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Perceived social distance, socioeconomic status and adaptive residential mobility in urban China

Abstract

Social distance between individuals/households and their neighbourhood of residence has been garnering increasing attention in residential mobility research, as it shapes a series of phenomena including neighbourhood sorting, social mixing and segregation. Up-to-now the relations between 'objective' social distance and actual moves have dominated this field of study. This study argues that the *perception* of social distance and subsequent *planning of residential moves* add to the knowledge in this field. Using a survey in Nanjing, China, we conducted Logit Analysis to uncover how perceived social distance impacts plans to move and how socioeconomic status moderates such impact. By doing so, we also bring into dialogue quantitative residential mobility research focusing on how objective residential mismatch triggers residential mobility, and predominantly qualitative research focusing on subjectively perceived residential mismatches. It is found that people are significantly more likely to plan a move when they perceive a mismatch between their household income and that of the majority of the neighbourhood, compared to those perceiving a better match. When we dissect individuals/households who perceive a residential mismatch into a group which perceives a higher relative position compared to the neighbourhood majority and a group which perceives a lower relative position, we find that only those perceiving a higher relative position is more likely to plan a move. These findings also apply to those who have a higher socioeconomic status. In contrast, for the lower socioeconomic status group, a perceived mismatch, particularly a perceived lower relative position, is associated with a significantly lower probability to plan a move, compared to those who perceive a residential match position.

Keywords: perceived social distance, residential mobility, plans to move, socioeconomic status, neighbourhood mix, segregation

1. Introduction

Social distance between individuals/households and their surrounding environment has been an increasingly distinguished interest in residential mobility and neighbourhood effect research, as it shapes a series of phenomena including neighbourhood sorting, social mixing and segregation (Galster and Turner, 2017; Musterd et al., 2016). It can touch on the objective and perceived perspectives. Objective social distance is usually measured by the discrepancy between individual/household socioeconomic, life-cycle and cultural status (income, etc.) and neighbourhood status (neighbourhood median income etc.), or the discrepancy between people's own standing in dimensions of education, income, ethnicity, aesthetics as well as lifestyle, and the neighbourhood composition along these dimensions (Galster and Turner, 2017; Musterd et al., 2016; van Gent et al., 2019). Research based on objective social distance

shows that exposing to a mismatched residential environment is generally associated with residential stress and dissatisfaction (Clark and Ledwith, 2006; Speare, 1974) and might trigger adaptive residential mobility behaviour in pursuit of 'social homophily' (McPherson et al., 2001). Research on objective social distance predominantly uses large-scale register data and quantitative analysis. It is typically shown that people with a larger distance between their income and the neighbourhood median income, either positive or negative, are more likely to move out of the neighbourhood, compared to those with a roughly median income. People basically move to reduce their social distance with their residential environment (Musterd et al., 2016; Galster and Turner, 2017). However, while these quantitative studies present the general trend of how people conduct residential mobility behavior in response to social distance, such analysis takes a structuralist view and misses the nuanced psychological and affective elements in residential decision-making process. In most of the cases, people might not have the knowledge of the neighbourhood composition but rather could only respond to their own perception. We have to acknowledge that it is indeed the perception of social distance that matters when making residential mobility decisions. People behave based on what they perceive as that is their lived reality, instead of what they are categorized to be and what is imposed on them (Miao, 2017).

There is indeed a thread of residential mobility research based on perceived residential (mis)match in the neighbourhood, mainly grounded on spatializing the Bourdieusian concepts 'habitus' and 'field' in the study of gentrification and middle class (Atkinson, 2006; Boterman and Bridge, 2015; Bridge, 2006; Butler, 2007). The perceived residential (mis)match is usually abstracted out of people's expression in terms of their feeling, belonging and affiliation with regard to the neighbourhood. The focus is on how different fractions of middle class move to seek alignment and correspondence between the housing field and their class habitus in aspects like tastes in residential aesthetics, environment and lifestyle preferences, as well as how strategic trade-offs are made in the intersections of multi-fields as education, employment, consumption and parenthood (Boterman, 2012; Bridge, 2006). Moving to live with people 'like them' and to feel 'at home', as well as class distinction-making (Bourdieu, 1984; Savage et al., 2005, 2010; Watt, 2009) are motives for and the nature of residential selection and mobility, although these could be sacrificed for better education and job opportunities (Bridge, 2006). These studies are predominantly qualitative, and rich in information in the psychological and affective processes of strategizing and compromising in residential decision making. However, we do not know to what extent these studies could be generalized.

To address the limitations of existing quantitative research on 'objective' social distance and qualitative research on subjective social distance, we capture in this research the perception of someone's socioeconomic position in neighbourhoods with a representative survey and address the main research question:

How does perceived social distance between individuals/households and their residential neighbourhood impact on their plans to move out of the neighbourhood, and how does socioeconomic status moderate the relationship?

We investigate this in the context of the Chinese city of Nanjing. Unlike most western countries, China is still undergoing rapid transformation in terms of industrialization and

globalization, as well as massive urbanization. This is a context of permeable class boundaries and pervasive opportunities for upward social mobility on the one hand (Anagnost, 2008), and a space of relative deprivation due to increasing inequality and polarizing social structures on the other (Miao, 2017). We might expect perceived social distance to play a rather strong role in predicting residential mobility in China. In the following section we first present the conceptual and theoretical framework. This is followed by a section on data and methods. Thereafter, we try to answer the proposed empirical question. This is followed by discussion and conclusion.

2. Conceptual and theoretical framework

Residential mobility is a multi-step process, involving thinking about moving (the desire or wish to move), initial planning (the expectation or plan to move) and the actual move (Rossi, 1955; Kley, 2011). While desires and wishes to move are shown to be strongly associated with subjective evaluation and (dis)satisfaction of the dwelling and neighbourhood (van Ham and Feijten, 2008), plans to move are more embedded in estimations of the ability (income and affordability for instance) and macro-contextual constraints (housing market and housing availability for instance) to escape undesirable residential situations (Ajzen, 1991; Coulter et al., 2011; de Groot et al., 2011). Therefore, plans to move are more firmly related to actual residential mobility, although abandoned plans and unplanned moves due to unexpected events are not infrequent (Clark and Lisowski, 2017; Coulter et al., 2011). This study focuses on plans to move out of the neighbourhood. The theoretical framework is presented in Figure 1. This is similar to the frameworks deployed in residential mobility research involving quantitative analysis and 'objective social distance', but with an emphasis on perceived social distance and its influence on residential mobility behaviour as well as the potential modification of socioeconomic status on such influences. We first illustrate typical factors that might lead to plans to move. As plans to move often precede actual moves, factors known to influence actual residential mobility can also be expected to play a large role in explaining people's plans to move. We then focus on how perceived social distance between the individual/household and their neighbourhood might influence plans to move, and how socioeconomic status might moderate this influence.

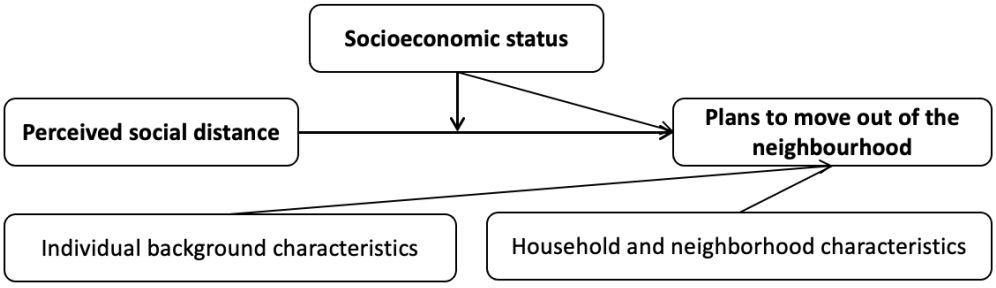

Figure 1. the theoretical framework

Note: the bold variables are of main interest in this study.

