Residential decision-making and satisfaction among new suburbanites in the Tallinn urban region, Estonia

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ABSTRACT
The prevailing research into suburbanisation in former centrally planned countries explains suburban change by referring to macro-level factors that are evident in the transition from a centrally planned to a market economy. Findings show that in a neo-liberal environment, the public sector plays only a modest role in residential planning; the key players are developers and banks. This study takes a different approach by focusing on the micro-level factors that lead households to move from the city to new, post-Soviet suburban settlements, specifically in the Tallinn urban region of Estonia. A sample of data from the University of Tartu's 2006 New Residential Areas Survey is herein analysed in order to ascertain the reasons for moving, the criteria used in the selection of a particular suburban settlement, and the subsequent levels of residential satisfaction. The results show that, for the period in question, housing adjustment moves were more prevalent than induced moves triggered by life-course changes. In addition, it was found that, generally, new suburbanites were satisfied with their housing and neighbourhoods. However, they were less satisfied with the provision of local services, especially when their new settlements lay at a distance from pre-transition settlements.

Introduction
The political and institutional changes that have taken place following the collapse of the communist regime in Central and Eastern Europe (CEE) have had a significant impact on suburban areas. Agriculture- and industry-dominated suburbs with densely packed housing stock have been transformed into sprawling residential areas (e.g., Brade, Smigiel, & Kovacs, 2009; Brade, Herfert, & West, 2009; Hirt & Kovachev, 2006; Kostinsky, 2001; Nuissl & Rink, 2005; Sulukhia, 2009; Tammaru & Leetmaa, 2007; Timár & Váradi, 2001). The dominant explanation in the literature is that ongoing suburbanisation in CEE is affected by macro-level structural factors such as housing market and housing policy developments, economic factors, etc. The transition from a centrally planned to a market economy has brought about increased social polarisation and eliminated state control over housing construction (Borén & Gentile, 2007). A remarkably high proportion of new residential construction continues to take place in suburban areas (Tammaru, Leetmaa, Silm, & Ahas, 2009), and one of the important drivers of this process is the large number of people who, as a result of their increased wealth, are moving out of standard urban apartments (Hirt, 2007; Kährik & Tammaru, 2008; Ouředníček, 2007).

However, such macro-level factors alone cannot fully explain the distribution of social groups in the metropolitan space (Peach, 1998). Rather, households make choices based on their housing-related needs and preferences (Clark, 2009). Their aspirations are embedded within the wider social context, in which opportunities are shaped and limits set on human behaviour (Clark & Hunter, 1992; Feijten & Mulder, 2002). For example, individuals’ lives and the associated changes in their housing are mediated by the availability of resources, the existing housing market and housing policy, and the relevant legal and financial systems, among other factors (Mulder & Wagner, 1998).

The aim of the present study is to clarify the motivations that cause households to move to new suburban settlements, and their subsequent satisfaction with their new housing and residential environment, in a formerly centrally planned country. We use the suburbs of Tallinn (the capital of Estonia) as a case study. We thus aim to complement existing studies on residential differentiation in the formerly centrally planned countries of CEE, which have mostly focused on macro-level social forces. Apart from some studies that have identified the socio-economic and demographic characteristics of new suburbanites (e.g., Kährik & Tammaru, 2008; Leetmaa & Tammaru, 2007; Ouředníček, 2007), very few authors have focused on the micro-level in terms of the residential decision-making processes of individuals.

Residential decision-making and suburbanisation
From a behaviouralist perspective, the residential decision-making process can be divided analytically into two phases: (1)
the evaluation of the current residence and (2) the search for and selection of a new one (Boyle, Halfacree, & Robinson, 1998). The subsequent change in residence can be classified either an ‘induced’ or ‘adjustment’ move (Cadwallar, 1992; Clark & Onaka, 1983). Following the pioneering work of Rossi (1980, orig. 1955), residential change has been linked to the changes in an individual’s ‘life-course’ (Kulu & Milewski, 2007; Mulder & Wagner, 1998). These authors suggested that individuals who enter into a new household condition (leaving ‘the nest’, family reformation, divorce etc.) are the most likely to change their housing conditions (Kulu, 2007). These ‘induced’ moves are brought about by changing needs in both the housing and the living environment (Clark & Onaka, 1983; Clark, Deurloo, & Dieleman, 1984). For example, the birth of children commonly leads to a move to a larger dwelling (Floor & van Kempen, 1997), whereas single people seldom move into detached houses (Feijten & Mulder, 2002), and in some cases prefer urban apartments (Glasze & Graze, 2007).

