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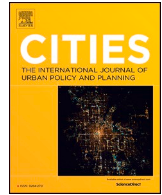

Ethnic closure and immigrant residential segregation in Spanish working-class neighbourhoods☆

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ABSTRACT

Given the difficulties of integration of the immigrant population and the demographic importance that this population is set to have in European society, this research uses an initial territorial approach and a subsequent qualitative analysis to study the internal residential dynamics of immigrants in five Spanish working-class neighbourhoods with a significant presence of foreign-born people. The analysis focuses on the role that ethnic prejudice and other factors, such as social class, play in the processes of initiation and maintenance of residential segregation of the immigrant population. Our results show a residential division characterised by advantages for the native population and, especially, by the acceptance of inequality by the immigrant population, which may be contributing to the fact that levels of ethnic prejudice from the native population are, so far, not very high in these neighbourhoods.

1. Introduction

Numerous recent studies have analysed the significant phenomenon of increasing social polarisation and residential segregation in European cities (van Ham et al., 2021). Indeed, some authors speak of a model of the divided city that, worryingly, is spreading across European countries (OECD, 2018). Other studies have argued that this process of increasing social inequality is widespread at the global level, as a result of the prevailing neoliberal guidelines that dominate the international economy (Piketty, 2020). At the same time, it should be noted that whatever one calls this increasingly unequal and polarised social model, it is clear that the inequalities it produces have a particularly marked ethnic dimension.

Thus, according to many studies, immigrant populations and ethnic minorities in European societies are those who suffer the greatest degree of social and environmental vulnerability (e.g., Martori et al., 2022; Sinitsyna et al., 2021), which is clearly reflected in the increased job insecurity, academic failure, and social and residential segregation (Bayona-i-Carrasco & Domingo, 2021; Dmowska & Stepinski, 2022; Imeraj et al., 2020).

In addition, anti-immigrant prejudice plays a key role, either as a cause or a consequence of this greater social vulnerability, and it is especially virulent towards certain groups, such as immigrants from Muslim countries (Van der Bracht et al., 2014; Vogiazides & Kenji Chihaya, 2020), thus hindering the integration processes of foreign-born populations (Leclerc, 2021).

Another common issue discussed in these works relates to the spatial patterns of residential segregation of the foreign-born population, especially the areas of the city where this population is concentrated (e.g., Clark & Östh, 2018; Marcińczak et al., 2021). To a lesser extent, we can also find recent studies which link these patterns of residential segregation to the socio-economic traits of the foreign-born population and the characteristics of the areas where they are concentrated in the city, in an attempt to explain the mechanisms of this segregation (e.g., Benassi et al., 2023; Haandrikman et al., 2021; Panori et al., 2019). However, much less attention has been paid to explaining the role that the host society or anti-immigrant prejudice plays in creating areas where the foreign-born population are concentrated, and in maintaining these segregated areas over time (e.g., Iglesias-Pascual, 2019; Krysan & Farley, 2002; Van der Laan Bouma-Doff, 2007).

In the case of Spain, the immigrant population first started to grow with the migration boom at the turn of the 21st century. Initially, the large-scale arrival of the population of foreign origin and their subordinate economic position in the Spanish labour market gave rise to areas

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where they were concentrated in traditional working-class neighbourhoods with low-income levels, mainly in the Spanish urban context and in rural areas with intensive agriculture in southern Spain (De Oliveira et al., 2019). Subsequently, levels of residential segregation were lowered by the mobility of this population from the city centres to the lower income areas on the metropolitan peripheries. Thus, at this early stage, it is possible to talk about a suburbanisation of the immigrant population, i.e., a shift of the immigrant population from the centre to the outskirts of Spanish cities (Bayona-i-Carrasco & Gay, 2011). However, recent studies have shown that Spanish cities still show a significant degree of residential segregation at the local level compared to other European cities (Benassi et al., 2023; Marcińczak et al., 2021). This aspect, together with the precarious situation of the labour market, especially for the population of non-EU origin, undoubtedly hinders the integration of the immigrant population in Spain (Benassi & Iglesias-Pascual, 2023). The analysis of the difficulties encountered in the process of integration of the immigrant population in Spain is particularly relevant considering that recent demographic projections have shown that, in fifty years' time, the population of immigrant origin could form almost 40 % of the total resident population in Spain (INE, 2022).

For all these reasons, this research aims to analyse the internal residential dynamics of traditional working-class neighbourhoods with a significant presence of foreign-born residents, and the role that ethnic prejudice and another traditional factors, such as social class and group preferences, play in these spatial segregation processes. In doing so, we aim to fill a gap in the international and Spanish bibliography, since, until now, few studies have looked into how the population is distributed in working-class neighbourhoods with a large immigrant population. Most of the research that addresses this issue does not focus on the areas where the daily coexistence between the native population and immigrants is most intense, which are evidently the key areas for understanding the difficulties that arise in the process of immigrant integration in the host society. To address this issue, we set out to answer the following research questions:

RQ1. How is the Spanish and foreign population distributed in the five selected working-class neighbourhoods?

RQ2. What factors or contextual variables explain the different residential behaviour in the urban space of these neighbourhoods?

RQ3. What specific role do ethnic prejudice and ethnic closure play in shaping the spatial and residential distribution processes of the immigrant population in Spain?

Through a mixed-method study using, alternately, a socio-territorial analysis of the five working-class neighbourhoods analysed and a qualitative analysis of the discourse of the native and immigrant population, we address the mechanisms that account for segregation in the areas where the coexistence between the native population and immigrants is most marked, which is where the perception of ethnic and cultural competition is more pronounced. In this way, by analysing the mechanisms that account for segregation, we will be able to design instruments that allow us to implement more effective integration policies, in order to avoid marginalisation or stigmatisation in areas due to the presence of a foreign-born population.

To this end, we first carried out a review of the main studies that analyse the role of prejudice in the social and residential integration of the foreign-born population. To contextualise the research, we start with a brief description of the socio-territorial characteristics of the five neighbourhoods analysed and explain the methodologies used. Next, we present the main results, and the discussion ends with a reflection on their contribution to understanding the mechanisms that initiate and sustain the processes of residential segregation in working neighbourhoods. Finally, the study concludes by developing a series of proposals for policy makers in charge of social integration.

2. The theoretical approach

2.1. Where do I live or where can I live? The spatial dimension of the integration of the immigrant population

The territorial dimension of the integration of the foreign-born population, immigrants or ethnic minorities into the host society, and the accompanying residential segregation, has traditionally been analysed on the basis of four socio-territorial models (Bolt & Van Kempen, 2010).

