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Towards a geography of displacement. Moving out of Brussels' gentrifying neighbourhoods

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Abstract This paper takes up recent calls for re-invigorating research activity on the socio-spatial effects of gentrification, and on gentrification-induced displacement in particular. It does so by analysing the socio-economic profiles and destination municipalities of individuals who moved out of Brussels' gentrifying neighbourhoods in the early 2000s. Findings clearly indicate that highly contrasted residential mobility patterns are conflated in this set of migrants. Surely, the majority of these out-migrants do not match the idea of low-status residents forced out of their neighbourhoods as gentrification develops. Yet, results also highlight a specific residential mobility pattern associated with low-status individuals moving out of gentrifying neighbourhoods. I argue that these findings outline a believable picture of the geography of displacement, that is, they show where former inhabitants displaced by gentrification are most likely to relocate. These movements are mostly over short distances, and directed towards impoverished working-class neighbourhoods within the city. Nevertheless, others leave the city as a whole. These findings echo earlier comments on the growing social-spatial polarisation of the Brussels' urban landscape, and validate to some extent appraisals by local community organisations that stress that part of the urban poor are being "exported" from gentrifying inner neighbourhoods in Brussels towards generally depressed, old industrial regions in the rest of the country.

Keywords Gentrification · Displacement · Residential mobility · Cluster analysis · Brussels · Belgium

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1 Introduction

Patterns of social injustice and spatial unevenness have long been thought of as defining features of gentrification. In particular, there are long-standing statements about gentrification-induced displacement, as socially vulnerable groups are steadily forced out of neighbourhoods being recast in the mould of wealthier newcomers (Glass 1964; LeGates and Hartman 1986; Marcuse 1986; Lyons 1996; Atkinson 2004). The quantification of displacement is, however, a lasting empirical challenge for gentrification researchers, and qualitative approaches at the neighbourhood scale have often been viewed as promising ways to address this issue (Atkinson 2000a; Newman and Wyly 2006). Yet, as Slater (2006: 748) has pointed out, methodological barriers to measuring the extent of displacement in quantitative terms "(…) did not steer researchers in the way of a qualitative agenda to address displacement, but rather steered them away from displacement altogether". Many recent contributions to the literature, Slater argues, adopt a generally positive tone towards gentrification, effectively downplaying the magnitude of the harmful consequences of the process, notably displacement. This leads this author to call for a re-invigoration of research activity on gentrification-induced displacement. Moreover, this call is thought as a necessary contribution to a broader research framework designed to compare the variety of uncritical media and policy celebrations of 'revitalized' or 'regenerated' urban landscapes of residence, shopping or tourism with perspectives on the actual experiences of recent waves of neighbourhood change in gentrifying places (see also Lees et al. 2007).

In this paper, I want to take up this call through an examination of gentrification-related migration patterns. When discussing gentrification—in academic circles as well as with city officials, community activists or journalists—the question of where the former inhabitants of gentrifying neighbourhoods moved to is very often raised. This question is very much in line with Millard-Ball's (2002: 834) statement "(that) gentrification does not merely affect the single property or neighbourhood that is gentrified; the people displaced have to move somewhere, and the consequences can ripple up the 'chain of moves' that is initiated". Following this argument, I want to explore in this paper the destination geographies of low-status people moving out of gentrifying neighbourhoods—presumably under some sort of constraints—among the broader set of socio-economic profiles leaving these neighbourhoods. The empirical part of the paper focuses on Brussels, in the early 2000s. In doing so, my hope is to shed light on the socio-spatial impacts of gentrification beyond the limits of the gentrifying neighbourhoods, and outline a geography of gentrification-induced displacement. I argue that such empirical effort can make a contribution to a re-invigoration of research activity on the effects of gentrification. Moreover, I feel this is a necessary task at times when views uncritically equating gentrification processes with unanimously positive waves of urban 'revitalization' or 'renaissance' are reaching an ever-widening audience, both in the media and the political arena.

The paper is organised in two parts. In the first one, I review the existing literature on gentrification-related residential migration pattern, with a specific focus on works that have investigated the destination geographies of out-migrants from gentrifying neighbourhoods. I will briefly report from international case studies, and then review existing research works in Brussels and contextualise their findings. As gentrification is now conceptualized as a global phenomenon (Smith 2002; Atkinson and Bridge 2005), it is of particular importance to inform debates on the nature and socio-spatial impacts of this process with views from a diversified panel of cities. In this respect, Brussels may appear as a 'non-traditional' setting for gentrification literature since this field has long been dominated—and still largely is—by

works conducted in a limited number of key metropolises in the United Kingdom and North America, with London and New York at the top of research agendas (Dutton 2005). However, a series of recent trends indicate that gentrification, once a limited and occasional process (at least until the mid-1980s), should now be viewed as a first-order constituent of the contemporary wave of urban changes in the Brussels' case (Vandermotten et al. 2006).