2.1. Plans to move out of the neighbourhood

Residential mobility has long been considered as a function of residential stress and (dis)satisfaction due to a disequilibrium between the current and desired residential environment (see for example Bach and Smith, 1977; Speare, 1974). When people develop new residential needs and aspirations (due to changes in life-cycle position and socioeconomic status for instance) that mismatch with the current situation, they feel

stressed and dissatisfied residentially; as the stress and satisfaction level reaches a certain threshold, people might proactively plan a move to adjust their housing situation and recover the equilibrium (Speare, 1974; Wolpert, 1965). It is posited that the more satisfied residents are with their housing and residential environment, the less likely they will plan to move out of the neighbourhood (Speare, 1974; Wang et al., 2019). Inadequacy of housing spaces due to housing composition changes and related factors may trigger residential stress and dissatisfaction (Rossi, 1955), and consequently plans to move. Besides, attachment or sentimental feelings regarding the neighbourhood would also have a curbing effect on plans to move out the neighbourhood (van Ham and Feijten, 2008). Renters compared to owners are more likely to plan a move out of their neighbourhood. Owners usually tend to have more emotional commitment to and physical investment in their neighbourhood (Coulter et al., 2011), and tend to be more satisfied (Bach and Smith, 1977). In addition, people who live in their neighbourhood for a longer period of time tend to accumulate residential inertia and show a relatively lower intention to move out (Huff and Clark, 1978).

The life-course approach has also proved to be a powerful framework in explaining residential mobility behaviour (Mulder and Hooimeijer, 1999). Life events including union formation and dissolution and childbirth might compel an individual/household to reassess the suitability of their current dwelling and neighbourhood, and trigger proactive plans to move out (Cui et al., 2015; de Groot et al., 2011). However, unanticipated life events can also lead to unexpected moves or abandoned plans (de Groot et al., 2011). People in different life stages associate with differentiated probabilities of planning a move. Those who are married, or have children, are expected to be less likely to considering moving, than people who are unmarried and who have no children (Li et al., 2019; Wang et al., 2019). Young people usually have increasingly dynamic education, employment and family careers when growing older, and are thus more likely to develop plans of residential moves; in a later stage, people become more residentially stable and inert. In addition, socioeconomic status is also an important predictor of planning a move. People of lower socioeconomic status, usually people with a low income and low education level, might retreat from planning a move, considering the costs, restrictions and constraints of actualizing it, although many studies show that they are highly likely to be dissatisfied with their housing situation and to desire a move (Coulter et al., 2011; van Ham and Feijten, 2008). Hukou status is an important institutional factor predicting residential mobility behaviour in China. Migrants, compared to local people tend to have a higher propensity of moving (Li and Wu, 2008; Wu, 2006), due to their less stable occupation status and higher probability of renting rather than owning.

2.2. Perceived social distance and plans to move out of the neighbourhood

While most of the residential mobility behaviour studies have been focusing on the characteristics of the individual/household, dwelling and neighbourhood, there is another thread of research that investigates how the social distance between the individual/household characteristics and neighbourhood characteristics in dimensions of socioeconomic, life-cycle and cultural status (education, income, ethnicity, aesthetics and lifestyle, etc) influence residential mobility behaviour (Galster and Turner, 2017; Musterd et al., 2016; Schelling, 1971; van Gent and Musterd, 2016; van Ham and Feijten, 2008). These studies are usually tightly associated with social mixing and segregation research. Using large-scale register data, studies show that the larger the social distance (either positive or negative) between the income of an individual and the median income of their neighbourhood of

residence, the higher the odds that the individual moves out of the neighbourhood (Musterd et al., 2016; Galster and Turner, 2017). People usually move to reduce their social distance with their residential neighbourhoods (Musterd et al., 2016) and pursue for 'social homophily' (McPherson et al., 2001).

However, while we admit that objective social distance as mentioned above is important in understanding residential mobility behaviour, its focus is more on a passive residential sorting than on active residential selection; it is based on similar socioeconomic positioning in the housing market and affordability from a structural perspective. This type of analysis, however, misses the nuanced psychological and affective elements in the residential decision-making process. The perception might matter more than the real situation in residential mobility research (Jones and Dantzler, 2020). People behave based on what they perceive as that is their lived reality, instead of what they are categorized to be and what is imposed on them (Miao, 2017). Therefore, we now turn to summarize some of the main mechanisms through which perceived social distance between the individual/household and the neighbourhood impacts the probability of planning a move.

Firstly, it is posited that when people perceive most of the residents in their neighbourhood are 'like them' in socioeconomic status, they feel more 'at home' and 'at ease' (Atkinson, 2006; Watt, 2009). People are comfortable when there is correspondence between habitus and field; otherwise, they feel ill at ease and seek to move out of the neighbourhood in pursuit of 'elective belonging' (Savage, 2011; Savage et al., 2005). However, in some other cases, even when people consciously perceive that they are not like the majority of the neighbourhood, they might not plan to move; actually, they might have deliberately moved into their current neighbourhood for varying reasons. One often rehearsed theme in gentrification literature, is related to residential practices of middel classes moving into lower status neighbourhoods as part of distinction strategies (Bridge 2006). Correspondingly people might choose to move to neighbourhoods which are prestigious in terms of socioeconomic status, aesthetic taste, lifestyle or location (Atkinson, 2006), but where they might have a lower relative income status than most of their neighbours. For these people, the symbolic distinction of residing in such neighbourhoods offsets feelings of relative-deprivation (Firebaugh and Schroeder, 2009). This mainly happens for the aspirational group. They try to materialize their upward social mobility through upward spatial mobility anticipating a rising socioeconomic status. Another such case involves consuming low housing prices in relatively dilapidated neighbourhoods. This is often epitomized by the pragmatic discourse as getting 'value-for-money' and typically centres on residential behaviour of the marginal middle class (Allen et al., 2007; Pinkster, 2014; Watt, 2009). Although these people are well aware of their higher relative status compared to the majority of people in the neighbourhood, they might not plan to move. Low housing prices and good locations are of higher values for them than selective belonging or distinction (Allen et al., 2007; Pinkster, 2014). Besides, strategic compromises might be made in the housing field for satisfactions in other fields including education, employment and parenthood. People might plan to move even if they perceive a socioeconomic match, as a trade-off for a better education opportunity elsewhere for instance (Boterman, 2012; Bridge, 2006). In contrast, people might not plan to move due to economic restraints, when perceiving a mismatch between themselves and the neighbourhood, even though they might want to. These residents are highly likely to experience residential stress and dissatisfaction (Jones and Dantzler, 2020). However, they might have accepted the undesirable situation as

a reality through cognitive restructuring, and even 'make a necessity out of it' (Bourdieu, 1980:77; Reay et al., 2009) to avoid feeling disadvantaged.

2.3. Socioeconomic status, perceived social distance and plans to move out of the neighbourhood

When people develop plans to move, they take into account the resources and restrictions to actualize them (van Ham and Feijten, 2008). When the probability of actual moves is estimated to be low, the plans might be abandoned even though they might be desired. Therefore, it is logical to expect that whether people plan to move in response to their perceived relative position compared to the majority of the neighbourhood, is also dependent on their individual resources (Coulter et al., 2011; Galster and Turner, 2017; van Ham and Feijten, 2008).