On the other hand, ‘adjustment’ moves are related to dissatisfaction with various attributes of the housing unit. The decision to move depends on the level of ‘stress’ experienced by an individual in relation to the difference between their current and desired housing or ‘place utility’. The perception of ‘place utility’ depends on the composition of the family and the available economic opportunities (Brown & Moore, 1970; Parkes & Kearns, 2003; Wolpert, 1965). When the level of stress exceeds a certain threshold, individuals either raise the threshold and adjust their living conditions in situ, or start to search for an alternative place of residence (Brown & Moore, 1970). Housing characteristics and their degree of correspondence to family needs and aspirations are important driving forces in residential change (Clark & Onaka, 1983; Kauko, 2006; Rossi (1980, orig. 1955)). In addition, broader neighbourhood characteristics such as appearance, the availability of services, the accessibility of workplaces, and the distance to other family members and friends are all important in migration-related decision-making (Clark & Hunter, 1992; Karsten, 2007; Parkes & Kearns, 2003).

Housing choices may also be understood from a humanistic perspective, such as in the phenomenon of identity construction through housing and neighbourhood characteristics (Tuan, 1974) or, as concluded by Forrest and Kearns (2001), in terms of a series of overlapping social networks wherein “the neighbourhood becomes part of our statement about who we are” (p. 2130). In multicultural and multi-lifestyle urban spaces, residential choices are related to the need to distinguish ourselves on the basis of identity (Butler & Robson, 2001; Meegan & Mitchell, 2001). While the behavioural perspective describes the process of residential decision-making as a rational choice of an agent with accurate information, the humanistic perspective adds identity-related aspects to the concept of ‘place utility’. The decision to change one’s place of residence is far from straightforward; studies have shown that people are also influenced by discourses related to alternative residential environment and are often unable to foresee those aspects that are later important to their satisfaction with it (Boyle et al., 1998).

Although their reasons may be different, similar people tend to gravitate to certain areas within the city-space, and this leads to urban residential segregation (Atkinson, 2006). New suburban housing areas also commonly attract similar people, firstly because moving to any new single-family dwelling requires a certain level of income, and secondly because a suburban settlement is perceived to be more idyllic, cleaner, and safer (Atkinson, 2006; Baldassare, 1992; Boyle et al., 1998), and thus families perceive it to be more suitable than a crowded city (Kulu & Boyle, 2009).

**Context, data, and analysis**

Most of the housing stock in Tallinn’s urban region dates from the Soviet period (1944–1991). The large-scale construction of pre-fabricated high-rise housing in the Soviet Union started in

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**Fig. 1.** The locations of new suburban settlements in the Tallinn urban region.
the 1960s (Gentile & Sjöberg, 2010; Morton & Stuart, 1984). Due to the housing shortage and housing subsidies, these apartments, which offered every modern convenience, were highly valued in the socialist period (Kulu, 2003; Leetmaa, Tammaru, & Anniste, 2009; Rykiel, 1984) and were characterised by a high level of social heterogeneity (Kährik & Tammaru, 2010; Smith, 1996). In contrast, pre-war single-family and apartment-housing segments, which became the subject of nationalisation in Estonia and many other countries in CEE, suffered from a lack of state investment and often lost social status (Marcinczak & Sagan, 2010; Szelényi, 1996).

Moreover, the construction of new single-family houses by self-builders was not subsidised by the state, and these often lacked modern facilities. Therefore, the prestige of this segment of the housing market was generally lower than that of new, modern flats. However, a specific socialist state phenomenon was the extensive construction of summer home areas around the main cities, which consisted mainly of self-built detached houses (Ioffe & Nefjodova, 1998).

As a result of property privatisation and restitution in the post-socialist era, all segments of the housing stock in Estonia and elsewhere in CEE have undergone multiple transformations (Ruoppila & Kährik, 2003). High-rise, standardised Soviet housing estates in larger cities have generally preserved their socio-economic heterogeneity (Brade, Herfert et al., 2009; Kährik & Tammaru, 2010; Marcinczak & Sagan, 2010; Temelová, Novák, Ouráednícˇek, & Puldová, 2010); however, the relative prestige of the inner-city pre-WWII housing (Kovács, 2009; Sýkora, 2005; Temelová, 2007) and suburban pre-war detached housing (Borén & Gentile, 2007; Tammaru & Leetmaa, 2007) has increased in the CEE metropolitan areas.

