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MODES OF NEIGHBOURHOOD EMBEDDEDNESS IN THREE MULTI-ETHNIC NEIGHBOURHOODS IN LISBON

AN EXPLORATORY ANALYSIS

Maria Lucinda Fonseca[1]
Jennifer McGarrigle[2]

Abstract – The role of urban neighbourhoods in social cohesion has been extensively debated in recent times, both in academic and political circles. This paper explores different modes of coexistence and neighbourhood embeddedness in three multi-ethnic neighbourhoods in the Lisbon Metropolitan Area. Using factor and cluster analysis, with data collected in a survey of the native and immigrant population and drawing upon complementary qualitative data from focus groups with key actors in each neighbourhood, five modes of neighbourhood embeddedness are identified. These modes serve to enhance our understanding of the nature of social interactions and social networks between and within groups. A geographical perspective is adopted incorporating possible effects relating to the characteristics of the neighbourhood as well as the socio-ethnic and demographic profiles of the respondents.

Key words: Neighbourhood embeddedness, interethnic relations, Lisbon.

Resumo – Modos de integração em três bairros multi-étnicos de Lisboa. Uma análise exploratória. O papel dos bairros urbanos na coesão social tem sido extensivamente discutido, tanto em círculos académicos como políticos. Este artigo faz uma análise exploratória de diferentes modos de convivência e integração no local de residência em três bairros multi-étnicos da área metropolitana de Lisboa. Com base numa análise factorial e de *clusters*, de dados recolhidos num inquérito, a uma amostra aleatória da população nativa e de origem imigrante, complementada com informação qualitativa proveniente de grupos focais com actores-chave de cada bairro, identificaram-se cinco modos de integração e de relações sociais quotidianas, incluindo a ligação e a satisfação com o lugar. Estes resultados permitem compreender melhor a natureza das redes sociais dentro e fora do bairro e entre indivíduos do mesmo ou de outros grupos sociais e étnicos.

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[1] Professor in the Institute of Geography and Spatial Planning and researcher at the Centre for Geographical Studies, University of Lisbon. E-mail: fonseca-maria@campus.ul.pt.

[2] Researcher at the Centre for Geographical Studies, University of Lisbon. E-mail: jcarvalho@campus.ul.pt.

Adoptou-se uma perspectiva de análise geográfica que incorpora possíveis efeitos de atributos particulares de cada bairro, bem como o perfil sócio-étnico e demográfico da população inquirida.

Palavras-chave: Integração no bairro, relações interétnicas, Lisboa.

Résumé – MODES D'INTÉGRATION DANS TROIS QUARTIERS PLURI-ETHNIQUES DE LISBONNE. ANALYSE EXPLORATOIRE. Le rôle des quartiers urbains dans la cohésion sociale a déjà été largement discuté dans les cercles académiques et politiques. Cet article analyse différents modes de coexistence et d 'intégration des résidents dans trois quartiers pluri--ethniques de l'Aire Métropolitaine de Lisbonne. Cinq modes d'intégration et de relations sociales quotidiennes ont pu être identifiés, à partir d'une analyse factorielle (ACP) et de clusters (classification hiérarchique) utilisées pour traiter les données recueillies par questionnaire, présenté à un échantillon aléatoire de populations autochtones et immigrées. Ces analyses ont été complétées par des informations qualitatives, recueillies auprès d'acteurs-clés locaux, dans chaque quartier. Ces résultats ont permis de mieux comprendre la nature des réseaux sociaux inter et intra-groupe. On a aussi tenu compte des caractères géographiques et démographiques pouvant avoir un effet sur les comportements des habitants de ces quartiers.

Mots-clés: Intégration dans un quartier, relations inter-ethniques, Lisbonne.

I. INTRODUCTION

The role of the neighbourhood in promoting social cohesion has been debated quite extensively in recent times. The debate, in both political and theoretical terms, has encompassed many interrelated processes such as the development of social capital, local relations, inter-group relations, life-chances/quality of life and social identity (Forrest and Kearns, 2001). The neighbourhood has surfaced as the site where these processes are negotiated. In particular, there has been much attention paid to disadvantaged areas of concentrated poverty as well as multiethnic neighbourhoods in the context of increasing diversity. These two elements are inextricably linked given the relationship between ethnic segregation or settlement patterns and socio-economic marginalisation (Massey and Denton 1993; Bolt *et al*., 2002). The policy debate on low-income neighbourhoods and ethnic concentration has been concerned with the idea that segregation may inhibit integration and exacerbate marginalisation (Musterd, 2003; Pinkster and Völker, 2009). From this point of view Lisbon makes an interesting observatory, as in spite of the relatively low levels of segregation in comparison with the North of Europe, there is a clear correlation between the ethnic geography of the city and the spatial expression of deprivation in the city (Fonseca *et al.,* 2008). However, less has been written in the Portuguese context on how people relate to the neighbourhood and their neighbours in multiethnic contexts. It is this gap that the present article seeks to address through an exploratory analysis of neighbourhood embeddedness. Neighbourhood embeddedness is conceptualised in accordance with other definitions in the literature (Kohlbacher *et al.,* 2012), that is, by broadening the concept of place attachment to encompass multiple

dimensions of belonging. To operationalize the aforementioned concept a multi-dimensional analytical framework including the following elements was adopted: perceptions of neighbouring, safety and cohesion in the neighbourhood, attachment, strong and weak ties with neighbours and the spatiality and characteristics of the close social network. This approach enables a more nuanced consideration of the complexity inherent in processes of place attachment and neighbouring.

Our analysis is based on survey data collected in the ambit of the GEITONIES project[i] in three multi-ethnic neighbourhoods in the Lisbon Metropolitan Area. We examine the interactions between the aforementioned analytical dimensions through an exploratory factor and cluster analysis and by drawing upon complementary qualitative data from focus groups conducted with local key actors. We will focus on answering the following three questions:

What modes of neighbourhood embeddedness, meaning social relations and place attachment, can be identified in the three case study neighbourhoods?

What role does the neighbourhood environment and compositional factors, including migration background, play in shaping these modes?

Are locally based social networks important in determining neighbourhood attachment?

To contextualise these questions we begin the paper by discussing theoretical and empirical work on place attachment. Leading on from the theoretical discussion, the data, research design and case study areas are detailed. Besides presenting representations of the case study neighbourhoods and identifying the main modes of neighbourhood embeddedness, the analysis is extended to include comparisons across the three urban settings and between the immigrant and indigenous Portuguese populations. Furthermore, in addition to migration background, the importance of other compositional effects on place attachment will be deliberated before a final discussion on the implications of the findings.

II. THE NEIGHBOURHOOD AND PLACE ATTACHMENT

The neighbourhood is oftentimes not easy to delineate. Glaster (2001: 2111) writes that it "is hard to define precisely, but everyone knows it when they see it". In the current context, we are concerned mostly with social and ecological perspectives. Adapting Suttles' (1972) work, Kearns and Parkinson (2001: see table p. 2104) assert that the neighbourhood exists on three different scales: the home area (5 to 10 minutes' walk from one's home) with the primary purpose of providing psycho-social benefits such as identity and belonging; the locality, which is related more to social status and residential activities, through planning activities, service provision and the housing market; and the third, the urban district or region, which encompasses social and economic opportunities in terms of employment and social networks. The meaning of the 'home area', however, needs to be understood in terms of the different scales, places and times that people's social networks might encompass. Thus one's

level of engagement in the other two scales – the locality and the urban district – determines both expectations and levels of engagement in the home area (*ibid.*).

