



UvA-DARE (Digital Academic Repository)

Cocooning urban life

Exposure to diversity in neighbourhoods, workplaces and transport

Boterman, W.R.; Musterd, S.

DOI

[10.1016/j.cities.2015.10.018](https://doi.org/10.1016/j.cities.2015.10.018)

Publication date

2016

Document Version

Final published version

Published in

Cities : The International Journal of Urban Policy and Planning

License

Article 25fa Dutch Copyright Act (<https://www.openaccess.nl/en/in-the-netherlands/you-share-we-take-care>)

[Link to publication](#)

Citation for published version (APA):

Boterman, W. R., & Musterd, S. (2016). Cocooning urban life: Exposure to diversity in neighbourhoods, workplaces and transport. *Cities : The International Journal of Urban Policy and Planning*, 59, 139-147. <https://doi.org/10.1016/j.cities.2015.10.018>

General rights

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.



Cocooning urban life: Exposure to diversity in neighbourhoods, workplaces and transport



Willem R. Boterman*, Sako Musterd

University of Amsterdam, Urban Geography/Centre for Urban Studies, Nieuwe Achtergracht 166, 1018 WV, Amsterdam, Netherlands

ARTICLE INFO

Article history:

Received 29 January 2015
Received in revised form 27 October 2015
Accepted 31 October 2015
Available online 13 December 2015

Keywords:

Segregation
Diversity
Disaffiliation
Mobility
Ethnicity
Class

ABSTRACT

Although one's neighbourhood is continuously structuring everyday lives and influences encounters between different people, place of residence is only partially the site where interactions and possibly integration between population categories occur. Another well-known domain is the place of work, where many spend hours per day and may meet various 'others'. However, people's mobility is also strongly differentiated between class and ethnicity. Here too, different modes of transport may offer opportunities for encounter and engaging with others. In order to assess exposure to diversity of individuals from various ethnic and social class backgrounds to 'the other' we focus on these three important realms of daily life: neighbourhoods, workplaces and modes of transport. We use individual level data from the Mobilities Netherlands Database combined with detailed individual level register data from the Social Statistical Database. We found that, overall, higher income natives are, compared to the other combinations of country of origin and income category most frequently *cocooning* in homogeneous residential, workplace, and mobility spaces. However, native-Dutch with a low income stand out in the residential domain, where they are living more frequently in homogeneous neighbourhoods than high-income natives.

© 2015 Elsevier Ltd. All rights reserved.

1. Introduction

Exposure to diversity, generally defined as the probability of encountering people with different attributes, has frequently been ascribed potential positive effects: Diversity would create better socialisation opportunities, better conditions for offering strong role models, and more supportive social networks with helpful weak ties (Wilson, 1987). Diversity, however, refers to a wide variety of visible and less visible attributes, all of which make people differ from others (Dukes and Musterd 2012, p. 1983); diversity is a multidimensional concept, which may for instance refer to gender, age, lifestyle, household type, class or ethnicity/race. Most commonly, however, diversity is only conceived in ethnic or racial terms or in terms of class. In this paper we focus on diversity as a combination of socio-economic position and ethnicity defined by income and country of origin. The rationale for this choice is that much of the social urban discourse is actually dealing with neighbourhood poverty, social inequality, and the gap between rich and poor, as well as with inter-cultural relations. Many debates are on social and 'ethnic' (spatial) segregation and are confined to exposure to 'the other' in these spheres. In these realms, several policy makers and politicians see exposure to diversity as a useful 'instrument' to help avoid the development of 'parallel societies' that might limit opportunities of full participation in society of some, and be a threat

to social order (see Phillips, 2010; Uitermark, 2003). In part of the urban economic literature diversity is celebrated for its potential value for advanced economic development, with the idea that the 'creative class' would like to be exposed to diverse places (Florida, 2002).

However, a plea for more diversity does not always have to imply that this also is a plea for more exposure to diversity, let alone that it will result in mixed communities with lively interaction between diverse people. Critical academics have found that support for diversity may just serve other purposes; increasing diversity in initial stages may ultimately result in socially homogeneous territories, something that seems to be quite common in gentrification processes that are favouring the affluent (Lees, 2008); others have suggested that exposure to diversity may actually result in withdrawal from community life (Putnam, 2007) or will result, at best, in a situation in which diverse people living together may have a higher probability to be exposed to others, but are in reality not interacting or integrating much (see Blokland, 2003; Blokland & Van Eijk, 2010; Robson & Butler, 2001); a certain segment of the socially and economically powerful middle and upper class or the ethnic majority may even decide to leave exposure to diversity entirely behind and dis-affiliate from the rest of the population and withdraw in encapsulated homogeneous environments (Atkinson, 2006). The latter case suggests that social class is actually a key concept to address. A relevant question to be answered then is to what extent higher classes are organising their life in homogeneous settings?

A second reason to approach the diversity debate in a critical way is the fact that this debate has mainly focused on exposure to diversity in the residential domain, whereas other spheres of (daily) life may

* Corresponding author.

E-mail addresses: w.r.boterman@uva.nl (W.R. Boterman), s.musterd@uva.nl (S. Musterd).

be just as important. In particular the place of work stands out as an environment in which many people spend a lot of time (Åslund & Skans, 2010; Blumen & Zamir, 2001; Strömberg et al., 2014). Exposure to others in that domain of life may be just as relevant as it is in the residential environment. In addition, we might want to scrutinise the way people get to and from their place of work, because the selected modes of transport may also vary in terms of the exposure to diversity it involves (see Alaily-Mattar, 2008; Wilson, 2011). We intend to expand the knowledge about diversity in all three domains in which people spend a large amount of time on a daily basis. We argue that there is, in particular, insufficient knowledge about the confrontation to various levels of diversity in these 'other' domains, the realms of work and transport between home and work. Whereas our focus will be on obtaining more insight in what the exposure is to different levels of diversity in all three domains, and how they relate to each other, the findings may also help to eventually understand the effects of it on the life chances of individuals.

We would like to stress that we do not assume that exposure to diversity will automatically result in smoother interaction between different people, or in improved mutual understanding or respect. Other conditions may be required before such effects may happen. However, non-exposure to diversity – in other words: cocooning – will, in our view, almost certainly block opportunities to come closer to each other. This is a major argument for the focus of this paper: to study exposure to diversity in crucial domains of daily life.