Since the beginning of the transition period in Estonia in 1991, residential mobility has comprised different types of moves to

Table 1
Characteristics of new suburban settlements in the Tallinn urban region.

<table>
<thead>
<tr>
<th>Settlement characteristics</th>
<th>Detached from old settlements (n = 135)</th>
<th>Attached to old settlements (n = 441)</th>
<th>Total (n = 576)</th>
<th>Sig. (X²)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distance from Tallinn's borders</td>
<td>Up to 2 km</td>
<td>45.9</td>
<td>57.4</td>
<td>54.7</td>
</tr>
<tr>
<td></td>
<td>2+ km</td>
<td>54.1</td>
<td>42.6</td>
<td>45.3</td>
</tr>
<tr>
<td>Settlement size</td>
<td>Up to 19 houses</td>
<td>51.1</td>
<td>47.4</td>
<td>48.3</td>
</tr>
<tr>
<td></td>
<td>20+ houses</td>
<td>48.9</td>
<td>52.6</td>
<td>51.7</td>
</tr>
<tr>
<td>Proportion of single-family dwellings</td>
<td>100%</td>
<td>28.9</td>
<td>19.5</td>
<td>21.7</td>
</tr>
<tr>
<td></td>
<td>50–99%</td>
<td>59.3</td>
<td>46.0</td>
<td>49.1</td>
</tr>
<tr>
<td></td>
<td>Less than 50%</td>
<td>11.9</td>
<td>34.5</td>
<td>29.2</td>
</tr>
<tr>
<td>Distance from kindergarten</td>
<td>Up to 1 km</td>
<td>28.1</td>
<td>60.5</td>
<td>53.0</td>
</tr>
<tr>
<td></td>
<td>1–3 km</td>
<td>25.2</td>
<td>21.8</td>
<td>22.6</td>
</tr>
<tr>
<td></td>
<td>3+ km</td>
<td>46.7</td>
<td>17.7</td>
<td>24.5</td>
</tr>
<tr>
<td>Distance from primary school</td>
<td>Up to 2 km</td>
<td>22.2</td>
<td>69.6</td>
<td>58.5</td>
</tr>
<tr>
<td></td>
<td>2–4 km</td>
<td>47.4</td>
<td>14.5</td>
<td>22.2</td>
</tr>
<tr>
<td></td>
<td>4+ km</td>
<td>30.4</td>
<td>15.9</td>
<td>19.3</td>
</tr>
<tr>
<td>Distance from public bus stop</td>
<td>Up to 0.5 km</td>
<td>44.4</td>
<td>73.0</td>
<td>66.3</td>
</tr>
<tr>
<td></td>
<td>0.5–1 km</td>
<td>29.6</td>
<td>21.8</td>
<td>23.6</td>
</tr>
<tr>
<td></td>
<td>1+ km</td>
<td>25.9</td>
<td>5.2</td>
<td>10.1</td>
</tr>
<tr>
<td>Individual characteristics</td>
<td>Single-family dwelling</td>
<td>79.3</td>
<td>67.8</td>
<td>70.5</td>
</tr>
<tr>
<td></td>
<td>Apartment in multi-storey building</td>
<td>20.7</td>
<td>32.2</td>
<td>29.5</td>
</tr>
<tr>
<td>Type of construction</td>
<td>Self-built</td>
<td>37.0</td>
<td>29.5</td>
<td>31.3</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>63.0</td>
<td>70.5</td>
<td>68.8</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
<td>49.6</td>
<td>46.9</td>
<td>47.6</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>50.4</td>
<td>53.1</td>
<td>52.4</td>
</tr>
<tr>
<td>Age</td>
<td>Up to 35 years</td>
<td>45.9</td>
<td>37.4</td>
<td>39.4</td>
</tr>
<tr>
<td></td>
<td>35+</td>
<td>54.1</td>
<td>62.6</td>
<td>60.6</td>
</tr>
<tr>
<td>Family type</td>
<td>Co-habiting</td>
<td>83.7</td>
<td>84.1</td>
<td>84.0</td>
</tr>
<tr>
<td></td>
<td>Single</td>
<td>16.3</td>
<td>15.9</td>
<td>16.0</td>
</tr>
<tr>
<td>Children</td>
<td>Yes</td>
<td>54.8</td>
<td>54.2</td>
<td>54.3</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>45.2</td>
<td>45.8</td>
<td>45.7</td>
</tr>
<tr>
<td>Nationality</td>
<td>Estonian</td>
<td>91.9</td>
<td>87.1</td>
<td>88.2</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>8.1</td>
<td>12.9</td>
<td>11.8</td>
</tr>
<tr>
<td>Educational level</td>
<td>Higher</td>
<td>58.5</td>
<td>50.1</td>
<td>52.1</td>
</tr>
<tr>
<td></td>
<td>Primary or secondary</td>
<td>41.5</td>
<td>49.9</td>
<td>47.9</td>
</tr>
<tr>
<td>Job location</td>
<td>Tallinn</td>
<td>56.3</td>
<td>46.7</td>
<td>49.0</td>
</tr>
<tr>
<td></td>
<td>Elsewhere</td>
<td>8.9</td>
<td>15.6</td>
<td>14.1</td>
</tr>
<tr>
<td>Income</td>
<td>Lower than average</td>
<td>43.7</td>
<td>53.7</td>
<td>51.4</td>
</tr>
<tr>
<td></td>
<td>Higher than average</td>
<td>32.6</td>
<td>30.6</td>
<td>31.1</td>
</tr>
<tr>
<td>Year of moving</td>
<td>2000–2006</td>
<td>85.9</td>
<td>87.1</td>
<td>86.8</td>
</tr>
<tr>
<td></td>
<td>Before 2000</td>
<td>14.1</td>
<td>12.9</td>
<td>13.2</td>
</tr>
<tr>
<td>Intends to move</td>
<td>Yes/not sure</td>
<td>43.0</td>
<td>50.3</td>
<td>48.6</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>57.0</td>
<td>49.7</td>
<td>51.4</td>
</tr>
</tbody>
</table>