Neighbourhood attachment, complicated somewhat by the multi-scalar nature of the neighbourhood as described previously, has been long-studied in the literature. It is defined as "an affective bond or link between people and specific places" (Hidalgo and Hernandez, 2001: 274) or an emotional or cognitive bond to a specific place (Altman and Low, 1992). Its benefits are generally seen as two-fold in ensuring cohesion at the local level as well as security and identity for individual residents. Giuliani (2003) contends that it enhances people's lives with meaning and in general promotes well-being and health. Still, as pointed out by Bailey *et al.* (2012: 209), it may also have negative effects if being attached to one area inhibits residential mobility to a better house or area. Indeed, those with lower incomes may have limited mobility and rely more on the area in which they live (Livingston *et al*., 2010). Furthermore, recent processes of social transformation in the context of globalisation have, for some authors, cast doubt on the relevance of neighbourhood ties. Placeless or remote social networks have threatened local networks. Furthermore, ethnic diversity and mobility – both daily and residential – have risen changing the nature of the connections people have with places (Savage *et al.,* 2005). Indeed, the importance of the neighbourhood in social network terms will be considered in the current article.

Neighbourhood attachment: Individual and neighbourhood characteristics

The literature distinguishes neighbourhood effects from individual or compositional effects as predictors of attachment. In addition, some studies have also differentiated two types of neighbourhood attachment: physical attachment relating to functional measures and social attachment (Riger and Lavrakas, 1981; Taylor *et al.,* 1985). In this instance, we are primarily concerned with the latter. From an individual perspective, length of residence has consistently been found to be a significant predictor of place attachment (Kasarda and Janowitz, 1974; Giuliani, 2003; Bailey *et al.*, 2012). Other studies have found age, being a homeowner and higher levels of education to have a reinforcing effect (Goudy, 1982; Woolever, 1992; Hidalgo and Hernandez, 2001). Similarly, in their qualitative study on deprived neighbourhoods in England, Livingston *et al.* (2008: 9) found place attachment to be "higher for older people and those who have lived in an area longer, and for those who feel their area has strong social networks or cohesion, and low crime."

Length of residence matters due to the other processes and conditions that it facilitates such as familiarity, a sense of safety and the development of local social relations (Altman and Low, 1992). Indeed, having lived for more time in a neighbourhood is linked to a greater number of stronger ties and a strong psychosocial attachment to the area (Hipp and Perrin, 2006). Kohlbacher *et al.,* (2012) also found close social ties in the neighbourhood to be related strongly to levels of local embeddedness in Vienna and length of residence in selected neighbourhood contexts. Studying residential mobility, Wolpert (1966) and Speare (1974) also stress commu-

nity ties as contributing to a household's decision to remain in their area of residence. Similarly, Andersen (2008) found weak social relations in the neighbourhood and a sense of security to be relevant. Earlier research by Fararo and Skvoretz (1987) concluded that *weak* social ties lead to a greater degree of connectivity and solidarity in the overall network since they take less time and are greater in number. The strength of social ties at the local level has an impact on the ability of individuals to establish trust and identity with the wider community beyond the neighbourhood (Kearns and Forrest, 2000; Putnam 2000; Beryerlein and Hipp, 2005) with strong ties potentially resulting in lower levels of identification. Still, Hipp and Perrin (2006: 2517-2518) found that attachment to the neighbourhood has practically no effect on levels of attachment to the "larger community". On the other hand, weak ties increased both perceived cohesion in the neighbourhood and with the broader community. Livingston *et al.* (2010: 412) contend that, in terms of network elements, social capital in poor neighbourhoods may fortify place attachment given higher levels of bonding capital. On the contrary, those with a higher socio-economic status have higher levels of bridging capital which consists of connections irrespective of place. Moreover, while it is accepted that social networks, leisure connections and other activities are not limited to the neighbourhood, research on residents in low income and ethnic neighbourhoods has suggested that their networks are more locally based (Sampson *et al,.* 2002; Pinkster and Völker, 2009). Therefore, debates about ethnic residential concentration centres around the question on how it may limit opportunities for interethnic social ties to develop (Semyonov and Glickman, 2009) and thus inhibit both structural and cultural integration (Bouma-Doff, 2007).

Bailey *et al.* (2012) found attachment to be lower in more deprived areas and in areas with higher population turnover confirming earlier findings (Sampson, 1988), while, social mix was found to have limited influence for most groups. In contrast, Putnam (2007) drawing on evidence from the US, contends, that in the short term ethnic diversity (and immigration) is inclined to lessen social capital, reducing both in-group and out-group solidarity. In the author's words, "diversity seems to trigger *not* in-group/out-group division, but anomie or social isolation. In colloquial language, people living in ethnically diverse settings appear to "hunker down" – that is to pull in like a turtle" (Putnam, 2007: 149; emphasis in original). Other studies have found that economic deprivation rather than ethnic diversity greatly reduces social capital (Gesthuizen *et al*., 2009; Letki, 2008; Ivarsflaten and Strømsnes, 2010; Sturgis *et al.,* 2011).

III. THE CASE STUDY NEIGHBOURHOODS, SAMPLE AND DATA

In light of the aforementioned issues, this paper explores processes of neighbourhood embeddedness in three multi-ethnic urban settings in Lisbon with the aim of adding to the rather scant literature on this in the Portuguese case. The exploratory empirical reading seeks to identify modes of embeddedness and considers possible

area or compositional effects on perpetuating different forms of attachment by comparing three neighbourhoods and migrant and native groups. The main criteria used to select the areas was related to territorial and demographic factors, namely, ethnic presence, levels of ethnic concentration, population size, neighbourhood type, the built environment and the socio-economic characteristics of the residents. As detailed subsequently, while the areas are extremely different, especially in terms of their function and position in the city, they have commonalities due to immigrant settlement and internal fragmentation along socio-economic and/or ethnic lines. The main characteristics of the areas are summarised in table I.

The first case-study area, Costa da Caparica, is a traditional fishing area on the coast south of the River Tagus, since transformed into a popular second home destination mainly for people living in other parts of the metropolitan area. It is a mixed area in terms of the socio-economic profile of the resident population, the age of buildings and house types, albeit almost two thirds of the housing stock is owner occupied. This heterogeneity is evident in the built environment and the spatial distribution of the population by socio-economic background resulting in fragmentation on a micro scale. The seasonal occupancy, related with the high number of second homes, has resulted in an informal rental sector. Immigrants, particularly those from Brazil, have made use of this and many rent or sublet dwellings in the area. According to the GEITONIES survey, around 38.4% of the population resident in the study area has an immigrant background of which slightly less than two thirds come from Brazil. The native population is predominantly older in comparison with the young immigrant population. The study area is diverse and encompasses several distinct subareas, characteristic of the more fragmented nature of urban areas in southern European cities.

The second area, Monte Abraão, is a dormitory suburb located on the main commuter railway line between Lisbon and Sintra. The areas along this transport route experienced significant population growth over the past 20 years as the city sprawled and underwent late suburban expansion. Thus, due to its more recent development, the resident population in the area is predominantly young and the residential buildings relatively new and privately owned. The average level of education is higher in comparison with the other case study areas. The immigrant population represents approximately 37% of the total population, with the majority originating from Portuguese-speaking African countries (PALOP). Their presence in the area represents an upwardly mobile social trajectory into the suburbs and owner occupancy. On a micro-scale, the area is fractured with immigrants tending to live in specific zones.