The first, known as the 'spatial assimilation model', states that the predictable behaviour of an immigrant would be to move from residing in neighbourhoods with a high concentration of immigrant population to neighbourhoods where members of the host society predominate (Alba & Logan, 1993). However, studies have shown that the length of stay in the host country has a significant effect on spatial assimilation for some groups of immigrants, but not for others (Ellis et al., 2006; Logan et al., 2002). In fact, contextual elements such as the role of reception, immigration policies, characteristics of the co-ethnic community, and the attitudes shown by the native population can have different effects on the integration process (Waldinger & Catron, 2016). For this reason, some authors refer to it as a segmented assimilation model (Portes & Rumbaut, 2006).

A different approach is taken by the 'housing information theory', by which it is argued that territorial integration depends to a large extent on the amount of information available about the real estate market. Thus, people are unlikely to search for housing in areas where no reliable knowledge is available (Krysan & Bader, 2009).

In contrast, authors who opt for the 'place stratification model' argue that the discrimination encountered by the foreign-born population when accessing the housing market dictates their residential behaviour (Alba & Logan, 1993). Examples of this include the discrimination by the banking system by restricting access to financial services (Galster, 1999), the vetting exercised by real estate agents and owners, especially towards the second generation of immigrants, to prevent the entry of immigrants into certain neighbourhoods (Iglesias-Pascual, 2019; Van der Bracht et al., 2014; Verhaeghe & De Coninck, 2021) or the barriers imposed by government administrations (Musterd et al., 1998). Such discrimination in access to the housing market is particularly accentuated in the case of immigrants of non-European origin (Imeraj et al., 2020; Skovgaard Nielsen et al., 2015), which leads them to concentrate more in the poorest areas of the city (Benassi & Iglesias-Pascual, 2023), as is the case of immigrants of African and Muslim origin, who tend to find it extremely difficult to move from more vulnerable areas to more prosperous areas due to their low economic status and the greater rejection they suffer from the host society (Vogiazides & Kenji Chihaya, 2020).

Finally, the 'ethnic enclave model' focuses on the residential preferences of immigrants, stating that increased economic status does not always result in them abandoning the neighbourhoods with the highest concentration of immigrants (Crowder et al., 2006; Pais et al., 2012). However, other studies relativise these ideas, highlighting other local factors, such as the labour market and the housing market, as causes of the predominance of one integration model or another (Vogiazides, 2018).

Andersen (2017, 2019) took a more integrative view of the contributions of these four models, based on the preferences and decisions of the immigrant and native population, showing that immigrants' strategies and decisions regarding their preferences for living close to relatives and enclaves and ethnic networks or other strategies to escape discrimination should be analysed together with the host society's preferences for ethnic homogeneity and the refusal to reside close to ethnic minorities due to ethnic prejudice. The tension between these two preferences is at the root of the main processes of segregation and territorial stigmatisation.

2.2. Sorry but it's already rented. The role of anti-immigrant prejudice in access to housing

Traditionally, residential segregation has been conceptualised as the degree of spatial separation between two or more population groups in a given context, or, in other words, the extent to which individuals from different groups occupy and experience different social environments (Reardon & O'Sullivan, 2004; Yao et al., 2019). However, there is general academic consensus over the fact that residential segregation cannot occur simply for random social causes; it persists because of a combination of racial inequality, individual preferences and structural social processes, such as general discrimination (or other forms of housing discrimination) or in-group preferences (Andersen, 2019; Kramer & Kramer, 2019; Piekut & Valentine, 2016; van Gent et al., 2014). The classic tenets of human ecology theories have upheld the idea that differences in culture and interests give rise to a "social distance" between status and ethnic groups which is usually reflected in their separation in residential space (e.g., Burgess, 1928). Similarly, differences in wealth play an important role in the competition for housing markets, tending to relegate poorer families and ethnic minority groups to neighbourhoods with lower quality housing, less desirable living conditions and greater social problems (Fossett, 2006).

However, the relationship between residential segregation, the growing level of income inequality and the presence of immigrant populations has led to the emergence of increased inter-ethnic prejudice and latent tensions, which affect the level of social cohesion in cities (Järv et al., 2021). In fact, the population groups with different interests, sensitivities or cultures, due to differences in either ethnic or social status backgrounds, tend to establish a social and spatial distance between each other. This key point highlights the importance of ethnic closure, which has a social and material dimension whereby some social groups act according to ethnic distinctions, prefer interactions solely with ethnic in-group members, and even favour fellow ethnic in-group members when distributing resources (Barth, 2007; Siebers, 2017; Wimmer, 2013). For instance, Schlüter et al. (2018) and Dekker (2012) showed that members of the host society prefer neighbourhoods with fewer ethnic minorities. Thus, the residential segregation of the immigrant population cannot be explained exclusively by the assumption that their origin is based on voluntary decisions and income level; other factors also come into play, such as prejudice and discrimination in access to housing, to account for the current ethnic segregation (e.g., Farley et al., 2000; Galster, 1999).

To understand the role of ethnic prejudice, ethnic closure and its relationship to residential segregation, it is key to understand the principles of social dominance orientation (SDO). SDO conceptualises prejudice as a way of legitimising the myth of social hierarchy, an ideology which justifies intergroup inequality. Different studies have shown that SDO does indeed predict various types of prejudice and hostility towards minority out-groups (e.g., Pratto et al., 2006; Zick et al., 2008). SDO also reflects an individual's support for hierarchical relationships between social groups: people high in the SDO hierarchy want to establish and maintain power differentials between groups, and one way of doing this is to denigrate subordinate groups (e.g., Levin et al., 2012). Acts of ethnic prejudice may serve the purposes of high-SDO individuals to maintain group-based social inequality (Guimond et al., 2010).

Thus, the limitations in access to the residential market, which largely determine the process of segregation and residential integration of the immigrant population, could be considered the result of prejudice in the host society (Bolt & Van Kempen, 2010).

In fact, several studies carried out in Europe (e.g., Van der Bracht et al., 2014) and Spain (Checa Olmos et al., 2011; Garcia Almirall & Frizzera, 2008; Iglesias-Pascual, 2019) have shown how prejudice towards foreigners in the real estate market, in both the private and public housing supply managed by local and regional administrations (García Martín & Buch Sánchez, 2020), has an impact on their concentration in the most vulnerable and impoverished areas of the city. In Spain, there are only 0.9 public housing units per 100 inhabitants, and 75 % of the immigrant population resides in rented housing, compared with only 11 % of the native population (Gómez et al., 2022). Therefore, the lack of public housing which could encourage social inclusion, together with the excessive dependence on the private rental market, with its growing demand for additional requirements and guarantees, could explain why prejudices towards the immigrant population exclude them from access to good quality housing and increase their tendency to concentrate in neighbourhoods with a higher degree of residential vulnerability. Thus, given the research questions raised in this study, we now aim to shed light on the impact these dynamics have on working-class neighbourhoods characterised by a marked anti-migrant discourse.

