



Place attachment in gated neighbourhoods in China: Evidence from Wenzhou

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ABSTRACT

China's new residential developments have widely taken the form of privately governed gated communities since the socialist work-unit housing system was terminated towards the end of the 1990s. Although many studies have recognised these emerging gated neighbourhoods as having improved physical conditions, there has also been a decline in neighbouring and thus they have profoundly changed the traditional collectivist regime of living in China. However, there is a lack of research into whether gated neighbourhoods cultivate a positive relationship with residents and how such relationships are shaped. Based on a questionnaire survey of 1034 households conducted in a variety of gated neighbourhoods in Wenzhou, China, this paper intends to fill the gap by using neighbourhood attachment as an indicator, and by examining the impacts of private governance. The results of regression modelling suggest that residents have considerably high place attachment in gated neighbourhoods and that private governance enhances neighbourhood attachment by emphasising market provisions. Through knowing their neighbours, being involved in neighbourhood public events, and being provided with a good neighbourhood image as well as privatised services, residents develop an attachment to the neighbourhood socially, symbolically and functionally. More importantly, by comparing market-led, mixed and state-led neighbourhoods, this research identifies the attachment in gated neighbourhoods as underlining the demand for private governance rather than for safety. Such a new form of neighbourhood governance, as illustrated in urban China, is consumption-oriented and results from the privatisation of public goods and services provision at the neighbourhood level.

1. Introduction

China has been developing new forms of neighbourhoods as over 75 per cent of urban households have become privately owned over the last decade (Huang and Li, 2014). The common perception of a traditional neighbourhood is that these neighbourhoods have strong social ties which used to be closely-knitted through intense interaction due to the state's strong control over neighbourhood activities (Jankoviak, 1993). After 1998, China terminated the state welfare housing system to both privatise housing provision and decentralise neighbourhood governance (He and Wu, 2007). Since then, the collectivist living under centralised governance has ended, dissolving the previous workplace-based social networks (Huang and Clark, 2002; Li, 2003). Meanwhile, new neighbourhoods have begun to involve the private sector in their development and governance. The sprawling new neighbourhoods have been identified as predominantly taking the form of gated communities, particularly during the suburbanisation process (Shen and Wu, 2012; Wu and Phelps, 2011). Many scholars have stressed how gated

neighbourhoods act as 'private paradises' through the promotion of privileges and privacy in neighbourhood living (Breitung, 2012; Huang, 2006; Pow, 2009; Zhang, 2010); however, it remains unclear whether a meaningful link is established between residents and gated neighbourhoods and how such links vary. Little attention has been paid to the impacts of the emerging private governance.

Recently, place attachment has become a key planning consideration and policy orientation in China. Since 2013, central government has stressed the preservation and enhancement of place attachment in new rounds of urban development. At the neighbourhood level, prior studies have concentrated on how migrants develop low attachment to urban villages and traditional communities (Liu et al., 2017; Wang et al., 2016), while acknowledging a comparatively higher attachment in commodity housing (Li et al., 2012; Zhu et al., 2012). Despite these findings, the mechanisms of attachment in gated neighbourhoods are not entirely understood. They warrant examination, from which to bring forward discussions about the privatisation of housing and neighbourhood governance. This paper does not aim to present a

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systematic study of neighbourhood attachment; instead, it endeavours to contribute to the literature on gated communities in China by revealing the potential mechanisms and determinants of neighbourhood attachment and shedding light on the emerging private governance. This research conducts quantitative analyses based on a large-scale questionnaire survey of 1034 households conducted in the city of Wenzhou from March to May in 2013. It aims to answer two research questions: (1) how residents' socio-economic attributes and their social, functional and symbolic dimension of experiences impact attachment in gated neighbourhoods, and (2) how gated neighbourhoods with market-led, mixed and state-led governance shape neighbourhood attachment differently.

The following section will review the existing literature on neighbourhood attachment and private governance, with a specific focus on China. After presenting the research methods, the results of the data analyses will be reported. Regression models are employed to identify the determinants of neighbourhood attachment, as well as to distinguish residential experiences in different gated neighbourhoods. Finally, findings and implications will be discussed.

2. Neighbourhood attachment and private governance

Place attachment is identified as a core indicator for interpreting the complex phenomenon expressed as 'people tend to maintain closeness to a place', where they feel safe, satisfied and settled (Hidalgo and Hernandez, 2001: 274). Neighbourhood attachment, i.e. place attachment at the neighbourhood level, represents residents' positive relations with the neighbourhood (Hidalgo and Hernandez, 2001; Low and Altman, 1992; Manzo and Perkins, 2006). The importance of neighbourhood attachment lies in improving neighbourhood stability for betterment. Drawing on past research, the expectation is that neighbourhood attachment is affected by various individual-level variables and contextual factors. For example, elderly residents are likely to spend time on their community and consequently generate attachment (Mesch and Manor, 1998). Longer years of residence (Brown et al., 2003) and owning property (Rohe and Steward, 1996) also increase attachment because of the economic investment in the community.