We will investigate the exposure to diversity in the metropolitan area of the five largest cities in The Netherlands: Amsterdam, Rotterdam, The Hague, Utrecht and Eindhoven. These cities have much in common, but they also differ from each other, for example in terms of their economic profile and professional structure. Such differences may be reflected in the levels of exposure to diversity, which is a reason to include the cities as dummy variables in the analysis. The question to be addressed in this paper is:

To what extent are different categories of individuals exposed to diversity in the neighbourhood of residence, the place of work, and the mode(s) of transport they use?

Hereafter, we will elaborate on the existing literature on exposure to diversity in various domains. This will be followed by a short exposé on the data and methods applied in the empirical section. Finally, there will be a conclusion and discussion section.

1.1. Literature

Diversity and segregation relate to each other, especially where spatial distributions of household categories across space are used to investigate the probability for encounter within delineated areas. The probability of encounter is often seen as a key to the understanding of societal questions related to social mobility, 'participation', 'co-existence', 'integration', mutual understanding, and 'living together' of different urban population categories (examples: Andersson, Musterd, & Galster, 2014; Robson, 1975; Wilson, 1987; Musterd & Ostendorf, 1998; Phillips, 2010; Maloutas & Fujita, 2012). The literature in this field has overwhelmingly been focused on segregation and exposure in the residential domain and literally looked at 'living together'. Moreover, much of this literature has been written with a focus on the poor or on migrant populations who find themselves in persistent poverty or who came from poor, so-called 'developing', countries. The literature on exposure to diversity of the affluent and 'natives' and the exposure to diversity 'at work' or 'in transport' received much less attention.

1.2. The residential domain

An important segment of the academic literature suggests that reducing poverty concentrations in certain neighbourhoods, especially

reducing low-income ethnic residential concentrations, and stimulating socially and ethnically diverse or mixed communities is the preferred intervention because of the assumed positive impacts of exposure to diversity. Recently published neighbourhood effect studies, based on large-scale longitudinal quantitative analysis (for example Cutler, Glaeser, & Vigdor, 2008), and on in-depth qualitative research (see Hastings, 2009; Pinkster, 2009) are supporting that view. Oliver and Wong (2003) found that interethnic proximity corresponds with lower levels of prejudice to the out-group and saw this as a plea for more diverse environments. Galster, Andersson, Musterd, and Kauppinen (2008), however, found that social mobility was negatively affected by the neighbourhood context when the social distance between residents in the neighbourhood became rather large.

A view in support of diversity can also be found in the political arena. Policies include efforts to create 'balanced communities', or diverse communities, and involve programmes that assist residents to move to other, more diverse, neighbourhoods, with 'more opportunity' (see for example: Goetz, 2002; Lupton & Tunstall, 2008; Musterd & Ostendorf, 1998). Thus, many governments have adopted the idea that specific ethnic and/or social concentrations are detrimental to local societies. In particular this would hold for concentrations of immigrants with origins in poor countries, and for concentrations of poverty. Frequent exposure to such concentrations is thought to prevent the full integration and participation of those who are living there. As a response, policies have been developed to reduce residential concentrations and make them more diverse or mixed. Specific interventions include housing demolition, refurbishment, tenure conversion and new construction. Several social mix programmes aim to decrease the share of low-cost social housing and increase the share of more expensive housing. Higher income households would be attracted by such interventions, which would result in more diversity to which residents can be exposed.

Popkin, Levy, and Buron (2009) argued, however, that in reality much displacement in the neighbourhoods targeted by social mix policies occurs. This also reflects the ideas of other scholars who argue that interventions aimed at mixing, balancing, and diversification actually are not so much aimed at providing better opportunities for 'weaker' population categories in terms of access to resources that would give them a stronger position, but serve other objectives instead, such as changing the existing social structure by igniting gentrification processes. These processes of social change are often assisted by the state (see for example Uitermark, Duyvendak, & Kleinhans, 2007; Lees, 2008).

Other scholars (but fewer policy makers) also question the prevailing 'exposure to diversity' philosophy, emphasising that residents of specific groups hardly interact with residents of other groups (Blokland & Van Eijk, 2010). This phenomenon, which is also described as 'social tectonics' (Robson & Butler, 2001), is central in the argument of Watt (2009) and Savage, Bagnall & Longhurst (2005) as well. They state that middle classes in diverse neighbourhoods develop selective strategies of belonging by which they avoid certain forms of diversity while embracing others. Valentine (2008) came to similar insights. She questions the idealisation or even 'romanticization' of spaces of encounter in the city. She stresses that "proximity does not equate with meaningful contact" (p. 334), and found that proximity to others and diversity actually often generates or aggravates negative viewpoints toward other groups. These findings, which are in contrast to those of Oliver and Wong (2003) also come close to some of Putnam's (2007), who suggests that increasing diversity will only result in hunkering down of people because they do not trust the other; they would withdraw from community life, avoid exposure to 'the other', and try to move into more homogeneous environments. Putnam argued that "the more ethnically diverse the people we live around, the less we trust them" (Putnam, 2007, p. 147). He found these attitudes in a wide range of neighbourhoods, poor and affluent, but it is evident that especially those who can afford are able to achieve their homogeneity objectives.

Other research underlines the prominent position of the better-off. Atkinson has shown that the economically strong middle class is following the upper class in their search for dis-affiliation. He describes a process through which the middle class retreats in some insulation because of fear for social or other disorder; they would end in a state of incarceration, almost completely cut-off from the rest of society, often in 'safe' enclaves or gated communities (Atkinson, 2006). Atkinson argues that policies that encourage mixed neighbourhoods and that celebrate diversity are actually in contrast with the needs of the affluent and middle class who seem to favour social homogeneity. Whereas Putnam did not distinguish between social classes who were 'hunkering down', Atkinson specifically describes the 'hunkering down' of the affluent (without using the terms).¹ Johnston, Forrest, and Poulsen (2002) refer to similar blocking strategies of those who are living in 'majority' neighbourhoods (blocking 'minorities') in an effort to maintain their 'isolated host communities'. This is in line with ethnographic research on gated communities in American cities by Low (2001), who concluded that "these [homogeneous] communities respond to middle-class and upper-class individuals' desire for community and intimacy and facilitate avoidance, separation, and surveillance" (p. 48). Parallel to Atkinson's view the conclusion was that the most important function of these homogeneous communities is to reduce the fear for crime.