People of lower socioeconomic status might have a relatively inertial residential response to perceived social distance in general. They might not plan to move, even when they perceive a mismatch. This might be forced and undesired residential immobility due to a lack of economic resources and residential choices (Coulter, 2013). It might also be undergirded by their functional relationship with their place of residence and by a lower level of sensitivity towards residential mismatch (Savage et al., 2010). In contrast, people are more likely to plan a move, when they perceive a residential mismatch but at the same time find themselves in a more advantageous socioeconomic position. They have more financial resources to (re)align their desire with the objective residential situation. People with enough socioeconomic capital might also plan a move even when they perceive a match. They might be moving to live with people who have a higher socioeconomic status than themselves for instance.

3. Setting the scene: the housing market and residential mobility in China and Nanjing

Under the socialist housing system, housing was a welfare product (in the form of public housing with negligible rent) allocated through and located inside the work units (Wang and Murie, 2000). Considerable housing equality was pursued and achieved, underpinned by the socialist egalitarian ideology, although differentiations existed within work units based on administrative hierarchy and seniority and among work units based on their administrative rank and economic performance. Residential mobility is low (Huang and Deng, 2006) and most often initiated by the work units (Huang, 2003). For instance, it is shown that the residential relocations of people from the city centre to the suburb are mostly brought along by the suburbanization of manufacturing industry work units (Feng et al., 2009).

However, since the onset in the 90s and the since prevailing housing commodification and marketization processes, the market developed to be the dominant housing provider while the work-units withdrew gradually (Li and Huang, 2006). Public rental housing only occupies a small proportion of the housing volume while commodity housing came to the fore. Homeownership is promoted as an ideal way of living and even a symbol of status. Consequently, residential mobility increases and is increasingly based on individual/household-housing demands and preferences, especially since the beginning of the 2000s. Socioeconomic positioning and affordability stratify and sort people, resulting in residential spatial distributions and (re)shaping the social spatial structure of the city, although institutional factors like hukou and work-unit type still exert influences on residential locations and tenure choices. People of high skills and education are increasingly

able to occupy preferential places and enjoy better environments, while others are marginalized and even displaced. Besides utility- and function- based housing consumption, symbolic housing consumption also arises for distinction and exclusion through aestheticization (Pow, 2009), packaging and place-making processes (Wu, 2010). Furthermore, the long established theory of residential mobility as housing-adjustment related to life courses and events begin to apply to China (Cui et al., 2015). It is shown in China changes in life events, including marital status change and child birth, are increasingly associated with residential moves (Cui et al., 2015; Li and Li, 2006).

Nanjing, our case study area, as a typical Chinese metropolitan city, has also witnessed similar transformation and changes in the housing market and residential mobility pattern. As a traditional manufacturing industry centre in the socialist period, it has gradually transited into a service and consumptive city (Wu et al., 2014). Residential mobility behaviour is dynamic in pursuit of children education opportunities, improvement in housing conditions and symbolic values (Wu et al., 2014; Wu & Waley,2016). This is especially so in the city centre where most of the good schools concentrate and where housing situations tend to be more dense and crowded (also see in Table 1). As a second-tier city, Nanjing is an 'ordinary' city compared to Beijing and Shanghai, with a relatively affordable housing market (see for example Wu et al., 2014). This might enable residential mobility behaviour based on more comprehensive estimation and active selection rather than merely by income/housing matching. In this context, we may expect to observe that neighbourhood perception plays an important role in impacting residential mobility.

4. Data and Method

4.1. Data

The study is based on a survey on neighbourhood cohesion and residential mobility behaviour in Nanjing conducted between March 2017 and February 2018. Data collection can be divided into two stages. In the first stage, we conducted a pilot study in three neighbourhoods to gain a deeper understanding of residential mobility on the ground. Based on the feedback, we revised and finalised the questionnaire and carried out the second stage of the fieldwork using a multistage stratified sampling strategy. First, 32 neighbourhoods were selected, regarding their types (commodity neighbourhoods, traditional neighbourhoods, and public housing estates) and geographical locations (city centre and suburb). The number of each type of neighbourhoods to be selected was roughly proportional to the total number of such neighbourhoods in Nanjing. Second, we utilised a proportional to size sampling method and interviewed approximately 1% of the residents in each sampled neighbourhood. At least 20 people were selected from each sampled neighbourhood to ensure that the results are valid and reliable, even when the number of cases required based on the proportions was smaller than 20. The respondents were approached either through interval sampling based on the distribution of households within the neighbourhood or random encounters in the neighbourhood. This finally led to 918 valid responses. Notably, 28 out of the 32 neighbourhoods and 845 out of the 918 responses include information related to perceived social distance. Besides, we expect perceived social distance within the neighbourhood is more likely to influence short-distance residential mobility behaviour within the same housing market; long-distance migration is more economically driven like seeking for jobs. Thus, we exclude respondents who plan to move out of Nanjing. After excluding such cases

and cases with missing values, 764 responses were left to be employed for this study. The sampled neighbourhoods in Nanjing are shown in Figure 2.

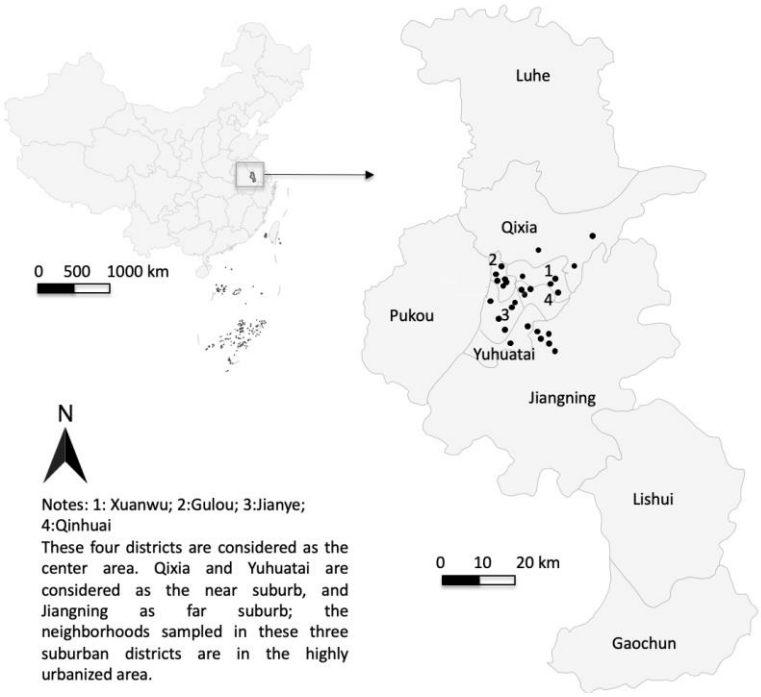

Figure 2. The location of Nanjing in China and the sampled neighbourhoods in Nanjing

Table 1. Seleted characteristics of Nanjing, and its city centre, inner suburb and far suburb of Nanjing.

	Nanjing	City center	Inner suburb	Far suburb
Share of non-agriculture people	60.2%	79.5%	69.1%	34.2%
Density (Persons/km^2)	1215	3234	981	98
Floor space per person (m^2)	34.10	25.30	31.69	43.20
Share of rental households	16.7%	24.0%	23.8%	8.6%
Share of self-built ownership housing	30.4%	3.4%	16.1%	60.8%
Share of commercial ownership (commodity housing, public ownership housing etc)	49.1%	67.1%	52.9%	29.2%
Share of people with a university degree	26.1%	35.2%	28.9%	14.0%
Share of professionals and managers	19.2%	29.0%	19.6%	11.3%
Share of manufacturing industry	36.2%	25.7%	41.5%	42.2%
Share of service industry	52.4%	73.3%	54.0%	34.5%

Notes: the data is from Census data in 2010. The definitions of city centre, inner suburb and far suburb are the same as shown in Figure 2.