Scholars have emphasised that neighbourhood attachment is multidimensional, with social, functional and symbolic dimensions (Kyle et al., 2005) determined by both the social and the physical environments of the neighbourhood (Hidalgo and Hernandez, 2001; Moore and Graefe, 1994; Scannell and Gifford, 2010). The social environment reflects that residents in a neighbourhood are socially bonded. A classic research focus is social ties and social participation (Austin and Baba, 1990). Many scholars have acknowledged the vital contribution of strong local networks and frequent neighbourhood participation to attachment (Brown et al., 2003; Woolever, 1992). Meanwhile, the physical environment of a neighbourhood makes residents functionally and symbolically attached through impacting their place-dependency and place-identity respectively (Riger and Lavrakas, 1981; Taylor et al., 1985; Van der Graaf, 2009; Williams et al., 1992). There is an increasing body of research concerning the physical environment, particularly during the process of urban gentrification (Stedman, 2003). First, the aesthetic physical environment – i.e., the neighbourhood image – has symbolic meanings that foster a shared identity. Satisfaction with neighbourhood image may lead to the development of greater attachment (Bonaiuto et al., 1999). Conversely, dissatisfaction with physical disorder or insufficient green areas is likely to reduce neighbourhood attachment (McGuire, 1997). Second, the physical environment is closely related to neighbourhood functionality as neighbourhoods with new facilities and services can quickly establish high attachment by fulfilling residents' demands (McCool and Martin, 1994). Riger and Lavrakas (1981) have associated the use of neighbourhood services with different patterns of attachment, underlining the provision of services for facilitating neighbourhood cohesion. For physically deteriorated neighbourhoods, residents are retained and encouraged to

react to the loss of neighbourhood function by place attachment (Brown et al., 2003; Hunter, 1975). Third, neighbourhood organisation is an important contextual character that affects the attachment of residents, who, according to Kasarda and Janowitz (1974: 329), depend on 'variant bureaucratic or associational institutions' in mass society. Through the membership of neighbourhood organisations, residents become directly interested in and attached to the neighbourhood (Kasarda and Janowitz, 1974: 329).

Gated communities are defined as privately governed neighbourhoods and emerged during suburbanisation processes in America in the early 1980s (Blakely and Snyder, 1997). This form of neighbourhood develops distinct social and physical environments that influence the level of attachment among the residents. Essentially, gated communities highlight safety and security by adopting special means of control, i.e. walls, fences and controlled entrances. The aim is to keep the uncertainties of rapid urban change at bay, and thus to ensure neighbourhood stability. The aesthetic physical environment has been considered as an added value that contributes to attachment in gated communities. In 1999, Talen (1999) assessed the social doctrine of the community form, suggesting that satisfying physical environments foster a sense of community. The importance of neighbourhood image is reaffirmed by Rosenblatt et al. (2009) through their research on gated communities in suburban Sydney, while Low's (2003) study of gated communities demonstrates that community spirit is closely related to residents' motivation to protect the values of the neighbourhood's built environment from intrusion.

In contrast, in empirical studies from across the world, gated communities have been recognised as having 'universally negative' social effects (Pow, 2015: 465). Criticisms concentrate on the decreases in neighbourliness as a result of privatism and privacy concerns among homeowners (McGuirk and Dowling, 2009). Scholars have argued that the low social interaction leads to the breakdown of internal integration and a decline in community spirit (Guest and Wierzbicki, 1999; Putnam, 1995; Roitman, 2005; Wilson-Doenges, 2000). As Mesch and Manor (1998) suggest, in advantaged neighbourhoods, residents' networks tend to be nonlocal; thus, they develop little attachment. Dominated by such dystopian and pessimistic thinking, existing studies have rarely considered gated communities as places capable of providing meaningful social environments for residents (Low, 2003).

The existing literature has acknowledged private governance as one of the key features of gated communities (Kirby, 2008; McKenzie, 2005), apart from safety (Coy, 2002; Davis, 1990; Landman, 2006), identity and prestige (McGuirk and Dowling, 2011). Private governance is defined as providing 'an array of traditional public services through private, commonly held organisations governed by their residents' (Gordon, 2004: iii). It ensures property rights and daily usage of public goods in the community for residents (Charmes, 2009; Le Goix and Webster, 2008; Webster, 2002). On the one hand, residents elect homeowners' associations and establish their own covenants and rules; on the other hand, private firms are contracted to deliver professional management of the community. The effectiveness of private governance thus contributes to neighbourhood functionality, overcoming government failures in the allocation of public goods (Cséfalvay and Webster, 2012).

However, limited evidence has suggested that private governance influences neighbourhood attachment, with few exceptions. McKenzie (2005) reveals that private governance empowers residents, leading to neighbourhood betterment. Furthermore, Kirby's (2008) research into gated housing enclaves in Phoenix attributes neighbourhood satisfaction to the establishment of homeowners' associations, while Walks (2008) examines residents' perception of their neighbourhoods in Toronto and stresses a causal relation between sense of community and support for private governance in everyday life.