1.3. From residential to activity space segregation

The literature presented so far suggests that households tend to avoid exposure to diversity – especially when the social distance between the household and their environment is substantial. However, the question is, whether that avoidance also stretches to domains other than the residential. Several scholars argue that opportunities for encounter outside the residential space should be taken into consideration as well (Åslund & Skans, 2010; Atkinson & Flint, 2004; Blumen & Zamir, 2001; Strömberg et al., 2014; Wong & Shaw, 2011). Residential segregation is too static an approach and fails to address the fact that most people move out of their neighbourhood to work (Ellis, Wright, & Parks, 2004), recreate (Kwan, 2013), and meet others. Kwan (2013) therefore argues for an integration of segregation literature with time-space geographies and mobility literature that includes the temporal dimension. Wong and Shaw (2011) present such an alternative evaluation of segregation based on what they refer to as 'activity space'. Activity spaces encompass a combination of spheres of life; not just the residential, but also spaces such as work and leisure (Wang, Li, & Chai, 2012). Answering Kwan's (2009) for developing people-based measures instead of place-based measures of segregation we aim to realise that via our analysis of the 'exposure to diversity'. Also supporting Wong and Shaw's call for a more integral approach to segregation; we combine exposure to diversity in three relevant spheres simultaneously: in residential, workplace and transport space.²

1.4. Workplace diversity and segregation

Several studies have argued that the workplace is a key sphere in which integration takes place and diversity at the work place may have positive effects, particularly for non-natives (Tamaru et al.,

2010; Thomas & Jackson, 1992; Prasad, Pringle, & Konrad, 2006). Few studies however, have investigated how much people are exposed to diversity when at work. There is a substantial literature that evaluates the segregation of occupations across sex and race/ethnicity (e.g. Tomaskovic-Devey, 1993). Also numerous studies have investigate the extent to which labour markets are more or less polarised and how this is linked to the location of people and jobs (Wyly, 1999). Space is thus promoted as a key explanatory variable, providing a link between residential and occupational segregation. Drawing on Swedish register data, Strömberg et al. (2014) scrutinised the relationship between residential and workplace ethnic segregation, concluding that the workplace is less segregated than residential neighbourhoods. In another study Blumen and Zamir (2001) also demonstrate the interrelatedness of occupational and residential segregation. They argue that geographical studies have neglected the importance of occupation as a socio-economic factor that informs residential segregation. Based on census data they conclude that workers of different occupational categories are both segregated across workplace and residential environment. They therefore reject the idea that workplaces are more integrated social spaces than residential spaces. Although the degree and the way in which workplace and residential neighbourhood are linked together, Blumen & Zamir rightfully assert that work and home are integrated into a 'comprehensive social experience' (p. 1779). Moreover, they also point out that these spheres are linked together through mobility.

1.5. Transport segregation and mobility

Spatial mobility, e.g. commuting, is not just a linkage from sphere to sphere but constitutes a sphere in itself (see for instance Alaily-Mattar, 2008). As Wong and Shaw (2011) state in their activity space approach, exposure to others occurs in time and space. On the move people meet others, interact with others and may even establish social bonds. Transport spaces are therefore another domain or sphere that should be integrated into studies on exposure to diversity.

The relationship between mobility and segregation has mainly been studied from the perspective of transport-related exclusion (Cass, Shove, & Urry, 2005; Kenyon, Lyons, & Rafferty, 2002; Lucas, 2012). A classical and highly influential example of mobility-related exclusion is presented by the spatial mismatch thesis, which regards the mismatch between the (relatively central) place of residence of poor Afro-Americans and the (relatively peripheral) location of work that fits their skills. This mismatch contributes to marginality and greater risks of unemployment and thus exclusion of Afro-American workers in deindustrialising cities in the US (Kain, 1992).

This instrumental perspective, however interesting and relevant, neglects the fact that being on the move is both a spatial and a temporal experience. Another perspective on segregation, which is more closely related to the activity-space approach focuses on micro ecological perspectives on segregation. Some of these studies stress the importance of the production of difference on an everyday basis at the lowest scale at which these practises occur such as for instance beaches or buses (Dixon, Tredoux, Durrheim, Finchilescu, & Clack, 2008; Schnell & Yoav, 2001). Studies of micro-segregation show interesting parallels with work about the micro-politics of transport spaces (Wilson, 2011). As Jensen (2009) has suggested these micro-perspectives may appear relatively petty and unimportant, but they constitute an assemblage of spaces that make an important part of everyday life. Activity spaces and also transport spaces themselves (inside a bus, tram, metro, car etc.) are key sites of encounter and identity formation (Wilson, 2011). Conceiving of transport spaces as an important domain or sphere of encounter opens it up for studies on exposure to diversity and the social (de)construction of difference. Exposure to difference in transport space or mobile space as it has been called (Alaily-Mattar, 2008) depends on the mode of transport, as well as the route, the time of day and the duration. If transport is aimed to minimise exposure to others Atkinson and Flint (2004) have referred to the transport from

¹ The fact that the literature stresses spatial behaviour aimed at homogenisation of especially the affluent and middle-class households is understandable from the perspective of the larger volume of social, economic and cultural resources they have and can employ for realising their homogenisation needs in many domains of life. However, this does not imply that households with fewer resources do not show similar behaviour in some of the domains. In a recently published study Musterd, Van Gent, Das, and Latten (2015) are showing that a large social distance between individuals and their residential environment triggers more residential mobility than a smaller social distance; and when a move occurs, residents appear to reduce the social distance between themselves and their neighbourhood; this turned out to be true for affluent as well as for poorer people.

² We are aware of the potential relevance of other spaces, such as the recreational space, or school spaces, but for practical reasons confine ourselves to the three mentioned spaces.

the neighbourhood to workplace as ‘corridors’. In a later paper Atkinson (2006) identified using car transport as part of ‘incubating’ and ‘incarcerating’ strategies of middle and upper class disaffiliation. These studies have presented important ideas about how transport can be a means and a space proper to maintain distance. Being small scale qualitative studies however, it is not yet clear how common different strategies of disaffiliation are and how they are linked together. This paper will make an attempt to do this based on individual data about exposure to residential space, work, and transport.

2. Data and methods

This paper draws on register data from the System of Social Statistical Databases (SSD) 2008. The SSD contains detailed information about all citizens in The Netherlands, who are individually registered via encrypted social security IDs. These unique codes allow for a linking of various separate databases. For this paper we have combined three databases: the SSD-person, containing information such as household characteristics, age, ethnicity and income; SSD-work, containing information about among other things, the sector, the size and location of the workplace of individuals; and data from a large survey on mobility behaviour, the MON 2008, which extensively investigates the frequency, duration, motivations and modes of mobility.

