



Migrants' willingness to contact local residents in China[☆]

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ABSTRACT

Although the integration of migrants has been increasingly pursued by the policy makers in many countries, there remains a paucity of knowledge regarding what migrants themselves think about integration. Based on the 2014 China Migrants Dynamic Survey, this study draws upon new assimilation theory to investigate migrants' willingness to contact locals in China. Our results suggest that most migrants in China are willing to contact natives, but their willingness may not be strong. Different from the actual intergroup contact, migrants' willingness to develop intergroup contact is not affected by their socioeconomic status. Instead, such willingness might be developed based on the cultural commonalities between migrants and natives. Residential segregation can weaken migrants' willingness to contact locals even after the endogeneity bias of residential choice is controlled by using instrumental variable method and focusing on migrants who live in the housing provided by employers. This draws a darker picture of migrant integration. Previous literature explains that migrants faced with residential segregation have fewer opportunities to form intergroup contact which in turn can hamper their overall integration. Our analysis goes a step further by revealing that they may also lose their motivation to make intergroup contact – a preference that is critical to changing their disadvantaged situation.

1. Introduction

The internal migration in China, known as the largest human migration in history, has led to a huge population influx into urban areas. Naturally, how to integrate this migrant population has become a top priority for Chinese government. Since the beginning of 21st century, the principle that migrants should be fairly treated has been gradually promoted. A series of policies and laws such as 'labour contract law' and 'social insurance law' have accordingly been issued to ensure migrants' social rights. More radically, the 18th National Congress held at the end of 2012 changed the aim of integration policies from merely granting equal rights into citizenisation (*shiminhua*), which means turning migrants into full members of the urban community, not only in legal and economic senses but also in social and attitudinal senses (Möbrant, 2015). In the 2014 New Urbanisation Plan, a goal of converting 100 million migrants into urban residents by 2020 was set, and the corresponding 'people-centred' urbanisation strategy was put forward.

In spite of the motives to care about migrants, these integration

policies might be made without investigating migrants' own willingness. During the policy-making process, government officials are used to assuming what migrants need on their own instead of communicating with migrants in person (Guo & Liang, 2017). The formulation of integration policies is, more often than not, official-centred rather than people-centred. For those policy makers, integration into the host cities is associated with modernisation, so migrants should actively pursue it by receiving skill training, enrolling in local welfare programmes and participating in local communities.

However, policy makers actually cannot predict exactly what migrants want without investigating migrants' intentions, and thus the integration policies aimed at migrants are doomed to low efficacy. One vivid example is that the efforts to extend social welfare to migrants have not produced a marked effect on migrants' active participation (Huang & Cheng, 2014). This dearth of enthusiasm from migrants themselves could also be found in *hukou* reforms. After the continuous relaxation of *hukou* acquirement restrictions in most part of urban China, a large majority of migrants still have no intentions to transfer their original *hukou* (Li & Liu, 2020; Yang & Guo, 2018). Therefore, it is

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necessary to understand migrants' own willingness to integrate in the Chinese context, where these integration policies have been constantly released.

The policy implications of understanding migrants' willingness to integrate in China may go beyond the Chinese context. Since the early 2000s across Europe, there has been rising concern over immigrants' lack of willingness to integrate (Kontos, 2014; Vertovec & Wessendorf, 2010). David Cameron, the former prime minister of the UK, even publicly warned that immigrants' unwillingness to integrate has led to a 'kind of discomfort and disjointedness' that has thrown communities in Britain into disorder (Watt & Mulholland, 2011). It is often believed that immigrants' commitment to their own ethnic culture can lead to their unwillingness to integrate. The multicultural policies, which are considered as the institutional support for immigrants' separateness, have been widely condemned (Vertovec & Wessendorf, 2010). Many European countries have witnessed a retreat from multicultural policies. Thus, studying migrants' willingness to integrate may provide policy implications for these countries.

New assimilation theory highlights that immigrants actively make adaptation choices (Alba & Nee, 2003; Nee & Alba, 2013), and this also calls for an analysis of individuals' willingness to integrate. The crux of this theory is the 'bounded rationality', under which immigrants actively pursue self-interest but cannot maximise their utility due to the institutional environment and cognitive ability. Faced with various choices related to adaptation activities, they weigh the costs and benefits and select the options perceived to be most rewarding in the given institutional structures. In this way, immigrants are no longer viewed as passive recipients waiting for being integrated, but rather active agents contemplating different adaptation choices. Studies on the willingness to integrate are thus urgent and necessary.

However, most existing integration studies in multi-ethnic contexts and the Chinese context have focused on migrants' actual integration experience (Martinovic et al., 2009, 2015; Vogiazides, 2018; Wang et al., 2016). Few studies have systematically investigated migrants' willingness to integrate. The actual integration experience here refers to the existing integration achievements that migrants have already had. The willingness to integrate refers to the subjective orientation towards integration. When migrants are willing to integrate, they feel fairly happy about integration and are motivated to achieve it. To put it simply, while the actual integration experience represents a fact, the willingness to integrate represents a potential. Although a plethora of settlement intention literature has attempted to explain migrants' willingness to stay or leave in terms of economic incentives and sociocultural attachment (Constant & Massey, 2003; Tezcan, 2019; Toruńczyk-Ruiz & Brunarska, 2020), which may shed light on the future studies on the willingness to integrate, we argue that settling down is far away from better integration. Merely staying in the host societies without integration would lead to fragmented social order. Therefore, there remains a paucity of knowledge regarding migrants' willingness to integrate.

To fill the research void, this study intends to reveal to what extent migrants in China are willing to contact local residents and how this willingness is shaped. An explanation framework for migrants' willingness to contact natives is developed based on new assimilation theory, and we test the explanation framework with the case of China. Integration has multiple dimensions such as economic integration, social integration, political integration and psychological integration. This study focuses on the social dimension, namely intergroup contact, for two reasons. One reason is that social dimension is key to the achievement of complete integration. As Gordon (1964) suggested, other dimensions of integration will follow once migrants enter the social circles of majority group members. Another reason is that migrants' willingness to integrate is most likely to be different from their actual integration experience in the social dimension. While the integration in other dimensions only requires the involvement of migrants themselves and institutional environment, intergroup contact also needs the participation of locals, whose responses are difficult to foresee.

There are three contributions of this study. First, this study extends the integration literature by separating migrants' willingness to integrate from their actual integration experience. Distinguishing between these two aspects gives new insights into the concept of integration. Second, this study develops a theoretical framework to explain migrants' willingness to contact local residents, contributing to the intergroup relations research. Third, new assimilation theory focuses on immigrants, and we draw upon its core ideas to understand the situation of internal migrants in China.

The remainder of this paper is structured as follows. In the next section, new assimilation theory and empirical integration literature in the multi-ethnic contexts are firstly reviewed to show the need to study migrants' willingness to integrate. Then the integration literature in the Chinese context is reviewed to demonstrate that new assimilation theoretical framework may also apply to the internal migrants in China. After that, an explanation framework for migrants' willingness to contact natives is developed, and some hypotheses are proposed. The third section elaborates the data sources and research methods. Then the fourth section demonstrates the empirical findings based on the data analysis. Finally, the last section draws conclusions of the pattern and the underlying dynamics of migrants' willingness to contact locals in China.