Few studies have covered neighbourhood attachment in China's gated residential developments. During comparisons of attachment in gated neighbourhoods, traditional neighbourhoods, work-unit housing

and urban villages, residents' socio-economic abilities, particularly *hukou* status and income level, are recognised as decisive factors in driving the disparity of neighbourhood attachment (Wu, 2012). This is because *hukou*, i.e. the institution of household registration, divides residents into urban and rural identities under a dual welfare system. Another concern of scholars is that residents of gated neighbourhoods have become alien to proximity-based or work-unit-based social ties (Douglass et al., 2012; Hazelzet and Wissink, 2012). During a study on urban redevelopment in six Chinese cities, Liu et al. (2010) found that gated neighbourhoods are produced to be a living space rather than a social space, and thus lack attachment. In contrast, Zhu et al. (2012) acknowledge newer neighbourhoods as having better physical environments than traditional neighbourhoods in Guangzhou, leading to comparatively higher attachment. Li et al. (2012) also suggest that the level of subjective satisfaction with urban design builds attachment in gated neighbourhoods, whilst the degree of gatedness has a minimal effect on neighbourhood attachment. It is the provision of social services and maintenance that should become a main concern of neighbourhood governance.

Furthermore, gated neighbourhoods in China have seen different degrees of private governance, with the private provision of services (Hendriks and Wissink, 2017) and the establishment of homeowners' associations (Huang, 2004). This is related to the privatisation of property ownership and maintenance. Meanwhile, homeowners' associations encourage residents' participation, stimulating the demand to protect property rights through self-governance (Read, 2003). The emerging private governance represents complex state-market relations, reshaping the social, functional and symbolic dimension of everyday practices in gated neighbourhoods. As Wu (2012: 6) suggests, 'gating does not necessarily lead to the end of community participation and engagement,' but helps to build the internal solidarity of neighbourhoods. Bearing these ideas in mind, this research aims to address how neighbourhood attachment is impacted by private governance and how it varies through analysing empirical evidence of gated neighbourhoods.

3. Study area and methods

3.1. Study area

The data for this paper was collected via a large-scale questionnaire survey conducted by authors in the city of Wenzhou from March to May 2013. Wenzhou is a third-tier city located in the southeast coastal area of Zhejiang Province. It is a prominent growth pole of the Yangtze River Delta region, and is noted as having the most active private economy in China. Since 1998, private capital has been extensively invested in the local real estate industry at a scale of 10 billion Yuan per year. As with Miao's (2003) research in Shanghai, the majority of new residential developments in Wenzhou have taken a similar form of gated communities which receive professional services and establish homeowners' associations for neighbourhood governance. In 2010, Wenzhou had more than nine million registered residents; over 40 per cent of residents in its municipal area, including the districts of Lucheng, Ouhai, and Longwan, were private owners of gated neighbourhoods (Wenzhou Statistics Bureau, 2010). In total, 559 gated neighbourhoods were identified in this area according to the record of Wenzhou Housing and the Urban Rural Development Bureau. Each of them has registered for private governance by establishing a homeowners' association and hiring a professional management firm. Homeowners' rules (*yezhu shouze*) and property management regulations are also established to run these neighbourhoods.

Importantly, these gated neighbourhoods manifest a diversity of forms, including market-led, mixed and state-led neighbourhoods, with different degrees of private governance. This variation is due to different state-market relations in the development and governance of gated neighbourhoods. Specifically, state-led neighbourhoods are built

for relocated residents whose properties were demolished during urban redevelopment processes. In state-led relocation projects, local government is dominant and private governance has a minimal presence. Homeowners' associations hardly represent residents' property rights because residents are moved involuntarily by the local government. Neighbourhood services are kept at a minimum to reduce administrative costs. Unlike state-led neighbourhoods, private governance in market-led neighbourhoods emphasises high-quality service provision through market mechanisms. Under neighbourhood covenants, private governance delivers customised services and organises neighbourhood events to satisfy residents. Mixed neighbourhoods have a mixture of market housing and affordable housing. In this form, local government controls market provisions and homeowners' associations to achieve the political task of affordable housing delivery. Private governance is held back because of the state intervention.

3.2. Survey method and data measurement

For the survey, the Probability Proportional to Size (PPS) sampling method was used. In accordance with this method, 11 out of 559 gated neighbourhoods were chosen, and 94 households were randomly selected in each sample development. Questionnaires were delivered to the heads of these households or their spouses and collected onsite by the authors. This survey includes questions relating to income level, housing tenure choice, and attitudes towards different governance bodies. The entire process did not involve any neighbourhood institutions to ensure that respondents' answers were not affected. The reasons for choosing heads of households or their spouses as respondents are threefold: first, they are more likely to be income earners; second, they contract and pay property management companies; and third, memberships of homeowners' association are only entitled to heads of households or their spouses. In total, 1034 valid questionnaires were returned. Initially, respondents were asked if they felt attached to their neighbourhood: a five-point response scale was provided, representing a range from 'strongly negative' to 'strongly positive'. This approach used the above question as a proxy for measuring neighbourhood attachment and has been adopted in other earlier studies (Li et al., 2012; Wu, 2012; Zhu et al., 2012).