3. Context of the study and methodology

3.1. Case studies and data

This study has used the neighbourhood as the unit of analysis because it is considered a living or experiential space (Metton & Bertrand, 1974), an environment for coexistence and socialisation, and a privileged environment for social contact (Zapata-Barrero, 2016). However, to analyse the dynamics of internal residential segregation in each neighbourhood, the data have been analysed at the census tract level.

The selection of neighbourhoods followed two criteria:

(i) Socio-territorial criteria: Recent past as working-class neighbourhood; Significant presence of immigrant population in the neighbourhood, measured by the percentage of immigrant population and its degree of concentration in the territory; High degree of ethnic diversity, measured through Simpson's Diversity Index; Population living in low-income areas.

(ii) Research design and determinants for fieldwork: Easy access to the informants; Previous knowledge or previous contact with local housing networks; Choosing neighbourhoods from different contexts, which allows us to find common trends among the differences.

Following the above criteria, we selected five neighbourhoods in four municipal areas (Fig. 1):

- The neighbourhood of Bellas Vistas in Madrid, with 28,811 inhabitants and a 35 % foreign-born population. The neighbourhood is divided into 22 census tracts, 59 % of which have at least 20 % of the housing in poor condition or with no lift (see Table 1).
- The neighbourhood of Can Anglada in Tarrasa (Barcelona), with 13,373 inhabitants and a 35.1 % foreign-born population: 9 census tracts; 66 % with at least 20 % of the housing in poor condition or with no lift.
- The neighbourhoods of Collblanc and La Torrassa in Hospitalet de Llobregat (Barcelona), with 51,094 inhabitants and a 42.2 % foreign-born population: 36 census tracts; 58.3 % with at least 20 % of the housing in poor condition or with no lift.
- The neighbourhood of Caamaño-Las Viudas in Valladolid, with 14,179 inhabitants and a 12.2 % foreign-born population: 13 census tracts; 46.1 % of the housing in poor condition or without a lift.

A key general indication of the poor state of housing is that in all cases in these census tracts the rental price of housing is lower than the average price of the city to which they belong.

3.2. Research methods: a mixed method approach

The research has been designed using a mixed method approach, since the aim of this research is to understand the relationship between the spatial distribution of the immigrant population and its effect and

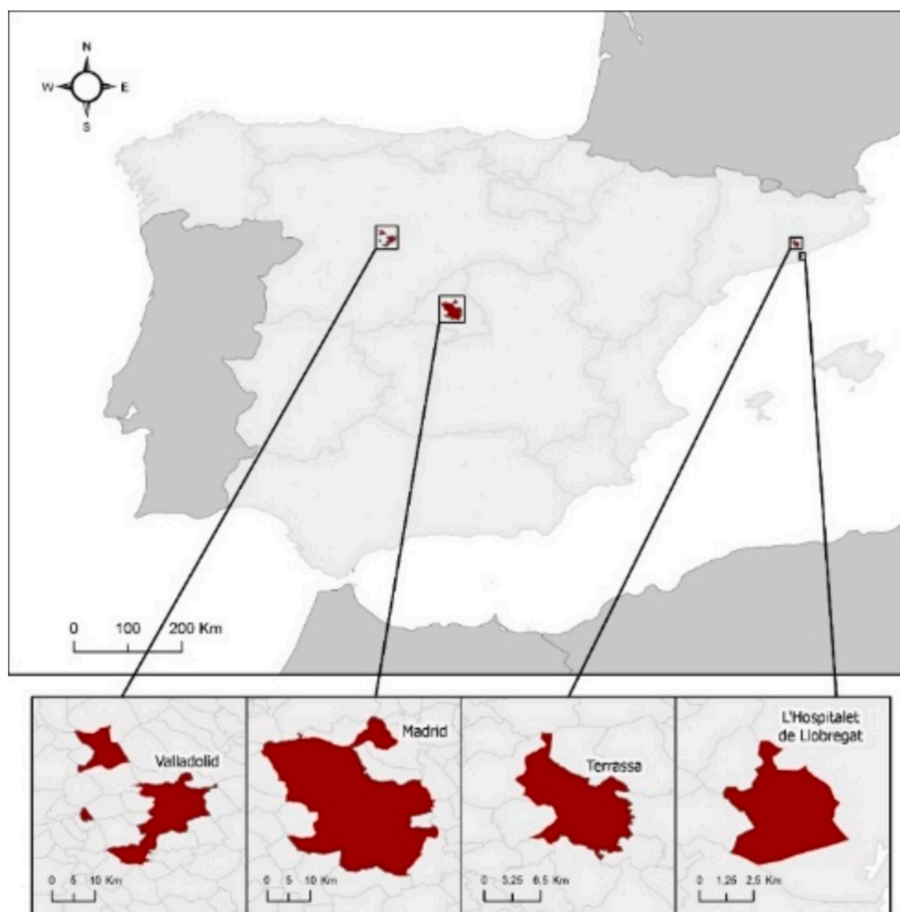

Fig. 1. Municipal areas of selected neighbourhoods.

Table 1
Percentage of population living in census tract, according to the different variables.

	V1	V1a	V1b	V1c	V2	V3	V4	V5a	V5b
Collblanc and La Torrassa (Hospitalet, Barcelona)	0	93.2	12.6	94.8	100	4.5	100	58.3	100
Bellas Vistas (Madrid)	22.5	3.4	7.1	88.4	84.2	25.1	94	59	100
Can Anglada (Terrasa, Barcelona)	59.0	82.1	18.8	44.2	91	48.3	100	66.6	100
Vall. Caamaño-Las Viudas (Valladolid)	29.4	93.9	5.8	65.3	5.7	41	100	46.1	100

consequence on the attitudes and perceptions of the native population. In this context, as the different approaches in Wright and Ellis (2000) or Lechner (2019) remark, *where immigrants live matters*. Both approaches are fundamental for understanding residential segregation processes from both a spatial and social point of view. This study is therefore based firstly on the analysis of a combination of the results obtained from the socio-territorial analysis with those obtained later from the discourse analysis of the native population and key actors. Only by combining these two results will we be able to provide a global explanation of the segregation process which is the main aim of this paper. To achieve this, we first started with a selection of representative cases, as described in the previous section. Next, a sample was selected to carry out a qualitative approach, whose rationale is based on the need to reconstruct the narratives of ethnic prejudice and its role in shaping the processes of residential segregation of the immigrant population. Hence, the qualitative approach of this study is based on a series of data collected through qualitative fieldwork carried out between March and May 2018. To do this, we organised the following interviews and focus groups (see Appendix 1):

(i) 58 in-depth personal interviews, following a semi-structured plan with a list of topics to be covered, with a purposive sample take from the immigrant and native population currently living in the census tract selection. 9 interviews with experts or key stakeholders were also conducted.
(ii) 29 focus groups, with groups taken from the native and immigrant population, as well as experts and immigrants' children.
(iii) family interviews with 47 informants, consisting of personal interviews with at least one parent and one or two children from the family.