2. Literature review and theoretical framework

2.1. The willingness to integrate and the possible sources

New assimilation theory proposed by Alba and Nee (2003) interprets immigrants as active agents deciding whether or not to assimilate. The core assumption of this theory is immigrants' bounded rationality, under which immigrant individuals take purposive actions to pursue their self-interest, and close-knit groups make collective efforts to optimise the welfare for group members. Immigrants are 'intendedly rational, but only limitedly so' (Simon, 1957: xxiv). Both their cognitive ability and institutional processes could limit the maximisation of utility. Given the institutional environment where specific opportunity structures exist, immigrants calculate the perceived costs and expected benefits of alternative adaptation options and make choices to meliorise the potential utility. When they perceive that assimilation is more rewarding than other adaptation choices in the receiving societies, they may have a strong willingness to assimilate and strive for assimilation. In this way, assimilation is regarded as 'a contingent outcome stemming from the cumulative effect of individual choices and collective action in close-knit groups, occurring at different rates both within and across ethnic groups' (Alba & Nee, 2003: 65–66). It is thus tempting to understand migrants' willingness to integrate in the specific context. In this paper, we do not distinguish between assimilation and integration, both of which are understood as the decline of the distinction between migrants and locals (Alba & Nee, 2003; Nee & Alba, 2013).

However, most empirical integration studies have focused on the actual integration experience of migrants. Scarce attention has been paid to migrants' willingness to integrate. Still, some studies on actual integration experience have shed light on the role of migrants' own willingness and the possible sources of the willingness. For instance, the psychological integration research has indicated that migrants' attachment to the receiving contexts at different levels is not only associated with the contextual characteristics (Wang & Ramsden, 2018; Wessendorf, 2019) but also related to individuals' own investments into local communities (Logan & Spitze, 1994). Such investments as the length of residence, housing ownership and social ties with local residents could stimulate more social involvement and further generate positive feelings towards the destinations. What can be inferred here is that migrants' emotional connections with the receiving contexts are dependent upon their own willingness to invest. However, this strand of literature has never offered an explanation for how such willingness is formed.

Some social integration or intergroup contact literature has admitted

the role of individuals' own preferences for interacting with others and explained where these preferences come from. According to the prevalent theoretical framework for intergroup contact (Kalmijn, 1998; Martinovic, 2013), migrants' social contact with natives is influenced by both the opportunities to socialise across groups and the preferences based on homophily principle that people tend to favour the interaction with similar others (McPherson et al., 2001). Those who are more similar to natives in socioeconomic status and cultural backgrounds are assumed to hold more positive attitudes towards intergroup socialisation and thus enjoy closer bonds with local residents. However, most empirical studies have employed socioeconomic characteristics and cultural traits to proxy migrants' preferences instead of using more direct measures (Martinovic et al., 2009, 2015). Considering that these personal attributes could also affect the opportunities to socialise across groups, these empirical results can neither reflect the level of migrants' desire for intergroup contact nor the role of this desire.

Similarly, some residential integration studies have recognised the possibility that migrants prefer to stay in the ethnic communities even if they are able to move out, but few have separated out such co-ethnic preference effects (Alba & Logan, 1993; Bolt & Van Kempen, 2010; Vogiazides, 2018; Vogiazides & Chihaya, 2020). In most cases, regression models are employed to find whether ethnic minorities can translate their socioeconomic improvement into better living environment as easily as majorities. If so, the result supports spatial assimilation model that migrants can move into white-dominated areas once achieving acculturation and social mobility (Massey, 1985). If not, both ethnic preference model and place stratification model are likely to work. While the former attributes the failure of spatial assimilation to the co-ethnic preference (Clark, 2002), the latter attributes it to the ethnic discrimination from different sides in the housing market (Alba & Logan, 1991), such as real estate agencies, mortgage-lenders, local authorities and majority neighbours. However, these empirical studies on residential integration have rarely distinguished the effects of migrants' own preferences from those of the discrimination they experience.

While these intergroup contact studies and residential integration studies have viewed migrants' own willingness as the intuitive preferences for socialising or living with similar others, a growing body of research on citizenship or political integration has identified more sources of this willingness. This strand of literature has extended the explanation framework beyond traditional factors such as institutional environment and personal resources to new factors such as the trust in local political system, the attachment to or identification with the receiving countries and the appreciation of the right to vote (Barker & McMillan, 2017; Rapp, 2020; Scuzzarello, 2015), all of which may facilitate migrants' willingness for political participation. However, these new factors identified in the political integration literature are too fragmented to provide a general picture for migrants' willingness to integrate and the underlying dynamics.

The settlement intention studies have directly focused on migrants' willingness to settle down or leave. In these studies, migrants are often regarded as active agents who make their settlement decisions based on economic incentives and sociocultural attachment (Constant & Massey, 2003; Tezcan, 2019; Toruńczyk-Ruiz & Brunarska, 2020). Nevertheless, a willingness to settle down does not mean a willingness to integrate. Migrants may refuse to integrate into the mainstream of local residents while choosing to settle down. This not only hinders their own integration but also undermines the cohesion of the whole society.

Therefore, the empirical knowledge on migrants' willingness to integrate is still sparse and fragmented. Whether migrants' willingness to integrate is divergent from their actual integration experience and how their willingness to integrate is shaped have yet to be systematically investigated. More research on such willingness is clearly needed to deepen our understanding of migrant integration.

2.2. Understanding migrants' willingness to integrate in China

Migrants in China are defined and restricted by the unique *hukou* system. No matter how long they live in the current cities, they cannot be regarded as natives unless a local urban *hukou* can be achieved. As non-local *hukou* holders, they are not able to enjoy equal access to local welfare entitlements and public facilities (Chen & Yeh, 2021; Wang et al., 2015). They also suffer from the informal discrimination related to *hukou*, such as the unfair treatment from employers (Song, 2016) and the daily prejudice from local residents (Liu et al., 2018; Tse, 2016). Consequently, migrants in the Chinese context tend to be constructed as passive victims of *hukou* system in the academic discourse. The active role of migrants in the process of integration has received insufficient attention in the existing integration studies in China. Are migrants in China willing to integrate? What may affect their willingness to integrate? These questions have rarely been explored.

Still, there is evidence that migrants in China make active adaptation choices. A handful of residential integration studies, for instance, have argued that the frequently observed housing disadvantages of migrants in urban China, such as informal housing and inferior housing conditions, not only result from their poor access to housing welfare but also could be their deliberate choices driven by economic considerations. Based on a survey in low-income communities, Wu (2012) found that rural migrants were not so attached to the current neighbourhood but expressed a strong willingness to stay while local residents just behaved in the opposite way. The research of Li et al. (2009) also indicated that migrants' income was not closely related to their housing choices. For migrants, housing size, housing quality and even the proximity to relatives and friends are not important compared with the convenience for work and living costs (Tao et al., 2014). They are more willing to choose small units in urban villages than comfortable commodity housing, one symbol of residential integration (Wu, 2016). Moreover, some studies have shown that migrants without the intention to settle down are more likely to live in the informal housing, such as urban villages and factory dormitories (Liu et al., 2017; Tao et al., 2015), and endure inferior housing conditions (Wu, 2004). This suggests that migrants may be unwilling to achieve residential integration when its benefits cannot last.

Some settlement intention studies in the Chinese context have also noticed migrants' lack of interest in obtaining the *hukou* of destinations and attributed it to the compromise between the distinct benefits linked to different types of *hukou*. According to these studies, about half of migrant respondents are not willing to transfer their *hukou* to current cities even if there is no restriction (Huang et al., 2018; Zhu, 2007; Zhu & Chen, 2010). Despite being counterfactual at first sight, this low willingness seems to be reasonable after comparing what migrants could gain from the *hukou* of host cities and the *hukou* of hometowns. Local urban *hukou* is indeed associated with social welfare, but this competitive advantage has declined since Chinese government has gradually improved migrants' access to local public services and market has played an increasingly important role (Chen & Fan, 2016). Comparatively, the majority of migrants come from rural areas, and the rural *hukou* is tied with farming and housing land (Hao & Tang, 2015; Li & Liu, 2020; Yang & Guo, 2018), which is an asset that would appreciate for rural migrants from developed areas and a way to cope with future uncertainty for those from poor areas (Hao & Tang, 2015).