4.2. Dependent variable

The dependent variable is the plan to move out of the neighbourhood. The information is captured by a survey question "Do you plan to move in the coming two years". Five options include very likely, quite likely, maybe, quite unlikely and very unlikely. As not planning to move, rather than planning to move, could be considered as the default response, respondents who answered that they 'maybe' plan to move, indicate that they might have given planning a move some thought, but not much. In contrast, respondents who expressed that they are 'very likely' and 'quite likely' to plan a move show that they have clearly evaluated their desire and possibility to move, and might have been seriously planning a move.

Thus, we define the responses 'very likely' and 'quite likely' as planning to move and the other responses not planning to move. A time frame of two years is most frequently used in mobility planning research. It is a period suitable for not only rent-dominant, but also ownership-dominant housing markets, where a relatively longer transition period is expected (Galster et al., 2007).

4.3. Main independent variable and moderating variable

The main independent variable perceived social distance between the individual/household and neighbourhood touches on the socioeconomic status dimension. It is defined as perceived social position in terms of household income relative to the majority of the people in the neighbourhood of residence. The information is captured through a question 'How do you perceive your household income compared to the majority of the households in your neighbourhood'. Rather than measuring the objective distance between individual/household and neighbourhood status (discrepancy between household income and neighbourhood median income for instance) using large-scale individual and neighbourhood level data, this question captures the socioeconomic distance based on people's own perception and estimation. People might base such estimation on the observations of their neighbors' daily behaviour, consumption of items including but not limited to cars and clothes, as well as the interactions with their neighbors. It is shown that people might be able to systematically assess their social standing in the neighbourhood (Bach and Smith, 1977). However, their perceptions might also deviate from the 'objective' distance with their neighbourhood. Nonetheless, this is their lived reality and their basis for residential decision making. There are indeed papers using the term 'perceived social distance' as a proxy to 'objective social distance' (Hagendoorn & Pepels, 2017; Morgan, 1984, P309; Schaake et al., 2014, P517). However, they predominantly refer to distances in terms of social position and hierarchy in the society, rather than relative to the neighbourhoods. Thus, we argue that we should be the first one to use this concept to refer to the perceived distance between the individual and the majority/the composition of their immediate surrounding environment, namely the neighbourhood here, to our knowledge. Five options are offered: much higher, higher, approximately similar, lower and much lower. This information is used in two ways. First, we construct a three-option variable as perceived lower, medium (namely, match) and higher. The option 'approximately similar' is assigned as 'perceived match'; the options 'much lower' and 'lower' are termed into 'perceived lower', and 'much higher' and 'higher' into 'perceived higher'. Secondly, we combine the 'perceived lower' and 'perceived higher' into one option and term it as 'perceived mismatch'. In this way, we construct a two-option variable operationalized into 'perceived match' and 'perceived mismatch'.

The socioeconomic status is measured by the education level. University degree holders are considered as people of higher socioeconomic status (SES hereafter), non-university degree holders as people of lower SES. Along with ongoing industrialization and liberalization processes, knowledge, skills and techniques instead of inherited prestige are more and more incorporated into the means of economic production (Treiman, 1970). Against this backdrop, education becomes an increasingly significant indication for social stratification and upward social mobility (Bian, 2002). The economic return of an education degree is increasing and high in China (Zhou, 2014). Based on the middle class program in China, higher-education is an entry to the middle class and pre-requisite to achieve excellence, which implies hierarchical distinction and high quality, namely 'suzhi' (Goodman, 2014; Miao, 2017). In

addition, higher education degrees are still a scarcity. In 2018, only 14% of the population in China had a university degree and vocational certification.

From Table 2, we see that highly educated people are overrepresented in the sample (47.7%) compared to the Nanjing population (35.4% in 2015). Although it is common in Chinese survey research that highly educated people show a more active participation compared to those who are lower educated, the bias here still seems relatively large by 12%. However, this can be explained. First, the share of the highly educated people in Nanjing shown in Table 2 (35.4%) was measured in 2015; in 2010, it was 26.1%[1], indicating a rapidly increasing trend. If it would have continued to increase by 1.87% each year as during the period of 2010-2015, the share in 2018 would be around 41%. Secondly, the share of highly educated people in Nanjing should be higher than shown here if it, like our sample, only regards the urban area where most of the highly educated people concentrate (see Figure 2), rather than both rural and urban areas. Finally, although family income and occupation are also used as proxies of socioeconomic status (see for example Reardon & Bischoff, 2011), these variables have more missing values than the education variable.

4.4. Control variables

Other individual background and housing/neighbourhood related variables that might influence the plans to move are controlled for. Gender is operationalized as male and female and marital status married and unmarried (including single, widowed and divorced people). Age and age squared are included based on its theoretically nonlinear relationship with plans to move. Hukou status is operationalized into local and nonlocal hukou. Housing tenure (rental and ownership) and length of residence by years are also included in the model. The housing stress variable is operationalized as perceived housing space compared to housing demand. It includes three options: the house is relatively bigger, approximately fitting and relatively smaller compared to housing demand. The neighbourhood location is operationalized as city centre, near suburb and far suburb (Figure 2 and Table 1). The city centre tends to be highly urbanized, more dense and more crowded and dominated by highly skilled and highly educated people (Wu et al., 2014), while the far suburb is the least urbanized, most spacious in average floor space, with the lowest share of highly skilled and highly educated people, higher share of migrants (Cui, 2020). The inner suburb falls in between in these metrics. Four neighbourhood types are identified based on the housing types: old traditional housing neighbourhoods, work-unit and reformed housing neighbourhoods, public housing neighbourhoods and commodity housing neighbourhoods. Old traditional housing neighbourhoods are predominantly located in the inner centre. They tend to be over-crowded, old and dilapidated with inadequate infrastructures; most of them have experienced certain degrees of urban redevelopment. Low socioeconomic status people are overrepresented in these neighbourhoods including those who are laid-off, unemployed and rural migrants (Wu & He, 2005). Work-unit and reformed housing neighbourhoods are mostly occupied by people who (used to) belong to work units; they usually co-own (with the work-units) or own the housing. Acquaintance and interaction among residents are high. Commodity housing is the emerging housing estate in the marketization period. This mainly concerns high rising buildings in the suburbs (Li et al., 2019). There usually is limited

[1] http://tjj.nanjing.gov.cn/njstjj/201810/t20181021_527406.html, accessed on 15th June, 2021.

interaction between residents in the neighbourhood but a better physical environment (Zhu et al., 2012). They also tend to have a higher level of residential mobility in general. Public housing mostly refers to housing subsidized by the government, mainly including economic comfortable housing (ECH) and public rental housing. The neighbourhood status variable is measured by the perceived neighbourhood status. A three-option variable is included and operationalized as lower, medium and higher relative to most of the neighbourhoods in Nanjing. Besides, neighbourhood characteristics like green infrastructures might have important influences on residential mobility behaviours (Łaszkiewicz et al., 2018). We also asked the respondents to score their 'overall satisfaction degree' of the neighbourhood on a scale of 1 to 5 based on aspects including building arrangement, public facilities, public space, greenness and neighbourhood services. This subjective estimation might predict residential mobility more accurately as this is the lived reality of the respondents. The affective attachment to the neighbourhood is measured through asking 'to what extent do you agree with the statement 'I like my neighbourhood'. A scale of 1 to 5 is reported. For both the neighbourhood satisfaction and attachment variables, we combine the first two and last two scales into one scale and construct three-option variables. Besides, two neighbourhood variables are also added including the neighbourhood population and whether the share of migrants is higher than 20% of the neighbourhood population (the share of migrants in Nanjing is around 20%). As there is no public statistical data at the neighbourhood level in Nanjing; the information of these two variables comes from interviews with the neighbourhood directors, who are well-informed about the neighbourhoods.