However, due to the saturation of information obtained, only 14 of the in-depth personal interviews with experts, 8 of the focus groups with natives, immigrants, experts and immigrants' children and 3 of the interviews with immigrant women were used for the purposes of this study.

The informants participating in the discussion groups, family interviews and personal interviews were selected from a sample of experts, immigrants and native population according to the following criteria: (1) having lived in the neighbourhood for 6 years or more; (2) forming a

representative selection in each neighbourhood of countries of origin, with the three main countries always present in the personal interviews, groups and family interviews; and (3) where possible, forming a representative selection of age and gender. The informants selected were immigrants and natives of both sexes, with different occupations such as student, teacher, entrepreneur, social worker, retired or unemployed. The informants selected as experts had a long history of working with immigrants on issues of social inclusion and therefore had in-depth knowledge of their housing problems.

During the fieldwork, the research team reached a saturation point in the topics to be covered in the interviews, with more than enough information obtained to answer the research questions. Recordings from the fieldwork were gathered and transcribed to plain text, then processed and analysed with Nvivo software. The analysis included, first, an index of all the recordings and a selection of the phrases that referred to ethnic prejudice and ethnic closure concerning housing, housing conditions, choice of housing, and any other housing related topic. The *verbatim extracts* presented here are a selection that best represents the narratives reconstructed during the analysis and best illustrates the results given below.

3.3. Socio-territorial analysis

The socio-territorial data used are from 2018, the year in which the fieldwork was carried out, and were obtained from the information provided by the National Statistics Institute (INE) in the Municipal Register and the Atlas of Household Income Distribution. This analysis was carried out using a series of variables and instruments which, according to the academic literature, have a significant impact on the attitudes developed by the host society towards the immigrant population:

(i) The degree of spatial concentration of the immigrant population at census tract level was measured using the Local Quotient (LQ). The LQ measures the over-representation in each census tract of a population in relation to its proportion in the municipal area.

$$LQ = \frac{(\mathrm{Xi}/\mathrm{Ti})}{(\mathrm{X}/\mathrm{T})}$$

When this value exceeds 1, it means that there is over-representation of a group in the census tract. This is relevant, because the over-representation of a group in a census tract has a direct impact (usually negative) on the discourse and prejudices of the host society towards the immigrant population (Iglesias-Pascual, 2019; van Wijk et al., 2019). From the LQ in our study, the concentration of the immigrant population was analysed on the basis of four variables:

- Percentage of the population of the neighbourhood/municipal area living in census tracts with a high concentration of immigrant population (V1). Areas with a high over-representation of immigrants compared to the rest of the municipal area were classified as census tracts with an LQ value over 2 (Iglesias-Pascual, 2019).
- Percentage of population living in census tracts with a high concentration of Moroccan population (V1a). In this case, these are areas with an over-representation of Moroccan immigrants compared to the rest of the municipal area (value above 2). The focus is mainly on the Moroccan population, since several studies have shown that this nationality and, in general, the Muslim population, have suffered the worst prejudice from the host societies in Europe (e.g., Imeraj et al., 2020; Van der Bracht et al., 2014).
- Percentage of population living in census tracts with the highest concentration of Moroccan population (V1b). Areas where the LQ value of the population of Moroccan origin is within the first tercile of concentration in each area.
- Percentage of population living in census tracts with a high concentration of the second most numerous nationality (V1c). In this case, all the neighbourhoods are areas with a high over-representation of immigrants of South American origin compared with the rest of the municipal area (value greater than 2).

(ii) Degree of ethnic diversity: numerous studies have shown how the degree of diversity of an area affects the attitudes developed towards the immigrant population in different ways (DeWaard, 2015; Peterson, 2017). Based on this research, our study measures the degree of ethnic diversity using Simpson's Diversity Index (or Heterogeneity Index)(S), which measures the probability that two randomly-selected individuals in a given area belong to two different population groups (i.e., two different ethnic groups, in our case). The index is calculated as follows:

$$S = 1 - \sum_{j=1}^{n} \left(\frac{P_j}{P}\right)^2$$

The index (in its original form) ranges from 0 to (n-1)/n. It is close to 0 when the population residing in a given area is composed of a single group (with no diversity or admixture). Conversely, values of S progressively moving away from 0 indicate greater diversity in the composition of the population. In our study, for the sake of quality and simplicity of analysis, the index has been standardised as

$$S^* = \sqrt{S}$$

In this case, the index varies from 0 (no diversity) to 1 (maximum diversity and equal distribution of each group in the area). In our study, we have analysed in particular the percentage of the population of the neighbourhood/municipal area living in census tracts with high ethnic diversity, categorised as those where S reaches a value equal to or higher than 0.600 at the census tract level (V2).

(iii) Demographic ageing (V3) is measured as the population aged 65 and over in each census tract. In this context, different studies relate the ageing of a community to a greater reluctance to coexist with immigrants, politically more conservative positions and even a tendency to support parties with anti-immigrant positions (Ford, 2011).

(iv) The income level (V4) is used, because numerous studies relate vulnerable social areas with low-income levels, a tendency to feel greater sense of economic competition and, as a result, the development of less tolerant postures towards the presence of an immigrant population (e.g., Rydgren & Ruth, 2013; Semyonov et al., 2008).

(v) Finally, the condition of housing (Andújar Llosa, 2020) has been analysed through the percentage of census tracts with at least 20 % of dwellings in poor condition or without a lift (V5a) and those whose average rental price is below the average for the city in which they are located (V5b).

4. Results

4.1. The residential distribution of the immigrant population in Spanish working-class neighbourhoods

If we start by analysing the results of the socio-territorial approach, the following aspects can be highlighted (Table 1):

Firstly, it is evident how all the neighbourhoods in the study are socio-economically depressed and low-income. Ageing is especially important in the neighbourhoods in Valladolid and Terrasa, with over 40 % of the population over 65 years of age.