Therefore, migrants in China may also actively make their adaptation and settlement choices to improve their utility in the current institutional structures. This implies that the bounded rationality idea of new assimilation theory can be extended to the internal migrants in China.

2.3. Theoretical framework for migrants' willingness to contact local residents

Drawing upon the new assimilation theory, this study develops an

explanation framework for migrants' willingness to contact local residents. We assume that migrants have bounded rationality under which they would select the adaptation option perceived to be most rewarding in the given institutional environment. Accordingly, migrants may be more willing to contact local residents when they perceive that intergroup contact requires lower costs or generates higher benefits.

Specifically, socioeconomic and cultural factors may shape migrants' willingness to contact locals through changing both their contact costs and benefits. Migrants who own more socioeconomic resources and who are more familiar with mainstream cultural norms are often believed to be more capable of or have more opportunities to integrate into the receiving contexts in terms of social contact, residential attributes and political participation (Barker & McMillan, 2017; Martinovic, 2013; Vogiazides, 2018). One direct outcome is that the costs of cross-group contact are generally lower for these migrants than for their counterparts. In addition, both the intergroup contact literature and the residential integration literature have admitted that migrants may prefer to socialise or live together with those who are similar to themselves (Clark, 2002; Martinovic et al., 2009, 2015). Considering that local residents are often highly educated, well paid and embedded in local culture, migrants with similar traits tend to have a stronger intuitive desire for intergroup contact and thus can get more subjective bonus from it. Therefore, we expect that.

Hypothesis 1. Migrants who share more socioeconomic and cultural commonalities with local residents may have a stronger willingness to contact local residents.

Moreover, residential segregation may play a role by increasing the costs of intergroup contact. There is a surge of interest in the influence of neighbourhood contexts on migrants' actual integration. A host of empirical results have demonstrated the negative associations between residential segregation and various dimensions of integration (Lin et al., 2021; Liu et al., 2018; Van der Laan Bouma-Doff, 2007; Vervoort, 2012). According to Van der Laan Bouma-Doff's (2007) isolation thesis, residential segregation largely limits the opportunities to form intergroup ties, and this in turn hampers ethnic minorities' overall integration into host societies. Therefore, it is reasonable to assume that migrants living in segregated neighbourhoods may be less willing to contact majority group members because of its high costs. Based on this notion, we propose that.

Hypothesis 2. Migrants who experience severer residential segregation tend to be less willing to contact local residents.

Besides, settlement intention may affect the perceived benefits of intergroup contact and thus contribute to the willingness to contact local residents. There is some sporadic evidence that migrants who intend to stay in the host city or host country have a higher likelihood of being proficient in local language (Wachter & Fleischmann, 2018), developing

more intergroup ties (Martinovic et al., 2015) and residing in better housing (Liu et al., 2017; Tao et al., 2015; Wu, 2004) than those without this intent. For migrants who plan to settle down, the integration status would be maintained in the future and could generate long-term rewards, so they are more willing to integrate into the receiving communities including contacting natives (Fig. 1). This leads to our last hypothesis.

Hypothesis 3. Migrants who plan to stay in the current cities in the near future may be more willing to contact local residents.

3. Research design

3.1. Data source

The data used in this study come from the thematic sub-survey of China Migrants Dynamic Survey (CMDS) carried out by the National Health Commission of China in 2014. Based on a multistage stratified probability proportionate to size (PPS) method, this sub-survey collected the data of social integration and psychological health from 2000 migrant samples in each of the following cities: Beijing, Jiaxing, Xiamen, Qingdao, Zhengzhou, Shenzhen, Zhongshan and Chengdu. Among these eight cities, Beijing and Shenzhen are megacities; Zhengzhou, Chengdu, Qingdao and Xiamen are large cities; Jiaxing and Zhongshan are small cities. The interviewed migrants are those non-local *hukou* holders who had been in the surveyed city for more than one month and were aged between 15 and 59.

3.2. Measuring the willingness to contact local residents

The dependent variable in this study is migrants' willingness to contact local residents. For Pettigrew (1998), 'friendship potential' is an essential condition for optimal contact, which could reduce intergroup prejudice. A large body of intergroup contact research has also focused on the friendships between ethnic groups (Muttarak, 2014; Vervoort, 2012). Different from more mundane contacts such as ordinary encounters in the neighbourhood, workplace or club, friendships are built upon 'voluntary preferences for enduring and beneficial social interaction' (Schlueter, 2012: 79). Thus, this study captures the willingness to contact locals by respondents' comments on the statement 'I am willing to make native friends'. These respondents were given a four-point scale where 1 is totally disagree, 2 is disagree, 3 is basically agree and 4 is totally agree.

3.3. Predictors

Based on the theoretical framework, this study intends to explore the effects of socioeconomic and cultural attributes, residential segregation

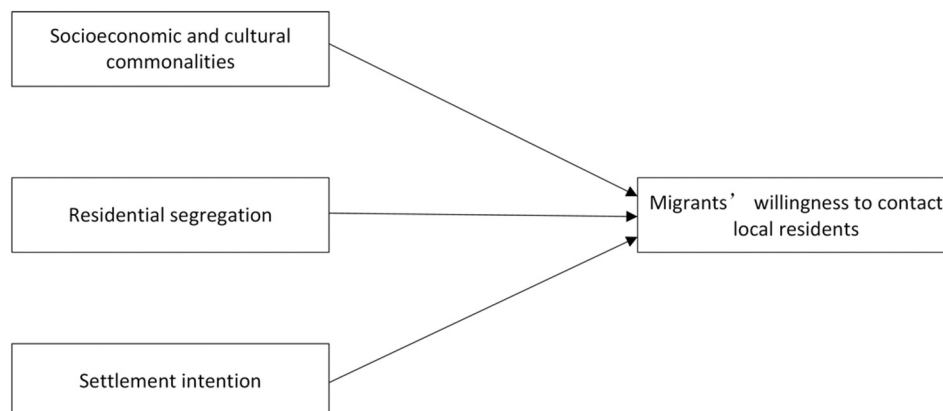


Fig. 1. Theoretical framework.

and settlement intention on migrants' willingness to contact local residents.

We first take into account migrants' socioeconomic and cultural attributes. As for socioeconomic status, educational attainment, employment status and monthly income are included. The educational attainment is classified into four groups, 'primary and below', 'junior secondary', 'senior secondary' and 'college and above'. The employment status concerns whether respondents are unemployed, with 0 representing 'employed' and 1 representing 'unemployed'. To reduce the skewness of original data, the monthly income variable is log transformed. Three variables are used to capture migrants' cultural traits. The first variable is migrants' capability to understand local dialects which is categorised into three types, 'not understand', 'partly understand' and 'totally understand'. The second variable is cultural proximity. In the survey, there are eight statements about the importance of hometown culture to respondents and the cultural differences between respondents and natives. The responses from migrant individuals are evaluated based on a scale of 1–5 where 1 means totally agree and 5 means totally disagree, and the cultural proximity is measured as the average score of the responses to these eight statements. The third variable of cultural traits is the length of residence. Generally, migrants' familiarity with local norms and cultural habits would increase with their duration of residency.