In the second part, I turn to an empirical exploration of the destination geographies of the variety of migrants who moved out of Brussels' gentrifying neighbourhoods in the early 2000s. Here, I investigate the diversity in the socio-demographic characteristics and destination municipalities of these out-migrants in order to specifically assess where vulnerable households subject to gentrification-induced displacement are most likely to relocate—for both those who moved within Brussels and those who relocated in the rest of the country. I aim in this way to get new insights on the geography of gentrification-induced displacement in the Brussels' case.

2 Moving out of gentrifying neighbourhoods: existing evidence and insights about Brussels

Existing literature has generally little to say about where former inhabitants of gentrifying neighbourhoods who moved out do actually relocate. This dearth of analyses has been linked to a scarcity of research tools to trace those leaving a neighbourhood (Atkinson 2000a). Nevertheless, some works have paved the way for the exploration of the socio-spatial impacts of gentrification via analyses of migration flows originating from gentrifying neighbourhoods. Evidence from these works—typically making use of longitudinal surveys conducted on population samples—indicates, first, that heterogeneity in types of households and socio-economic profiles is recurrent among sets of out-movers from gentrifying neighbourhoods (e.g. LeGates and Hartman 1986; Lyons 1996). Put simply, neither all those moving *in* such neighbourhoods are new wealthy households, nor all those moving *out* are low-income displacees. Rather, existing evidence suggests that displacement of poorly-resourced households should be conceived of as one among several types of out-migration flows.

Beyond this general statement, patterns of 'selectivity by distance' are recurrent in the few works which differentiate between the destination geographies of diverse groups of migrants. That is to say that low-status out-migrants tend to relocate nearby, often in adjacent non- or less-gentrifying urban districts, while higher-status households typically compose the predominant group among longer-range movers (Lyons 1996; Newman and Wyly 2006). Lyons (1996) has offered theoretical elaborations of this finding in terms of contrasted relationships to constraint and choice for different social groups. In essence, the author argues that low-status migrants are tied to short distances moves given their dependence on locally available amenities and supportive social networks, while better-off individuals can move over longer distances in order to realize their consumer preferences in the wider housing market (see also Atkinson 2000a, b). Much work remains to be done, however, to further detail the picture on the destination geographies of out-migrants from gentrifying areas. One can notably hypothesize that some low-status households will move farther off their initial neighbourhood in cases where the rapid advance of gentrification leave them with few alternatives but to leave the city as a whole (see e.g. Slater 2006 on London, discussing Hamnett's 2003 findings).

Turning now to the Brussels' case, it must be noted that previous works that have tackled with gentrification-related migration patterns have done so within broader research frameworks first designed to analyse the socio-spatial positions of ethnic minorities in

Belgian cities. Studies by Kesteloot and De Decker (1992) and De Lannoy and De Corte (1994) are key contributions in this field. They have brought out patterns of relocation of low-income ethnic minorities (mostly North-African and Turkish nationals) from municipalities showing clear signs of gentrification in the eastern inner city towards generally poor, deindustrialised municipalities in the western part of the central city. These findings suggest that the spatial concentration of socially vulnerable groups in the western inner city is increasing since the 1980s. In addition, they indicate that working-class and ethnic neighbourhoods in the western inner city are further consolidated as spatial resources for low-income households to develop alternative economic and survival strategies—like e.g. ethnic entrepreneurship, buying a decayed property then renovating and letting out parts of it, in a context of high unemployment rate[1] (Kesteloot 1995, 2000; Kesteloot and Meert 1999). Furthermore, an investigation of intra-urban migration patterns for the early 1990s at neighbourhood level has returned very similar results, for it has highlighted the relocation of poorly-resourced households from gentrifying districts in the historic core and eastern neighbourhoods towards ethnic and working-class neighbourhoods in the western inner city (Van Criekingen 2002). These findings eventually depict a pattern of growing socio-spatial polarisation within the central city, with gentrifying neighbourhoods in the eastern inner city and increasingly impoverished ones in the western central city. They also suggest that both neighbourhood dynamics are linked to some extent through displacement of low-status households from the former and their relocation in the latter.