The third area, Mouraria / Martim Moniz, is the most diverse of the three neighbourhoods. Indeed, 29 different nationalities are represented in the survey sample of 100 immigrants. This traditional area is located in the vibrant heart of the City of Lisbon on the slopes of the *Castelo de São Jorge*. It is a classic area of reception with a high population turnover. Many of the native population living in the area are elderly rural migrants with no schooling and a smaller number are new

gentrifiers. The internal diversity is evident spatially with immigrants living toward the bottom of the hill, older natives higher up and gentrifiers closer to the castle in the properties that boast the best views. The housing stock is mostly private rented with a very high incidence of overcrowding among immigrants. There is a high vacancy rate in the area and many of the residential buildings are in disrepair. The diversity in the area is visible in the ethnic commerce, places of worship and the ethnic and religious dress of the immigrant inhabitants. For many migrants this area is both their place of residence and work. According to GEITONIES survey data, of the 36.3% of the population with an immigrant background resident in the study area[ii], 25% are from Portuguese-speaking African countries and 22% from Asia.

Table I – Neighbourhood characteristics.
Quadro I – Características dos bairros.

Costa da Caparica	Monte Abraão	Mouraria / Martim Moniz
Suburb (second homes) Migrant presence in the area: 10-15 years Old population (11.2% 14 or <; 20.4% > 65) Education: 35.6% no school or primary and first stage of basic; 32.3% lower secondary	Dormitory suburb Migrant presence in the area: 10-20 years (1990) Young age structure (21.5% aged 14 or <; 3.3% > 65) Education: 36% lower secondary; 24.3% higher secondary	Historic, inner city area Classic area of reception (rural migrants too) Old population (5.5% aged 14<; 28.1% >65 Education: 51% no school or primary and first stage of basic
Owner occupied 63.1%; 30.5% private rented; main period of construction 1960-1980s; mixture of low rise holiday homes (higher rent), high rise and pre-1945 low rise	Owner occupied 84.3%; high rise apartments; equipped; time of construction: 1981-2001	Poor living conditions (plus gentrification) 76% private rented (subletting; low rents)
Population with an immigrant background: 38.4% (GEITONIES estimate), mostly Brazilian (61%)	Population with an immigrant background: 37.5% (GEITONIES estimate); non-EU, mostly PALOP (67.4%)	Population with an immigrant background: 36.3% (GEITONIES estimate); 70.5% non-EU migrants – 25% PALOP; 22% Asian

Source: 2001 Census data, unless otherwise stated.

The sample in each of the areas was selected randomly[iii] and includes 100 Portuguese natives and 100 individuals with an immigrant background[iv], resulting in a total sample of 600 in the Lisbon Metropolitan Area. The survey gathered socio-demographic information on each of the respondents using a biographical approach. In addition, it included thematic sections on neighbourhood cohesion, satisfaction and (interethnic) social relations. A substantial part of the questionnaire was devoted to gathering social network data both on the extended or wider social network of the respondents and close friends. For the latter, name generating questions were asked for up to eight different friends across four different types of contact – spending free time, substantive help, exchanging confidences and advice and other relationships. Furthermore, detailed questions were asked to characterise the intimate contacts of the respondents.

IV. REPRESENTATIONS OF THE NEIGHBOURHOOD

In the preceding section, some objective characteristics of the areas under study were presented, the current section advances to consider subjective representations based on GEITONIES survey results. The neighbourhood was defined quite loosely as the "home space" for the purposes of the survey according to each respondent's subjective boundaries rather than physical demarcations. As such, the "neighbourhood" is represented symbolically and includes perceptions of physical and social spaces.

This analysis is based on the opinion of the respondents on five statements (table II) "I am proud of my neighbourhood", "I care about my neighbourhood", "I enjoy daily exchanges with neighbours", "I would move away from here with pleasure" and "I would miss the people in my neighbourhood if I moved". Responses were measured on a five-point scale: agree strongly (5); agree (4); neither agree nor disagree (3); disagree (2); and disagree strongly (1). A multiple comparison of means test (ANOVA one-way) was employed to determine the significance of differences between the mean values of the responses to each of the four questions by migration background and per neighbourhood of residence (Appendix, tables A and B).

A first glance at table II reveals obvious neighbourhood tendencies across each of the statements. Respondents in Monte Abraão emerge as having the lowest levels of pride and relational attachment and the most pronounced desire to move away. Indeed, around 60% of natives and almost half of the immigrant respondents reported wanting to leave the area – mean = 3.60 and 3.11, respectively (Fonseca and McGarrigle, 2012). Furthermore, more than three quarters of natives and over half of the immigrant respondents contend that they would not miss their neighbours if they moved out of the area. While this may be true, it does not necessarily translate directly into a sense of detachment as the residents still care about the area (mean = 3.60 and 3.74 for natives and immigrants, respectively). Overall, immigrants in the area are more positive than natives, albeit they are less attached than their counterparts in other areas as seen by lower mean scores for all statements except for caring for their neighbourhood.

Generally speaking, there are similarities that can be drawn between Mouraria / Martim Moniz and Costa da Caparica as residents have more positive representations. The primary differences between the areas relate to differences according to immigrant background. In Costa da Caparica, immigrants have more positive representations than natives, yet this tendency is inversed in Mouraria / Martim Moniz (table II).

In general terms, among the immigrant respondents, those in Costa da Caparica have the strongest level of attachment to their neighbourhood. Concurrently, cognitive evaluations of weak ties among neighbours are consistent with behavioural indicators. Indeed, this group, dominated by Brazilians, has the highest level of weak ties seen through the fact that over 60% had engaged in small talk with 21 or more

neighbours over the three months previous to the survey – correspondent with popular representations of Brazilians as convivial. Still, further analysis suggests that strong ties are mostly in-group *(ibid.)*.

On the other hand, native respondents in Martim Moniz tend to have slightly more positive representations than immigrants. Many are elderly long-term residents and others are new gentrifiers who have been attracted to the area by its diversity and vibrancy. Still, there are some specificities relating to the colourful street life, the appropriation of public space and the ethnic commerce in the area that render Mouraria / Martim Moniz distinct. Veritably, local daily exchanges are enjoyed by around three quarters of both immigrants and natives *(ibid.)*.

Table II – Representations of the neighbourhoods: native and immigrant population.
Quadro II – Representações do bairro: população nativa e imigrante.

	Neighbourhood	N		Mean	
		N	I	N	I
I enjoy the daily exchanges with the people in my neighbourhood	Monte Abraão	89	94	3.24	3.40
	Costa da Caparica	98	97	3.65	3.88
	M./Martim Moniz	100	99	3.77	3.67
I would miss the people in my neighbourhood when I moved	Monte Abraão	99	100	2.17	2.71
	Costa da Caparica	99	100	2.89	3.45
	M./Martim Moniz	99	98	3.47	3.17
I care about my neighbourhood	Monte Abraão	100	98	3.60	3.74
	Costa da Caparica	100	100	3.50	3.73
	M./Martim Moniz	100	97	3.79	3.50
I am proud about my neighbourhood	Monte Abraão	100	98	2.59	3.29
	Costa da Caparica	100	100	3.36	3.69
	M./Martim Moniz	99	99	3.58	3.42
I would move away from here with pleasure	Monte Abraão	99	98	3.60	3.11
	Costa da Caparica	100	100	2.39	2.53
	M./Martim Moniz	100	100	2.76	2.82

I* – Immigrant
N** – Native
Range: maximum – 5 (I agree strongly); minimum – 1 (I disagree strongly).
Source: Geitonies Lisbon Survey 2009/2010.