The role of residential segregation is also considered in the empirical analysis. A large body of extant integration research has employed the level of co-ethnic concentration or migrant concentration in the neighbourhood to measure residential segregation (Liu et al., 2018; Van der Laan Bouma-Doff, 2007; Vervoort, 2012). This study accordingly captures it by the self-reported neighbourhood composition which is categorised into four types: '1. Most of residents in my neighbourhood are migrants; 2. Most of residents in my neighbourhood are locals; 3. Roughly half of residents in my neighbourhood are migrants/locals; 4. Not sure'. In order to estimate the instrumental variable model conveniently (we will explain this model in the section of analytical strategies), we transform this multinomial variable into a binary one which equals 0 if most of residents in interviewees' neighbourhoods are locals and equals 1 if half or more of residents in interviewees' neighbourhoods are migrants.

In addition, migrants' settlement intention is included. In the survey, migrants were asked about where they plan to work and live in the next five years. There are three choices available to them, namely 'the current city', 'hometown' and 'others'. 'Others' could be other places or no clear plans. We combine the last two categories and construct a binary variable of whether migrants plan to stay in the current city in the next five years so that we can estimate the instrumental variable model conveniently.

Finally, a series of individual features are controlled, including age, gender, marital status and *hukou* status. The marital status variable is simply defined as whether respondents are married, with 0 representing unmarried and 1 representing married. For *hukou* status, there are two choices available, namely 'rural *hukou*' and 'urban *hukou*'. City dummies are also included in the model to control the variance in migrants' willingness between cities.

3.4. Analytical strategies

This study employs ordered probit models to reveal how socioeconomic and cultural characteristics, residential segregation and settlement intention affect migrants' willingness to contact local residents. However, there are endogeneity concerns over the relationship between migrants' willingness to contact natives and residential segregation as well as the relationship between their willingness and settlement intentions. While living in segregated neighbourhoods and planning to leave the host city may lower migrants' willingness to contact local residents, those with a lower willingness to contact local residents are also likely to deliberately choose segregated neighbourhoods and lack

motivations to settle down. This issue of reverse causality may bias the estimation of the effects of residential segregation and settlement intention.

To deal with this endogeneity bias, this study uses two strategies. The first strategy is to employ instrumental variable method. We introduce instrumental variables for the endogenous variables, residential segregation and settlement intention. Our model is comprised of three equations. The dependent variable is regressed on the two endogenous variables and all the exogenous variables in one equation, and the two endogenous variables are regressed on the instrumental variables and all the exogenous variables in two other equations. Valid instrumental variables should satisfy the exogeneity and relevance requirements. The exogeneity requirement means that the instrumental variables cannot directly affect or be affected by the dependent variable. The relevance requirement means that the instrumental variables highly correlate with the endogenous variables. Some previous studies on the effects of residential segregation have employed the level of segregation at a higher geographic level as the instrument for the segregation at a lower geographic level (Dustmann & Preston, 2001; Wu et al., 2011; Wu et al., 2018). Drawing upon these studies, we choose the district-level residential segregation as the instrumental variable for the neighbourhood-level residential segregation. The district-level residential segregation is measured by most migrant interviewees' experience of neighbourhood composition in the district. It is calculated based on the mode of the answers of all the migrant interviewees in the district. It equals 0 if the most frequent answer to the neighbourhood composition question in one district is living in native-dominated neighbourhoods and equals 1 if the most frequent answer is not living in native-dominated neighbourhoods. The rationale of choosing this instrumental variable is that the attributes of larger areas are beyond the control of individuals while closely related to the attributes of individuals' immediate surroundings. There are a wide variety of neighbourhoods in a district. Although individuals may move between neighbourhoods because of their preferences for certain neighbours, they can always find satisfying neighbourhoods without moving out of the districts. In other words, migrants' willingness to contact locals does not affect the district-level residential segregation. It is important to note that the district-level residential segregation is measured by whether living in segregated neighbourhoods is common among migrant interviewees in the district instead of the share of migrants in the district. While the latter measure represents the overall segregation beyond the neighbourhood context and can directly affect migrants' willingness to contact locals, the former measure reflects the district-level segregation in the neighbourhood context and thus can only affect migrants' willingness to contact locals through neighbourhood segregation. Still, both measures can be highly correlated with neighbourhood segregation. It is obvious that living in a more segregated district can increase the possibility of residing in a segregated neighbourhood. For the settlement intention, we use whether migrants worry that their spouses feel lonely in their hometowns as the instrumental variable. It is a binary variable which equals 0 when migrants do not have such worries and equals 1 when they have such worries. Both married and unmarried migrants report whether they are worried about their spouses in hometowns, and the unmarried are usually without such worries. There is no specific reason to anticipate that worrying about spouses in hometowns can directly affect or be affected by migrants' willingness to contact locals. However, it is highly possible that having such worries could generate negative impacts on migrants' intentions to settle down. Migrants who worry about their spouses in hometowns are less likely to stay in the host cities. Here we mainly discuss the exogeneity and the relevance of the two instrumental variables from a theoretical point of view. We will provide empirical evidence to support these arguments in the section of empirical findings. In this study, the dependent variable is ordinal, and the two endogenous variables are binary. Therefore, this study employs the conditional mixed-process (CMP) estimator developed by Roodman (2011). One advantage of CMP framework is that it can allow the dependent variable and the

endogenous variables to be of various types.

The second strategy is to run ordered probit models on certain subgroup of migrants whose residential choices or settlement intentions are exogenous. Some neighbourhood effects studies have focused on the individuals living in public housing or the participants of the programmes assigning housing randomly to handle neighbourhood self-selection (Kling et al., 2005; Sari, 2012). The underlying idea is that the residential choices of these people are not decided by themselves. In China, migrants have limited access to public housing, and many of them live in the housing provided by their employers. Thus, this study concentrates on the migrants who are offered accommodation by employers to estimate the effects of residential segregation on migrants' willingness to contact local residents. For this subgroup of migrants, it is their employers rather than themselves that choose where to live. The results of the effects of residential segregation based on this subsample are not biased by endogeneity. Similarly, this study focuses on the migrants who migrated for the reason of accompanying others to migrate to estimate the effects of settlement intention on migrants' willingness to contact local residents. We argue that these migrant individuals' settlement intentions tend to be exogenous. Considering that their purpose of migration is to accompany others instead of realising their own goals such as working or studying, their plans to settle down or leave are likely to be made or at least largely affected by the people they accompany. Studying this subgroup of migrants can help relieve the endogeneity related to settlement intentions.

Moreover, the dataset used in this study has a hierarchical or clustered structure. Migrant samples are nested in neighbourhood clusters. Migrants in the same cluster, namely neighbourhood, may be more similar to each other compared with migrants in other clusters. Ignoring the dependency of migrant samples within the neighbourhood clusters could lead to underestimated standard errors. Primo et al. (2007) argued that the clustered standard errors technique is more straightforward and practical than the multilevel technique in terms of dealing with clustering, especially when the datasets are large. Therefore, this study employs clustered standard errors to allow for the non-independency within the neighbourhood clusters in all regression models.