* Includes dwellings in semi-detached and terraced houses.
* Constructed by a developer or bought on the secondary market.
* In new housing areas, the average disposable income per household member was approx. EEK 8000 (EUR 511) in 2005.
* Significant at p < 0.1.
* Significant at p < 0.05.
* Significant at p < 0.01.
suburban areas and has involved different population groups. For instance, movers to existing apartment houses or to former summer homes in the hinterland of main cities were more usually people of lower economic status (Leetmaa & Tammaru, 2007), whereas the new suburban settlements attracted the wealthiest part of the metropolitan population (Hirt, 2007; Kährik & Tammaru, 2008; Oufedněček, 2007). The new suburban settlements have evolved either as extensions or in-fills of existing suburban settlements, or as separate, sprawling monofunctional residential settlements in former agricultural and green areas (Nuissl & Rink, 2005; Oufedněček, 2007; Tammaru et al., 2009). Neo-liberal planning policies, driven by the interests of private owners and developers, have often led to uncoordinated development and unsustainable solutions across suburban areas, characterised as ‘suburban sprawl’ (Leetmaa et al., 2009; Ruoppiila, 2007; Timár & Váradi, 2001; Wießner, 1999; Samarüütel, Selvig, & Holt-Jensen, 2010).

In the present study, the ‘city’ of Tallinn is defined to be an administrative unit that largely corresponds to the built-up area, whereas the ‘suburban area’ is defined to be an area outside the administrative borders of the city up to a distance of 50 km from the city centre. A significant proportion of those residents within this zone commute to work in the city centre of Tallinn. In 2010, approximately 400,000 people lived in the city of Tallinn and approximately 125,000 lived in the suburban area. The suburban area is characterised by intense inward migration and housing development (Tammaru et al., 2009). In some suburban municipalities of the Tallinn urban region, the population has doubled or tripled over the last two decades. In our analysis of this trend to suburbanise, we define the ‘new residential areas’ to be those new settlements established since 1991 in the suburban area of Tallinn that consist of at least five dwelling units. To investigate whether there are any differences in the motivations behind this type of residential mobility and the subsequent satisfaction levels of new suburbanites, we further distinguish between two types of new suburban residential areas: those that are spatially attached to existing pre-1991 settlements (hereafter referred to as ‘attached settlements’) and those that are spatially separate, i.e., the distance from the nearest pre-1991 settlement is more than 0.5 km (hereafter ‘detached settlements’).