From the point of view of the immigrant population, we can

highlight, on the one hand, neighbourhoods with a high percentage of the population living in areas of high ethnic diversity and high over-representation of the main immigrant communities compared with the rest of the municipal area, as in the cases of Bellas Vistas in Madrid, Can Anglada in Terrasa and the neighbourhoods of Collblanc and La Torrassa in Hopitalet. However, the case of Caamaño-Las Viudas (Valladolid) stands out for having a low percentage of the population living in areas of low ethnic diversity but showing a high over-representation of some of the immigrant population groups analysed.

Finally, regarding their initial insertion in the housing market, immigrants are concentrated in those census tracts where the poor state of housing means that the rental price is lower. The results show that in the city's traditional working-class neighbourhoods there is a significant over-representation of the immigrant population in the poorest residential areas of the selected neighbourhoods. This over-representation in residential areas where the native population also lives in situations of socio-residential vulnerability generates a coexistence marked by a deep sense of competition for resources, which we show below from the analysis of the social discourse, focusing on its expression in the generation of ethnic prejudices and its expression in an ethnic closure of the native population.

4.2. Group preferences, social class and ethnic closure in spatial segregation processes

After an initial socio-territorial approach to the ways in which the immigrant population is distributed and concentrated in working-class neighbourhoods, we then analysed qualitative fieldwork to examine the factors that account for the process of spatial segregation and its concentration in areas, communities, and dwellings of poorer housing quality. This qualitative approach has allowed us to identify three main structural factors and strategies on which the ethnic closure is based.

- Social inequality and vulnerability:

As mentioned in the theoretical framework, socio-economic inequality, and how it is reflected in the territory, is a crucial factor in understanding residential segregation processes (Benassi & Iglesias-Pascual, 2023; Vogiazides & Kenji Chihaya, 2020). In our study, social inequality works two ways. Firstly, the vulnerable employment and economic situation of the immigrant population explains their concentration and segregation process in the so-called working-class neighbourhoods. In turn, within these neighbourhoods, the immigrant population is concentrated in the worst quality census tracts and housing that are more accessible to them due to their status as precarious, low-income workers. Thus, initially, the social vulnerability of immigrants acts as a differential distributor which expresses class divisions in space.

As previous studies have shown, the social and economic vulnerability of the immigrant population leads them to move into the worst niches in the residential market after their initial arrival in the host society.

> That's why I came (…) I needed to save and spend money on other things, and the rent in Baqueira (middle-class district) (was) very high (…) it's very high - twice as high as here (working-class suburb). So, I needed to avoid that expense and here they offered me cheaper rent.
>
> (FG 1)

> The buildings are very poor. This makes immigrants come here because they find the housing relatively cheap compared to the rest. The housing is small and in poor condition.
>
> (Expert 5)

Immigrants, as precarious workers due to their vulnerable economic situation, are "forced" to reside in working-class neighbourhoods, and within them, in the worst quality housing.

> They are five-storey flats, with no lifts at all. So, we didn't leave these flats on a whim, but we moved to another neighbourhood with better facilities, do you understand? Who is the one who has to come here? Those who are economically worse-off. That's why this neighbourhood has once again filled up with immigrants from the South and from Africa.
>
> (Expert 4)

The social and economic vulnerability of the immigrants, together with gender dynamics and ethnic discrimination, in turn leads to the subordinate occupational and social position of immigrants in the Spanish economy and, consequently, in its housing market.

This process of concentration of immigrants in popular neighbourhoods and areas can also be explained by the process of upward social mobility experienced by the popular sectors of the Spanish population since the 1980s. This has caused many families, and especially their children, to leave the working-class neighbourhoods in search of middle-class housing and neighbourhoods on the outskirts of cities.

> Because the sons and daughters of these first national immigrants have been able to study and have enjoyed upward mobility, well, they've left these neighbourhoods (…) This has opened up gaps for immigrants to access housing which are usually older flats, many in poor condition, more modest.
>
> (Expert 14)

> When they built the PAU (neighbourhood with new, better-quality housing), a lot of people from the neighbourhood went to live there, because, of course, the houses were better, they had lifts, they had garages. Of course, people who lived in the Fuensanta area, which is smaller, with more uncomfortable housing, were able to move - industrial workers, to be exact, and a lot of people went to the PAU.
>
> (FG 6)

In this way, the Spanish population living in these neighbourhoods has made considerable profits from the sale at exorbitant prices of run-down secondary housing, which they generally bought at low prices. The residential subordination of the immigrant population has thus provided a considerable material benefit to the native working-class owners of these neighbourhoods, facilitating, and sustaining in many cases their process of upward residential mobility to other middle-class areas or, where appropriate, to other areas within the same neighbourhood with better housing and services.

This - limited - process of "native flight" from working-class neighbourhoods, once started, tends to accelerate and repeat itself over time due to a number of factors: the high demand for housing by the immigrant population, the emergence of the practice of subletting rooms, the unwillingness of certain native families to share housing with immigrants, and the possibility of selling the flat for a considerable profit and moving to a better housing area.

- The residency strategies of the immigrant population and the preferences of Spaniards:

As already mentioned, the literature suggests that immigrants tend to reproduce the cultural, family, and social world of their communities of origin in the small areas of the host cities to which they have access. This ethnic choice, from an assimilationist point of view, explains the spatial segregation of immigrants and, incidentally, their low levels of integration.

In our fieldwork, however, we found no evidence of this 'natural' tendency of immigrant communities to live separately from the rest of the host society in small ethnic residential areas where they can reproduce their own culture and way of life. Indeed, this notion has been seriously challenged by recent quantitative studies of social integration in Spain (Iglesias et al., 2021; Iglesias-Pascual, 2019).

In fact, our results show that this discourse on cultural preference is more a narrative of certain groups of native population, which sometimes accuses immigrants, especially Moroccans and sub-Saharan Africans, of wanting to live in their own cultural worlds, separated from the rest.

> There is no relationship, it doesn't exist. They (Moroccan immigrants) also make their own groups and only mix with each other, and they go shopping in their shops and go to their own bars, and they go to… I don't know where! They're not really integrated.
>
> (Expert 9)

> P1: Integrated? (…) well, I don't think they participate (…) it's that, let's see, they don't adapt (…) or they don't want to adapt.
> P2: No, it's not that they don't adapt. They don't participate (…) they have their own customs and stick to them.
> P1: Yes, yes, they have their own customs, they follow their own customs. They live their lives and do their things, which in the end are their customs they've been used to since they were born.
>
> (FG 2)

It seems clear that the immigrants' preference for living together in a community is explained not by cultural preferences but by the essential support that the established ethnic networks of relatives, friends and fellow compatriots provide for newcomers. The immigrants' discourse therefore shows us how they tend to settle initially in areas, neighbourhoods, and communities where such support networks are already present, which, in turn, exacerbates the process of residential segregation.