4. Empirical findings

4.1. Descriptive findings

Fig. 2 demonstrates to what extent migrants in China are willing to develop intergroup contact. Nearly three-fifths of respondents totally agree that they are willing to make native friends, and the majority of the rest basically agree with this statement. Only <2 % of migrant respondents disagree or totally disagree with the statement. Overall, the pattern of willingness is much more positive than that of actual intergroup contact found in the existing research conducted in the Chinese

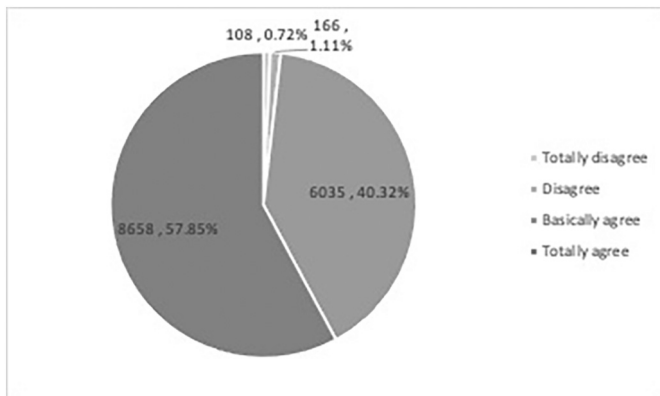


Fig. 2. Migrants' willingness to make friends with natives.

context (Liu et al., 2012; Nielsen & Smyth, 2011). This suggests that what migrants want is distinct from what they achieve. What migrants want is less restricted by objective opportunities. It represents a potential rather than a fact or outcome. When there are no opportunities for integration, migrants might still wish to integrate although they cannot realise it. Once they are given adequate opportunities, they will achieve actual integration. In our case, a large part of migrants are willing to socially integrate into the host cities no matter whether they can achieve it. This means that there is still great potential for migrants' social integration in Chinese cities. However, it should also be noticed that not all the migrants have a strong willingness to contact locals. Those who only basically agree may change their stances in some cases and would not actively pursue the intergroup contact, let alone those who report disagreement. Therefore, it is necessary to explore the underpinning mechanisms of the willingness to contact outgroup members.

The descriptive statistics of predictors are summarised in Table 1. The surveyed migrants are generally young, with a mean age just above

Table 1
Descriptive statistics of predictors (%).

	Total	Totally disagree	Disagree	Basically agree	Totally agree
Age*	32.79	33.45	31.15	32.61	32.95
Gender					
Male	55.05	51.85	51.81	54.66	55.42
Female	44.95	48.15	48.19	45.34	44.58
Marital status					
Unmarried	25.98	19.44	27.11	27.21	25.18
Married	74.02	80.56	72.89	72.79	74.82
Hukou status					
Rural hukou	86.50	86.11	87.95	88.38	85.17
Urban hukou	13.50	13.89	12.05	11.62	14.83
Education					
Primary and below	9.61	13.89	11.45	9.25	9.78
Junior secondary	51.50	53.70	46.99	52.94	50.55
Senior secondary	24.81	18.52	29.52	24.97	24.69
College +	14.07	13.89	12.05	12.84	14.97
Employment					
Employed	91.76	86.11	90.96	91.52	92.01
Unemployed	8.24	13.89	9.04	8.48	7.99
Monthly income* (10,000 Yuan)	0.64	0.63	0.61	0.63	0.65
Dialect					
Not understand	15.09	25.00	17.47	17.17	13.47
Partly understand	23.44	26.85	21.08	24.39	22.79
Totally understand	61.47	48.15	61.45	58.44	63.74
Cultural proximity*	2.97	2.47	2.56	2.91	3.03
Length of residence*	4.31	5.06	3.77	4.00	4.52
Neighbourhood composition					
Most residents are natives	22.07	20.37	10.84	17.55	25.46
Half or more of residents are migrants	77.93	79.63	89.16	82.45	74.54
Settlement intention					
No	14.00	13.89	24.10	17.37	11.46
Yes	86.00	86.11	75.90	82.63	88.54
Sample size (valid cases)	14,967	108	166	6035	8658

Note: * mean value. The dataset contains 15,999 cases. Among them, there are one case with missing data in employment status and two cases with missing data in dialect understanding, cultural proximity, neighbourhood composition and settlement intention. These three cases are ignored in our analysis. Besides, we drop 1029 cases due to data transformation. In order to estimate instrumental variable model conveniently, we transform the original multinomial neighbourhood composition variable into a binary one. During this process, the 1029 cases where respondents are not sure about their neighbourhood composition cannot be reclassified and thus are deleted.

30. Roughly 45 % of our samples are female while a bit larger proportion are male. Nearly three quarters of respondents are married, and over 86 % hold rural *hukou*. Migrants typically have low socioeconomic status. They tend to be poorly educated and live on a small family income. Although China is a relatively homogenous society, the cultural distinctions between migrants and natives still exist. Only about 61 % of migrant respondents could totally understand the dialects of the host cities. The average cultural proximity score is just at the medium level. As for residential contexts, migrants tend to live together with other migrants. More than three-fourths report that at least half of their neighbours are migrants. With respect to the settlement intentions, most migrants plan to work and live in the current cities in the next five years, accounting for 86 % of the survey respondents.

More importantly, migrants from different willingness groups are characterised by divergent socioeconomic status, cultural traits, residential contexts and settlement intentions. First, those socioeconomically and culturally integrated into destinations are inclined to have a stronger willingness to make native friends. The proportion of individuals with lowest education level and the proportion of unemployed workers tend to decrease with the level of willingness. Migrants with better local dialect skills and more cultural commonalities with natives

are more willing to develop intergroup friendships. Second, when the level of migrant concentration in the residential settings is lower, migrant residents generally have a higher likelihood of being willing to build cross-group friendships. Over 25 % of those who totally agree live in native-dominated neighbourhoods whereas only about 11 % of those who disagree are embedded in such living environment. Third, there may be a link between the plan to stay in the host cities and the willingness to make friends with locals. The totally agree group has the largest proportion of migrants who intend to settle down (roughly 89 %).

4.2. Basic regression results

We first employ ordered probit models to investigate the underlying dynamics of migrants' willingness to contact local residents. To avoid the interwoven relationship between predictors, they are entered stepwise in the analysis. The first model only includes control variables, and the remaining models add socioeconomic and cultural attributes, neighbourhood composition and settlement intention variables step by step (Table 2).

According to the base model (model 1), all the demographic control

Table 2
Ordered probit regression results of migrants' willingness to make native friends.

	Model 1	Model 2	Model 3	Model 4
Age	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)	-0.001 (0.002)
Female (reference = male)	-0.016 (0.021)	-0.015 (0.022)	-0.016 (0.022)	-0.015 (0.022)
Married (reference = unmarried)	0.058 (0.037)	0.017 (0.040)	0.016 (0.040)	0.006 (0.040)
<i>Hukou</i> status (reference = rural <i>hukou</i>)	0.227*** (0.041)	0.137*** (0.042)	0.130*** (0.042)	0.128*** (0.042)
Education (reference = primary and below)				
Junior secondary		-0.020 (0.045)	-0.018 (0.045)	-0.026 (0.045)
Senior secondary		-0.005 (0.051)	-0.004 (0.051)	-0.016 (0.051)
College +		0.053 (0.059)	0.050 (0.059)	0.032 (0.059)
Employment (reference = employed)		0.016 (0.050)	0.016 (0.050)	0.012 (0.050)
Monthly income (logged)		0.048* (0.026)	0.048* (0.026)	0.035 (0.026)
Dialect (reference = not understand)				
Partly understand		0.082* (0.044)	0.080* (0.044)	0.068 (0.044)
Totally understand		0.177*** (0.048)	0.166*** (0.048)	0.148*** (0.049)
Cultural proximity		0.316*** (0.037)	0.313*** (0.037)	0.307*** (0.037)
Length of residence		0.010*** (0.004)	0.010*** (0.004)	0.008** (0.004)
Neighbourhood composition (reference = most residents are natives)			-0.143*** (0.047)	-0.146*** (0.047)
Settlement intention (reference = no)				0.201*** (0.042)
City dummies	Yes	Yes	Yes	Yes
Cut1	-2.320*** (0.085)	-0.933*** (0.250)	-1.083*** (0.259)	-1.078*** (0.260)
Cut2	-1.961*** (0.081)	-0.562** (0.249)	-0.713*** (0.258)	-0.708*** (0.259)
Cut3	-0.021 (0.078)	1.416*** (0.249)	1.267*** (0.258)	1.277*** (0.259)
Pseudo R ²	0.024	0.039	0.040	0.042
Log-pseudo likelihood	-11,220.585	-11,055.828	-11,041.477	-11,018.023
Wald χ^2	125.480	225.456	233.893	244.803
Sample size (valid cases)	14,967	14,967	14,967	14,967