Building on the literature, this survey measured three sets of attributes: respondents' socio-economic status, everyday practices in the neighbourhood, and contextual factors. Individual-level attributes included age, gender, income level, *hukou* origin, education, tenure, years of residence and property floor area. The second set of attributes was categorised in two parts, respectively relating to the social dimension, and the symbolic and functional dimension, of neighbourhood attachment. Following the studies of Hidalgo and Hernandez (2001) and Van der Graaf (2009), neighbourly interaction, social ties, and social participation at the neighbourhood level are found to be the strongest attributes of the social dimension (Brown et al., 2003; Woolever, 1992). Accordingly, respondents were asked how often they interacted with neighbours, and how often they were involved in neighbourhood social events; answers were chosen from 'never,' 'hardly contact/participate,' 'sometimes,' and 'very often.' Social ties in the neighbourhood were measured by the question, 'How many neighbours do you know by name?' A four-point response scale was provided (i.e. '0', '1–2', '3–9' and 'more than 10'), respectively representing 'none,' 'hardly know,' 'a few,' and 'quite many.'

Questions about the symbolic and functional dimension of neighbourhood attachment were derived from existing studies and ranged from satisfaction with the neighbourhood environment (Bonaiuto et al., 1999; Riger and Lavrakas, 1981) to private governance systems that manage properties and neighbourhood affairs. Specifically, satisfaction with the neighbourhood image, homeowners' association and neighbourhood services were scaled by the response choices 'dissatisfied,' 'neutral,' and 'satisfied' respectively.

Contextual factors, including neighbourhood forms and features,

constituted the third set of attributes. The three forms of gated neighbourhoods were used to represent different degrees of private governance. The core features of gated communities were also surveyed. Residents were asked which features – among safety, aesthetic landscapes, and private governance – they valued the most with regard to living in the neighbourhood.

Regression analyses were employed in this research. Neighbourhood attachment as the dependent variable was regressed against three sets of attributes. The linear regression models aimed to reveal the effects of different dimensions of attachment, and to identify specific factors with a significant influence on neighbourhood attachment. Furthermore, a multinomial regression model was run to reveal differentiations among market-led neighbourhoods, mixed neighbourhoods and state-led neighbourhoods. The model examined how private governance affects residents’ everyday lives and mediates their neighbourhood attachment.

In addition, qualitative analysis was employed to provide supplementary explanations based on thirty in-depth semi-structured interviews with residents from a variety of social economic backgrounds. Individual face-to-face interviews were conducted by the authors from December 2013 to March 2015 in the research area. Each interview lasted for between thirty minutes and one hour, with questions focusing on neighbourhood attachment and assessments of private governance.

4. Data analysis

4.1. The social, symbolic and functional dimension of neighbourhood attachment

Table 1 shows everyday practices relating to the social dimension of attachment across three forms of gated neighbourhoods. The findings go against many existing understandings which consider social bonds to be lost in gated neighbourhoods. For both acquaintances and participation, significantly large percentages of answers fall on the positive side, approximately four times the size of the negative side. Only 5.9 per cent of residents report no interaction with neighbours. Across different gated neighbourhoods, answers on neighbourly interaction and social ties have similar distributions. Mixed neighbourhoods rank first. Respectively 19.9 per cent and 22.7 per cent of residents report having frequent contact with their neighbours and knowing a good number of neighbours by name. In contrast, residents of market-led neighbourhoods have the lowest tendency to interact with each other. In market-led neighbourhoods, public goods are used by a low density of residents, whilst services are often tailored to households’ demands and delivered to the door. This decreases opportunities for residents to seek help from each other and to interact in the neighbourhood. As one resident comments: ‘The old Chinese saying considers neighbours to be

more reliable than remote relatives; I think property management companies are more reliable now, because their services are immediate and efficient’ (Resident of market-led neighbourhood, interviewed on 29/12/2013).

Residents demonstrate surprisingly high motivation for social participation. As many as 83.9 per cent of respondents report that they engage in neighbourhood social events on a regular basis: for example, attending garden parties and festive activities. Market-led neighbourhoods have the largest proportion of residents who are very often involved in neighbourhood social events. Residents living in this form of neighbourhood are more likely to be provided with good quality social events, due to paying more expensive management fees to private governance. In contrast, the highest proportion of residents who never participate in neighbourhood social events is found in state-led neighbourhoods. This may be because many relocated residents, who are used to living in urban villages, are unfamiliar with events based on private governance.