As shown in the descriptive table (Table 2), the sample is somewhat biased towards those who are highly educated as already elaborated; female, older residents and local people are also slightly overrepresented. While these biases are common for surveys (Mulder and de Bruijne, 2019), we should remain cautious when making further generalization.

4.5. Models

In order to account for the cluster structure of the data and the unobserved heterogeneity of the neighbourhoods, a two-level random-intercept logit model is utilized. We first define the probability of planning to move as π_{ij}:

$$\pi_{ij} \equiv \Pr\left(y_{ij} = 1 | \boldsymbol{X_{ij}}, \zeta_j\right)$$

ζ_j is the neighbourhood level random intercept; it is assumed to be independent across neighbourhoods and independent of the covariates indicated by the vector $\boldsymbol{X_{ij}}$. Given the random intercept ζ_j and independent variables $\boldsymbol{X_{ij}}$, the responses y_{ij} for person *i* at neighbourhood j are independently Bernoulli distributed, namely binomial:

$$y_{ij} | \pi_{ij} \sim \text{Binomial}\left(1, \pi_{ij}\right)$$

A linear relationship is then fit between the log-odds (logit) of planning a move and the independent variables, indicated by Equation 1:

$$\text{Logit}(\pi_{ij}) = \text{Ln}\left(\frac{\pi_{ij}}{1-\pi_{ij}}\right) = \beta_0 + \beta_1 PSD_{ij} + \beta_2 SES_{ij} + \beta_3 \boldsymbol{X_{ij}} + \zeta_j \quad (1)$$

The corresponding equation for the model with the interaction term should be:

$$\text{Logit}(\pi_{ij}) = \text{Ln}\left(\frac{\pi_{ij}}{1-\pi_{ij}}\right) = \beta_0 + \beta_1 PSD_{ij} + \beta_2 SES_{ij} + \beta_3 \boldsymbol{X_{ij}} + \beta_4 PSD_{ij} * SES_{ij} + \zeta_j \quad (2)$$

Here, PSD_{ij} and SES_{ij} are the perceived socioeconomic distance and socioeconomic status measured by the education degree for individual *i* at neighbourhood *j* , respectively. X_{ij} and β_3 are the the vectors of other controlled variables and the corresponding vector of coefficients. The coefficients should be translated as the increase in log-odds of planning a move with one unit increase in the corresponding independent variable. The odds of planning to move $\pi_{ij}/(1-\pi_{ij})$ is the probabilities of planning to move (π) divided by the probabilities of not planning to move (1- π). It could be recovered by exponentiating the log-odds. We here use the model without the interaction term as an example.

$$\frac{\pi_{ij}}{1-\pi_{ij}} = e^{\beta_0+\beta_1 PSD_{ij}+\beta_2 SES_{ij}+\beta_3 \boldsymbol{X_{ij}}+\zeta_j} \quad (3)$$

The probability of planning to move could be recovered through further transformation of Equation 3. Its equation is shown as below:

$$\pi_{ij} = \frac{e^{\beta_0+\beta_1 PSD_{ij}+\beta_2 SES_{ij}+\beta_3 \boldsymbol{X_{ij}}+\beta_4 PSD_{ij}* SES_{ij}+\zeta_j}}{1+e^{\beta_0+\beta_1 PSD_{ij}+\beta_2 SES_{ij}+\beta_3 \boldsymbol{X_{ij}}+\beta_4 PSD_{ij}* SES_{ij}+\zeta_j}} \quad (4)$$

We run all the models using the command 'meqrlogit' in Stata 14. After running the models, we use the command 'margins' to recover the probabilities of planning a move.

5. Results

In general, people tend to be residentially stable: 86.3% of the respondents show no plans to move, while only 13.7% indicate they plan to move in the following two years (Table 2). While 21.5% of the high SES group plan to move, only 6.3% of the lower SES group report a plan to move. Bivariate analysis also shows that this difference between these two SES groups is significant. While the difference in terms of the probability of planning to move between those who perceive a mismatch and match is not signicant, that among those who perceive a match/medium position, a lower relative position and a higher relative position is significant. The significant difference might mainly come from the significantly higher probability of planning a move for those perceiving a higher relative social position in the neighbourhood. It is show that 41.5% of them report a plan to move, while the percentages are 12.2% for those perceiving a match/medium position and 10.7% for those perceiving a lower position (10.7%).

Table 2. Descriptive statistics of varaiables included in the models

Variables	Options	Nanjing	Sample	No move	Move	Bivariate analysis
Plan to move	Not plan to move		86.3			
	Plan to move		13.7			
Socioeconomic status (SES)	Lower SES (Non-university degree holders)	64.6%[2]	51.4	93.7	6.3	***
	Higher SES (University degree holders)	35.4%[2]	48.6	78.5	21.5	
Perceived social distance between individual and the	Perceived Medium/Match		69.2	87.8	12.2	
	Perceived Mismatch		30.8	83	17	

[2] The data is based on the 1% census in Nanjing in 2015. http://tjj.nanjing.gov.cn/njstjj/201810/t20181021_527406.html, accessed on 15th June, 2021.

majority of the neighbourhood (2 categories)						
Perceived social distance between individual and the majority of the neighbourhood (3 categories)	Perceived Medium/Match		69.2	87.8	12.2	***
	Perceived mismatch and lower		24.5	89.3	10.7	
	Perceived mismatch and higher		6.3	58.5	41.5	
Gender	Female	49.8%[3]	53.4	86.5	13.5	
	Male	50.2%[3]	46.6	86.1	13.9	
Age	Age (years old)					
Marriage	Married		88.6	87.2	12.8	*
	Unmarried		11.4	79.7	20.3	
Duration of staying	Duration of staying (years)					
Tenure	Ownership		85.7	88.2	11.8	***
	Rental		14.3	75.3	24.7	
Hukou status	Local	81.7%[3]	84.2	87	13	
	Nonlocal	18.3%[3]	15.8	82.5	17.5	
Neighbourhood type	Traditional		9.5	93.5	6.5	**
	Work-unit/Reformed neighbourhood		26.8	84.5	15.5	
	Commodity neighbourhood		48.2	83.7	16.3	
	public housing/resettlement neighborhood		15.5	93.1	6.9	
Satisfaction with neighbourhood physical environment	Not satisfied		21.2	83.3	16.7	
	Neutral		41.7	84.9	15.1	
	Satisfied		37.1	89.6	10.4	
Neighbourhood location	City centre		58.3	89.2	10.8	**
	Near suburb		20.8	84.4	15.6	
	Far Suburb		20.9	80.1	19.9	
Perception of the living space compared to demand	Smaller		31.1	81.2	18.8	***
	Approximately fit		61.1	87.4	12.6	
	bigger		7.8	98	2	
Perception of the neighbourhood status compared to other neighbourhoods in Nanjing	Lower		27.4	83.1	16.9	
	Medium		47.2	88.3	11.7	
	Higher		25.4	86.1	13.9	
Attachment to the neighborhood	Unattached		7.5	87.8	12.2	
	Moderately attached		29.7	82.4	17.6	
	Highly attached		62.8	88	12	
Migrants higher than 20% of the neighborhood population	No		28.3	88.6	11.4	
	Yes		71.7	85.4	14.6	
Neighborhood population (10000 people)			1.3			

Notes: Chi-square tests is used to test whether there are significant differences among different groups in terms of their probability distribution of planning to move; *** p<0.01, ** p<0.05, * p<0.1

We now present the outcome of the multilevel logit models (Table 3). Two sets of models are reported, whereby the main independent variable perceived social distance is operationalized as perceived residential match and mismatch (Model 1), and further dissected as perceived lower, medium (match) and higher (Model 2). Within each set of the models, we report a model with only the main independent variable (Models 1-1, 2-1), a full model without an interaction term (Models 1-2, 2-2), a full model with the corresponding interaction term (Models 1-3, 2-3). The standard errors of the odds ratios are also included in parentheses. Collinearity tests showed no significant multicollinearity. Model 2-3 fits the

[3] The data is from the Statistical Yearbook of Nanjing 2019, the information of which is of 2018.

observed data best when the perceived social distance is operationalized into three categories and an interaction term is included, as shown by the lowest value in the AIC value.