This paper selected only inhabitants of the metropolitan regions of the five largest cities in The Netherlands: Amsterdam, Rotterdam, The Hague, Utrecht and Eindhoven. These five urban areas differ considerably in terms of their size, their population composition, as well as their housing market structure and transportation infrastructure. This selection of urban regions thus allows for a variety of ways in which people in Dutch urban regions may be exposed to diversity. The final sample contains 12,265 respondents with 42,699 trip-observations.

2.1. Diversity

The diversity of place of residence and workplace has been assessed by the Herfindahl-index. This entropy-measure calculates the squares of the proportions of predefined groups, which are then summated. The index is frequently used for measuring the diversity of population categories when more than two categories have been distinguished. The maximum score depends on the number of predefined categories and is asymptotic to 1.

$$H = \sum_{i=1}^N s_i^2$$

where s_i is the fraction of category i in the spatial unit (neighbourhood or workplace) under consideration; N is the number of categories. For sake of interpretation the score is subtracted from 1, so a higher score corresponds with a high level of diversity. The Herfindahl-index is calculated for neighbourhood and workplace based on nine categories in which income and ethnic background are combined at individual level (see Table 1 below). Income categories are defined by percentile groups based on individual gross annual household income at the national level. Low incomes are the first 40%, middle incomes 41–70%; and high incomes are the top 30%. Ethnicity is categorised in the standard definition of Statistics Netherlands in which non-natives (*allochtonous*) is defined based on the country of birth of parents.

Table 1
Nine population categories based on income and ethnic composition.

	Native-Dutch	Non-western	Western
Low income	1	2	3
Middle income	4	5	6
High income	7	8	9

In The Netherlands, on-natives are usually categorised into ‘non-western’³ and ‘western’. Although we recognise that this is a coarse measure, we contend that this division is nevertheless an adequate approximation of the most important distinction that defines ethnic diversity in The Netherlands. When we assess the effect of individual level income and ethnicity on exposure to diversity we maintained more detailed categories of income (10 deciles) and ethnicity (the seven main ethnic groups as defined by Statistics Netherlands⁴).

2.2. Exposure to neighbourhood diversity

The first sphere in which people could be exposed to diversity is the residential neighbourhood. In order to calculate the H-index for neighbourhoods we first categorised all individuals into one of the nine groups, created dummies and then aggregated at the level of the neighbourhood. Neighbourhood here is defined by Statistics Netherlands. In the largest urban regions the average number of residents per neighbourhood is approximately 3000. This size is somewhere in between the block group and census tract used in US statistics. Individuals were attributed a score on neighbourhood diversity based on the neighbourhood in which they reside.

2.3. Exposure to workplace diversity

The second sphere in which people could be exposed to diversity is the workplace. In order to calculate the H-index for workplace we aggregated the proportion of the nine groups at the level of the workplace. Workplace here is defined as *bedrijfsidentificatienummer*, which is an encrypted unique number for each employer in The Netherlands. It refers to the company they work for. Individual workers were attributed the score for the diversity of their workplace. It should be noted that diversity at the level of the employer does not always translate into a diverse workplace. Some employers have several locations which may differ in terms of who works there. Nonetheless, we hold that the diversity of large employers likely has meaning for all of its locations.

2.4. Exposure to transport diversity

For our approach to exposure to diversity in transport spaces we draw on a large national survey (MON) that contains information on the use of various transport modes in trips people made in two weeks in 2008. For our analysis of exposure to diversity we use the share of total travel time of a specific mode of transport (car, public transport, and biking/walking) to measure potential exposure to diversity. We suggest a typology in which we assume public transport (bus, tram, metro) as the form of mobility in which people are most exposed to diversity⁵ and car-use as the form of mobility through which people are least exposed to diversity (see also Atkinson, 2006). We treat biking/walking as an intermediate category, as a form of mobility that is also highly individual (like cars), but where more interaction with fellow users occurs. For the sake of space, we do not include trains in our discussion.⁶ Since all individuals could make several trips, which differ in duration and mode of transport, we calculated the share of total travel time for each transportation mode. We also made efforts to include temporal differences (night/evening/day) and the purpose of the trips but the number of respondents appeared to be too low to make

³ Non-western is defined as a parental background in African, South American, and Asian countries, except for former Dutch colony Indonesia, and Japan.

⁴ The seven main ethnic groups are native-Dutch; Surinamese; Caribbean; Turkish; Moroccan; other Non-Western; and Western

⁵ From additional analysis it appears that the chance of meeting someone of a different ethnic/income group is highest in public transport (bus, tram, metro).

⁶ Trains occupy an intermediate position in terms of diversity. We did run the analyses but due to a lack of space we do not discuss it in this paper. Please refer to the authors if required.

this differentiation. To account for regional variation we included dummies for the different urban regions.

3. Analyses

The analysis has three steps: first we ran five models, two linear regression to estimate the effect of individual income and ethnicity on exposure to diversity in the neighbourhood and workplace, and three generalised linear models to estimate the share of different transport modes (Table 3), controlling for a range of variables that were suggested by the literature (see descriptives Table 2). The share of transportation modes, although in theory continuous variables, show rather dichotomous distributions: about 80% of all respondents either score a '0' or a '1' on share of car-use and bicycle-use. Public transport is highly skewed toward '0', as many respondents do not travel by public transport at all. To accommodate this problem we have run generalised linear models with logit function and a binomial distribution to estimate the effects on the dependent variable (see for details Baum, 2008).

Second we ran the same five models in which we assessed the interaction effect of individual level ethnicity and income on the various measures of exposure to diversity (Table 4). Finally we assessed the correlations between the spheres (Table 5).

As demonstrated in Table 3 income has a clear effect on exposure to diversity in the spheres of work and transport, but less so in the sphere

of the neighbourhood. Compared to the highest incomes all other income groups are more exposed to diversity at workplace and make less use of the car (a mode of transport with limited opportunity to meet others) and more frequently walk or bike; and most of the other income groups make significantly more use of public transport, with a greater likelihood of meeting people of different class and ethnic backgrounds. In the neighbourhood of residence remarkably the two lowest income deciles are less exposed to diversity than the highest income decile, while middle incomes live in slightly more diverse neighbourhoods.