The data for this study were obtained from the New Residential Areas Survey (NRAS) carried out in the suburban area of Tallinn in 2006 by the University of Tartu. The random sample of the NRAS covered 564 adults living in post-1991 suburban settlements, i.e. approximately 10 percent of all inhabitants living in these settlements (for a more detailed explanation of the methodology of sample selection, see Tammaru et al., 2009). The NRAS included questions to determine the socio-demographic characteristics of the new suburbanites, reasons for residential change, selection criteria for a particular settlement, and satisfaction with various residential qualities. We calculated the means and applied principal component analysis (PCA) and logistic regression analysis as means of studying the scores for various factors to determine the factors that most affected the decisions of those in our sample to move to new suburban settlements, and to identify the factors most important to their subsequent satisfaction with their new residential environment.

Results

General characteristics of the new suburban settlements

According to NRAS, a total of 17,000 individuals lived in the new post-1991 suburban settlements around Tallinn in 2006, which...
equates to about 14 percent of the total suburban population of the metropolitan region at that time. Three-quarters of the new settlements are attached; the rest are detached and mainly located in former farmlands, meadows or forested areas. Most of the new settlements are located either relatively close to transport arterials or in coastal areas of natural beauty. Most of the new settlements in both categories are also located very close to Tallinn: 67% of them are within 5 km of the border of the city (Fig. 1). However, the availability of public transport and social infrastructure is poor in the new settlements, especially in the detached ones (Table 1).

A mixture of housing types can be found in the new settlement areas (Figs. 2a and 2b), but single-family dwellings are the most common, especially in the detached settlements. All the new settlements are typically homogeneous in their populations; they consist of mostly young and highly educated white-collar families of Estonian ethnicity, who belong to the wealthiest stratum of the population (Table 1). Those living in the detached settlements are even younger and better educated than those living in the attached ones, and are more likely to make the daily commute to Tallinn. Of the inhabitants in the new settlements, 61% originate from the central city of Tallinn, 27% from the old suburban settlements, and 12% from outside the Tallinn metropolitan area (Kährik & Tammaru, 2008).

Residential decision-making and satisfaction among the new suburbanites

In our analysis of residential decision-making and satisfaction among the new suburbanites, we first examined the reasons why households wanted to move to suburban areas (Fig. 3). The results clearly reveal that housing adjustment moves are more common than those induced by life-course events (changes in household composition, family unit, or job relocation). A striking result of the analysis is that most people assigned only a modest influence to life-course changes in their decisions to move to new suburban settlements. In addition, changes in job relocation were relatively unimportant (cf. Tammaru, 2005); this is probably because most of the jobs relocated to the suburbs and new employments were blue-collar, whereas most of the new suburbanites were white-collar workers. The most important factor that underlay the moves to the new suburban settlements was the desire to own a dwelling with a good level of privacy and some land. New suburbanites expected that they would have a better living environment in the suburban area than in the city: the analyses showed that the suburban setting was perceived to be safer, less polluted, and more suitable for families with children. Thus, we can see that a certain level of stress that was related to the quality of housing and the urban environment was experienced by these movers when they lived in the city, which played a role in their decision to make a housing adjustment and change their residential environment. Moreover, it appears that life-course events temporally close to the decision to move (e.g., birth of children, cohabitation with partner) did not directly lead to induced suburbanisation, although an attractive residential environment for raising children was clearly an important factor in the overall residential decision-making process.

It could be argued that moves induced by life-course changes were probably postponed in the Soviet era and early transition periods in the beginning of the 1990s, while housing and economic opportunities were highly restricted. It could also be argued that the combined effects of the Soviet legacy (most people living in relatively small, standard, urban apartments) and the post-socialist opportunities, initiated during the 1990s (with the establishment of the housing and mortgage markets), created the preconditions...
for more affluent households to improve their housing conditions by enabling them to move to the new suburban settlements.