Table 3. The odds ratios of logit models on plans to move (standard errors in brackets)

	Model 1:Perceived social distance (match/mismatch)						Model 2:Perceived social distance (match/lower/higher)					
	Model 1-1		Model 1-2		Model 1-3		Model 2-1		Model 2-2		Model 2-3	
Perceived relative position in the neighbourhood (Ref=Perceived match/medium)												
Perceived mismatch	1.476	(0.357)	1.655*	(0.453)	0.388*	(0.217)						
Interaction term: Perceived relative position in the neighbourhood*SES (Ref=Perceived match * Low SES)												
Perceived mismatch* High SES					8.030***	(5.313)						
Perceived relative position in the neighbourhood (Ref=Perceived match/medium)												
Perceived lower							0.858	(0.256)	0.799	(0.273)	0.231**	(0.155)
Perceived higher							5.127***	(1.829)	7.376***	(3.213)	3.892	(3.973)
Interaction term: Perceived relative position in the neighbourhood*SES (Ref=Low SES* Perceived match)												
Perceived lower * High SES											6.660**	(5.275)
Perceived higher * High SES											2.351	(2.690)
SES (Ref=Low SES)												
High SES			3.291***	(1.201)	1.566	(0.649)			2.831***	(1.032)	1.720	(0.724)
Gender (Ref=Female)												
Male			0.669	(0.177)	0.608*	(0.164)			0.584*	(0.160)	0.559**	(0.155)
Age			1.111	(0.084)	1.084	(0.082)			1.135*	(0.086)	1.115	(0.086)
Age square			0.999*	(0.001)	0.999	(0.001)			0.998**	(0.001)	0.998*	(0.001)
Marriage status (Ref=Married)												
Unmarried			1.217	(0.527)	1.081	(0.481)			1.337	(0.594)	1.217	(0.550)
Hukou status (Ref=Local)												
Migrant			0.858	(0.378)	0.833	(0.376)			0.949	(0.422)	0.919	(0.414)
Tenure (Ref=Ownership)												
Rental			2.418**	(0.966)	2.340**	(0.963)			2.942***	(1.199)	2.783**	(1.153)
Duration of stay (years)			0.998	(0.021)	1.003	(0.021)			1.004	(0.022)	1.008	(0.022)
Perception of housing space compared to demand (Ref=Smaller)												

Approximately fit		0.527**	(0.148)	0.479**	(0.138)		0.478**	(0.139)	0.450***	(0.132)
bigger		0.072**	(0.077)	0.067**	(0.072)		0.046***	(0.051)	0.046***	(0.051)
Neighbourhood types (Ref=Commodity neighbourhood)										
Traditional (etc)		0.833	(0.580)	0.835	(0.597)		0.987	(0.694)	0.955	(0.684)
Work-unit/ Reformed neighbourhood		1.321	(0.493)	1.191	(0.451)		1.267	(0.484)	1.172	(0.452)
Public housing/resettlement housing		0.570	(0.294)	0.552	(0.287)		0.498	(0.261)	0.492	(0.261)
Satisfaction degree (Ref=Very satisfied)										
Unsatisfied		2.177	(1.083)	1.986	(1.008)		2.613*	(1.356)	2.405*	(1.270)
Moderately satisfied		2.020*	(0.796)	2.022*	(0.813)		2.143*	(0.887)	2.135*	(0.892)
Neighbourhood location (Ref=City centre)										
Near suburb		2.121	(1.025)	2.439*	(1.204)		2.309*	(1.144)	2.555*	(1.286)
Far suburb		2.071*	(0.860)	2.158*	(0.912)		2.292*	(0.976)	2.317*	(0.998)
Perception of the neighbourhood status in the city (Ref=Lower)										
Medium		0.540	(0.206)	0.444**	(0.175)		0.604	(0.236)	0.518	(0.208)
Higher		1.072	(0.535)	0.893	(0.457)		1.155	(0.605)	1.003	(0.536)
Attachment to the neighbourhood (Ref=Unattached)										
Moderately attached		1.151	(0.619)	0.970	(0.527)		1.004	(0.559)	0.885	(0.498)
Highly attached		0.799	(0.438)	0.678	(0.374)		0.793	(0.447)	0.687	(0.390)
Migrants higher than 20% of the neighborhood population (Ref=No)										
Yes		0.658	(0.281)	0.597	(0.256)		0.722	(0.318)	0.661	(0.292)
Neighborhood population (10000 people)		0.936	(0.114)	0.918	(0.112)		0.896	(0.113)	0.889	(0.112)
Level 2 neighbourhood: intercept variance	0.109	0.000		0.000		0.097	0.000		0.000	
AIC	520.9	469.8		460.7		504.7	452.6		450.0	

Notes: SES stands for socioeconomic status measured by education levels; ***p<.001; **p<.01; *p<.05. As this table reports the odds ratios, the constant is omitted. AIC (Akaike Information criterion) is a model fit index; a smaller AIC value indicates a better model fit.

We focus on illustrating the significant relationships, while also referring to insignificant ones when necessary. We first present the findings related to the main independent variables and the corresponding interaction terms. We then turn to the control variables. When intepretating the control variables, we mainly focus on Model 1-3 as results are predominantly similar.

When only the main independent variable is included, the odds of planning a move when perceiving a mismatch and when perceiving a match are not significantly different (Model 1-1). This insignificant relationship might be caused by the omission of important influential factors, which confounded the results. When other control variables are included, this relationship becomes significant; those who perceive a residential mismatch are significantly more likely (1.66 times) to plan a move out of their neighbourhood of residence in reference to those who perceive a match (Model 1-2). When we dissect the perceived residential mismatch into a perceived lower and a higher relative position, it is shown that perceiving a higher relative position in the neighbourhood suggests a significant and much higher likelihood (5.13 times) to plan a move compared to those with a perceived medium/matched position. The odds ratio is not significant between those perceiving lower and medium/matched relative positions (Model 2-1); this relationship still holds in the full model without the interaction term (odd ratio=7.376 in Model 2-2).

Our second sub-question concerns how socioeconomic status moderates the above relationships, namely the relationships between plans to move and the social distance individuals/households perceived between themselves and the majority of their neighbourhood (Models 1-3 and 2-3 in Table 3). Here, how people respond to their perceived positions in their neighbourhood residential mobility behaviour is contingent on their socioeconomic status. For instance, in Model 1-3, the odds of planning a move when perceiving a mismatch are 0.388 times smaller than when perceiving a match for those of low SES; but for those of high SES, the odds is 3.116 times higher[4]. To better understand the moderation effect, the varying predicted probabilities of each implied scenario are recovered and plotted based on these odds ratios using Equations 3 and 4 (Figure 3). The predicted probabilities and their 95% confidence intervals are presented in Appendix 1. What is immediately apparent is that high SES and low SES people show different patterns with respect to their planning to move in response to perceived social distances (Figure 3-1 to Figure 3-4).