The mean response values are statistically significant between migrant and native groups, shown by the results of the analysis of variance (ANOVA one-way), for all statements except for caring about the neighbourhood (table A in the appendix).

Looking at multiple comparisons between mean response values across neighbourhoods using Tukey HSD Post Hoc Test, one can observe interesting results (table B in the appendix). For natives, there are statistically significant differences across all pairs of neighbourhoods for each respective indicator, except for sense of

pride, enjoying daily exchanges and moving away with pleasure between Mouraria / Martim Moniz and Costa de Caparica. The same analysis for immigrants reveals some notable differences. Significant differences between mean response values can be seen for all questions between Costa da Caparica and Monte Abraão, even if for sense of pride it is at the 0,05 level, and, finally, between Mouraria / Martim Moniz and Monte Abraão for mean responses to "I would miss the people in my neighbourhood if I moved" at the 0,05 level.

V. THE MAIN DIMENSIONS OF NEIGHBOURHOOD EMBEDDEDNESS

Following the previous contextual analysis on representations and attachment, this section advances to explore how these aspects interact with actual social contacts, in the form of both strong and weak ties. To accomplish this, 18 variables were selected and grouped into four analytical dimensions.

(i) Assessment of relations, safety and cohesion in the neighbourhood;
(ii) Attachment to the neighbourhood;
(iii) Concrete contacts in the neighbourhood; and
(iv) Intimate social networks.

Factor analysis was conducted, employing the 18 variables, to identify the main factors structuring daily relations among the sample population in the case study areas. Neighbourhood embeddedness is measured here using a combination of variables that represent emotional and affective bonds rather than functional bonds (table III). These indicators will enable us to assess differing levels of embeddedness in the social structure of the case study neighbourhoods.

After excluding cases due to missing values 455 respondents were included in the analysis. Six factors were selected,[v] which combined explain 62% of the total variance (table IV).

The first factor – neighbourhood-centred social network – relates to the spatiality of the respondents' intimate social network and situates it inside the area of residence. It explains 14.7% of the variance and is defined by four variables: the share of friends living locally with whom the respondent spends free time and exchanges advice and help with and the share of their most intimate contacts met in the area of residence.

The second factor – neighbourhood satisfaction and attachment – explains 13.6% of the variance. The variables with the highest loadings relate to attachment, pride and caring for the area, and the residents, including enjoying daily exchanges and missing them if they moved away.

Table III – Variables selected for factor analysis.
Quadro III – Variáveis seleccionadas para a análise factorial.

Dimension	Question	Range	
		Max	Min
Assessment of the relations, safety and cohesion in the neighbourhood	The people in my neighbourhood make me feel safe here	5 (I agree strongly)	1 (disagree strongly)
	I feel threatened because of the behaviour of people in my neighbourhood	5 (I agree strongly)	1 (disagree strongly)
	I enjoy the daily exchanges with the people in my neighbourhood	5 (I agree strongly)	1 (disagree strongly)
	Mostly I have no clue who they are	5(I agree strongly)	1 (disagree strongly)
	I know neighbours by name and where they live	5 (I agree strongly)	1 (disagree strongly)
	Most people in the neighbourhood try to be helpful	5 (I agree strongly)	1 (disagree strongly)
Attachment to the neighbourhood	I care about my neighbourhood	5 (I agree strongly)	1 (disagree strongly)
	I am proud of my neighbourhood	5 (I agree strongly)	1 (disagree strongly)
	I would miss the people in my neighbourhood if I moved	5 (I agree strongly)	1 (disagree strongly)
Concrete contacts in the neighbourhood	Global current network: spending free time with people living in the neighbourhood	7 (all of them)	1 (None of them)
	Global current network: confidentiality and advice people living in the neighbourhood	7 (all of them)	1 (None of them)
	Global current network: helping out people living in the neighbourhood	7 (all of them)	1 (None of them)
	During the last three months I exchanged small talk with	5 (21 & more)	1 (None)
	During the last three months I visited/I welcomed at home	5 (21 & more)	1 (None)
	During the last three months I exchanged small talk with immigrants/natives (% of total exchanges)	-	-
Intimate social network	Share of most important contacts met in the neighbourhood of residence		
	Share of interethnic relations in individual social network (Most important contacts)		
	Share of most important contacts met as relatives		

Source: Geitonies Lisbon Survey 2009/2010

Table IV – Rotated component matrix – factor analysis.
Quadro IV – Matriz de factores rodada.

Variables	**F. I** – neighbourhood-centred social network	**F. II**- neighbourhood satisfaction and attachment	**F. III** – familiarity with neighbours	**F. IV** – neighbourhood security	**F. V** – interethnic relations	**F. VI** –family-based social network and close interactions with neighbours
Confidentiality and advice, share of wider social network living in the neighbourhood	0.841	0.035	0.014	-0.015	-0.075	0.047
Helping out, share of wider social network living in the neighbourhood	0.800	0.074	-0.004	0.009	-0.015	0.131
Spending free time, share of wider social network living in the neighbourhood	0.799	0.081	0.074	0.053	-0.064	-0.046
Share of most important contacts met in the neighbourhood	0.628	0.125	0.265	-0.022	-0.112	-0.354
Over the last three months I visited/welcomed at home	0.272	0.072	0.233	-0.081	0.193	0.654
Over the last three months exchanged small talk with	0.241	0.307	0.394	0.011	0.166	0.134
I would miss the people in my neighbourhood when I moved	0.144	0.690	0.273	0.055	0.045	-0.073
I am proud of my neighbourhood	0.135	0.682	0.114	0.251	0.002	0.022
I know most of them by name and I know where they live	0.087	0.136	0.862	-0.003	-0.112	-0.018
I enjoy the daily exchanges with the people in my neighbourhood	0.041	0.715	0.154	0.21	0.001	-0.068
I care about my neighbourhood	0.013	0.687	-0.056	-0.22	-0.004	0.133
The people in my neighbourhood make me feel safe here	-0.004	0.419	0.1	0.707	-0.041	0.032
Mostly I have no clue who they are	-0.007	-0.147	-0.864	-0.133	0.005	-0.002
I feel threatened because of the behaviour of people in my neighbourhood	-0.028	-0.002	-0.025	-0.857	-0.042	-0.013
People in the neighbourhood try to be helpful	-0.032	0.431	0.099	0.299	-0.097	-0.314
Number of close interethnic friendships	-0.077	0.004	0.057	-0.045	0.805	-0.119
Share of people who exchanged small talk with from another origin	-0.113	-0.001	-0.113	0.055	0.762	0.118
Share of most important contacts met as relatives (direct or not)	-0.261	-0.047	-0.113	0.14	-0.269	0.623
Rotation Sums of Squared Loadings						
Total	2.649	2.457	1.939	1.535	1.416	1.137
% of Variance	14.718	13.65	10.773	8.53	7.869	6.316
Cumulative %	14.718	28.368	39.141	47.671	55.54	61.856

Source: Geitonies Lisbon Survey 2009/2010. Method: Principal Component Analysis, Varimax, Kaiser Normalization. N=455. Loadings above 0.50 are displayed in grey.

