.

The adjustment experience from the initial to the new social space will no doubt differ between individuals when emigrating. A closer analysis of variables as age, gender, education, first language spoken, etc., could potentially provide points for a future discussion and better reflect the heterogeneous nature of immigrant populations. Modern communications may have weakened the relationship between physical setting and social space, though our findings suggest that physical distance cannot be overlooked when interpreting multiple senses of community associated with emigrating. In particular, physical distance may have an impact on the frequency, type and duration of interaction between immigrants and their former contacts. And economic and political factors related to both the physical distance and the structural differences between the social spaces will influence not just senses, but also expectations of multiple communities.

Finally, in respect of this group it is important to remember the claim that integration into the society as a whole, and not identification with the local neighbourhood, may be of greater salience for immigrants (Sagy et al., 1996). Anyway, De Federico de la Rúa (2003) has suggested the connection between the network of concrete personal relations and the identification with the abstract notion of nation, as a generalized exchange community.

The university students’ distribution of time between the town of residence and study, along with relational variables, proved to be significant in predicting the SOC for Alcalá, the initial social space, but not the SOC of the alternative social space, Seville. The absence of a reciprocal relation between the Alcalá and Seville SCI measures, where a loss of sense in the territorial social space is not mirrored by a gain in the relational new social space, suggests that Alcalá remains to be the social space of reference. Therefore, time and relationships in the alternative social space represent, unlike emigrating, not so much a severing or a loss, but a weakening of community ties and social networks in the initial social space. The students are a homogeneous group in relation to both age and background, and though commuting, their results are probably better analysed with respect to how individuals negotiate the ‘fragmentation of allegiance’ between communities for the first time.

While time-distributed and relational variables were not significantly predictive of the SOC in Seville, those who expect to reside in Seville in the future have a significantly higher SOC. This lends support to the idea that SOC is embedded in the relationship between two temporal, overlapping communities, the interpretation of one’s history and future.
Though we present the social spaces of Alcalá and Seville as non-competing independent objects for the application of the SCI (see Figure 1), time spent and relations in the alternative social space of Seville influences the SOC in Alcalá. These findings support the claim that, while individuals distinguish between their communities, the SOC in each community is interdependent upon participation in multiple communities. Hence, while we can present communities as independent or interdependent to facilitate analysis, we must recognize that making distinctions between senses of communities is difficult and may limit our understanding.

Emigrating and commuting are social phenomena that differ in the distribution of time in and across multiple social spaces, though our results suggest that similarities may exist in how individuals negotiate these experiences. The relational compatriot community was seen to help bridge the social spaces of the original country with the host country. A closer analysis of the students’ personal networks could test whether other university students from Alcalá or other non-Seville relationships assist in the bridging of Alcalá and Seville, though accepting that, unlike the immigrants, bridging may not be necessary. Therefore, while relationship variables may explain bridging social spaces, they may also explain how a strong sense of belonging or ‘sense of home’ to one’s initial social space is developed and maintained.

Sense of community is based upon the interaction and contact between community members. Consequently, a network approach may help in
understanding the dynamics of sense of community. Both migration and commuting are examples of ecological transitions that occur when a person’s position in the ecological environment is altered as the result of a change in role, setting or both (Bronfenbrenner, 1979). The processes of formation, maintenance or discontinuity of relationships may be useful to describe that dynamic. The cases of migration and commuting are clear examples of how the structure of personal networks is constrained by the nature and number of the relationships that an individual can maintain simultaneously. Both are also cases in which individuals manage multiple affiliations. In this context, we suggest that the management of multiple senses of community by the individual is based, at least in part, on a process of competition between a small set of multiplex active relationships, the core of the social support network (see a description of this process for the case of immigrants in Maya-Jariego, 2006).

Further personal network analysis exploring relations in and across multiple communities could highlight the importance of diversity and conflict to communities. While members who bridge social spaces may provide access to new resources for the community, helping to navigate shifting allegiances, communities are maintained by all its members. Members that identify strongly with the community provide the community with its existing resources. This diversity in members’ relations in and across multiple communities will be reflected in diverse community interpretations: their SOC is based upon the individuals’ interpretation of their history and assessment of their future in and across multiple communities. If conflictual interpretations are not facilitated or negotiated successfully, members may seek to cross their bridges to new social spaces (exit) or strengthen their participation within the community. Further qualitative analysis of members’ experiences may provide more knowledge about these processes. If these differing interpretations are successfully negotiated then conflict is facilitated as a potential source of community change, where the fragmentation of allegiance between multiple communities could provide the source of allegiance between community members.

This and other explorations into the dialectic relation between multiple senses of community, time and relationships can hopefully expand the sense of community concept. A concept that can benefit all the communities we participate in and those yet awaiting our participation.

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References


Biographical Note: Isidro Maya-Jariego is professor at the Social Psychology Department in the University of Seville, Spain, and leads a line of research that compares the psychological sense of community in local, transnational and online communities. He has studied the personal networks and the psychological adaptation of African and Latin American immigrants in Spain. His main current interest is social network analysis, and he is the editor in chief of Redes. Revista hispana para el análisis de redes sociales (revista-redes.rediris.es).

Address: Departamento de Psicología Social, Universidad de Sevilla, Campus Ramón y Cajal, Calle Camilo José Cela s/n. 41.018 Seville, Spain. [email: isidromj@us.es]
Biographical Note: Neil Armitage is a social psychologist from Uppsala University, Sweden. He has participated as research assistant in the University of Seville on a study on personal networks and youth unemployment. His main current interest is the sociology of soccer and youth transitions.

Address: Department of Sociology, Uppsala Universitet, Box 624, SE-751 26 Uppsala, Sweden. [email: nordicneil@gmail.com]