Housing market mechanisms are obviously essential mediators of gentrification and displacement in a city like Brussels, for about half of the households in the city rent their home from private landlords—two-thirds in inner neighbourhoods. Moreover, the public housing sector is only residual—i.e. less than 10% of the city's housing stock. That is to say that many among the urban poor are tenants of private landlords in inner neighbourhoods, and these households are thus highly vulnerable vis-à-vis escalating rent levels. Now, the Brussels' housing market has considerably tighten up over the last two decades, showing considerable increase of property values on both the homeowner market (i.e. Bernard 2004) and the rental market (i.e. increase in rent levels of about 50% above the inflation rate between the mid-1980s and the mid-2000s—Bernard 2006). The rapid internationalisation of the city has been a major boost behind this trend, as many landlords, homeowners and real-estate investors intended to cash in on the influx of an expanding clientele of middle-class expatriate professionals working for the European Union and other transnational public or private organisations (e.g. lobbies, region representations, law firms, etc.). Nevertheless, this 'Europeanization' of the city (Baeten 2001) has not (yet) been paralleled by a massive colonization of inner neighbourhoods by high-income expatriate residents. Rather, most expatriate households living in the city—that is, excluding those who have opted for a suburban residence—favour established bourgeois neighbourhoods in peri-central locations, and the city's south-eastern inner greenbelt in particular. These households are key protagonists in the further social upgrading (or 'embourgeoisement') of this part of the city, often replacing ageing households[2] (Van Criekingen and Decroly 2003; see also Préteceille 2007 on Paris). By contrast, there is still little evidence of centrally-located districts being colonized by an influx of this clientele. Evidence is limited to a handful of

[1] Unemployment rate in the western inner city peaks above 45% of the economically active population (about 20% for the whole Brussels-Capital Region).

[2] I use here 'replacing' (not 'displacing') on purpose, in order to stress the fact that the upgrading of existing bourgeois neighbourhoods often involves incumbent homeowners taking advantage of the rise in property values to sell out to newcomers and move, as they retire for instance (see also Hamnett 2003).

new-build upmarket residential schemes in the historic core—including exclusive loft projects in recycled industrial premises. Promoters of these schemes (i.e. private real estate companies) target at the clientele of high-income expatriate professionals by various means, including the diffusion of promotion material in English and the setting of price levels by London or Paris standards—thus well above Brussels price standards.

At the same time, there is ample evidence of neighbourhoods in more central locations being recast in the mould of another type of in-moving gentrifiers (Van Criekingen and Decroly 2003; Van Criekingen 2008). These newcomers are mostly educated young adults (between 25 and 34) from middle-class backgrounds, typically living alone or in childless couples, and renting homes from private landlords. They mostly enter apartments in old, 19th-century buildings that have been recently renovated and let out to them against higher rents. For many of these educated young adults in non-family households, a presence in the inner city is associated with a transitional step in their residential carrier, during which socially and culturally mixed inner urban environments are strongly valued, and they show high mobility rates on the private rental housing market (Leloup 2002). However, the generally high residential mobility rates of these households[3] act as a catalyst for rising rent levels for it implies a rapid turnover on the rental market in a very liberal context of housing market regulation. Unlike in many other western cities, there is a complete lack of regulations on rent levels once a tenant leaves. There is thus no limit on rent increases upon vacancy of a rental unit, and how the new rent is worked out once a tenant leaves and a new lease is concluded is entirely left to market forces within the framework of individualised negotiations between the landlord and would be renters. Moreover, landlords have ample possibilities for ending a lease before its term (e.g. for self-occupation purposes or for the implementation of substantial renovation work). It is therefore very practical for landlords to upgrade the characteristics and pricing of their housing portfolio in order to meet educated young adults'—or others'—rising demand for comfortable rental units in the central city. This trend obviously acts to the detriment of more socially vulnerable urban dwellers, for they strongly rely on the inner city private rental housing market for accommodation purposes in the face of a residual public housing sector (Charles 2006). Hence, the position of low-income households in the inner city is severely jeopardized even in the absence of any massive transfer of private rental units to owner occupation—as it is the case in more "classic" stories of gentrification reported in literature.

Next to housing market mechanisms, the position of poorly-resourced households in gentrifying inner city neighbourhoods is also exposed to a series of changes affecting broader socio-cultural configurations at the neighbourhood scale. In particular, the influx of young gentrifiers in working-class and ethnic districts often underpins striking changes in the local supply of retail, services and amenities. Such changes prompt the production of new landscapes of "trendy" consumption (Van Criekingen and Fleury 2006), but affect at the same time the living conditions of lower-income residents as the latter may feel loosing a familiar sense of place. In addition, the rising interest in inner city living by educated young adults in non-family households—or by other, wealthier groups—underwrite new policy orientations eager to attract middle-class newcomers to inner neighbourhoods by addressing demands for new amenities and "convivial-looking" public spaces. In practice, since the early 1990s, diverse programmes labelled under "urban revitalization" have been implemented, including the production of housing by public–private partnership structures targeted at middle-class homebuyers, rehabilitation of public spaces, renovation grants for

[3] In Brussels, about 25% of those in the 18–34 age group move each year; this proportion is 38% for young adults in non-family households (Van Criekingen 2008).

homeowners, etc. These policy interventions have, in many cases, triggered the gentrification of inner neighbourhoods (Kesteloot 2000; Van Criekingen et al. 2006).