The third factor – familiarity with neighbours – relates to the level of knowledge respondents have of their neighbours and the degree of familiarity among neighbours – and explains 10.7% of the variance. This is principally cognitive and does not include measures of actual behaviour in terms of social interactions between neighbours. The variables with the highest loadings are "I know most residents in the neighbourhood by name and where they live" and "Mostly I have no clue who the residents are".

The fourth factor – neighbourhood security – explains 8.5% of the variance, and transmits the emotional reaction of the respondents to the behaviour of fellow residents. It includes a positive and a negative affirmation: "The people in my neighbourhood make me feel safe here" and "I feel threatened because of the behaviour of people in the neighbourhood".

The fifth factor – interethnic relations – is defined by both weak and strong interethnic ties. It includes an indicator of superficial contact, namely exchanging small talk with residents from a different origin as well as having close interethnic friends. This factor explains 7.8% of the variance.

The final factor – family-based social network and close interactions with neighbours – explains 6.3% of the variance. This factor denotes the importance of family members in the close social network and more intimate interactions with neighbours in the private sphere (home visits).

An analysis of variance (ANOVA) of the mean scores for each factor, by migration background, shows that there are statistically significant differences between the Portuguese respondents and those of immigrant origin at the 1% level, for factors IV (Neighbourhood security) and V (Inter-ethnic relations). Significant differences can also be seen at the 5% level for factor II (Neighbourhood satisfaction and attachment). These results are in accordance with the descriptive analysis of the data which, generally speaking, found that immigrants assess safety more positively than natives, tend to have more interethnic relations and are more attached to the neighbourhood of residence (Fonseca and McGarrigle, 2012).

VI. EXPLORING THE MODES OF COEXISTENCE AND NEIGHBOURHOOD EMBEDDEDNESS

In the previous section, the results of the factor analysis enabled us to reduce the variables pertaining to neighbourhood embeddedness into six clear dimensions of social interaction and attachment in the three case study areas. This section advances to develop typologies that characterize the different levels of neighbourhood embeddedness and modes of coexistence present among our sample population. We used cluster analysis (K-means) to define groups of individuals who share similar scores in the six factors extracted. As a result five clusters were identified with the number of cases per cluster ranging from 75 to 101. One-way ANOVA was used to test for differences in each factor among the five clusters. As can be observed in

table C in the appendix, the scores of the factors differ significantly across the five groups.

Cluster one denotes very low neighbourhood embeddedness and is characterized by high levels of insecurity. The mean score of factor IV in this cluster presents a significant difference in relation to all other factors (sig. = 0.000 for all pairs). While insecurity is expressed principally at the cognitive level with respondents feeling threatened by the behaviour of other residents, it also extends to the behavioural level and is reflected in the fact that the social networks of this cluster are developed outside the neighbourhood. The mean score for factor II is negative and also significantly different from the other clusters meaning that respondents classified in this cluster are not satisfied or attached to the area.

Cluster two is defined by a low level of embeddedness at the local level, namely low levels of attachment. The highest levels of dissatisfaction can be found in this cluster when compared with the others. However, this discontentment does not extend to feelings of insecurity or fear. Respondents tend to disagree more with the following type of statements: "I enjoy the daily exchanges with people in my neighbourhood", "I care about my neighbourhood", "I am proud of my neighbourhood" and "I would miss the people in my neighbourhood when I moved". The lack of emotional bonds characteristic of this group at the local level is also reflected in more geographically dispersed close social networks (table V).

Cluster three indicates a medium level of embeddedness. It is similar to the first two clusters in that friendship networks tend to be located outside the neighbourhood, yet it differs substantially in terms of levels of embeddedness. Place attachment features quite strongly, in fact, this group is the most satisfied with the area of residence and also has the highest mean score in factor III which relates to familiarity with neighbours. The respondents represented in this cluster, therefore, are content with the area in which they live and with fellow inhabitants, yet have a more spatially versatile social network as their intimate friends tend to live elsewhere.

Cluster four is defined by medium to high neighbourhood embeddedness. This cluster is distinct from cluster three as those classified in this group have high mean scores for factor VI. Thus, the private sphere features as an important place to socialise with neighbours. The private spatiality of the network is reinforced by the centrality of relatives as elements in the social network. Despite being attached to the neighbourhood and enjoying daily interactions, this group is not familiar with neighbours. Indeed, they disagree with statements like, "I know most of them by name and where they live" and "I have no clue who they are".

Cluster five denotes high but exclusive neighbourhood embeddedness. This cluster is unique as wider social networks are concentrated at the local level. Furthermore, the neighbourhood was also an important meeting place for intimate contacts (those identified by name generating questions). At the same time, however, local interactions appear to be confined to close friends as mean scores for factors relating to familiarity with neighbours and attachment both to the residents and the place are very low.

Table V – Mean distribution of the scores in each factor, per cluster.
Quadro V – Média dos scores em cada factor, por agrupamento.

	Factor scores (mean in each cluster group)					
Cluster number (size of cluster)	**F. I** – neighbourhood-centred social network	**F. II** – neighbourhood satisfaction and attachment	**F. III** – familiarity with neighbours	**F. IV** – neighbourhood security	**F. V** – interethnic relations	**F. VI** – family-based social network and close interactions with neighbours
1 (75)	-0.345	-0.499	-0.273	-1.448	0.012	-0.184
2 (93)	-0.579	-0.934	-0.244	0.673	-0.129	-0.07
3 (95)	-0.681	0.683	0.862	0.094	0.108	-0.409
4 (91)	0.073	0.491	-0.563	0.322	0.277	1.121
5 (101)	1.364	0.146	0.123	0.078	-0.241	-0.423

Source: Geitonies Lisbon Survey 2009/2010.

Bearing in mind the second of our initial questions, on the role played by the neighbourhood environment and migration background in shaping modes of embeddedness, we now analyse the distributions of the different modes of embeddedness across case study areas and background groups.

While one can observe significant area differences, in terms of modes of embeddedness, it is difficult to present one account for each neighbourhood as there is a high degree of internal heterogeneity among the population resident in each area (table VI). Residents of Costa da Caparica display the highest levels of embeddedness with over a quarter represented in mode 4 and 5 and only 7.5% with very low levels of embeddedness. Albeit almost one fifth of respondents display medium levels of embeddedness and the same share again are represented in mode 2 which denotes a low level of embeddedness.

This is in clear contrast with the dormitory suburb of Monte Abraão where over half of the resident population surveyed have very low or low levels of neighbourhood embeddedness. A further 23% of respondents display medium to high levels of embeddedness (mode 4), meaning they socialise mainly in the private sphere, and while satisfied they are less familiar with their neighbours on the whole.

Lastly, Mouraria, the most diverse area in ethnic and socio-demographic terms, is distinct due to the heterogeneity of the resident population. Almost one third of respondents are represented in mode 3, whilst the rest of the population is polarised at the two extremes. Indeed, over 28% are highly embedded, albeit in exclusive circles and 18.2% are represented in mode 1 which signifies a very low level of embeddedness and insecurity.

Table VI – Modes of coexistence by neighbourhoods (%).
Quadro VI – Modos de coexistência em cada bairro (%).