Note: Standard errors are clustered at the neighbourhood level. Standard errors are reported in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$. The dataset contains 15,999 cases. Among them, there are one case with missing data in employment status and two cases with missing data in dialect understanding, cultural proximity, neighbourhood composition and settlement intention. These three cases are ignored in our analysis. Besides, we drop 1029 cases due to data transformation. In order to estimate instrumental variable model conveniently, we transform the original multinomial neighbourhood composition variable into a binary one. During this process, the 1029 cases where respondents are not sure about their neighbourhood composition cannot be reclassified and thus are deleted.

variables have no significant effects on the extent to which migrants agree with the statement that they are willing to make native friends, suggesting that migrants' willingness to contact locals does not depend on their demographic characteristics. This is in stark contrast to the existing intergroup contact research in both multi-ethnic contexts and the Chinese context which has found the significant associations between demographic profiles and actual intergroup contact (Martinovic, 2013; Yue et al., 2013). While migrants with different demographic characteristics may perform differently in their contact with locals, they have the identical level of willingness to contact locals. In other words, their potential to be socially integrated is the same. These distinct results further support our notion that the willingness to integrate and the actual integration experience are different aspects that should be separately studied. The underlying dynamics of these two aspects could be different. Among control variables, only *hukou* significantly affects migrants' willingness to develop intergroup friendships. Migrants with urban *hukou* tend to be more willing to make friends with local residents. This is consistent with the existing literature which has claimed that rural *hukou* impedes the actual integration of migrants in urban China (Song, 2016; Wang et al., 2015; Wang & Fan, 2012).

Model 2 further includes socioeconomic and cultural variables. Cultural commonalities seem to be more important than socioeconomic commonalities in explaining migrants' willingness to make native friends. In model 2, all the cultural variables are significant. The capability of understanding local dialects, the cultural proximity and the duration of residency in destinations are all positively related to migrants' willingness to make native friends, which indicates that sharing more cultural commonalities with local residents may profoundly improve migrants' willingness to develop intergroup contact. This is in accordance with the homophily principle widely accepted in the integration literature against multi-ethnic contexts (McPherson et al., 2001). According to this principle, individuals intuitively prefer to interact with similar others. In addition, migrants who are more culturally similar to local residents may perceive fewer costs of intergroup contact and thus have a stronger willingness to do so. Our results also concur with the actual integration literature that has admitted the important role of cultural traits or acculturation in immigrants' intergroup contact and political participation (Barker & McMillan, 2017; Martinovic et al., 2009; Muttarak, 2014). Muttarak (2014), for instance, exhibited the pan-ethnic friendship pattern where members of ethnic groups with similar cultural backgrounds have higher possibility to become close friends with each other. However, the effects of cultural factors have long been neglected in the integration studies in the Chinese context. It is often believed that China is a relatively homogeneous society with few cultural differences between migrants and urban locals (Wang et al., 2017; Yue et al., 2013). Our results underline the necessity to take into account cultural attributes even in the research on the integration of migrants in China.

In contrast, the influence of socioeconomic commonalities is generally trivial. The results of model 2 demonstrate that education and employment are not significantly associated with migrants' willingness to forge cross-group friendships. Income is the sole significant socioeconomic variable in model 2, but it is no longer significant in model 4 where settlement intention variable is included. This means that none of socioeconomic variables can independently affect migrants' willingness to contact natives. One possible reason is that the native group tends to be homogenous in terms of culture but heterogenous in terms of socioeconomic status. Natives often share the common culture of the host cities. As for the socioeconomic aspect, although natives tend to be more socioeconomically advanced than migrants, there are a considerable part of natives with relatively low socioeconomic status. While migrants can hardly share cultural features with natives unless they acculturate into the host cities, they may easily find natives with similar socioeconomic status. Therefore, their willingness to contact natives is not dependent on their socioeconomic status. Another possible reason is that migrants care more about cultural commonalities than socioeconomic

commonalities when they contemplate whether or not to contact natives. It is interesting to note that the insignificant effects of socioeconomic status found in our study are distinct from the previous intergroup contact studies in both multi-ethnic contexts and the Chinese context. These previous studies have shown that higher socioeconomic status can help migrants develop intergroup contact (Martinovic et al., 2009; Muttarak, 2014; Yue et al., 2013). The distinct findings suggest that migrants' willingness to develop intergroup contact and their actual intergroup contact are shaped in different ways. Socioeconomic status may not improve migrants' willingness but can decide their actual social contact with local residents. This indicates that socioeconomic status mainly affects actual intergroup contact through providing objective opportunities. Although migrants with different socioeconomic status have similar willingness to form cross-group contact, those with higher socioeconomic status tend to have more chance to meet natives and make intergroup friends. The willingness to develop intergroup contact is more driven by subjective perceptions whereas the development of intergroup contact is largely influenced by objective opportunities. When there are more objective opportunities for intergroup contact, individuals may not perceive such opportunities.

On the basis of model 2, model 3 adds neighbourhood composition variable. Compared with migrants embedded in native-dominated neighbourhoods, those who reside in the neighbourhoods where no less than half of the residents are migrants are less willing to develop cross-group friendships, suggesting that residential segregation is negatively related to migrants' willingness to contact locals. For migrants faced with a higher percentage of migrant neighbours, forming and maintaining intergroup contact requires more time and energy since it is more difficult for them to meet outgroup members in their immediate environment, namely their neighbourhoods. As a result, these migrants may lack motivation to develop contact with natives. This implies a pessimistic pattern of migrants' integration. A host of integration research in both multi-ethnic contexts and the Chinese context has argued that residential segregation may curtail the opportunities for migrants to interact across groups (Liu et al., 2018; Shen, 2017; Van der Laan Bouma-Doff, 2007; Vervoort, 2012), which further leads to their failure of actual integration in other dimensions. Our analysis demonstrates that migrants who suffer from residential segregation are also less willing to contact local residents. That is to say, when few opportunities are available for intergroup contact, migrants may also lose the momentum to utilise the existing scarce opportunities or create new opportunities.

Finally, settlement intention variable is entered in model 4. The regression results indicate that settlement intention is a strong predictor of migrants' willingness to make native friends. Migrants with an intention to live in the current city for a longer time tend to show a stronger willingness to contact locals than those without this intention. When migrants plan to settle down, they may expect that their social contact with locals would be sustained in the long run, and this might result in their current high level of willingness to invest in this type of contact. In line with this argument, Martinovic et al. (2015) revealed that immigrants who intended to stay forever in Germany could form more interethnic ties than their counterparts. A handful of residential integration research in the Chinese context has found that the plan to settle down encourages migrants to expand their access to formal housing (Liu et al., 2017; Tao et al., 2015) and improve their housing conditions (Wu, 2004). This suggests that migrants with the intention to settle down are more willing to invest in their residential integration, which is also in accordance with our argument.