> The immigrant population, well, I think many of them arrived by word of mouth (…) "among each other", as they say (…) and they started to settle in the neighbourhood: Peruvians, Colombians, Bolivians, and they shared flats.
>
> (Expert 7)

> They chose the neighbourhood (…) because someone had come here before (…) (because) they had an acquaintance here, a compatriot who told them: "Well, I'm working here, come over!". (…) And they lived in the neighbourhood because it's cheaper (…) the rent and everything else.
>
> (Expert 2)

In fact, the case that best exemplifies the relevance of these support networks is precisely that of housing. The settlement of immigrants in certain residential areas is associated with their difficulty in accessing housing due to various factors - ethnic discrimination, high prices, low wages, and institutional difficulties - and the decisive role played by ethnic support networks in tackling this difficulty and facilitating easier access to housing.

> I came to see the flat and (…) I said: "it doesn't matter" (it was in very bad condition). What interests me is to have a house where I can welcome my family (…) When I got the flat, my son came there with his daughter and his wife, and my other daughter with her daughter. Well, there we were, working here and there.
>
> (FI 1)

Housing is therefore shared with relatives and compatriots, and a small single room becomes the basic residential unit, representing for many immigrants the only way to access housing in Spain.

> I had to move into a room because my flat was being refurbished (…) I lived in a room with my son and we paid 350 euros (…) (We lived) with eight people, the lady lived in the living room, she was Peruvian and rented rooms for couples. I lived there and it wasn't exactly a quiet place (…) And each room paid 300–350 euros! Only one bathroom, one kitchen, where I only cooked on Sundays and Wednesdays so as not to (quarrel with the others).
>
> (FG 7)

This last quote makes it clear that the tendency to live with their compatriots in small, often deteriorated working-class flats, and the overcrowding that this entails, is not the product of an alleged ethnic preference for living together or apart, but a response to structural conditions that severely limit their access to the housing which is most easily facilitated by their ethnic support networks.

However, to fully understand this socio-spatial process in relation to group preferences, it would be necessary to investigate native preferences when choosing residential spaces. In our study, we found a tendency among the native population not to reside in urban spaces where there is a significant presence of immigrants, which is justified by reasons and discourses closely associated with the presence of an intense group prejudice towards immigrants, although this should be explored further.

- Ethnic closure:

Together with the two previous factors, our research shows how ethnic closure has also played an essential role in the process of the spatial segregation of the immigrant population in working-class neighbourhoods. Ethnic closure excludes the immigrant population from certain residential areas, while placing or concentrating them in others, generally with worse housing conditions.

The old, precarious housing stock of the working-class neighbourhoods of the 1950s and 1960s was put back on the market thanks to the real estate bubble that began at the end of the 1990s and the increased arrival and settlement of immigrant workers in Spain at the beginning of the 21st century. This sector of the residential market was already, at that time, in an evident phase of decline due to demographic ageing and the process of upward social mobility of former working-class families, especially their children, and had led, in many cases, to these areas becoming derelict (Iglesias-Pascual, 2019).

> Older people have stayed on here, usually older women living in flats in poor condition, and with problems of accessibility to the street. Here there are people who find it difficult to leave their homes (…) who are living in high-rise flats and who don't go out. What's more, the owner, their landlord, doesn't get a lift installed.
>
> (Expert 10)

> In the neighbourhood, as it started off poor, the standard of construction is very poor (…) The houses are small and in bad condition (…) the shutters don't work, and so on (…) These houses were built (…) basically to urbanise the area in a hurry to receive waves of immigrants (the rural exodus of Spaniards in the 60s).
>
> (Expert 6)

These neighbourhoods constitute a working-class housing stock in which most of the owners are native-born, former working-class people who have been able to acquire a small house with great effort and mostly with the support of the public housing system. These working-class owners, their children and relatives, and the real estate agents they employ, have therefore been responsible for channelling and managing the new immigrant demand for housing in these areas. As a result of this situation, since the end of the 1990s, in most Spanish working-class neighbourhoods, a marked process of housing filtering has begun, whereby the old working-class community and their descendants, affected by ageing and social mobility, have rented out part of the old working-class housing stock to new immigrants, mainly at inflated prices that do not reflect the low quality of the housing.

More immigrants are arriving (…) and the flats are really expensive. It's a rip-off, if you ask me. The people here are ripping them off (…) They charge 300 euros for one little room.

(Expert 1)

Before, yes, they were cheaper, but now, they've gone up a lot in price! Now they're asking 700, 800 euros (a month) - for houses that are practically in ruins.

(Expert 12)

This process of residential filtering or 'native, white flight' occurs through a mechanism of ethnic closure (Weber, 1968), in which discourses and stereotypes related to group prejudice towards immigrants play a key role. According to this ethnic prejudice, immigrants are seen as different, strange and, in a generally subtle way, inferior, which serves to legitimise the advantageous position held by the native population in the different material and cultural spheres of "our" society, including access to housing, where immigrants are relegated to a lower position in the hierarchy. The ethnic prejudice present in Spanish society has thus played an essential role in shaping the process of the residential segregation of the immigrant population into working-class neighbourhoods.

Therefore, the native population, rather than excluding them completely from these areas, has permitted the access of the new immigrant population to certain areas, communities, and housing within the working-class neighbourhoods, particularly the most dilapidated housing with the worst residential and service provision.

The house was… well, you can't sleep there. You really can't sleep! When it rains, for example, I have to put bags, plastic bags to cover the window. Yes. There's no glass in the windows - I don't have glass, really. I have these bags from the supermarket (…) to cover the window, you know?

(FI 2)

The ethnic discourse of the native population, in a subtle way, justifies a residential transfer of housing in poor condition at high prices because they are foreigners, people "who are not from here (...) who are not one of us, from somewhere else" (Expert 14) and who "are used to living like this (in their own countries), living all crowded together in places that are much worse than the places they have in Spain" (FG 4). This transfer is therefore justified on ethnic as well as purely market grounds, by their status as foreigners and their supposedly primitive or backward lifestyles: "the civil servant asked me if I could write, in a very disrespectful way". (FG 8).

This process of transfer and mercantile exploitation of the residential space of working-class neighbourhoods goes as far as putting on the market, at inflated prices, all kinds of housing which is not suitable for living in.

M1. There are a lot of (inhabited) basements.
H2: (...) and the use of commercial premises for housing (...) Illegal, yes, because they don't have any housing status (…)
H1: (...) We've found (them) with their families in the attics (the storerooms of the old neighbourhood communities). When I go for a home visit, I ask: "but do you live there?" And he says: "Yes"; "And how much do you pay?"; and he says "200 (euros) for each room". It was a typical attic at the top of a house, which had been divided (...) they'd cleared a space on each side and the mother and her two daughters lived on a mattress in one of those attics. Her son lived on the other lower floor, (where he) couldn't stand up (...) Was it legal? No, no, it's all undeclared (hidden economy).