Level of embeddedness	Costa da Caparica	Monte Abraão	Mouraria/ Martim Moniz
Mode 1 – very low	7.5	**25.7**	**18.2**
Mode 2 – low	21.8	**27.1**	11.7
Mode 3 – medium	19.5	11.8	**32.1**
Mode 4 – medium to high	**25.9**	22.9	9.5
Mode 5 – high	**25.3**	12.5	**28.5**
Total	100	100	100
Total abs.	174	144	137

Source: Geitonies Lisbon Survey 2009/2010.

The internal heterogeneity of the modes of embeddedness of the residents in each area is more acutely evident when the results are disaggregated by migration background (table VII).

While at the general level residents of Costa da Caparica are most highly embedded in the neighbourhood, immigrants are more so. Indeed, less than 17% of the latter group displays either low or very low levels of embeddedness. The largest share of immigrants (over 32%) is represented in mode 4 denoting medium to high embeddedness. As such, socialising occurs with neighbours, mostly co-ethnics, in the private sphere, meaning that familiarity with other residents is limited. Nonetheless, these respondents are satisfied with daily interactions and are attached to the area. Moreover, they are well represented in mode 3 and mode 5, 22 and 24% respectively.

Table VII – Modes of embeddedness by neighbourhood and migration background (%).
Quadro VII – Integração no bairro de residência: imigrantes e nativos (%).

	Costa da Caparica		Monte Abraão		Mouraria/ Martim Moniz	
	I*	N**	I	N	I	N
Mode 1 – very low	4.7	10.2	17.9	**32.5**	14.3	21.6
Mode 2 – low	11.6	**31.8**	20.9	**32.5**	19.0	5.4
Mode 3 – medium	**22.1**	17.0	9.0	14.3	**31.7**	**32.4**
Mode 4 – medium to high	**37.2**	14.8	**40.3**	7.8	14.3	5.4
Mode 5 – high	**24.4**	**26.1**	11.9	13.0	20.6	**35.1**
Total	100	100	100	100	100	100

I* – Immigrant
N** – Native
Source: Geitonies Lisbon Survey 2009/2010.

In contrast, however, while the indigenous population living in the area is represented principally in mode 2 characterised by low embeddedness (31.8%), they are quite polarised with 26.1% represented in the highest mode of embeddedness.

The segmentation of the native population reflects to a large extent the socio-spatial fragmentation at a micro level in the area. Long-term residents living in the traditional fishing area, clearly identifiable through the characteristics of the built environment, are contrasted with residents who have relatively higher levels of education resident in newer parts of the neighbourhood. Furthermore, the local key actors who participated in the focus group highlighted the importance of the regional divisions that are maintained between the native population who migrated internally from the north and south of the country.

Despite the proximity in terms of socio-economic status between natives and migrants in Monte Abraão, there are clear contrasts in terms of the modes in which they are represented. The majority of natives (65%) display a low level of attachment to the neighbourhood compared with 38% of immigrants – higher than equivalent values for immigrants in the other areas. The local key actors expressed some surprise at this as they had assumed that immigrants would be more attached to the area, whereas they expected natives to feel unsafe and have fewer connections due to the increasing ethnic mix of the area. In spite of this, the largest share of immigrant respondents in Monte Abraão (40.3 %), for the most part from Portuguese-speaking African countries, is represented in mode 4 which denotes a medium to high level of embeddedness. Thus, social interactions with neighbours are confined mostly to the private sphere and weak ties limited, which may potentially undermine neighbourhood cohesion.

As mentioned previously, over two-thirds of natives are represented in the bottom two modes (mode 1 and 2). The most important distinction between these modes is sense of security. The first group (32.5%) feels insecure and threatened by the behaviour of neighbours, while levels of general satisfaction are lower. The second group is more or less inversed with high dissatisfaction and low levels of insecurity. Both groups have developed their social networks entirely outside the area representative of high levels of mobility associated with commuting. The differences between natives and immigrants in this area can, in part, be explained by the significance that the neighbourhood has as a status marker. For natives, satisfaction has diminished over time in line with the perceived worsening reputation of the area due to immigrant presence (Fonseca and McGarrigle, 2012). On the contrary, moving into the area and into owner occupancy represents upward social mobility for some of the immigrants surveyed. According to key actors, young immigrant families were attracted to the most recently built part of the area, which has resulted in a degree of physical separation. Given that a greater choice, in residential terms, was exercised when buying in this area, one may have expected levels of attachment to be higher. Local key actors blamed the built environment, namely high-rise buildings and the lack of public spaces and commerce as well as the dormitory nature of the area for the paucity of local social ties.

In Mouraria, there is a degree of convergence between natives and migrants as almost one third of each group is represented in mode 3 with a medium level of embeddedness. The share of the immigrant population that is represented in the modes

denoting lower levels of embeddedness (modes 1 and 2) is intermediary with respect to the other areas. Yet, given the higher share with medium levels of embeddedness they are underrepresented in comparative terms in modes characterised by high levels of embeddedness. Indeed, it is the only place in which the sum of modes 1 and 2 is greater for immigrants than for natives. The fact that the area is an entry point for migrants coming to the city and the subsequent high population turnover is a likely explanation. Thus, bonds may not be particularly strong as transience is high.

On the whole, while natives are dispersed across modes, they are more highly embedded when compared to their counterparts in other areas – 35.1% are represented in mode 5. Likewise, the percentage represented in the bottom two modes is considerably smaller. Still, a substantial number of respondents do not feel safe in the area (mode 1). The heterogeneity of levels of attachment of native respondents, like in Costa da Caparica, reflects the social and residential differences within the group, evident in the internal spatial organisation of the area. In the words of one of the local key actors,

> "*There are two very distinct Mourarias… The buildings and the population, everything is different (between the two*)".
>
> (Local key actor, Mouraria)

It is clear from the multiplicity of modes represented per area that the neighbourhood itself does not influence the levels of attachment that residents develop in the same way, that is, the neighbourhood effect is not the same for all residents. This is exacerbated in the three Lisbon case study areas by the internal fragmentation of the areas on a very micro scale. In general terms, natives are less attached to their place of residents than immigrants, and in the context of ethnicization, more often evaluate its evolution negatively (Fonseca and McGarrigle, 2012). An exception to this is Mouraria, where older natives who feel insecure in the area are contrasted with gentrifiers who tend to value the cultural diversity, yet live slightly beyond its reach in refurbished properties closer to the castle.

VII. MODES OF COEXISTENCE: NEIGHBOURHOOD AND COMPOSITIONAL EFFECTS

Besides neighbourhood effects, compositional effects have been rendered important predictors of attachment. In our analysis of the relationship between levels of embeddedness and individual factors we found divergent patterns. Indeed, age and sex, proven to be important predictors in other studies, are not significant here (Goudy, 1982; Hidalgo and Hernandez, 2001). The same can be said for belonging to a religion and family status. Education level is insignificant for all groups except natives living in the dormitory suburb of Monte Abraão. The relationship, however, is inversed, compared with other findings (Woolever, 1992), as those with higher

levels of education are less embedded, perhaps representative of a disconnection between social identity and belonging in the context of the shifting socio-ethnic composition of the area. Length of residence is only significant for immigrants living in Martim Moniz (table VIII), likely an effect of the super-diversity of this inner-city area. Integration into existing social structures may be easier when levels of diversity are lower and similarities between group members greater.

Table VIII – Association between neighbourhood embeddedness and individual features: immigrants (I) and natives (N).
Quadro VIII – Relação entre as características individuais e a integração no bairro de residência: imigrantes e nativos.