However, the above findings related to residential segregation and settlement intention need to be considered with appropriate caution. Although we find that migrants who reside in native-dominated neighbourhoods and who plan to stay in the receiving cities are inclined to have a higher willingness to develop intergroup friendships, this does not necessarily mean that residential segregation and settlement intention can affect migrants' willingness. The results can only indicate that

there are significant links between these two factors and such willingness, but the causal direction cannot be inferred from the current models. In the above analyses, we discuss how and why residential segregation and settlement intention might influence migrants' willingness to make native friends. Still, we must bear in mind another possibility that such willingness may affect where migrants live and whether they plan to settle down. The following two sections account for the potential endogeneity and reveal the real effects of residential segregation and settlement intention on migrants' willingness to make friends with local residents.

4.3. Instrumental variable regression results

In this section, we use instrumental variable method to mitigate the endogeneity related to residential segregation and settlement intention. We first include instrumental variables to check whether the instrumental variables we choose are indeed not directly associated with the dependent variable. The results are shown in Table 3. Then the instrumental variable model is estimated, and the estimation results are reported in Table 4.

The three models in Table 3 respectively include the instrumental variable for residential segregation, the instrumental variable for settlement intention and both instrumental variables in addition to all the independent variables. Adding instrumental variables to the original model can provide useful indications (Dill & Jirjahn, 2014; Evans & Schwab, 1995). The instrumental variables are not significant in these three models, suggesting that there are no direct links between both instrumental variables and the dependent variable. This lends support to our argument that these two instrumental variables satisfy the exogeneity requirement.

The instrumental variable estimation results in Table 4 are comprised of three columns. The first two columns demonstrate the relationship between instrumental variables and endogenous variables. According to the first column, the neighbourhood composition of the district is significantly related to migrant individuals' neighbourhood composition. In other words, migrants who live in the districts where

Table 3
Ordered probit regression results including instrumental variables.

	Model 5	Model 6	Model 7
Neighbourhood composition (reference = most residents are natives)	-0.139*** (0.048)	-0.152*** (0.048)	-0.139*** (0.048)
Settlement intention (reference = no)	0.199*** (0.042)	0.196*** (0.042)	0.197*** (0.042)
District-level neighbourhood composition (reference = most neighbourhoods are native-dominated)	-0.117 (0.101)		-0.117 (0.101)
Worries about spouses (reference = no)		-0.098 (0.082)	-0.097 (0.082)
Other independent variables	Yes	Yes	Yes
City dummies	Yes	Yes	Yes
Cut1	-1.179*** (0.283)	-1.105*** (0.263)	-1.209*** (0.286)
Cut2	-0.808*** (0.281)	-0.735*** (0.262)	-0.838*** (0.283)
Cut3	1.178*** (0.282)	1.251*** (0.261)	1.149*** (0.284)
Pseudo R ²	0.041	0.041	0.042
Log-pseudo likelihood	-10,977.930	-10,980.163	-10,976.896
Wald χ^2	242.672	243.000	243.486
Sample size (valid cases)	14,887	14,887	14,887

Note: Standard errors are clustered at the neighbourhood level. Standard errors are reported in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 4
Instrumental variable regression results based on CMP.

	Model 8		
	Neighbourhood composition	Settlement intention	Willingness
Neighbourhood composition (reference = most residents are natives)			-0.560** (0.218)
Settlement intention (reference = no)			0.188 (0.574)
District-level neighbourhood composition (reference = most neighbourhoods are native-dominated)	0.899*** (0.124)	0.054 (0.110)	
Worries about spouses (reference = no)	-0.041 (0.112)	-0.535*** (0.093)	
Other independent variables	Yes	Yes	Yes
City dummies	Yes	Yes	Yes
Constant	1.280*** (0.381)	-2.477*** (0.359)	
Cut1			-1.512*** (0.349)
Cut2			-1.146*** (0.351)
Cut3			0.814** (0.373)
Log-pseudo likelihood	-23,134.986		
Wald χ^2	1371.581		
Sample size (valid cases)	14,887		

Note: Standard errors are clustered at the neighbourhood level. Standard errors are reported in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

native-dominated neighbourhoods are more common have a higher likelihood of residing in native-dominated neighbourhoods. The second column shows the significant effects of migrants' worries about their spouses in hometowns on their settlement intentions. If migrants worry that their spouses feel lonely in their hometowns, they are less likely to plan to settle down in their destinations. The significant links between the two instrumental variables and the corresponding endogenous variables provide empirical evidence for the relevance of our instrumental variables.

The last column of Table 4 reveals the relationship between the two endogenous variables and the dependent variable. The neighbourhood composition variable is still significant after accounting for the possible reverse causality, indicating that residential segregation can indeed impose devastating impacts on migrants' willingness to contact local residents. However, the settlement intention variable becomes insignificant in this instrumental variable model. This suggests that the significant associations observed in the basic results are completely caused by the endogeneity issue. It is not that the intention to settle down improves migrants' willingness to develop intergroup contact, but rather migrants' stronger willingness to develop intergroup contact increases their possibility to settle down. This concurs with the existing settlement intention literature which has emphasised the positive effects of intergroup social ties on migrants' intentions to settle down in Chinese cities (Chen & Liu, 2016; Huang et al., 2018). Migrants with a stronger willingness to contact locals may form more cross-group ties and thus are more likely to stay in the receiving cities in the future. However, our finding is different from the conclusion of Martinovic et al. (2015). Based on longitudinal data, they found that immigrants with the intention to settle down in Germany developed more interethnic ties. They argued that immigrants might prefer to socialise with natives when such intergroup relations are expected to be maintained in the long run. The different findings of their study and our study may result from the different research settings. While they focused on the immigrants in Germany, this study concentrates on the internal migrants in China.

Compared with immigrants in western countries, internal migrants in China are more likely to maintain their intergroup relations after leaving the destinations. After all, those internal migrants and their friends in the host cities still live in the same country. The internal migrants in China also tend to circulate between the host cities and their hometowns. Even if they plan to leave the host cities, they may come back in the future. The rewards of socialising with local residents in the host cities may not disappear as migrants choose to leave. Moreover, this finding is inconsistent with the residential integration research in the Chinese context which has unraveled that migrants who plan to settle down tend to invest more in residential integration, namely choosing formal or better housing (Liu et al., 2017; Tao et al., 2015; Wu, 2004). This may lie in the fact that housing and intergroup contact are different. When migrants leave their destinations, they can no longer occupy the housing in the destinations, whereas intergroup contact may still exist and reward them. Therefore, settlement intentions may influence migrants' decisions on residential integration but cannot affect their willingness to contact local residents.

4.4. The results based on subsamples

Besides the instrumental variable method, focusing on certain subgroups of migrants is also employed to overcome endogeneity. Table 5 presents the ordered probit regression results based on the subsamples with exogenous residential locations or settlement intentions.

Model 9 is run on migrants who live in the housing provided by their employers. As explained in the section of analytical strategies, the endogeneity bias of residential choice is alleviated by restricting the analysis to this subgroup of migrants as they do not choose the residential contexts by themselves. In line with the instrumental variable regression results, the results based on the subsample show that there are still significant negative associations between living in migrant-concentrated neighbourhoods and migrants' willingness to forge cross-group friendships when the endogeneity bias is controlled. This means that residential segregation can indeed weaken migrants' willingness to contact locals.

Model 10 is run on migrants whose purpose of migration is to accompany others. For this subgroup of migrants, whether or not to stay in the host cities is often decided by the people they accompany and thus can be exogenous to their own willingness to develop intergroup contact. The results indicate that settlement intention cannot generate causal effects on these migrants' willingness to make native friends. This is consistent with the instrumental variable regression results.

Table 5
Ordered probit regression results based on subsamples.