Regarding the symbolic and functional dimension of neighbourhood attachment, indicators are concentrated on residents’ satisfaction with neighbourhood image, services, and institutions (see Table 2). Overall, the homeowners’ association achieved the lowest satisfaction score among these three experiences. This reflects residents’ disappointment regarding the capability of homeowners’ governance in gated neighbourhoods in general. Among the different types of neighbourhoods, residents of market-led neighbourhoods have highly satisfying experiences with neighbourhood identity and functionality in everyday practices. Their satisfaction with neighbourhood image, services and homeowners’ associations respectively achieved scores of 33.4 per cent, 52.3 per cent and 20.0 per cent. In contrast, state-led neighbourhoods’ dissatisfaction with neighbourhood image is double the average rate, suggesting a weak place identity in this form of neighbourhoods. A pleasant physical environment is usually adopted as a key strategy for place promotion in gated neighbourhoods. However, state-led projects hardly help to rebuild neighbourhood identity for the relocated residents. Residents of mixed neighbourhoods express the lowest satisfaction with neighbourhood services. The findings again prove that market-led neighbourhoods place greater emphasis on the privatisation of public goods and services than do other forms of gated neighbourhoods. The market provisions contribute to satisfying neighbourhood functions for residents. They have effectively addressed the fragmented governance and public services in the suburbs, becoming an important development during the ongoing suburbanisation process.

4.2. Determinants of attachment in gated neighbourhoods

Table 3 shows the results of the linear regression models. The analyses test how different sets of attributes contribute to attachment in

Table 1
The social dimension of attachment by three forms of gated neighborhoods (in per cent).

Attributes	Values	Neighbourhood form			Total
		Market-led neighbourhoods	Mixed neighbourhoods	State-led neighbourhoods	
Neighbourly interaction	4 Very often	11.5	19.9	12.8	14.1
	3 Sometimes	31.6	37.9	35.5	34.4
	2 Hardly interact	49.9	39.0	45.0	45.6
	1 Never	7.0	3.2	6.7	5.9
Social ties in neighbourhood	4 Know quite many	14.5	22.7	20.6	18.4
	3 Know a few	53.0	56.0	45.4	51.7
	2 Hardly know any	26.4	17.4	25.5	23.7
	1 None	6.1	3.9	8.5	6.2
Participation in neighbourhood social events	4 Very often	40.6	40.1	32.3	38.2
	3 Sometimes	41.7	45.7	52.5	45.7
	2 Hardly participate	13.4	10.3	10.6	11.8
	1 Never	4.3	3.9	4.6	4.3

Table 2
The symbolic and functional dimension of attachment by three forms of gated neighbourhoods (in per cent).

Attributes	Values		Neighbourhood forms			Total
			Market-led neighbourhoods	Mixed neighbourhoods	State-led neighbourhoods	
Satisfaction with neighbourhood image	3	Satisfied	33.4	28.9	16.1	27.5
	2	Neutral	61.7	65.4	65.7	63.8
	1	Dissatisfied	4.9	5.7	18.2	8.7
Satisfaction with neighbourhood services	3	Satisfied	52.3	35.5	37.6	43.7
	2	Neutral	42.6	55.0	49.6	47.9
	1	Dissatisfied	5.1	9.5	12.8	8.4
Satisfaction with homeowners' association	3	Satisfied	20.0	18.4	18.4	19.1
	2	Neutral	48.3	50.7	45.0	48.1
	1	Dissatisfied	31.7	30.9	36.6	32.8

Table 3
Residents' neighbourhood attachment and its determinants (linear regression models: stepwise).

	Model 1		Model 2		Model 3	
	B	SE	B	SE	B	SE
Constant	3.152***	.170	2.555***	.176	2.356***	.175
Age	.007**	.003			.005*	.002
Marital status (married = 1)	.197*	.094				
Gender (female = 1)	.138*	.059	.132*	.056		
Level of household monthly income	-.063*	.029			-.060*	.027
Years of residence in community	.031**	.010	.029**	.009	.031**	.009
Property ownership (owner = 1)	.250*	.124				
Hukou (migrant = 1)	-.322*	.136	-.288*	.131	-.325*	.128
Social ties in neighbourhood			.192***	.037	.155***	.036
Participation in neighbourhood social events			.202***	.036	.151***	.037
Satisfaction with neighbourhood image					.136**	.050
Satisfaction with neighbourhood services					.195***	.047
Satisfaction with homeowners' association					.088*	.042

Note: *p < 0.05; **p < 0.01; ***p < 0.001; in Model 1, adjusted R² = 0.065, significance = p < 0.001; in Model 2, adjusted R² = 0.136, significance = p < 0.001; in Model 3, adjusted R² = 0.171, significance = p < 0.001.

gated neighbourhoods. Specifically, in Model 1, residents' socio-economic profiles are regressed against neighbourhood attachment; based on Model 1, Model 2 includes attributes of the social dimension; attributes relating to the symbolic and functional dimension are further added into Model 3 for a full model analysis. Compared with Model 1, the latter two models show significantly improved adjusted R² results, indicating that attributes relating to the social environment and the physical environment have stronger explanations than socio-economic attributes for place attachment.