Ethnicity also has a significant effect on exposure to diversity. Compared to native-Dutch individuals, people belonging to other ethnic groups are more exposed to diversity in their neighbourhood and at their work. Some ethnic groups (of Surinamese, Caribbean and other non-western origins) use more often (diverse) public transportation, while Surinamese-Dutch also less often use a car than native-Dutch. Remarkably, Turkish-Dutch have a relatively diverse residential neighbourhood and workplace, but relatively often drive a car.

Also in this model families with young children seem to be living and working in less diverse environments. The analysis suggests that higher educated tend to work at more diverse workplaces and use cars less and walk and bike more. It also seems that women are more exposed to diversity at their work and that they also less often use cars and more often bike or walk.

Finally, clear effects of the different urban regions can be identified: people living in the Rotterdam and The Hague regions and particularly those in the Amsterdam region are more exposed to diversity in their neighbourhood than in Utrecht. The effect on workplace seems limited. In terms of mobility, the use of public transport differs quite clearly between urban regions: Living in Rotterdam, Amsterdam and the Hague increases the use of public transport, while Eindhoven residents less often use public transport.

Table 2
descriptives.

	Mean	Standard deviation	N
Dependent			
Neighbourhood diversity	0.76	0.06	12,116
Workplace diversity	0.58	0.20	5295
Share of car use	0.50	0.47	9992
Share of public transport	0.06	0.22	9992
Share of biking/walking	0.40	0.45	9992
Independent			
Age	41.99	22.6	12,116
Gender: female	0.51		12,116
Number of children <6 yr.	0.27		12,116
Number of children 6–12 yrs.	0.29		12,116
Higher educated	0.21		12,116
One-person business	0.02		5295
Utrecht (REF)	0.19		12,116
Eindhoven	0.12		12,116
Amsterdam	0.38		12,116
Rotterdam	0.18		12,116
Den Haag	0.13		12,116
Income decile 10 (REF)	0.14		6890
Income decile 1	0.08		6890
Income decile 2	0.09		6890
Income decile 3	0.09		6890
Income decile 4	0.09		6890
Income decile 5	0.10		6890
Income decile 6	0.09		6890
Income decile 7	0.11		6890
Income decile 8	0.10		6890
Income decile 9	0.12		6890
Native-Dutch (REF)	0.81		12,116
Moroccan	0.01		12,116
Turkish	0.02		12,116
Surinamese	0.05		12,116
Caribbean	0.01		12,116
Other non-western	0.04		12,116
Western	0.08		12,116
Ref = Native higher income	0.29		6885
Native-Dutch			
low income	0.26		6885
Native-Dutch middle income	0.24		6885
Non-western low income	0.05		6885
Non-western middle income	0.04		6885
Non-western high income	0.03		6885
Western low income	0.03		6885
Western middle income	0.03		6885
Western high income	0.04		6885

3.1. Interaction effects

The effect of combining ethnic and income positions at individual level on the various measures of exposure to diversity is demonstrated in Table 4. Compared to high-income native-Dutch individuals, most other groups are more exposed to diversity in their residential environments. However, low-income Dutch, remarkably, live on average in more homogeneous neighbourhoods.

At the workplace compared to high-income native-Dutch all other groups are more exposed to diversity at work. Particularly western and non-western low income groups and non-western middle-income groups work for businesses with a relatively diverse workforce.

In transport middle and low income groups, across ethnicity, are less likely to use a car compared to native or other higher income groups. Non-western migrants in all income brackets use public transport significantly more than native-Dutch with a high income. Biking and walking are more common for low and middle income native or western groups, when compared to high-income natives. High-income non-western groups seem to be less likely to walk or bike.

Except for the key independent variables other effects stand out: gender, household composition and level of education all have a significant effect. While families with young children are less exposed to diversity, higher educated and women are more exposed. Finally, between the urban regions the effects described above for the previous table remain by and large similar.

3.2. Connections between the spheres

As Table 5 shows the correlations between the exposures to diversity in the three spheres are rather modest, albeit significant. Living in a diverse neighbourhood increases the likelihood to work at a more diverse workplace. Living in a diverse neighbourhood is also associated with less car mobility and more public transport and biking and

Table 3
Model 1 and 2 OLS neighbourhood and workplace diversity; Model 3–5 GLM logit transport modes.

Model 1–2	Model 1: neighbourhood diversity	Model 2: Workplace diversity	Model 3: car use-dichotomous	Model 4: public transport dichotomous	Model 5: biking/walking dichotomous
Control variables	B	B	Coef.	Coef.	Coef.
Age	.000***	.000	-.001	-.023***	.018***
Gender: female	.000	.028***	-.203***	.170	.213***
Number of children <6 yr.	-.004**	-.018***	.135**	-.402***	.057
Number of children 6–12 yrs.	-.006***	-.000	.207***	-.333**	-.018
Higher educated	.000	.018**	-.494***	-.224	.494***
One-person business	-.004	-.591***	.726***	-.346	-.544*
Utrecht (REF)					
Eindhoven	-.004	-.019	.129	-.909**	.268*
Amsterdam	.043***	.023*	-.112	.533**	-.051
Rotterdam	.014***	.008	.035	.743***	.024
Den Haag	.019***	.007	-.147	.608**	.207*
<i>Key independent variables</i>					
Income decile 10 (REF)					
Income decile 1	-.013**	.115***	-1.49***	.556	1.36***
Income decile 2	-.009*	.105***	-1.19***	1.01***	1.20***
Income decile 3	.003	.088***	-.821***	.714*	.949***
Income decile 4	-.002	.128***	-.594***	.870**	.723***
Income decile 5	.003	.107***	-.614***	.856***	.773***
Income decile 6	.008**	.112***	-.640***	.353	.811***
Income decile 7	.007**	.114***	-.337***	.653**	.379***
Income decile 8	.004	.066***	-.291**	.317	.430***
Income decile 9	.004	.041***	-.271***	.608**	.267**
Native-Dutch (REF)					
Moroccan	.040***	.081**	.128	.956*	-.522
Turkish	.027***	.070***	.610*	.092	-.523
Surinamese	.023***	.075***	-.341**	1.22***	-.598***
Caribbean	.023***	.085***	-.343	1.23***	-.379
Other non-western	.020***	.056***	-.043	.877***	-.378*
Western	.009***	.037***	-.127	.201	-.047
	R ² = .218	R ² = .299	Pseudo R ² = .052	Pseudo R ² = .096	Pseudo R ² = .071

* Significant at the 0.1 level

** Significant at the 0.05 level.

*** Significant at the 0.01 level.

walking. Workplace diversity and different forms of mobility are also correlated: people working in relatively diverse workplaces less often drive a car and more often use public transport. When also introducing total travel time it appears that long travel times are negatively associated with frequent car and bike use, while public transport is positively associated with total travel time.