	Model 9	Model 10
Neighbourhood composition (reference = most residents are natives)	-0.160** (0.078)	-0.139 (0.135)
Settlement intention (reference = no)	0.231*** (0.075)	0.206 (0.181)
Other independent variables	Yes	Yes
City dummies	Yes	Yes
Cut1	-0.555 (0.666)	-2.222** (1.022)
Cut2	-0.069 (0.680)	-1.711* (0.960)
Cut3	1.818*** (0.679)	0.352 (0.961)
Pseudo R ²	0.055	0.063
Log-pseudo likelihood	-1990.732	-461.508
Wald χ^2	89.700	46.257
Sample size (valid cases)	2736	649

Note: Standard errors are clustered at the neighbourhood level. Standard errors are reported in parentheses. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

5. Conclusion

The issue of migrant integration has raised concerns across the world. Faced with the huge internal migration, Chinese government has paid particular attention to the integration issue. Thus far, most academic efforts have been devoted to studying migrants' actual integration experience (Martinovic et al., 2009, 2015; Vogiazides, 2018), while it is still largely unknown to what extent migrants are willing to integrate and how this willingness is shaped. Focusing on the social dimension of integration, this study reveals the pattern and the underlying dynamics of migrants' willingness to contact locals in China.

Our results show that most migrants are willing to contact locals, which is in contrast to the poor actual intergroup contact found in the existing literature in the Chinese context (Liu et al., 2012; Nielsen & Smyth, 2011). This suggests that what migrants want and what they actually achieve are inconsistent. The former is less constrained by objective opportunities, reflecting a potential. Many migrants who suffer from poor intergroup contact may be willing to contact locals. They may develop intergroup contact when opportunities are available. There is great potential to socially integrate migrants in China. Still, the willingness to contact locals is not strong for a large part of migrants, and some even express an unwillingness. This finding substantially challenges the extant integration research that has often implicitly assumed that migrants have always longed for integration (Wang et al., 2016).

Besides, the analysis indicates that migrants' willingness to develop intergroup contact can be explained by their cultural commonalities with locals rather than socioeconomic commonalities. This result is different from the existing intergroup contact literature in multi-ethnic contexts and the Chinese context which has revealed the significant effects of socioeconomic status on migrants' social contact with outgroup members (Martinovic et al., 2009; Muttarak, 2014; Yue et al., 2013). What can be inferred here is that socioeconomic commonalities cannot improve migrants' willingness to contact locals but may provide objective opportunities for the development of such intergroup contact. This implies that migrants' willingness to integrate and their actual integration experience are formed in different ways. Compared with migrants' actual integration experience, their willingness to integrate is less restricted by objective opportunities. This is because that migrants' willingness to integrate is developed based on their perceptions of possible costs and benefits. What migrants perceive may diverge from the objective conditions. Moreover, our results call attention to the role of cultural traits, which has long been neglected in the integration research in the Chinese context. The integration studies in the multi-ethnic contexts have found the pan-ethnic friendship pattern (Muttarak, 2014) and the co-ethnic residence pattern (Clark, 2002), highlighting the power of cultural similarity. As the homophily principle suggests, individuals generally prefer to socialise with similar others (McPherson et al., 2001). Our results indicate that this principle also applies to China, known as a relatively homogenous society (Wang et al., 2017; Yue et al., 2013). Although the cultural differences between migrants and natives in China are not as large as those in the multi-ethnic settings, the majority of migrants in Chinese cities struggle with the urban-rural cultural conflicts and, in some cases, the inter-region cultural distinctions (Yue et al., 2020).

The results also reveal that residential segregation could hamper migrants' willingness for intergroup contact in nontrivial ways. A plethora of literature in both multi-ethnic contexts and the Chinese context has claimed that there are limited opportunities to develop intergroup contact in segregated environment (Liu et al., 2018; Shen, 2017; Van der Laan Bouma-Doff, 2007; Vervoort, 2012), which may further impede migrants' other dimensions of integration. Our study goes a step further by pointing out a possibility that migrants confronted with neighbourhood segregation may also lack the motivation to make full use of the extant insufficient opportunities, let alone seek new opportunities. This depicts a gloomier pattern for those who live in migrant enclaves. They neither face an advantageous environment for

integration nor have the willingness to change their situation, thus getting trapped in poor integration.

It is interesting to note that settlement intention would not affect migrants' willingness to contact natives. Even if migrants have no intentions to stay in the destinations for a longer time, they may still be willing to socially integrate into local communities. The temporary residence of migrants in the receiving cities does not contradict their desire for social integration. Martinovic et al. (2015) argued that the intention to settle down in the host country may motivate immigrants to develop intergroup contact, but our case of the internal migrants in China refutes this argument. This indicates the differences between immigrants and internal migrants. It is easier for internal migrants to sustain their intergroup relations and accordingly get benefits after leaving the destinations, so their willingness to contact locals is unrelated to their settlement intentions. Moreover, our finding diverges from the residential integration research in the Chinese context which has found that the intention to settle down may encourage migrants to choose formal or better housing (Liu et al., 2017; Tao et al., 2015; Wu, 2004). The possible reason is that migrants cannot live in the housing in the host cities once they leave there. However, intergroup contact could be maintained and continue to bring their rewards after they leave the host cities.

Generally, our findings of the underlying dynamics of migrants' willingness to contact local residents in China are consistent with the new assimilation theoretical framework. According to the new assimilation theory, immigrants have bounded rationality, under which they actively choose the adaptation option perceived to be most effective in the given institutional structures. Our case shows that internal migrants in the Chinese context also make active choices to improve their utility of contacting others. When they share fewer cultural commonalities with local residents and experience severer residential segregation, they are less willing to develop social contact with local residents because of the higher perceived costs and lower perceived benefits. It has long been acknowledged in the academic research that intergroup contact could bring a series of benefits such as the access to local information and knowledge. However, from the perspective of migrants themselves, the contact with local residents may not always be attractive.

This study has policy implications for migrant integration in China and other countries. For the Chinese integration policies, it is important to empower migrants to participate in the policy-making process. Although government officials and expert advisors in China put an emphasis on the integration of migrants, migrants themselves may not have a strong willingness to integrate. Enabling migrants to articulate what they think about integration and why they think so can help tailor the integration policies to their real needs. Only the integration policies taking into account migrants' own needs are highly efficacious in improving migrant integration. Furthermore, our study engages in the international debate on the failure of multicultural policies. There has been a surge of criticism across European countries on multiculturalism and immigrants for the social breakdown and terrorism events (Vertovec & Wessendorf, 2010). According to the criticism, immigrants committed to their own ethnic culture are unwilling or even refuse to integrate into the mainstream societies, and this separateness is supported by the multiculturalism. Our study shows that cultural differences can indeed lead to migrants' lack of a willingness to integrate, but it is not the sole reason. Residential segregation can also play an important role. The key to the willingness to integrate is migrants' self-interest in integration. The public discourse on the failure of multicultural policies and the promotion of restrictive integration policies may actually push immigrants further away and motivate them to choose ethnic strategy rather than integration. Compared with blaming immigrants for their cultural differences, it is more efficient to provide them with abundant opportunities to mix with natives. Housing diversification and mobility programmes can be used to achieve the social mix. In this way, immigrants would be more motivated to pursue integration due to its low cost.

CRediT authorship contribution statement

Xu Mengran: Conceptualisation, Formal analysis, Writing. **Wu Fulong:** Supervision, Writing-Review and Editing. **Moore Susan:** Writing-Review and Editing. **Li Zhigang:** Writing-Review and Editing.

Declaration of competing interest

The authors declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Data availability

The authors do not have permission to share data.

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