Overall, survey data reveals that more than two-thirds of respondents agree or strongly agree that they are attached to the gated neighbourhood; only 4.7 per cent and 1.1 per cent of residents respectively disagree or strongly disagree with this statement. Referring to households' socio-economic attributes, the regression results reveal that age, property ownership and years of residence enhance neighbourhood attachment. The determinative effect of residential length remains significant after adding attributes of other dimensions. This suggests that in gated neighbourhoods, seniors, property owners, and particularly those who have resided in the neighbourhood for a long time are likely to have strong attachment. These social groups tend to have a more stable status regarding settling down in the neighbourhood

compared with young people, renters, and frequent movers. *Hukou* origin is also a decisive attribute for neighbourhood attachment after controlling other economic, demographic and neighbourhood living factors. In other words, migrants are less likely to feel safe and settled in the neighbourhood even after they have been actively involved in the neighbourhood for a long time. This finding is in line with the general analysis of migrants' affective relations at the neighbourhood level (Wang et al., 2016). Being a migrant in the host city reduces the opportunity to develop a positive neighbourhood sentiment.

Regarding residents' everyday practices, frequent participation in neighbourhood social events and knowing many neighbours are the most significant attributes of the social dimension to increase neighbourhood attachment. This suggests that in Chinese gated neighbourhoods, residents have positive experiences about the development of local networks and about participation in local events. The social environment is more crucial than residents' economic investment (i.e. buying a property) to attachment in gated neighbourhoods. The full model identifies that the symbolic and functional dimension is as vital as the social dimension in influencing residents' attachment in gated neighbourhoods. The provision of an aesthetic landscape and the adoption of private governance significantly enhance neighbourhood attachment. Additionally, the coefficient of satisfaction with services is 2.2 times higher than the satisfaction with homeowners' associations. This means that the experiences of consuming efficient services are more likely to enhance neighbourhood attachment than is involvement in homeowner governance institutions. This indicates that private service provision has become an indispensable function of Chinese gated neighbourhoods.

Three novel factors are recognised here. First, high household monthly income significantly decreases residents' neighbourhood attachment in every model. This suggests that having strong economic capability does not necessarily equate to a strong attachment in the gated neighbourhood. High-income earners tend to have better mobility, such as having companies in other cities and running businesses. This greatly reduces residents' time spent in the neighbourhood and weakens their involvement in it. In addition, they often own second homes elsewhere, and are thus less likely to be attached to the neighbourhood.

Second, neighbourly interaction is not a determinant of attachment in gated neighbourhoods. This to some extent supports a general claim that social interaction is no longer as important for residents in a gated community as it used to be according to traditional collectivist values. For example, Pow (2009) identifies how residents disregard neighbouring but reinforce household privacy in gated communities in Shanghai. This research finds that residents do not emphasise contacting their neighbours, mainly for three reasons: (1) residents have extended their social networks beyond neighbourhood-based social relations; (2) residents with middle-class occupations generally lack personal leisure time; (3) when help is needed, residents tend to use services provided by the market instead of seeking their neighbours. As

one interviewee states, ‘I mostly hang out with my colleagues and high school classmates. I don’t think neighbourhood social interaction suits my age: neighbourhood events are for the elders’ (resident from market-led neighbourhood, interviewed on 7th January 2014). One interviewee from mixed neighbourhood expresses a strong desire to know neighbours and participate in social events, but ‘my time doesn’t allow me to’ (resident from mixed neighbourhood, interviewed on 12th January 2014). A 50-year-old resident states, ‘I don’t contact my neighbours often because we rarely cross paths; it is not about protecting privacy; I think only entrepreneurs might want to keep a distance from their neighbours because they care about the safety of their assets’ (resident from mixed neighbourhood, interviewed on 4th March 2014).

Third, it is noteworthy that rather than relying on the traditional way of neighbouring, gated neighbourhoods have provided residents with new approaches to bond with the neighbourhood in the form of private governance. For example, with private governance, residents’ social ties are enhanced through sharing neighbourhood management fees and becoming members of the homeowners’ association. The majority of neighbourhood social events are hosted by private management companies and homeowners’ associations to encourage residents’ participation. Private governance also maintains the physical environment and social order by homeowners’ own rules, leading to a positive neighbourhood identity and neighbourhood functionalities.

4.3. Differentiations of attachment by neighbourhood forms

To better understand how residents’ attachment varies in market-led neighbourhoods, mixed neighbourhoods and state-led neighbourhoods, multinomial regression analyses are carried out. Overall, the analyses achieve strong model significance, as well as high Cox and Snell R² and Nagelkerke R² (Table 4). There is strong evidence that residents’ socio-economic profiles and everyday practices differ across the three types of gated neighbourhoods. The results reveal that residents of market-led neighbourhoods have a significant tendency to have higher income levels and to own spacious flats/houses as a result. Attaining a university degree and above increases the odds of living in market-led neighbourhoods by 1.8 times (versus state-led neighbourhoods). Meanwhile, younger people and renters are more likely to reside in

mixed neighbourhoods. Property ownership decreases the odds of living in mixed neighbourhoods to 42.3 per cent compared to state-led neighbourhoods. Mixed neighbourhoods also have a significant proportion of households with a long duration of residence. This might be because that state-led neighbourhoods and market-led neighbourhoods have only recently emerged during the gentrification and suburbanisation processes (Wu and Phelps, 2011).