(FG 7)

At the same time, within these popular neighbourhoods, the native population has tended to limit, through various strategies, the access of the immigrant population to the areas, neighbourhood communities and higher quality housing blocks which are reserved for the native population itself.

The neighbours didn't want flats to be rented to people from outside. Here we have had flats which were not rented, only to university students because they were less noisy, yes, and they also reject immigrants (...) There are (local) people who don't want to rent to them.

(Expert 3)

Among the strategies we identified in our analysis was the practice of not selling or renting housing to immigrants, generally through indirect rejection based on physical appearance, accent, dress, etc.

H3: Me on the subject of the flat. When my son was born, I moved into a room. I looked for flats like crazy, I fulfilled all the requirements, but when they saw I was a foreigner they told me no. Another time, everything was arranged by email until the moment they saw me physically. And I got mad and shouted about it.

(FG 3)

In other cases, it is simply a matter of pressuring, and sometimes harassing, other native owners and their descendants not to sell or rent to a population of immigrant origin; or in some cases, the native population puts pressure on their own neighbours of immigrant origin to stop or reverse a process of residential filtering that is already underway.

Where my mother lives (…), the Spaniards hate the whole block because they're immigrants and my mother has argued with them many times. They don't say anything to my mother anymore because we've been here a long time, but they make comments to other people. (Expert 8)

This process of housing exclusion is linked to group prejudices against the immigrant population and is justified by a variety of explicit and implicit motives, such as avoiding the perceived loss of value of the home due to the presence of immigrant neighbours, avoiding contact and the possibility of living together due to cultural differences, avoiding the loss of social and economic status in the area, simple rejection, the desire to reserve the best spaces for the Spanish population, or the desire to maintain the hegemony of the native population in the everyday context and in defining the rules of coexistence.

This mechanism of ethnic closure, which allows access to certain residential areas and not others, establishes and reinforces the advantage of the native population in the area, creating a hierarchy that ethnically stratifies the housing stock of working-class neighbourhoods. Immigrants thus 'naturally' tend to be concentrated and over-represented in the most degraded areas, tenements, and flats, while natives tend to be concentrated and over-represented in the best ones.

P1: Now it's overwhelming (the "high" presence of immigrants in the neighbourhood), but in my block, we all own our homes and we don't have that problem.
P4: That happens more in the buildings that don't have a lift (…) which are cheaper, yes.

(FG 5)

All this leads to an ethnic segmentation of the neighbourhood housing market, which is not always visible or obvious, as it does not force immigrants to concentrate in exclusive census tracts. However, these strategies of exclusion are applied throughout the housing market, stratifying it according to ethnic origin and guaranteeing the preferential position of the native population.

In some areas (of the neighbourhood), the foreign population is in the majority. More than in other areas, (where) the remaining Spanish population is older. Because the population is, let's say, a bit younger, the children have moved away. I'm telling you, they've gone to the new PAUS (middle-class neighbourhoods).

(Expert 11)

> And then, well, this part (of the neighbourhood) became a great business opportunity for the owners, etc., who saw the possibility, with the arrival of immigrants, of going into business. In other words, they saw that they could make even more money (…) than they had been making before.

(Expert 14)

The process of residential filtering can thus be seen not only as a process of demographic substitution or class stratification, but also as a process of residential segregation and subordination based on group ethnic prejudice. This process of external ethnic discrimination, in which the local native population plays an essential role, is sometimes concealed by accusing the immigrant population of being responsible for their own segregation process in the worst areas of the neighbourhood because of their desire for self-segregation.

> They're very much on their own, let's say. They don't mix much with the population. They do mix sometimes, but it's odd, because as far as I can see, it's in Maradona Street where all these immigrants are living, most of the immigrants, let's say Muslims, not just Moroccans. I've really noticed it, because they only mix with each other, with the Muslims.

(Expert 1)

Finally, it should be noted that both the socio-territorial data and the information obtained in the fieldwork reveal a greater degree of residential segregation among the populations of Moroccan, Dominican and sub-Saharan origin, clearly associated with greater ethnic prejudice towards these groups. Thus, for example, Moroccans are one of the groups that receive the most refusals and rejections from native owners when it comes to renting or buying a property in certain areas.

> I remember once, I called and asked about renting. "Who for?" they asked. I said, "For a Moroccan family", and they hung up on me. It happened to me twice and the second time they shouted at me "don't call me again with immigrant problems - I don't talk to immigrants"

(Expert 13)

Social negativity is legitimised by a whole series of narratives and stereotypes associated with group prejudice towards Moroccan immigrants, who are considered to be thieves, strangers, people you cannot trust, squatters, etc. "Lots of Moroccans go into the house and don't come out. They don't pay for electricity, water or anything else" (EE. TP). This more intense stereotype may help to account for the tendency, in the case of Moroccans, to concentrate in certain areas of working-class neighbourhoods, creating more visible processes of residential segregation.

5. Discussion

In this research, using a mixed research design, we have analysed how the process of residential segregation of the immigrant population has developed in five working-class Spanish neighbourhoods. The use of this design has allowed us to analyse, first of all, the characteristics of the spatial distribution of the immigrant and native population through a socio-territorial approach. Next, through the qualitative treatment of the information, we have been able to focus on key aspects that allow us to explain the role that ethnic closure plays in the process of residential segregation in the neighbourhoods analysed. These neighbourhoods have been characterised as a preferential reception area for the immigrant population and therefore as areas of intense intercultural contact, which is precisely what turns them into interesting laboratories to analyse the coexistence between the native and immigrant population and the evolution of the immigrants' social integration in society. The combined interpretation of the results obtained through the socio-territorial and the qualitative analyses allows us to consider that two main trends can be observed.

Firstly, the socio-territorial analysis has allowed us initially to answer the first research question. The distribution of the native and immigrant population in the census tracts according to their demographic, residential and housing quality characteristics shows that there is a process of residential segregation in popular neighbourhoods whereby the population is distributed hierarchically by ethnic origin. Thus, the native population that stays in the neighbourhood tends to reside in the houses, neighbourhood communities and areas of higher residential quality, while the immigrant population lives in those of poorer quality. Thus, in the popular neighbourhoods, there is a process of residential segregation or internal hierarchization that tends to relegate immigrants to the worst residential positions, promoting a marked residential native advantage in these neighbourhoods.