4. Conclusions and discussion

One of the important contributions of this study to the international literature is that we have found evidence that individual level ethnicity and income have effects on the exposure to diversity in different domains: the residential; the workplace; and mobility. It appears that both income and ethnicity are important for explaining exposure to diversity in various spheres. Low and high-income natives are least exposed to diversity, while low and middle income non-natives are relatively much exposed to diversity. Although we focussed primarily on the effect of income and ethnic background we also found some evidence that women are more exposed to diversity than men, due to more diverse workplaces and transport use. This may relate to the fact that women work closer to their home than men resulting in higher public transport use and perhaps because women are overrepresented in employment sectors with higher rates of diversity such as health care and public services. Between city regions differences become apparent as well: compared to Utrecht which is closest to the average of the five regions, inhabitants of Eindhoven are less exposed to diversity in various

domains, while the largest cities Rotterdam and particularly Amsterdam have high levels of exposure to diversity. This could partly be related to composition effects of these regions, but also a variation in levels of segregation might play a role here.

All main non-native ethnic groups in the larger city regions appear to be more exposed to diversity than native-Dutch. To some extent this is an endogenous effect as the diversity of neighbourhood and workplace are the result of their very presence. Nonetheless there are significant differences between ethnic groups. Whereas all groups appear to be exposed to diversity more than natives in the neighbourhood and at work, the domain of transport offers a more differentiated picture. Turkish–Dutch for instance more often use the car and are therefore presumably less exposed to diversity than natives and other groups, while Surinamese–Dutch are significantly more exposed to diversity in transport spaces. This illustrates that exposure to diversity in the three domains we referred to is not always pointing into the same direction and moreover differs across social and ethnic groups. In terms of income the picture is less straightforward. Although generally higher income groups are less exposed to diversity at work and also frequently make use of cars for their transport between home and work, they are more exposed to diversity in the neighbourhood than lower income native-Dutch. Nevertheless, also higher income native-Dutch are clearly exposed to neighbourhood diversity to a limited extent only. Middle class natives seem to be most exposed to diversity. This seems to support what Kuttner (1984) observed some three decades ago: in strong European welfare states [such as The

Table 4
Model 1 and 2 OLS neighbourhood and workplace diversity; Model 3–5 GLM logit transport modes.

	Model 1: neighbourhood diversity	Model 2: Workplace diversity	Model 3: car use-dichotomous	Model 4: public transport dichotomous	Model 5: biking/walking dichotomous
<i>Control variables</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>	<i>B</i>
Age	.000***	.000	.011	−.022***	.016***
Gender: female	.001	.035***	−.273***	.267*	.283***
Number of children <6 yr.	−.003**	−.018***	.147**	−.405***	.047
Number of children 6–12 yrs.	−.006***	−.002	.226***	−.383**	−.022
Higher Educated	−.001	.007	−.431***	−.291*	.419***
One-person business	−.005	−.595***	.722***	−.327	−.553**
Utrecht (REF)					
Eindhoven	−.004	−.019	.108	−.901**	.278**
Amsterdam	.042***	.023***	−.127	.551**	−.055
Rotterdam	.014***	.007	.019	.742***	.017
Den Haag	.019***	.007	−.171	.590**	.202*
<i>Key independent variables</i>					
Ref = Native higher income					
Native-Dutch low income	−.008***	.068***	−.585***	.288	.696***
Native-Dutch middle income	.003	.075***	−.206**	.132	.328***
Non-western low income	.028***	.129***	−.904***	1.67***	.227
Non-western middle income	.025***	.147***	−.449***	1.36***	−.090
Non-western high income	.022***	.082***	−.015	.597**	−.050**
Western low income	−.001	.148***	−.999***	.200	.714**
Western middle income	.017***	.102***	−.694***	.241	.502**
Western high income	.007*	.029**	−.066	.319	−.160
	R ² = .211	R ² = .288	Pseudo R ² = .040	Pseudo R ² = .089	Pseudo R ² = .060

* Significant at the 0.1 level.
** Significant at the 0.05 level.
*** Significant at the 0.01 level.

Netherlands] the poor and the middle class are still within one system [in contrast to the experience in the United States]. Over all of the three spheres together the native middle class group ‘deserves’ the label ‘cocooning’ the least, but the native higher income group the most. This finding is also in support of the idea of upper class disaffiliation (Atkinson, 2006; Atkinson & Flint, 2004) and also confirms earlier Dutch studies which reported highest levels of segregation of high income native-Dutch (Musterd & Van Gent, 2016).

The way we defined neighbourhood diversity – through class and ethnic background simultaneously – may conceal the fact that in ethnic terms these areas are even more homogenous. This points to an interesting dimension of spatial patterning in the context of Dutch

urban areas: as said, middle classes live relatively often in diverse neighbourhoods (often situated in inner cities of the regions), while the highest and particularly the lowest income groups live in relatively homogeneous neighbourhoods, often in suburban new towns around the cities (Boterman & Musterd, in press). In terms of work and transport the higher incomes are least exposed to diversity: they travel mainly by car to workplaces that are relatively homogenous. For low income groups the image is reversed, they travel more from rather homogeneous areas to relatively diverse workplaces, using public transport in which they are more exposed to diversity. Thus, strong exposure in one domain does not necessarily coincide with strong exposure in other domains.

Table 5
Correlations of measures of diversity.

	Neighbourhood diversity	Workplace diversity	Share of car use	Share of public transport	Share of biking/walking	Total travel time
Neighbourhood diversity	X					
Workplace diversity	0.121**	X				
Share of car use	−0.110**	−0.087**	X			
Share of public transport	0.090**	0.110**	−0.262***	X		
Share of biking/walking	0.051**	0.004	−0.801**	−0.202**	X	
Total travel time	0.028	0.045**	−0.140**	0.261**	−0.270**	X

* Significant at the 0.1 level.
** Significant at the 0.05 level.
*** Significant at the 0.01 level.