	Costa da Caparica		Monte Abraão		Mouraria/ Martim Moniz	
	I*	N**	I	N	I	N
Socio-demographic factors						
Age (years)[2]	n.s	n.s	n.s	n.s.	n.s.	n.s.
Sex[3]	n.s.	n.s	*	n.s.	n.s.	n.s.
Belonging to a religion[3]	n.s	n.s	n.s	n.s.	n.s.	n.s.
Having a partner[3]	n.s.	n.s	n.s	n.s.	n.s.	n.s.
Having children[3]	n.s.	n.s	n.s	n.s.	n.s.	n.s.
Education[2]	n.s	n.s.	n.s.	- 0.190*	n.s.	n.s.
Length of residence in the NoR[2]	n.s	n.s.	n.s	n.s.	0.253*	n.s.
Close social relations						
Number of close friends[2]	n.s.	n.s.		n.s.	-0.253*	n.s.
Share of close friends living in the same neighbourhood[2]	0.475**	0.509**	0.439**	0.406**	0.425**	0.506**
Number of interethnic relationships[2]	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.

* To calculate the Kendall rank correlation the variable neighbourhood embeddedness was coded as follows: 1 – Neighbourhood insecurity and dissatisfaction, very low embeddedness (Mode 1); 2 – Weak embeddedness and NoR indifference (Mode 2); 3 – Medium embeddedness (Mode 3); 4 – Medium/High embeddedness (Mode 4); 5 – High embeddedness (Mode 5).
* : Significant at the 0.05 level; ** : Significant at the 0.01 level; n.s.: not significant.
2 : Kendall tau b.
3 : Cross tabulation and c2 significance
I* – Immigrant
N** – Native
Source: GEITONIES Lisbon survey, 2009/2010.

Thus, in this case, our results suggest that socio-demographic characteristics are not important predictors of neighbourhood embeddedness or attachment. On the other hand, locally-based social networks and the presence of strong ties in the area contribute clearly to levels of neighbourhood attachment. This is unequivocal across all case study areas and independent of migration background, reiterating the findings of Kohlbacher *et al.* (2012). Likewise, earlier studies on residential mobility also stress community ties as offsetting a decision to move (Wolpert, 1966; Speare, 1974). We know that social relations provide a crucial supply of support (Granovetter,

1995). However, in this instance we do not know if the nature of social relations among residents in our case study areas is expressive or instrumental (Lin, 2001).

The importance of strong ties in producing high levels of embeddedness is underlined again in the following table (table IX). The share of respondents, regardless of migration background, who have no close friendships with residents living locally decreases as levels of embeddedness increase. Certainly, most respondents with high levels of attachment have close friends in the neighbourhood, albeit mostly in-group. While in general terms, this tendency is evident among natives in Monte Abraão, a higher percentage (20%) of respondents with high levels of embeddedness do not have close friends in the area reflecting higher levels of daily mobility. Recent increases in population turnover might also explain this as close friends first met in the neighbourhood may well have since moved on. Interestingly, of the natives highly embedded in their neighbourhood, a higher share of those in Monte Abraão has developed interethnic relations (10%). Similarly, immigrant respondents in Monte Abraão with medium to high levels of attachment have higher shares of interethnic relations.

Table IX – Neighbourhood embeddedness and interethnic relations in the neighbourhood (%).
Quadro IX – Integração no bairro e relações interétnicas (%).

Close relations in the neighbourhood	Low		Medium		High	
	I*	N**	I	N	I	N
Costa da Caparica						
None	63.6	71.2	18.8	46.2	0.0	0.0
Only with co-ethnics	33.3	25.0	68.8	46.2	81.0	100.0
Interethnic	3.0	3.8	12.5	7.7	19.0	0.0
Monte Abraão						
None	84.4	78.7	59.3	33.3	0.0	20.0
Only with co-ethnics	6.3	18.0	14.8	66.7	62.5	70.0
Interethnic	9.4	3.3	25.9	0.0	37.5	10.0
Mouraria/Martim Moniz						
None	65.9	65.9	55.6	75.0	7.7	3.8
Only with co-ethnics	17.1	31.8	44.4	25.0	76.9	96.2
Interethnic	17.1	2.3	0.0	0.0	15.4	0.0

I* – Immigrant
N** – Native
Source: GEITONIES Lisbon survey, 2009/2010.

Thus, close social ties in the neighbourhood appear to positively influence attachment. In spite of this, it is important to keep in mind the fifth of natives in Monte Abraão who despite being highly embedded in the area had no close ties there. This may indicate that in certain neighbourhood contexts, especially dormitory ones, where mobility and socio-economic status are higher strong ties may be less important.

VIII. FINAL REMARKS

In this exploratory study we have found the nature and level of embeddedness that the residents of our case study areas display to be extremely heterogeneous. Whilst common measures of neighbourhood attachment were employed, we also used the respondents' assessment of neighbouring relations, safety and cohesion as well as behavioural indicators measuring concrete contacts and their development at the local level. The results of this exploratory analysis highlight the diverse ways in which processes of neighbourhood attachment are experienced. In line with the primary objective we identified five modes of embeddedness, ranging from mode 1 denoting very low levels of embeddedness to mode 5 representing high embeddedness. The modes identified reveal the complexity involved in the study of neighbourhood embeddedness. The differences between the top and bottom modes illustrate this well. Mode 1 is characterised by a sense of insecurity in the neighbourhood, whereas the cluster of respondents represented in mode two feel safe but are much less satisfied. The top mode is differentiated by the fact that while the close friends of the respondents in this cluster reside locally and comprise an important support network, they are not familiar with neighbours in general terms. This in some ways may represent a "hunkering down" into tight and exclusive networks rather than embracing the social change that has served to transform each of the neighbourhoods over recent years.

Evidence presented suggests that, in this specific case, the effect of the neighbourhood on determining attachment is not uniform. The heterogeneous distribution of respondents across clusters in each area illustrates this. Furthermore, the internal fragmentation of each of the study areas makes such an effect difficult to measure. The same can be said for migrant background, albeit there are some general tendencies that can be pointed out. Indeed, immigrants on the whole are more attached, likely due to immigrant support networks that have developed locally. Still, this trend is less clear cut in Mouraria, where there appear to be two effects at play. The first is the heterogeneity of the native population with older natives subjected to the rapid growth in ethnic diversity in the area compared to the select group of gentrifiers who *chose* the area precisely for this reason. Secondly, immigrants in Mouraria were the only group studied for which length of residence contributed to levels of attachment, suggesting, in support of recent theory on local social capital, that greater diversity may slow down the development of bonds.

In terms of compositional or individual effects, socio-demographic characteristics proved to be of little relevance in predicting levels of attachment. Select socio-demographic variables were only relevant in a couple of cases. Granting that many classical studies conclude to the contrary, Parkes *et al.* (2002) found neighbourhood perceptions to be more important than socio-demographic effects on area dissatisfaction. On the other hand, in the present study, social ties were found to profoundly influence neighbourhood embeddedness supporting the findings of Kohlbacher *et al.* (2012), in their study on Vienna. The importance of locally-based

social networks in creating high levels of embeddedness suggests that psychosocial factors are central to attachment especially in traditional areas where residents may be less mobile. Nonetheless, it is important to highlight that among some groups and in certain neighbourhood contexts, especially dormitory ones, where mobility is necessarily greater, local social ties may be less important in determining higher levels of embeddedness. Finally, high levels of embeddedness and local social ties may not perpetuate greater cohesion but may take the form of privatised in-group relations.