The conjunction of housing market mechanisms, retail and services turnover, and transitions in policy orientations towards the attraction of middle-class newcomers to inner neighbourhoods eventually affects incumbent residents in various ways, including rent increases, inflating house prices, and a variety of subtle pressures beyond housing cost considerations such as the dislocation of locally-embedded social networks (e.g. when the neighbours have moved away) or the loss of an existing sense of place (see Marcuse 1986). It is not surprising, in this context, that local community organisations in Brussels' inner neighbourhoods have now countless personal stories of deteriorating housing conditions and displacement to relate (Bokhorst 2000; Béghin 2006; Rassemblement Bruxellois pour le Droit à l'Habitat 2007). This strongly suggests that the current round of reinvestment of Brussels' inner neighbourhoods creates winners and losers, and leaves the latter with few other options than staying put at the cost of deteriorating housing and living conditions, or moving away under some sort of constraint—rather than by choice alone.

3 Who is moving out of Brussels' gentrifying neighbourhoods, and where are they going to?

In this section, we empirically explore the socio-economic profiles and destination municipalities of migrants moving out of neighbourhoods showing signs of gentrification in Brussels. This analysis aims to sort out the multiple residential mobility patterns at stake, assess whether a specific pattern of displacement of vulnerable residents can be brought out among them, and outline the destination geographies of potential displacees.

3.1 Data sources and methods

The dataset is composed of the 16,067 migrants whose residence in 2001 was in a Brussels' census tract showing signs of gentrification and who moved to another municipality between 2001 and 2002.[4] The 2001 General Socio-Economic Survey (ex-Census) gives information on the census tracts of origin of the migrants and the Population Register gives information on their destination places for 2002. Since the latter information is only available at the municipal level, I have been compelled to exclude migrants who moved between different census tracts within the same municipality between 2001 and 2002 from our dataset.

Gentrifying tracts have been selected using two criteria, that is, they are those showing (1) a mean household income lower than the city average in 1991, and (2) an increase rate of tertiary degree holders for the 1991–2001 period higher than the increase rate for the whole city over the same period. That is to say that selected areas are initially impoverished neighbourhoods (i.e. in 1991) wherein the share of high-educated households has increased significantly over the 1990s. Accordingly, the combination of these two criteria allows to make a distinction between gentrification of working-class neighbourhoods and further *embourgeoisement* of traditionally wealthy neighbourhoods. This procedure has returned a total of 107 census tracts—among a total of 724 for the whole Brussels-Capital Region. These tracts are in the historic core of the city and in the first ring of 19th-century neighbourhoods, particularly on the south-eastern fringe of the city's historic core. These

[4] This amount accounts for about 9% of the inhabitants in these census tracts in 2001.

Table 1 The set of variables

Characteristic of the migrants in 2001	Variables (separated by ';')
Education level (% over 15)	% With primary or lower secondary education; with upper secondary education; with tertiary education
Position on the labour market (% between 20 and 64)	% Unemployed; working persons; % inactive (% total population)
Age groups (% total population)	% 0–4; 5–19; 20–24; 25–29; 30–34; 35–39; 40–44; 45–54; 55–64; over 65
Gender (% total population)	% Women
Students (% between 15 and 29)	% Students in higher education
Type of employment (% working population)	% Employed as contract staff in the public sector; statutory staff in the public sector; head of company; employee in the private sector; worker in the private sector; self-employed; other
Sector of activity (% working population)	% In agriculture; industry and building; retail and wholesale trade; transportation and communication; finance, insurance, real estate and producer services; non-market services; international institutions; other
Type of contract (% wage-earners or salaried employees)	% Holding permanent contract; fixed term contract; temporary; other
Type of tenure (% total households)	% Homeowner; in private rental; in public rental; in social rental; in private company rental

Note: No direct information on migrants' personal income is available

Sources: 2001 General socio-economic survey

results are very much in line with those brought out of previous empirical efforts to detect gentrifying areas in Brussels (see Van Criekingen and Decroly 2003).

The core of the empirical work discussed below is made of a cluster analysis whose aim is to categorize the destination municipalities of those who moved out of Brussels' gentrifying areas according to the varying social positions or age groups of these migrants. To do so, a series of 42 variables depicting these migrants' socio-economic and demographic profiles have first been extracted from the 2001 Socio-Economic Survey (Table 1).[5] Then, these data have been transformed by means of a Principal Component Analysis (PCA) in order to control for redundancy among the set of variables and reduce its dimensionality, while retaining as much relevant information as possible. The PCA has returned 14 significant Principal Components (PCs) (i.e. eigenvalue >1), accounting for 71.5% of the total variance. Results of the PCA are detailed in Table 2 for PC 1–4. Unsurprisingly, the first PC highlights a socio-economic contrast, with municipalities capturing generally lower- versus higher-status migrants. According to the second PC, there is a significant contrasts between, on the one hand, municipalities capturing a high share of young adults (20–34) holding unstable or transitory positions on the labour or the housing market and, on the other hand, municipalities attracting seemingly more stable households and holders of permanent work contracts. The third PC makes a difference between migrants according to their types of employment, showing roughly a private-to-public gradient. Finally, each of the following components highlights the particular importance of a single variable or a couple of variables in a limited number of municipalities. For instance, PC4 highlights the specific position of elderly migrants.