For people of a higher socioeconomic status, planned residential behaviour is similar to that of the whole sample as described above. A perceived mismatch associates with a significantly higher probability to plan a move compared to those who perceive a match (Figures 3-1, 3-2); the shadowed area (difference in the probabilities to plan a move between perceiving a mismatch and perceiving a match position in the neighbourhood) for the higher socioeconomic status group does not intersect with the horizontal axis in Figure 3-2.

[4] The computation of the odds ratio of planning a move when perceiving a mismatch compared to perceiving a match for the reference group, namely the low status group, is the coefficient in odds ratio metric 0.388; but for the high-status group, the computation of the odds ratio involves multiplying coefficients as odds ratio models are multiplicative rather than additive. Thus, for the high socioeconomic status group, the odds of planning a move when perceiving a mismatch is 3.116 (0.388*8.030) times higher than the odds of planning a move when perceiving a match.

Specifically, the probability of planning a move is significantly higher when a higher relative position is perceived compared to a medium position; that between a perceived lower and medium position is not significantly different (Figures 3-3, 3-4). These findings are evidenced by the fact that the shadowed area for the higher socioeconomic status group does not intersect with the horizontal axis when comparing their probability of planning a move between perceiving a higher and medium position in the neighbourhood, but does when comparing the probability between perceiving a lower and medium neighbourhood position in Figure 3-4.

For people of a relatively lower socioeconomic status, a perceived mismatch is related to a lower probability to plan a move compared to a perceived match (Figures 3-1, 3-2). This contrasts with the findings about their higher socioeconomic status counterparts. Specifically, and also different from the higher socioeconomic group, the probability of planning a move is significantly lower when a lower position relative to the neighbourhood majority is perceived compared to those who perceive a medium position relative to the neighbourhood majority; the difference between a perceived higher and medium position is not significant (Figures 3-3, 3-4). What is also worth noticing about this group is that the probability to plan a move is very low and close to zero when perceiving a lower relative position compared to the neighbourhood majority (Figure 3-3). In this situation, it might imply that residential stigmatization is in place and that there is little opportunity to escape the potentially less desirable residential situation.

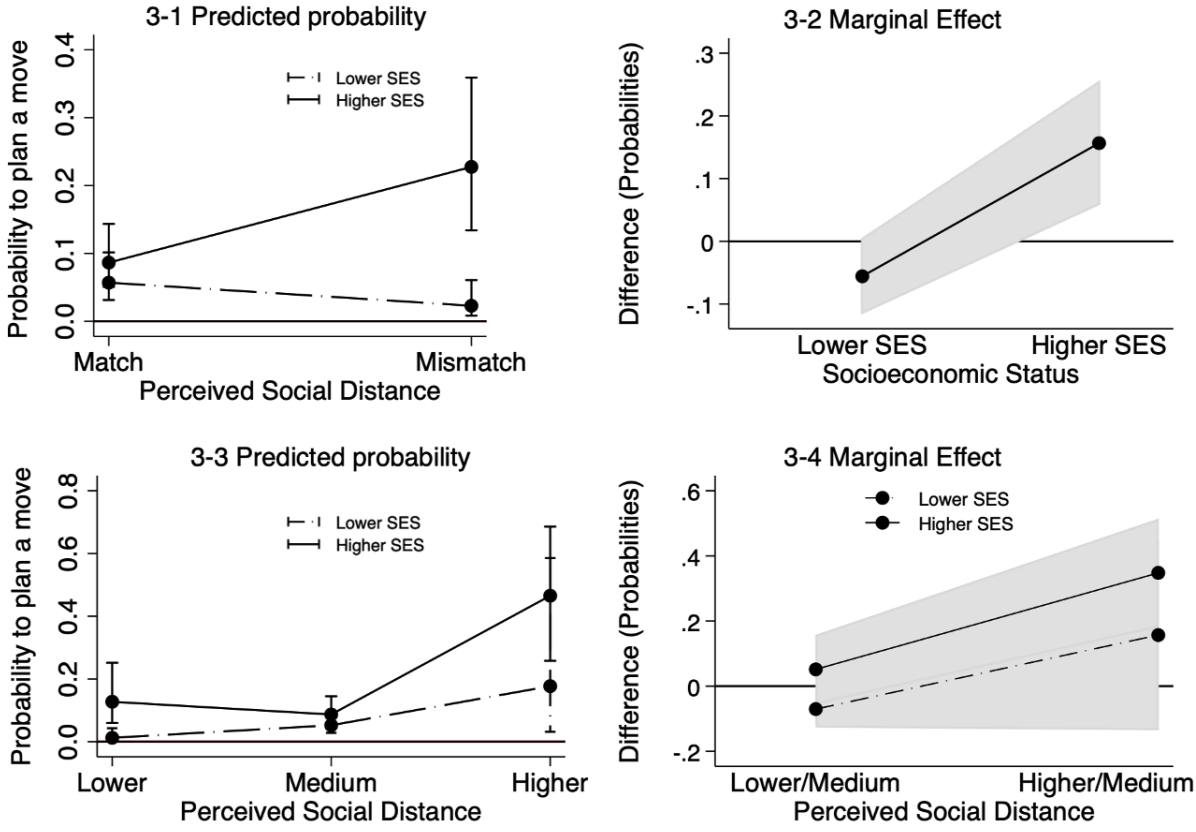

Figure 3. Relationship between plans to move, perceived social distance and socioeconomic status
Notes: Figures 3-1 and 3-2 are based on Models 1-3; Figures 3-3 and 3-4 are based on Model 2-3. The bars indicate the confidence intervals of probabilities to plan a move (Figures 3-1 ,3-3). The predicted probabilities and their confidence intervals are also shown in Appendix 1. The shadowed areas are the confidence intervals

of the differences in probabilities (Figures 3-2, 3-4); if it intersects with the line y=0, the difference is not significant.

The confidence intervals in Figure 3-1 and 3-3 are not symmatric, this is because when predicting the probabilities in Stata 14, we first computed the predictions at the log-scale, and then exponentiated the log-scale predictions. This produced predicted probabilities bounded by 0 and 1. The most commonly used command '*Margins*' was not used here as it produced negative lower boundaries for the predicted probabilities in our case. This is because the '*Margins*' command uses Delta-method and generates symmetric confidence intervals.

Seen from the control variables, age, tenure, perceived housing pressure, satisfaction degree towards the neighbourhood, and the neighbourhood locations seem to function in a relatively robust manner across the four full models (Models 1-2, 1-3, 2-2, 2-3). The probability of people planning a residential move increases until their middle 30s (ranging from 35 years to 36 years across the four models) and drops afterwards, showing a nonlinear relationship. Renters in general are more than 2 times more likely to plan a move; the coefficients are all significant in four models and range from 2.340 in Model 1-3 to 2.942 in Model 2-2. As expected, compared to those who perceive that they have a smaller housing space than they need, those who perceive a spacious and approximately fitting/matching housing space appear significantly less likely to plan a move. People perceiving a moderate level of satisfaction tend to be more likely to plan a move compared to those who are very satisfied. Although people who feel unsatisfied also have a higher probability to develop plans to move, the relationship is not significant in two of the four models (Models 2-2, 2-3). It might be that those who feel unsatisfied are also those who are less financially capable[5]. People who live in both near suburb and far suburb are in general more likely to plan a move than those who live in the city centre as anticipated across the four models.