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[i] Please find a description of the GEITONIES project in the introductory chapter of this special issue.

[ii] Estimated according to GEITONIES data.

[iii] An inventory of addresses was generated and residential units were randomly selected, within each household the interviewee was randomly selected from household members aged 25 or older using the birthday method.

[iv] The concept of "immigrant background" adopted in the GEITONIES survey refers to a person who has at least one parent born outside the country of residence.

[v] Each with an Eigenvalue of 1 or more after Varimax Rotation.

APPENDIX

Table A – ANOVA one-way.
Quadro A – ANOVA a um factor.

		Natives					Immigrants				
		Sum of Squares	df	Mean Square	F	Sig.	Sum of Squares	df	Mean Square	F	Sig.
I am proud about my neighbourhood	Between Groups	54.355	2	27.178	22.518	**.000**	8.017	2	4.008	3.255	**.040**
	Within Groups	357.250	296	1.207			361.990	294	1231		
	Total	411.605	298				370.007	296			
I care about my neighbourhood	Between Groups	4.340	2	2.170	2.373	.095	3.522	2	1.761	1.846	.160
	Within Groups	271,590	297	.914			278.580	292	.954		
	Total	275.930	299				282.102	294			
I enjoy the daily exchanges with the people in my neighbourhood	Between Groups	13.949	2	6.975	7.663	**.001**	11.156	2	5.578	6.156	**.002**
	Within Groups	258.476	284	.910			260.047	287	0.906		
	Total	272.425	286				271.203	289			
I would miss the people in my neighbourhood when I moved	Between Groups	84.424	2	42.212	27.230	**.000**	27.955	2	13.977	8.000	**.000**
	Within Groups	455.758	294	1.550			515.391	295	1.747		
	Total	540.182	296				543.346	297			
I would move away from here with pleasure	Between Groups	77.243	2	38.622	23.064	**.000**	16.779	2	8.390	5.098	**.007**
	Within Groups	495.666	296	1.675			485.435	295	1.646		
	Total	572910	298				502.215	297			

Table B – Turkey HSD Post Hoc Tests – Multiple Comparisons.
Quadro B – Teste Post-Hoc de Comparações Múltiplas de Turkey HSD.

Dependent Variable	Neighbourhoods		Natives: Mean Difference (I-J)	Natives: Std. Error	Natives: Sig.	Natives: 95% Confidence Interval Lower Bound	Natives: 95% Confidence Interval Upper Bound	Immigrants: Mean Difference (I-J)	Immigrants: Std. Error	Immigrants: Sig.	Immigrants: 95% Confidence Interval Lower Bound	Immigrants: 95% Confidence Interval Upper Bound
I enjoy the daily exchanges with the people in my neighbourhood	MA[1]	CC	**-.40587***	**.13969**	**.011**	-.7350	-.0768	**-.48234***	**.13777**	**.002**	-.8069	-.1578
		M/M	**-.52281***	**.13902**	**.001**	-.8504	-.1953	**-.27251**	**.13708**	**.117**	-.5955	.0504
	CC[2]	MA	**.40587***	**.13969**	**.011**	.0768	.7350	**.48234***	**.13777**	**.002**	.1578	.8069
		M/M	-.11694	.13560	.664	-.4364	.2026	.20983	.13599	.272	-.1106	.5302
	M/M[3]	MA	**.52281***	**.13902**	**.001**	.1953	.8504	.27251	.13708	.117	-.0504	.5955
		CC	.11694	.13560	.664	-.2026	.4364	-.20983	.13599	.272	-.5302	.1106
I would miss the people in my neighbourhood when I moved	MA	CC	**-.72727***	**.17697**	**.000**	-1.1441	-.3104	**-.74000***	**.18693**	**.000**	-1.1803	-.2997
		M/M	**-1.30303***	**.17697**	**.000**	-1.7199	-.8862	**-.46347***	**.18788**	**038**	-.9060	-.0209
	CC	MA	**.72727***	**.17697**	**.000**	.3104	1.1441	**.74000***	**.18693**	**.000**	.2997	1.1803
		M/M	**-.57576***	**.17697**	**.004**	-.9926	-.1589	.27653	.18788	.306	-.1660	.7191
	M/M	MA	**1.30303***	**.17697**	**.000**	.8862	1.7199	.46347*	.18788	.038	.0209	.9060
		CC	**.57576***	**.17697**	**.004**	.1589	.9926	-.27653	.18788	.306	-.7191	.1660
I am proud about my neighbour-hood	MA	CC	**-.77000***	**.15537**	**.000**	-1.1360	-.4040	**-.39408***	**.15772**	**.035**	-.7656	-.0225
		M/M	**-.99586***	**.15576**	**.000**	-1.3628	-.6290	-.12832	.15812	.696	-.5008	.2441
	CC	MA	**.77000***	**.15537**	**.000**	.4040	1.1360	**.39408***	**.15772**	**.035**	.0225	.7656
		M/M	-.22586	.15576	.317	-.5928	.1410	.26576	.15732	.211	-.1048	.6363
	M/M	MA	**.99586***	**.15576**	**.000**	.6290	1.3628	.12832	.15812	.696	-.2441	.5008
		CC	.22586	.15576	.317	-.1410	.5928	-.26576	.15732	.211	-.6363	.1048
I would move away from here with pleasure (recoded)	MA	CC	**1.21606***	**.18347**	**.000**	.7839	1.6482	**.58224***	**.18234**	**.004**	.1527	1.0118
		M/M	**.84606***	**.18347**	**.000**	.4139	1.2782	.29224	.18234	.246	-.1373	.7218
	CC	MA	**-1.21606***	**.18347**	**.000**	-1.6482	-.7839	**-.58224***	**.18234**	**.004**	-1.0118	-.1527
		M/M	-.37000	.18301	.109	-.8011	.0611	-.29000	.18141	.248	-.7173	.1373
	M/M	MA	**-.84606***	**.18347**	**.000**	-1.2782	-.4139	-.29224	.18234	.246	-.7218	.1373
		CC	.37000	.18301	.109	-.0611	.8011	.29000	.18141	.248	-.1373	.7173

MA – Monte Abraão; CC – Costa da Caparica; M/M – Mouraria / Martim Moniz
*. The mean difference is significant at the 0.05 level

Table C – ANOVA one- way of the scores in each factor, per cluster.
Quadro C – ANOVA a um factor, dos sores factoriais nos 5 agrupamentos.

		Sum of Squares	df	Mean Square	F	Sig.
REGR factor score 1	Between Groups	272.511	4	68.128	168.923	.000
	Within Groups	181.489	450	.403		
	Total	454.000	454			
REGR factor score 2	Between Groups	168.170	4	42.042	66.190	.000
	Within Groups	285.830	450	.635		
	Total	454.000	454			
REGR factor score 3	Between Groups	112.060	4	28.015	36.868	.000
	Within Groups	341.940	450	.760		
	Total	454.000	454			
REGR factor score 4	Between Groups	210.139	4	52.535	96.943	.000
	Within Groups	243.861	450	.542		
	Total	454.000	454			
REGR factor score 5	Between Groups	15.468	4	3.867	3.968	.004
	Within Groups	438.532	450	.975		
	Total	454.000	454			
REGR factor score 6	Between Groups	151.342	4	37.835	56.255	.000
	Within Groups	302.658	450	.673		
	Total	454.000	454			