Furthermore, neighbourhood attachment demonstrates significant differences. Overall, attachment in market-led and mixed neighbourhoods is significantly higher than in state-led neighbourhoods after controlling for residents’ socio-economic attributes. In market-led neighbourhoods, residents tend to achieve satisfaction with privately attended services and neighbourhood image. When their satisfaction improves by one level, the ratio of living in market-led neighbourhoods rise by 2.4 times and 1.5 times respectively (versus living in state-led neighbourhoods). This suggests that efficient services from private governance have successfully filled residents’ demand, becoming a core function of the neighbourhoods and consolidating neighbourhood identity herewith. Yet, social ties in market-led neighbourhoods are weaker compared with state-led neighbourhoods, as the coefficient is negative (B = -0.222). In other words, residents in market-led neighbourhoods tend to develop more satisfying experiences in the symbolic and functional dimension than in the social dimension of attachment. Under such circumstances, they are more likely to consider private governance as a more valued feature of the gated neighbourhood than safety.

Residents’ attachment in mixed neighbourhoods is not as significant as for market-led neighbourhoods. Except for being satisfied with neighbourhood image, the outcomes of everyday practices relating to neighbourhood attachment do not share any similarities. In other words, mixed neighbourhoods tend to provide residents with a shared identity and the positive social environment, while neglecting the market provision of services.

The analyses so far suggest three points. First, the importance of private governance is realised for residents in gated neighbourhoods in urban China. Those market-led neighbourhoods aim to attract residents with high consumption capabilities. They have fostered positive relations with their residents based on high-quality services provided in the neighbourhood. Therefore, residents’ attachment emphasises place-

Table 4
Differentiations of the three forms of gated neighbourhoods (multinomial regression models: the reference group = state-led neighbourhoods).

	Model 1				Model 2			
	Market-led neighbourhoods		Mixed neighbourhoods		Market-led neighbourhoods		Mixed neighbourhoods	
	B	SE	B	SE	B	SE	B	SE
Intercept	-2.475***	.597	-1.605*	.730	-4.110***	.702	-3.012***	.857
Age	.004	.008	-.035***	.010	-.002	.008	-.041***	.010
Level of household monthly income	.212 [†]	.086	-.011	.107	.268**	.090	.007	.111
Gender (female = 1)	.326	.168	-.042	.216	.254	.177	-.018	.222
Marital status (married = 1)	-.165	.271	-.166	.339	-.175	.285	-.259	.347
Property floor space	.011***	.003	.006	.004	.010**	.003	.005	.004
Years of residence	.035	.036	.540***	.043	.050	.039	.547***	.044
Education attainment (university degree and above = 1)	.580**	.174	-.023	.230	.582**	.184	-.008	.236
Property ownership (owner = 1)	.408	.330	-.860*	.424	.352	.346	-.983 [†]	.433
Hukou status (migrant = 1)	-.126	.369	-.060	.473	-.131	.387	.070	.486
<i>Most valued feature of neighbourhood (reference = private governance)</i>								
Safety	-.272	.180	-.493*	.234	-.400*	.189	-.553 [†]	.241
Aesthetic landscapes	-.207	.219	-.025	.273	-.224	.229	-.025	.278
Place attachment					.316**	.099	.271*	.124
Social ties in neighbourhood					-.222	.116	.016	.147
Participation in neighbourhood social events					-.112	.116	.121	.143
Satisfaction with neighbourhood services					.419**	.146	-.101	.182
Satisfaction with homeowners’ association					-.039	.131	-.060	.171
Satisfaction with neighbourhood image					.890***	.163	.690**	.204

Note: [†]p < 0.05, ^{**}p < 0.01, ^{***}p < 0.001. In model 1, Cox and Snell R² = 0.333, Nagelkerke R² = 0.378, p < 0.001. In model 2, Cox and Snell R² = 0.385, Nagelkerke R² = 0.438, p < 0.001.

dependency and place-identity, highlighting the demand for private governance rather than safety in these gated neighbourhoods.

Second, unlike market-led neighbourhoods, mixed neighbourhoods provide residents with affordability particularly for the young and renters. It is possible that residents develop positive attachment after residing for a long time and gaining a positive neighbourhood identity, rather than through a dependence on neighbourhood functionalities. Many respondents who have low attachment in mixed neighbourhoods intend to move to market-led neighbourhoods. As interviewees state, they are eager to buy into market-led neighbourhoods ‘as soon as I have stronger economic abilities’ (resident from mixed neighbourhood, interviewed on 7th January 2014), because they ‘seek a property and a neighbourhood with better living quality and better management’ (resident from mixed neighbourhood, interviewed on 8th January 2014). This again confirms previous analyses which suggest that private governance both raises residents’ neighbourhood attachment and meets the growing demand for private services.

Third, state-led neighbourhoods have little likelihood of providing positive experiences relating to social, symbolic and functional dimensions of neighbourhood attachment. This is probably because state-led neighbourhoods are initially developed as a result of the government decision to redevelop urban villages, rather than to meet the demand of the housing market. Relocated residents tend to be forced to move to the new neighbourhood, resulting in low sentiment and attachment to it. Additionally, private governance has limited effect in relocation neighbourhoods. Many relocated residents retain the old ways of neighbourhood living that they used in urban villages: they neither pay for private services nor support the homeowners’ associations. As a result, residents of state-led neighbourhoods regard safety as the most valued feature of gated neighbourhood compared with private governance. State-led neighbourhoods differ fundamentally from market-led neighbourhoods and mixed neighbourhoods, as they are state-led projects for urban regeneration in China.