This highlights the contribution of this paper to standing knowledge on segregation and exposure to diversity, which tend to focus on the residential neighbourhood. Our multi-domain analysis demonstrates that it is important to take various domains into account simultaneously. In line with Atkinson and Flint's work on time–space trajectories of segregation we found that for some social and ethnic groups different spheres may have a compound effect on isolation/exposure, while for other groups the exposure that does not take place in the residential neighbourhood may be 'compensated' by exposure at the workplace or in transport. Particularly in light of the relatively low importance of neighbourhood for many urban dwellers, analysing with whom they work and travel may provide a more complete picture of the real exposure to others than previous unidimensional studies did. Our study does not offer enough detail to spell out how exactly these domains are interconnected across class and ethnicity. Nonetheless, the fact that both high and low income native-Dutch are living in not so diverse 'socio-ethnic' neighbourhoods, does seem to suggest two stories: a choice story for the affluent, which fits with Atkinson (2006) work on disaffiliation; and a constraint story for the relatively poor. For both categories, however, living in a homogeneous place may result in negative effects. Both run the risk of 'estrangement' relative to the others; in fact, high-income natives run that risk more than low-income natives, because they are also separated from others in the domains of the workplace and transport mode (see also Atkinson & Flint, 2004). It would be interesting to further investigate whether the multidimensional exposure to homogeneity for affluent natives has stronger negative effects in terms of 'hunkering down' or withdrawal from large parts of society, than the unidimensional exposure to homogeneity that low income natives experience in their neighbourhood. We assume that the isolation of the native poor will turn out to be relatively moderate still, while the higher income natives are getting cut-off from the rest of society. Both categories, however, require attention from policy makers and politicians. All more or less permanent enclaves have negative consequences, whether created by and for the affluent, or for the poor.

4.1. Caveats

The exposure to diversity in the various domains is of course varied in time and space. Using specific modes of transportation for instance is different at night than during rush hour. Also the way one is exposed to diversity is contingent on practises of people who are living in neighbourhoods. Selective belonging may for instance be a coping strategy of living in a diverse environment through which exposure is minimised or controlled (Watt, 2009). More generally, exposure to diversity does not imply meaningful interaction. The same arguments about the extent to which neighbourhood diversity matters and how, also apply to the domains of the workplace and transportation. If a person works for a diverse company and takes a metro filled with people of all walks of life to get there, what does this actually mean? We only could show that relevant differences between exposures to diversity can be found; but additional and in-depth research is required to fully understand why these differences occur and what they mean.

Finally, we also would like to comment on some explicit shortcomings of the data used. The individual level data imply a very rich source of information, which enabled us to perform research on person-based segregation and allowed us to take a closer look at three different domains of life. However, as almost all datasets, also the data we used are not free from weak spots. For the workplace domain analysis we had access to high quality data of firms with only one address, but in cases where the firm was spread over more locations we had to assume that these locations have similar workplace diversity as the firm overall. This might be an adequate assumption for large retail chains with more or less similar shops (supermarkets, shoe shops, clothing boutiques, drug stores, groceries, warehouses etc.), but it might be less adequate for larger firms that distinguish between units with very different

functions, such as head offices and back offices for example. More detailed study is required to tackle such problems as well.

References

- Alaily-Mattar, N. (2008). Beyond gated communities? Detachment and concentration in networked nodes of affluence in the city of Beirut. *Urban Design International*, 13(4), 263–271.
- Andersson, R., Musterd, S., & Galster, G. (2014). Neighborhood ethnic composition and employment effects on immigrant. *Journal of Ethnic and Migration Studies*, 40(5), 710–736.
- Åslund, O., & Skans, O.N. (2010). Will I see you at work? Ethnic workplace segregation in Sweden, 1985–2002. *Industrial and Labor Relations Review*, 63(3), 471–493.
- Atkinson, R. (2006). Padding the bunker: Strategies of middle-class disaffiliation and colonisation in the city. *Urban Studies*, 43(4), 819–832.
- Atkinson, R., & Flint, J. (2004). Fortress UK? Gated communities, the spatial revolt of the elites and time-space trajectories of segregation. *Housing Studies*, 19(6), 875–892.
- Baum, C.F. (2008). Stata tip 63: Modeling proportions. *The Stata Journal*, 8(2), 299–303.
- Blokland, T., & Van Eijk, G. (2010). Do people who like diversity practice diversity in neighbourhood life? Neighbourhood use and the social networks of 'diversity-seekers' in a mixed neighbourhood in The Netherlands. *Journal of Ethnic and Migration Studies*, 36(2), 313–332.
- Blokland, T. (2003). *Urban bonds: Social relationships in an inner city neighbourhood*. Cambridge, UK: Polity press.
- Blumen, O., & Zamir, I. (2001). Two social environments in a working day: Occupation and spatial segregation in metropolitan Tel Aviv. *Environment & Planning A*, 33(10), 1765–1784.
- Boterman, W.R. & Musterd, S. (2015) Differentiated residential orientations of class fractions, in: (eds.) Hannigan, J. & Richards, G. *Handbook of new urban studies*, London: Sage(in press).
- Cass, N., Shove, E., & Urry, J. (2005). Social exclusion, mobility and access. *The Sociological Review*, 53, 539–555.
- Cutler, D., Glaeser, E., & Vigdor, J. (2008). When are ghettos bad? Lessons from immigrant segregation in the United States. *Journal of Urban Economics*, 63, 759–774.
- Dixon, J., Tredoux, C., Durrheim, K., Finchilescu, G., & Clack, B. (2008). 'The inner citadels of the color line': Mapping the micro-ecology of racial segregation in everyday life spaces. *Social and Personality Psychology Compass*, 2(4), 1547–1569.
- Dukes, T., & Musterd, S. (2012). Towards social cohesion: Bridging national integration rhetoric and local practice: The case of The Netherlands. *Urban Studies*, 49(9), 1981–1997.
- Ellis, M., Wright, R., & Parks, V. (2004). Work together, live apart? Geographies of racial and ethnic segregation at home and at work. *Annals of the Association of American Geographers*, 94(3), 620–637.
- Florida, R. (2002). *The rise of the creative class: And how it's transforming work, leisure, community and everyday life*. New York: Basic books.
- Galster, G., Andersson, R., Musterd, S., & Kauppinen, T. (2008). Does neighborhood income mix affect earnings of adults? New Evidence from Sweden. *Journal of Urban Economics*, 63, 858–870.
- Goetz, E. (2002). Forced relocation vs. voluntary mobility: The effects of dispersal programmes on households. *Housing Studies*, 17(1), 107–123.
- Hastings, A. (2009). Neighbourhood environmental services and neighbourhood 'effects': Exploring the role of urban services in intensifying neighbourhood problems. *Housing Studies*, 24(4), 503–524.
- Jensen, O.B. (2009). Flows of meaning, cultures of movements—Urban mobility as meaningful everyday life practice. *Mobilities*, 4, 139–158.
- Johnston, R., Forrest, J., & Poulsen, M. (2002). Are there ethnic enclaves/ghettos in English cities? *Urban Studies*, 39(4), 591–618.
- Kain, J.F. (1992). The spatial mismatch hypothesis: Three decades later. *Housing policy debate*, 3(2), 371–460.
- Kenyon, S., Lyons, G., & Rafferty, J. (2002). Transport and social exclusion: Investigating the possibility of promoting inclusion through virtual mobility. *Journal of Transport Policy*, 10, 207–219.
- Kuttner, R. (1984). *The economic illusion: False choices between prosperity and social justice*. Boston: Houghton Mifflin.
- Kwan, M.P. (2009). From place-based to people-based exposure measures. *Social Science & Medicine*, 69, 1311–1313.
- Kwan, M.P. (2013). Beyond space (as we knew it): Toward temporally integrated geographies of segregation, health, and accessibility: Space–time integration in geography and GIScience. *Annals of the Association of American Geographers*, 103(5), 1078–1086.
- Lees, L. (2008). Gentrification and social mixing: Towards an inclusive urban renaissance? *Urban Studies*, 45, 2449–2470.
- Low, S.M. (2001). The edge and the center: Gated communities and the discourse of urban fear. *American Anthropologist*, 103(1), 45–58.
- Lucas, K. (2012). Transport and social exclusion: Where are we now? *Transport Policy*, 20, 105–113.
- Lupton, R., & Tunstall, R. (2008). Neighbourhood regeneration through mixed communities: A 'social justice dilemma'. *Journal of Education Policy*, 23(2), 105–117.
- Maloutas, T., & Fujita, M.K. (Eds.). (2012). *Residential segregation in comparative perspective: Making sense of contextual diversity*. Ltd: Ashgate Publishing.
- Musterd, S., Van Gent, W., Das, M., & Latten, J. (2015). Adaptive behaviour in urban space: Residential mobility in response to social distance. *Urban Studies* <http://dx.doi.org/10.1177/0042098014562344> (online first).
- Musterd, S., & Ostendorf, W. (Eds.). (1998). *Urban segregation and the welfare state: Inequality and exclusion in western cities*. London: Routledge.