[5] Accordingly, these variables characterize migrants prior to their move.

Table 2 Principal component analysis: summary of results

Principal component	Share of variance (%)	Highest positive correlations	Highest negative correlations
Rank 1	14.9	% Workers, % unemployed, % less-educated	% Higher-educated, % employees, % working population
Rank 2	11.5	% 5–19, % 0–4, % permanent contract, % homeowner	% 25–29, % 20–24, % 30–34, % fixed term contract, % private tenants
Rank 3	6.1	% Self-employed	% In non-market services, % contract staff in the public sector, % statutory staff in the public sector
Rank 4	4.9	% Inactive, % over 65	% 5–19

Notes: Values for each municipality have been weighted by the total amount of migrants to each of them. Moreover, only municipalities capturing a minimum of 10 migrants from a gentrifying tract in Brussels have been taken into account. This selection eliminates less than 5% of these migrants (15,288 vs. 16,067)

Finally, a cluster analysis has been implemented on the scores of each destination municipalities on the 14 first PCs.[6] This has returned a categorization of municipalities capturing out-migrants from the selected Brussels' gentrifying neighbourhood into five clusters. In Table 3, the values of the initial variables have been computed for each cluster. A chi-square test has also been carried out in order to test the statistical significance of the difference between migrants in each cluster and the whole set of migrants for each variable. A '+' (or '−') indicates that the difference is statistically significant and positive (or negative) for the 99% confidence level ($\alpha = 0.01$). The geographical distribution of these five clusters is mapped on Fig. 1.

3.2 Presentation and discussion of results

Cluster 1 accounts for about half of the migrants considered in this study (53%). It brings together core municipalities of Belgium's largest urban agglomerations, in Brussels (11 of the 19 municipalities composing the Brussels-Capital Region), Ghent, Antwerp and Liège —but not Charleroi—as well as some smaller cities near Brussels (e.g. Leuven). Migrants to these municipalities are typically young adults (53% between 20 and 34), in childless households (under-representation of the 0–4 and 5–19 age groups), working as employees and rarely as workers, and holding tertiary degrees. Moreover, the proportion of students in higher education is highest in this cluster though just below the 99% confidence level for the chi-square test, and most of these migrants were tenants in the private sector prior to their move. Although we have no information on modes of tenure at these migrants' new places of residence, it is very likely that many among them remained tenants after their move since municipalities they have moved to are in densely-built urban environments characterised by a large supply of private rental units.

These characteristics highlight the predominance of educated young adults at the start of their professional career and in childless households among out-movers from gentrifying

[6] Data subjected to the cluster analysis have been computed as follows: score on PCn * square root (eigenvalue PCn), with $n = 1$–14. This transformation aims at taking into account the decreasing amount of variance brought by each PC. The cluster analysis has been built using a Ward hierarchical method of classification.

Table 3 Characteristics of the migrants in the five clusters derived from the cluster analysis