We next explored the factors that individuals considered when choosing a particular settlement in the suburban area (Fig. 4). We found that proximity to Tallinn was the most important factor, followed by a favourable residential environment and the availability of infrastructure, such as central water supply and sewerage system. The daily lives of the new suburbanites appear to have remained closely connected to the city. This is confirmed by the relative proximity of most of the new suburban settlements to the city of Tallinn (Fig. 1) and the high level of car-based daily commuting between home and city (Ahas, Aasa, Silm, & Tiru, 2010; Tammaru, 2005). It probably also explains why access to local public and social infrastructure (public transport, schools and kindergartens and supermarkets) was not an important consideration when seeking a change of residence. These types of infrastructure are also non-existent in many new settlements. Likewise, social embeddedness (i.e., earlier contact with the new area and closer proximity to relatives/friends) was considered to be a relatively unimportant reason for moving out of the city.
We then analysed whether people’s expectations were met and whether the new suburbanites were satisfied with their new living conditions in terms of both the housing itself and the neighbourhood (Fig. 5). The residents of the new suburban areas expressed quite high levels of satisfaction across all the housing and neighbourhood characteristics studied, the mean average score being 7.1 on a 10-point scale of satisfaction. Satisfaction with aspects of the dwelling (including the garden) such as its size, the internal conditions (air circulation, humidity, etc.) of a house, and its design scored the highest, with the average exceeding eight points. However, the construction quality scored somewhat lower (7.1 points) compared to other housing characteristics. It would appear that the rapid rate of construction of new houses during the short-lived housing bubble in the mid-2000s was associated with some drawbacks in relation to the quality of the buildings. Nevertheless, the satisfaction score of 7.1 can be estimated as quite high for this factor and it should therefore not be concluded from this result that new suburbanites have encountered particular problems related to the quality of the construction of their homes.

Certain aspects of the environmental attributes of the settlement were also scored relatively highly by the residents, e.g., outdoor recreation opportunities in the area, the safety of the settlement, the area’s image, and social aspects such as the perception of privacy and relationships with other residents. However, there were some aspects related to the quality of the physical and natural environment about which residents expressed only moderate satisfaction, namely, neighbourhood architecture, building density, and greenery in the area. In many settlements, there is a mix of architectural styles that is the result of a lack of coordination in the planning of housing construction. Settlements are often built by many different developers or even by the residents themselves, by reference to some very general guidelines by municipal governments on the physical appearance of houses. It would appear that such an architectural incoherence is not to everyone’s taste. There is a moderate level of satisfaction with greenery in residential area, although the natural environment was identified by respondents to be one of the main factors behind the decision to move to a suburban settlement. Since the settlements are new, the planting may not yet be established, but will probably improve over time.

New suburbanites expressed the lowest levels of satisfaction with local infrastructure and services. Proximity and accessibility to public transport infrastructure, kindergartens and schools, jobs, food stores, supermarkets, and leisure facilities including children’s playgrounds, all scored lowest on the satisfaction scale. Local services were not an important consideration in the choice of location (Fig. 4), but after moving, it is likely that people realised that, to a certain extent, the lack of local infrastructure and services was having an adverse effect on the quality of their daily lives. However, the absolute level of dissatisfaction is not especially high;

![Diagram of satisfaction scores](image-url)

**Fig. 5.** Satisfaction with housing and residential area qualities in new suburban settlements in the Tallinn urban region (in descending order of mean scores) on a scale of 1–10, where 1 = not satisfied and 10 = highly satisfied.

the scores for most of these proximity aspects were within the range of 6.5–7 points.

Differences between attached and detached new suburban settlements

We also compared migration-related decision-making and residential satisfaction in attached and detached settlements, in order to identify whether there were any differences according to settlement type. First, we aggregated the factors that motivated residential mobility (Fig. 3), location choice (Fig. 4), and residential satisfaction (Fig. 5) into more general categories using principal component analysis (PCA). Next, we applied logistic regression to identify any differences in the migration motives (Model 1), the factors affecting the choice of settlement (Model 2), and the residential satisfaction with the new settlement (Model 3), according to whether people lived in attached or detached settlements.

Model 1 (Table 2) does not reveal any differences in the reasons behind decisions to move to suburbia between the two settlement types. For example, stress related to the urban environment and the housing adjustment-related desire to live in a house of one's own were important for those moving to both types of settlement. In terms of the choice of area, we found that for people living in attached settlements, the availability of or access to services (i.e., public transport and supermarkets) and social infrastructure (i.e., schools and kindergartens) in residential areas was a more important factor in their residential decision-making than for residents of detached settlements (Table 2, Model 2). Close results emerged when we analysed residential satisfaction: residents of attached settlements were more satisfied with public transport services and with the proximity of schools and kindergartens than those in detached settlements (Table 2, Model 3). It demonstrates that their expectations were met and/or they were more realistic about their needs in the first place. Furthermore, the residents of detached settlements were less satisfied with their social milieu (i.e., community relations and area image). They were also more concerned about the lack of privacy in their neighbourhood.