- Musterd, S. & Van Gent, W.P.C. (2016) Changing welfare context and income segregation in Amsterdam and its metropolitan area, in : Tammaru, T., et al., Socio-economic segregation in European capital cities, London: Routledge, 55-79.
- Oliver, J.E., & Wong, J. (2003). Intergroup prejudice in multiethnic settings. *American Journal of Political Science*, 47(4), 567–582.
- Phillips, D. (2010). Minority ethnic segregation, integration and citizenship: A European perspective. *Journal of Ethnic and Migration Studies*, 36(2), 209–225.
- Pinkster, F.M. (2009). Neighborhood-based networks, social resources, and labor market participation in two Dutch neighborhoods. *Journal of Urban Affairs*, 31(2), 213–231.
- Popkin, S.J., Levy, D.K., & Buron, L. (2009). Has HOPE VI transformed residents' lives? New evidence from the HOPE VI panel study. *Housing Studies*, 24(4), 477–502.
- Prasad, P., Pringle, J.K., & Konrad, A.M. (Eds.). (2006). *Handbook of workplace diversity*. London: Sage.
- Putnam, R. (2007). E Pluribus Unum: Diversity and community in the twenty-first century the 2006 Johan Skytte Prize Lecture. *Scandinavian Political Studies*, 30(2), 137–174.
- Robson, B.T. (1975). *Urban social areas*. London: Oxford University Press.
- Robson, G., & Butler, T. (2001). Coming to terms with London: Middle-class communities in a global city. *International Journal of Urban and Regional Research*, 25(1), 70–86.
- Savage, M., Bagnall, G., & Longhurst, B. (2005). *Globalization and belonging*. London: Sage.
- Schnell, I., & Yoav, B. (2001). The sociospatial isolation of agents in everyday life spaces as an aspect of segregation. *Annals of the Association of American Geographers*, 91(4), 622–636.
- Strömberg, M., Tammaru, T., Danzer, A.M., Van Ham, M., Marcinićzak, S., Stjernström, O., & Lindgren, O. (2014). Factors shaping workplace segregation between natives and immigrants. *Demography* <http://dx.doi.org/10.1007/s13524-013-0271-8>.
- Thomas, R.R., & Jackson, S.E. (Eds.). (1992). *Diversity in the workplace: Human resources initiatives. The professional practice series*. New York, NY, US: Guilford Press.
- Tomaskovic-Devey, D. (1993). *Gender & racial inequality at work: The sources and consequences of job segregation (No. 27)*. Cornell University Press.
- Uitermark, J., Duyvendak, J.W., & Kleinhans, R. (2007). Gentrification as a governmental strategy: Social control and social cohesion in Hoogvliet. *Rotterdam, Environment and Planning A*, 39, 125–141.
- Uitermark, J. (2003). 'Social mixing' and the management of disadvantaged neighbourhoods: The Dutch policy of urban restructuring revisited. *Urban Studies*, 40(3), 531–549.
- Valentine, G. (2008). Living with difference: Reflections on geographies of encounter. *Progress in Human Geography*, 32(3), 323–337.
- Wang, D., Li, F., & Chai, Y. (2012). Activity spaces and sociospatial segregation in Beijing. *Urban Geography*, 33(2), 256–277.
- Watt, P. (2009). Living in an oasis: Middle-class disaffiliation and selective belonging in an English suburb. *Environment & Planning A*, 41(12), 2874–2892.
- Wilson, W.J. (1987). *The truly disadvantaged: The inner city, the underclass, and public policy*. Chicago: The University of Chicago Press.
- Wilson, H.F. (2011). Passing propinquities in the multicultural city: The everyday encounters of bus passengering. *Environment & Planning A*, 43, 634–649.
- Wong, D.W., & Shaw, S.L. (2011). Measuring segregation: An activity space approach. *Journal of Geographical Systems*, 13(2), 127–145.
- Wyly, E.K. (1999). Local labor markets and occupational sex segregation in an American metropolis. *Journal of Urban Affairs*, 21(1), 1–33.