5. Conclusion

Gated neighbourhoods are new residential forms that emerged in post-reform China after housing privatisation reforms. They have reshaped social and physical environments at the neighbourhood level whilst simultaneously reconstructing neighbourhood functions, and thus they have profoundly changed the collectivist neighbourhood living. Yet, whether gated neighbourhoods foster attachment and how neighbourhood attachment has been impacted by the emerging private governance remain unclear. Bearing this in mind, this paper investigates residents’ attachment and its determinants in gated neighbourhoods in Wenzhou, China. The city has witnessed the sprawling development of gated neighbourhoods since the beginning of this century. We specifically revealed the influences on neighbourhood attachment in terms of residents’ socio-economic status and everyday practices within the social, symbolic and functional dimensions. Following this, we examined the variation of neighbourhood attachment in market-led, mixed and state-led neighbourhoods respectively. The three forms of gated neighbourhoods differ in their degrees of private governance: i.e., they are run by market mechanisms, by a combination of market forces and state intervention, and as state-led projects.

One of the important findings of this study is that, compared with the private provision of neighbourhood services, homeowners’ associations are less likely to satisfy residents and have a negligible effect on attachment. This is different from [Low’s \(2003\)](#) study of gated communities in America, because her research considers private governance, particularly homeowners’ associations, for building gated communities and affecting attachment. In gated neighbourhoods in China, the satisfaction with neighbourhood services and neighbourhood image, both of which are maintained by the market, have become the most crucial determinants of neighbourhood attachment. These two

factors are elements produced by the privatisation of housing and governance, which commoditises property ownership, neighbourhood landscapes and neighbourhood services in urban China. It has enabled the state to retreat from providing welfare housing and to shift its financial burden to the market to provide public goods at the neighbourhood level ([Wu, 2005](#)). This also explains why local governments tend to plan gated neighbourhoods as core elements of suburban and post-suburban development: for the purpose of relying on private provision to overcome the fragmented services in the peripheral areas ([Wu and Phelps, 2011](#)).

Another important finding is that residents do not necessarily have negative perceptions regarding the social bonds in gated neighbourhoods and private governance contributes to the social dimension of attachment. Many scholars have criticised gated neighbourhoods for decreasing social interaction and loosening relations with neighbours ([Blakely and Snyder, 1997](#); [Coy, 2002](#); [Pow, 2015](#)). However, our empirical data suggests that the majority of residents know a good number of neighbours and participate in neighbourhood social events hosted by private governance on a regular basis. It is possible that they expand their networks by becoming members of the homeowners’ association and increase social participation under private governance. Furthermore, it is frequent participation in neighbourhood events, rather than intense neighbourly contact, that is associated with higher attachment. This confirms [Wu’s \(2012\)](#) research finding that gated neighbourhoods provide platforms for participation and engagement rather than putting an end to these social practices.

Housing privatisation has not reduced the importance of neighbourhoods in everyday life in urban China. Our findings reveal that residential experiences on the social, symbolic, and functional dimension significantly improve the neighbourhood attachment of residents who already own a property and have a long duration of residence in the neighbourhood. Specifically, private governance contributes to residents’ social ties and participation in the neighbourhood by making them members of homeowners’ associations and providing neighbourhood social events. Apart from the social dimension, private governance maintains the neighbourhood image and services from which place-identity and place-dependency are established. Furthermore, different degrees of private governance lead to the variation of neighbourhood attachment. While residents with high incomes and university degrees or higher, who also own spacious properties, concentrate in market-led neighbourhoods to consume a good life with high-end services, residents with lower socio-economic status turn to mixed neighbourhoods for affordable living with local government intervention in neighbourhood governance. The findings confirm that neighbourhoods developed by the market with a high degree of private governance tend to have strong levels of neighbourhood attachment ([Li et al., 2012](#); [Zhu et al., 2012](#)). In contrast, residents of state-led neighbourhoods have significantly lower attachment. When private governance hardly works, residents in state-led developments become dissatisfied with the neighbourhood identity and reluctant to pay for private services, turning to regard safety as the most important issue.

Therefore, we conclude that gated neighbourhoods in Wenzhou underline the privatisation of services to cultivate neighbourhood attachment. The implication of the findings in this study is that neighbourhood governance matters. On the one hand, the state drives gated neighbourhoods to have private governance with a focus on reducing local financial expenditure on public goods and place promotion; on the other hand, residents’ attachment to their neighbourhoods could be enhanced or damaged by different neighbourhood governance. Residents depend on the professional provision of services, as well as the management of social and physical environments, to build attachment when living in market-led and mixed neighbourhoods. Relocating residents to gated neighbourhoods without proper management may be harmful to their neighbourhood identity and neighbourhood attachment.

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