6. Discussion and Conclusion

This study asked the questions (1) how perceived social distance between the individual/household and neighbourhood of residence impacts on the plans to move out of the neighbourhood, and (2) how people of different socioeconomic status respond to perceived social distance differently. It is found that in general, people who perceive a residential mismatch with the majority of the neighbourhood are more likely to plan a move out of the neighbourhood, compared to those perceiving a residential match. When we dissect the perceived residential mismatch position into a perceived higher relative and a lower relative position in relation to the neighbourhood majority, we found that only those perceiving a higher relative position in the neighbourhood of residence tend to have a significantly higher probability to plan a move compared to those who perceive a medium position. Meanwhile, people respond differently to perceived social distance contingent on their socioeconomic status. Higher socioeconomic status people are also more likely to plan a move out of the neighbourhood when they perceive a mismatch generally and a higher relative position particularly, compared to when perceiving a residential match/medium

[5] we included an interaction term between the socioeconomic status and the neighbourhood satisfaction degree into the models where people who feel unsatisfied are not significantly more likely to plan a move compared to those satisfied with their neighbourhoods (Model 2-2, 2-3). It was found, for instance in the case of Model 2-2, that indeed the predicted mean probabilities of planning a move for those low socioeconomic status are not significantly different when they are unsatisfied with the neighbourhood compared to when they are satisfied. The difference is significant for the high socioeconomic status group.

position. In contrast, the lower socioeconomic status people are significantly less likely to plan a move when they perceive a residential mismatch, particularly a lower relative position, compared to when they perceive a medium position.
Social distance has long been proved to be predictive of residential mobility. This study argues that the perception of social distance between the individual/household and their neighbourhood is important in capturing the nuanced psychological and affective elements in the residential decision-making process and might be an even more important predictor of residential plans than objective social distance indicators (Miao, 2017). By quantifying perceived social distance, this study bridges two separate threads of research which have rarely been in dialogue: residential mobility research on objective residential mismatch using predominantly quantitative analysis, and qualitative research focusing on perceived residential mismatches. Our findings imply an overlap and complementarity of these two threads of literature. Research based on objective social distance and actual residential mobility using a large-scale dataset has typically shown that a larger distance, measured by the difference between the household income and neighbourhood median income, tends to associate with a higher probability of moving out of the neighbourhood (Galster and Turner, 2017; Musterd et al., 2016). Similarly, our study also shows that people are more likely to plan a move when they perceive a residential mismatch and when they perceive a higher relative position, compared to those perceiving a match/medium. This indicates that people indeed estimate their socioeconomic status in their neighbourhoods consistently.

However, the relationship between plans to move and perceived social distance between the individual/household and neighbourhood is far from linear. Different mechanisms might be at work. Seeking for selective belonging could explain the significantly higher probability for people to plan a move out when they perceive a residential mismatch and in particular a higher relative position in the neighbourhood; they might move to live with people like them in a more homogeneous neighbourhood, so that they could feel more 'at home' (Atkinson, 2006; Savage et al., 2010; Watt, 2009). This finding is also applicable when we only consider the higher SES group, but not when only considering the lower SES group. This corresponds to the fact that higher SES people have a higher capability to realign their objective residential situations with their desires. In reality, seeking for selective belonging might lead to neighbourhood segregation when people, especially the higher SES group, isolate themselves from the rest. For those of relatively lower socioeconomic status, residential mobility behaviour seems more related to adaptation (Bourdieu, 1980:77; Reay et al., 2009). They have little opportunities to escape from less desirable residential situations, as implied by their significantly lower probabilities to plan a move when perceiving a residential mismatch in the neighbourhood and a lower relative position in particular, compared to perceiving a medium position. This might also imply concentrated poverty and relatedly neighbourhood segregation when they are marginalized into disadvantaged areas (Atkinson, 2006). In addition, the feeling of having a lower status than the majority of the neighbourhood might also lead to psychological health issues. Further research should address that, and related policies should be in order.

The relationship between social distance and residential mobility has important implications on neighbourhood mix and segregation research and related public policy fields (Galster and Turner, 2017; Musterd et al., 2016). The neighbourhood mix policies in the Netherlands and Sweden and the Hope projects in the US all aim for mix in dimensions of income and ethnicity.

However, such mix might not necessarily be stable and sustainable as people might not feel that they belong to the neighbourhoods (Galster and Turner, 2017; Kleit, 2005). Our theoretical emphasis on perceived social position/distance in the neighbourhood, provides new and potentially fruitful perspectives in neighbourhood mix policies, for instance, through 'manipulation' of people's perceived position in the neighbourhood in relation to their real position: making people 'perceive' they fit and feel 'at home' while they actually observe a mismatch and contribute to neighbourhood mix in objective terms. Indeed, people's perceptions and self-positioning might be biased based on a complex set of factors including individual socioeconomic characteristics (Adler et al., 2000), collective status (Blumer, 1958; Jones et al., 1984) and macro-structures (Musterd and Ostendorf, 2013; Wilkinson, 1996). Some other household and neighbourhood characteristics, including but not limited to crime rates and the size of houses might also influence how people perceive their social distance with their neighbours. For example, a tentative cross-tabulation analysis with our sample suggests a relatively big mismatch between perceived and 'real' social positions in the neighbourhood[6]. Future research could focus on how perceived and real social distance in the neighbourhood interact with each other. The factors influencing how people perceive their social distance would further mediate the relationship between perceived social distance and residential mobility behaviour. Further research could take this into consideration, and to establish to what extent our findings and theoretical assumptions hold. Additionally, cautions are needed in interpreting and generalizing the results in this study, among other things due to the slight bias in the education variable and the fact that we were unable to use sampling weights. Furthermore, variables related to the built environment like greenspace and land use mix could not be included due to data availability, which might exert potential influence on people's residential mobility behaviour (Łaszkiewicz et al., 2018). Although highly unlikely to lead to misleading results, availability of related information would be useful in providing a more complete picture of how people respond to neighbourhood environment in residential mobility. Besides, while the multilevel model helped with controlling for the 'large-scale' effect, spatial autocorrelation might still exist and influence the standard errors of the estimations. Further research with access to XY-coordinates information of the respondents could test to what extent this influence exists. Furthermore, education is used to measure the SES status due to data availability. Further research based on household income or occupation could test whether applying these operationalisations result in the same conclusions or not. While these variables could all be considered good proxies of socioeconomic status, they might capture nuanced and different dimensions. Education might have stronger implications in terms of cultural capital, and income in terms of economic capital. In that sense their inclusion in analyses is expected to have differentiated impacts on residential mobility behaviour.

[6] Analysis not shown here, due to concerns connected to the relatively small sample and potentially high estimation errors.

Appendix 1

Appendix 1: the predicted probabilities and their differences

	SES	Perceived social distance	Predicted probabilities	CI (lb)	CI (ub)
Predicted probability (Figure 3-1)	**Low SES**	**Match**	0.056	0.031	0.101
		Mismatch	0.023	0.009	0.062
	High SES	**Match**	0.081	0.047	0.136
		Mismatch	0.238	0.140	0.376
Difference (Figure 3-2)	**Low SES**	**Mismatch vs match**	-0.054	-0.115	0.006
	High SES	**Mismatch vs match**	0.173	0.073	0.273
Predicted probability (Figure 3-3)	**Low SES**	**Lower**	0.013	0.004	0.043
		Medium	0.052	0.028	0.095
		Higher	0.177	0.032	0.586
	High SES	**Lower**	0.128	0.060	0.252
		Medium	0.087	0.051	0.145
		Higher	0.465	0.258	0.686
Difference (Figure 3-4)	**Low SES**	**Lower vs medium**	-0.069	-0.125	-0.014
		Higher vs medium	0.169	-0.128	0.465
	High SES	**Lower vs medium**	0.066	-0.041	0.174
		Higher vs medium	0.355	0.194	0.515

Notes: SES implies socialeconomic status; 'CI' confidence interval, 'lb' lower boundaries, and 'ub' upper boundaries.

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