	Cluster 1		Cluster 2		Cluster 3		Cluster 4		Cluster 5		All (%)
	%	Chi	%	Chi	%	Chi	%	Chi	%	Chi	
0–4	7.6	−	10.0	+	13.9	+	4.1		10.3		8.8
5–19	11.0	−	17.9	+	15.3		11.7		18.3	+	14.1
20–24	14.6	+	12.9		10.1		15.9		6.5	−	13.4
25–29	22.5	+	15.5	−	20.4		9.0	−	16.5		19.4
30–34	16.0	+	13.1	−	14.6		6.9		16.6		14.8
35–39	9.8		9.5		9.4		7.6		11.6		9.8
40–44	5.6		6.2		4.9		6.2		5.3		5.8
45–54	6.7		6.7		3.4	−	20.0	+	6.5		6.7
55–64	3.1	−	4.3		2.2		9.7	+	4.7		3.7
65 or more	3.1		4.0		5.6		9.0	+	3.6		3.6
Women	46.5		47.7		55.1		44.1		48.6		47.3
Less-educated	19.9	−	28.5	+	19.7		28.0		20.8		23.2
Upper secondary education	20.9		23.0		21.1		20.5		20.7		21.6
Higher-educated	31.0	+	18.7	−	41.5	+	21.2		41.4	+	27.3
Unemployed persons	17.0		19.6	+	14.1		13.8		8.3	−	17.4
Working populations	49.6		48.2		66.1	+	40.9		68.3	+	50.6
Inactive persons	8.6		10.2		8.8		22.8	+	8.0		9.3
Students in higher education	12.7		9.6		4.7		11.2		9.8		11.1
Contract staff (public sector)	6.9		6.5		16.1	+	5.3		9.2		7.1
Statutory staff (public sector)	7.6		6.6		12.2		1.7		7.8		7.3
Heads of company	1.5		1.1		2.7		2.0		3.8		1.5
Employees (private sector)	34.0	+	23.5	−	31.8		31.6		38.8		30.3
Workers (private sector)	17.1	−	23.8	+	14.7		20.5		10.3	−	19.2
Self-employed	8.8		7.2		6.0		19.5	+	15.2	+	8.6
Other professional positions	7.9		8.1		3.2	−	1.0		6.8		7.7
Activity: retail, wholesale trade, transportation, communication	28.8		32.7		17.9	−	37.2		26.3		29.9
Activity: finance, insurance, real estate and producer services	12.7		11.0		8.4		5.2		17.9	+	12.1
Activity: non-market services	21.3		18.8		39.3	+	8.8		21.9		20.8
Other activities	37.2		37.5		34.4		48.9		34.0		37.2
Wage-earners: permanent contract	75.6		79.4		86.4		88.6		86.4		78.0
Wage-earners: fixed term, temporary or other contract	24.4		20.4		13.6		4.5		13.6	−	21.8
Homeowners	15.1	−	19.2		17.5		36.0	+	34.9	+	18.0
Tenants: private sector	72.2	+	63.3	−	64.1		53.9		54.1	−	67.5
Tenants: public sector	9.9	−	14.5	+	14.4		10.1		7.7	−	11.6

Table 3 continued

	Cluster 1		Cluster 2		Cluster 3		Cluster 4		Cluster 5		All (%)
	%	Chi	%	Chi	%	Chi	%	Chi	%	Chi	
Number of migrants	8,169		5,669		445		145		860		15,288
Proportion of migrants	53		37		3		1		6		100

Sources: 2001 General socio-economic survey and population register—own calculations

Notes: Some initial variables have been grouped in order to avoid very small numbers. Values have been weighted by the number of migrants to each municipality within each cluster

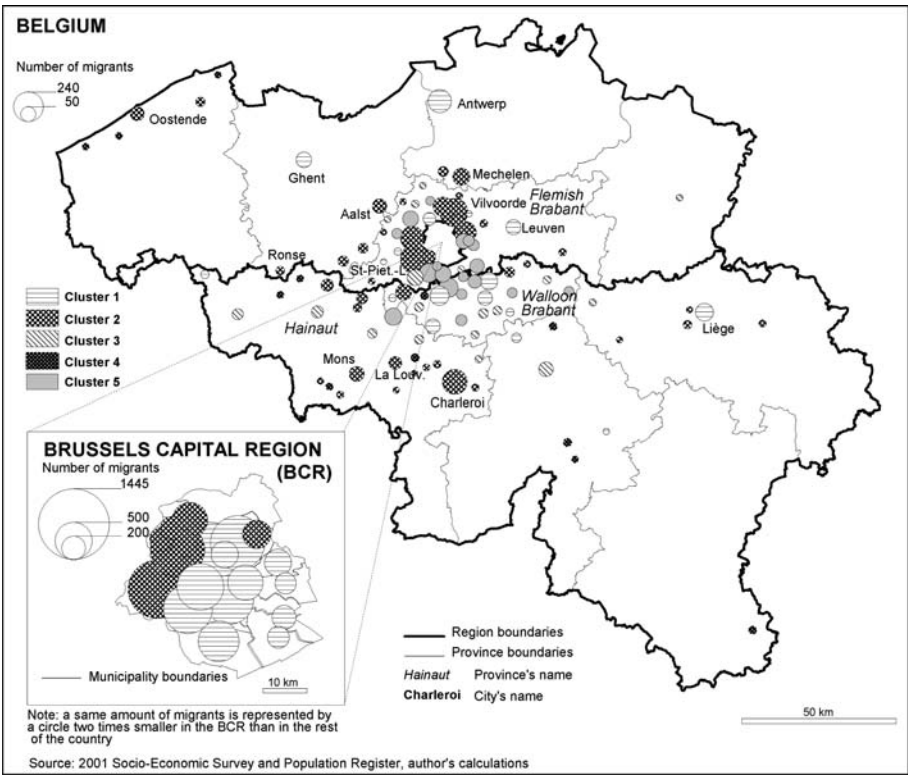

Fig. 1 Who is moving where? Results of the cluster analysis on out-migrants from Brussels' gentrifying tracts between 2001 and 2002

neighbourhoods. Most of them move within Brussels or from Brussels to the core of another large city in Belgium—hence possibly between different gentrifying neighbourhoods in Brussels or in other cities. For many of these educated young adults in non-family households, residing in a gentrifying neighbourhood in Brussels is a transitory option in their housing career. As these young adults become parents and older, more stable or well-to-do professionals, their residential careers are then very likely to proceed elsewhere in

the wider urban environment—i.e. in more established middle-class residential areas in the rest of the city or in the suburbs (Grimmeau et al. 1998).