It would appear that there is a mismatch between the expected and the satisfaction with the actual housing conditions among suburbanites who have moved from the city to detached settlements. The main factors taken into account in making the decision to move to a detached settlement related to owning a home with a good level of privacy and a garden in a ‘nice’ natural setting. However, these new suburbanites underestimated the effect of the loss of the convenience of the infrastructure provided in the city. Thus, their housing adjustment was somewhat less successful than that of those who moved from the city into attached settlements. However, the lower level of satisfaction among people living in detached settlements was not reflected in a higher intention to change their current place of residence compared with those living in attached settlements (Table 1).

Discussion and conclusion

The aim of our study was to identify the extent to which residential preferences and life-course changes affect residential mobility in the suburbanisation process of a formerly centrally planned country in CEE. While one must always be aware of the limitations of relying only on a quantitative method when studying residential preferences (see Jarvis, Pratt, & Wu 2001), it is nevertheless possible to draw some general conclusions.

The case of Tallinn’s urban region showed that the most important factor in the decision to move to a new suburban settlement was the need to improve housing conditions, especially the desire to live in a house of one’s own. The most striking result was that there was very little evidence of induced moves to the suburbs, i.e., suburbanisation brought about directly by life changes such as family reformation or the birth of children. However, dissatisfaction with the urban environment was a relatively important factor and was also related to perceptions of what constituted a suitable environment for child-rearing. It could therefore be argued that moves based on housing adjustment as well as on household changes were postponed until the opportunity arose to make them.

Interestingly, people generally attached a high value to the proximity of the city when choosing a particular settlement in the suburban area of Tallinn, and their lives remained closely connected to the employment, social infrastructure, and social networks of the urban environment. There was a tendency to search for a new house or apartment close to the city but in a suburban settlement which had its own good-quality, modern infrastructure (roads, water supply and sewerage system, etc.). Moreover, despite making frequent criticism of sprawling suburban settlements, people appeared to be surprisingly well satisfied with their residential choices. Those new suburbanites who attached importance to con-
continued access to social infrastructure and services were also more satisfied later on with these aspects of their residential environment because they selected a particular settlement – usually an attached settlement – that could meet this requirement.

The demand for a modern living environment by residents of a formerly centrally planned country is typically high. The recent economic depression markedly reduced the rate of housing construction in countries in CEE; however, the general economic climate continues to improve and incomes are now starting to rise again, increasing the likelihood of further housing adjustment moves. From the results of this study, it could be argued that a more spatially controlled planning policy, particularly with respect to infrastructure development, would be more likely to satisfy people's expectations about their new residential areas; the biggest concern expressed by the people sampled in this study was the lack of local, social and public transport infrastructure. This need has already been acknowledged by local authorities in Estonia, which have started to apply either more proactive or reactive policies to improve the planning and amenity of suburban areas (Samaruütel et al., 2010).

Our findings have shown that individuals expressed a variety of reasons for choosing a particular suburban environment. Housing adjustment according to family needs and cultural preferences was the predominant type of move to the suburbs, but the opportunity to realise this adjustment has been shaped by structural changes such as increased individual wealth, access to mortgages, and the availability of residential locations, among other factors. The socialist legacy remains an important influence. During the socialist period, the building of private dwellings was used to be actively discouraged by Soviet authorities and the building of large apartment blocks was strongly encouraged, whereas the post-1991 period has witnessed the availability of more housing market options that better correspond to a variety of preferences. However, not all potential ‘housing adjusters’ have been able to adjust their housing conditions according to their expectations and needs. The reasons behind housing adjustment, mobility and the subsequent moves have led to increased residential differentiation in Tallinn’s urban region and the formation of socially and demographically homogeneous new suburbs. In addition to facilitating improved, coordinated urban decentralisation and suburbanisation options for the wealthier strata of the population who can afford to buy their own homes, there is also a high demand for other types of housing provision and for urban welfare services, which implies that there is a need to regenerate the inner urban areas so that they better correspond to the needs of those families who remain (see also Jarvis et al., 2001).

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