Within the neighbourhoods studied, this residential hierarchy of ethnic origin is not expressed, in general, through the spatial separation of the two groups, or through a spatial distribution which reflects a concentration of the native population in certain areas or census sections, and the immigrant population in others, forming ethnic enclaves. On the contrary, the socio-territorial analysis shows that there is no such residential separation at the census tract level, with both groups sharing the same space at this level. However, the finer analysis that qualitative analysis allows us shows that, in reality, the segregation process is more complex and profound. This process of spatial segregation, expressed both in hierarchical terms and, above all, in residential separation, with a greater tendency to concentrate on the few small ethnic enclaves that exist within the neighbourhoods, is more pronounced in the case of certain groups, namely the Moroccan, Dominican and sub-Saharan population.

Our second research question focused on the contextual variables that explain the different residential behaviour in the urban space of these neighbourhoods. The socio-territorial analysis had previously stressed that there is no residential separation at the census section level, with both groups sharing the same residential space at this scale. However, the combination of this analysis and the qualitative approach has allowed us to see how immigrants are especially concentrated in low-income census tracts, characterised by poor housing conditions and lower rental prices. It is therefore economic and housing precariousness that contextually determines the residential behaviour of immigrants in these kinds of neighbourhoods. These socio-territorial aspects push the immigrant population towards residential areas where coexistence with the native population is marked by a deep sense of competition for resources. It is precisely this perception of competition for resources from the native population that triggers ethnic closure as a supposed defence mechanism against the presence of immigrants, which, in turn, forces the immigrant population to concentrate in the most impoverished areas of each neighbourhood. In this way, in this type of neighbourhood, using theoretical models based on both the place stratification and the ethnic enclave models, our results could simply be showing us the two complementary sides of the same process.

Regarding the factors that could explain the process of residential segregation and the specific role of ethnic closure in it (RQ3), our results, especially those from the qualitative approach, shows the need to integrate different traditions, causes and factors to fully understand the process of residential segregation of the immigrant population in working class areas (Andersen, 2019; Kramer & Kramer, 2019; Piekut & Valentine, 2016; van Gent et al., 2014).

However, our results also allow us to highlight three key issues which help us understand the mechanisms that explain the initial development and subsequent maintenance of the residential segregation of the immigrant population in these neighbourhoods. Firstly, the social class factor and the structural mechanisms - economic model, welfare, housing policies, institutional and social racism - that turn immigrants into temporary and low-paid workers who can only access low-quality housing in working-class neighbourhoods (Barth, 2007; Wimmer,

2013). Secondly, the mechanism of ethnic closure by the native population, which, through negative ethnic labels, excludes the immigrant population from the best residential areas, concentrating them in the most vulnerable housing areas (Iglesias-Pascual, 2019; Van der Bracht et al., 2014; Verhaeghe & De Coninck, 2021), with the aim of maintaining ethnic homogeneity and the advantage of the native population to access better housing within the neighbourhood. It also seeks to favour the economic residential exploitation of immigrants, who can only have access to deteriorated and low-quality housing. Thirdly, regarding preferences for living in ethnic enclaves (Andersen, 2019; Crowder et al., 2006; Pais et al., 2012), our research shows the need to critique and broaden this perspective. Our results show that in housing choices, more than cultural preferences, what often drives immigrant families to live in such neighbourhoods is the possibility of accessing cheap and shared housing through their ethnic social networks. However, this mechanism of housing access is more a response by immigrants to structural and ethnic constraints in the housing market than a cultural preference. As our study has shown in answering RQ 2, the preference of the immigrant population for living in ethnic enclaves has been shown to be a reaction to the ethnic closure constructed by the native population.

At the same time, it should be noted that the neighbourhoods analysed are characterised by a high degree of economic and residential vulnerability and low housing prices, all of which makes it very difficult to find a place to live in other, wealthier neighbourhoods, especially if we take into account that the appearance of a greater presence of immigrant population in other neighbourhoods has already been shown to quickly activate ethnic closure and real estate discrimination in access to housing in favour of the native population, as recently highlighted by several Spanish reports on the trends of discrimination in access to housing suffered by immigrants as compared to the native population (García Martín & Buch Sánchez, 2020; Gómez et al., 2022).

Our research highlights how, in highly segregated spaces, there is a social hierarchisation which, through an ethnic enclosure based on ethnic prejudice, helps to maintain the subordinate position of the immigrants within the host society, regardless of the level or social environment of the native population.

This reinforces the idea conveyed by theorists who have developed the theory of SDO regarding the importance of maintaining social inequalities and group-based differences through ethnic prejudice (Guimond et al., 2010; Levin et al., 2012). Thus, even in neighbourhoods with a high level of residential vulnerability, invisible boundaries in access to housing have become a key element that illustrates the SDO of the native population in space.

Thus, the role of SDO should be taken into account when designing social and residential integration policies based on the importance of dismantling prejudices and stereotypes, the importance of restorative justice, and the importance of community dialogue in neighbourhoods to put an end to the structural residential discrimination suffered by the immigrant population (Chapman, 2022; Pérez Esquinel et al., 2023; UN, 2006).

6. Conclusions

The internal dynamics in the popular neighbourhoods analysed have shown that there has been a strong process of residential segmentation between the native population and immigrants which reproduces the native advantage occurring in other areas. Immigrants tend to be concentrated in the worst areas, neighbourhood communities and housing, while the native population retains the best positions within the residential hierarchy. This strict residential division shaped by native advantage and especially the immigrant population's acceptance of inequality may be helping to keep levels of ethnic hostility in these neighbourhoods relatively low. In this way, the immigrants "are OK, but in their place". This clear segmentation and socio-spatial division helps contain the degree of ethnic activation and hostility. However, to be able to detect this segregation, the traditional administrative data are not enough, which highlights the importance of detailed studies in detecting the possible tensions derived from group contact. In the same way, the recent electoral rise of a populist, nativist and extreme right-wing party in Spain is another factor that could upset this supposed social peace. Most importantly, the coexistence that these nativist ideologies assume, the increasing importance of the population of immigrant origin in Spain and the growing social tensions derived from the increasing inequality all make it vital for those involved in local government to analyse the dynamics of integration occurring in popular neighbourhoods as an example of the possible future evolution of the coexistence and integration of immigrants in Spanish society.

CRediT authorship contribution statement

Juan Iglesias: Writing – review & editing, Writing – original draft, Validation, Supervision, Methodology, Investigation, Formal analysis, Conceptualization. **Luis Rodríguez-Calles:** Writing – review & editing, Writing – original draft, Software, Investigation, Formal analysis, Conceptualization. **Ricardo Iglesias-Pascual:** Writing – review & editing, Supervision, Project administration, Funding acquisition, Data curation, Conceptualization.

Declaration of competing interest

None.

Data availability

The data that has been used is confidential.

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Appendix A. Supplementary data

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