Cluster 2 accounts for another 37% of the migrants. Workers, unemployed persons and less-educated individuals, as well as households with children, are clearly over-represented among this sub-set of migrants. The large share of children in this cluster can be interpreted as reflecting the presence of families from foreign origin showing generally higher fertility rates. Within Brussels, destination municipalities grouped in this cluster are in the western part of the city, that is, in the portion of the city concentrating most of the working-class and ethnic neighbourhoods (e.g. Molenbeek, Anderlecht).[7] Outside the limits of the Brussels-Capital Region, municipalities in this cluster are apparent in old the industrial axis structured by the canal linking Wallonia and Northern France to Antwerp (e.g. Vilvoorde, Sint-Pieters-Leeuw, Willebroek, Tubize), in some small- or medium-sized cities (e.g. Mechelen, Aalst, Oostende) and in Wallonia's old industrial agglomerations, mostly in Hainaut (e.g. Charleroi, Mons, La Louvière) or in Liège's inner suburbs (e.g. Seraing). Unsurprisingly, the mean household income for municipalities in this cluster is the lowest amongst the five groups.

These characteristics suggest that a sizeable share of the migrants moving out of Brussels' gentrifying areas in the early 2000s are poorly-resourced individuals moving towards generally depressed areas, in Brussels or outside the city. Accordingly, if we consider that gentrification processes in Brussels brings about diverse displacement effects—as I have argued in the first part of the paper, it is very likely that displacees will relocate in the areas shown in this cluster. Obviously, this is not to say that *every* migrants in this cluster moved out because of gentrification-induced displacement pressures. Unfortunately enough, not any existing dataset would allow to return an estimate of the number of individuals who have been actually forced out of their neighbourhood by the advance of gentrification—hence allowing to count the actual number of displacees. Motivations to move are inferred here from the combination of the migrants' socio-economic and demographic profile, and the type of municipality these migrants are moving to. Additional, more ethnographic research work designed to specifically assess the diverse motivations of out-movers from gentrifying neighbourhoods is necessary to further address this issue. For instance, there is existing evidence of upwardly-mobile households from immigrant origin moving away from gentrifying inner city neighbourhoods. Their destination areas are most typically in lower-middle-class, lesser density neighbourhoods in the western part of the city, regarded as more appropriate environment to raise children (Mashini 1998; Van Criekingen 2002). Surely, these households are not typical examples of low-income displacees. Yet, it would be unrealistic to underestimate movements caused by gentrification-induced displacement pressures in the Brussels' context (i.e. rapid rent increases, selling out of houses, landlord harassment, social networks dislocation, loss of a familiar sense of place at the neighbourhood scale, etc.). In this context, I argue that the basically quantitative approach implemented here gives a believable picture of the geography of gentrification-related displacement, that is, findings highlighted here show where former inhabitants displaced by the advance of gentrification in Brussels' inner neighbourhoods are most likely to relocate.

[7] The scale of the municipality, however, is not ideal to select impoverished neighbourhoods in Brussels, with municipalities such as Molenbeek and Anderlecht actually showing dual territories (i.e. working-class and ethnic areas in their eastern parts versus middle-class areas in their western parts).

Accordingly, Fig. 1 suggests that most of the (potential) displacees are restricted to short-distance moves towards western municipalities within Brussels, although others move over longer distances and leave the city as a whole. This result echoes above-mentioned findings derived from other case studies (e.g. Lyons 1996), and it confirms, for the Brussels' case, existing views on the mounting concentration of vulnerable groups in traditional working-class and ethnic neighbourhoods in the western inner city (Kesteloot 1995, 2000). It also echoes the aforementioned hypothesis that some displacees will move farther away outside the city. In the Brussels' case, findings show that the latter are most likely to relocate in generally depressed regions severely hit by deindustrialisation where a large supply of old workmen's houses accounts for much lower housing price levels than in Brussels (see also Kesteloot and Vandenbroecke 1998).

It is worth mentioning here that, to some extent, migrants moving out of the selected gentrifying tracts in Brussels are specific—though obviously not exclusive—to the whole set of migrants relocating in municipalities categorized in these two-first clusters. Indeed, the proportion of out-migrants from gentrifying neighbourhoods to all out-migrants from the Brussels-Capital Region is 22.6% when all destination municipalities in the country are taken together; this proportion is higher for municipalities in clusters 1 and 2 (24.2% and 23.9% respectively) and conversely lower for municipalities in the three remaining cluster (respectively 19.2%, 15.8% and 15.2% for cluster 3, 4 and 5).

The last three clusters (3, 4 and 5) bring together the destination municipalities of the remaining 10% of the selected migrants. Most municipalities categorized in clusters 3 and 5 are in middle-class suburban areas. Migrants who moved to both of them are mostly higher-educated individuals, working populations and adults with children. Employees in the public sector and non-market services are specific to cluster 3, while self-employed, employees in finance or producer service are specific to cluster 5. In addition, migrants in cluster 3 are slightly younger (maximum for the 25–29 age group) than those in cluster 5 (maximum for the 30–34 age group), and the proportion of homeowners is two times higher in cluster 5. These results indicate a sorting of migrants leaving gentrifying neighbourhoods towards suburban municipalities. On the one hand, cluster 5 points to patterns of middle-class suburbanisation towards well-established affluent municipalities close to the borders of the Brussels-Capital Region, in Flemish or Walloon Brabant. These areas were highly demanded by previous generations of middle-class households favouring homogeneous and family-oriented social environments outside the core city (De Lannoy and Kesteloot 1990). On the other hand, cluster 3 points to suburbanisation patterns associated with younger households and directed towards more distant municipalities. This therefore indicates that, if leaving the core city towards the suburbs, young or (still) moderate-income middle-class households are restricted to more outlying municipalities, for most new-build suburban developments are now concentrated in these areas (Hermia 2005). In sum, the legacy of earlier phases of socio-spatial organisation in the Brussels metropolitan area is instrumental in the current sorting of migrants leaving the city towards suburbia, with younger suburbanites compelled to generally longer distance moves (Oris and Poulain 2003).

Finally, cluster 4 points to residential migration patterns highly specific to elderly people leaving Brussels and relocating in remote, non-metropolitan areas, notably tourist municipalities at the North Seaside. Grimmeau (2003) has highlighted that such retirement moves now largely anticipate the end of the professional career, that is, concerning people from the age of 45. The age distribution of migrants in cluster 4 returns a very similar result.

4 Conclusion

Empirical results achieved in this study clearly indicate that residential mobility patterns of very different nature are conflated in the set of migrants whose 2001 residence was in a Brussels' gentrifying district. Surely, the majority of these out-migrants do not match the idea of low-status residents being forced out of their neighbourhoods as gentrification develops in the inner city, i.e. gentrification-induced displacement. Rather, educated young adults in non-family households, renting homes from private landlords and strongly valuing the new, "trendy" atmosphere of inner neighbourhoods compose the largest group among these migrants. These households show high levels of residential mobility in relation with changing professional and family positions, and their residential trajectories are heavily focused on the densely-built urban environment, in Brussels or in other large cities. These findings eventually point to importance of middle-class young adults opting for the inner city as temporary holding areas among the protagonists of gentrification in Brussels' inner neighbourhoods (see Van Criekingen 2008).

Yet, empirical results also highlight a specific mobility pattern associated with low-status individuals moving out of gentrifying neighbourhoods (i.e. less-educated persons, unemployed people and workers). This group account for a sizeable 37% of the whole set of migrants considered in this study, and their destination municipalities are primarily in economically depressed areas, in the western part of Brussels or outside the city. The precise number of those among them who have actually been displaced by the advance of gentrification is an information that is not provided by the data and methodology used in this paper—such quantitative dataset actually does not exist for the Brussels' case. However, I argue that these findings make a relevant contribution to the debate on gentrification-induced displacement for they outline a believable picture of the geography of displacement. That is to say that they show where former inhabitants displaced by gentrification are most likely to relocate. These households appear most likely to move over short distances, and relocate within the city, in impoverished working-class neighbourhoods in the western inner city in particular. Nevertheless, they are also likely to move over longer distances, leave the city and relocate in smaller cities hit by disinvestment in the post-industrial period where affordable housing opportunities are less uncommon.

These findings echo earlier works that have commented on the growing social-spatial polarisation of the Brussels' urban landscape (e.g. Kesteloot 2000). In addition, they validate to some extent appraisals by local community organisations (such as tenants unions and neighbourhood associations) that stress that part of the urban poor are being "exported" from gentrifying inner neighbourhoods in Brussels towards other, generally depressed cities in the rest of the country, hence adding even more load on supportive services in destination areas. In my view, these results eventually stress the relevance of re-invigorating research work on the many meanings and impacts of current waves of reinvestment in inner city neighbourhoods, including gentrification-induced displacement. Further empirical works are needed in this respect—both qualitative and quantitative ones, and views on the destination areas of those affected by gentrification are valuable contributions to this field.

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