Residing at multiple locations for job reasons: dwelling conditions, housing needs, and residential location of men and women in a multilocational way of life

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1 Introduction

The working sphere in post-industrial societies has changed profoundly due to the structural shift in the labour markets that encompasses a change in prevailing employment conditions as can be seen in the rising importance of part-time employment and fixed-term employment contracts. In recent years, this labour market flexibilisation, in which insecure employment conditions are embedded, has contributed to higher geographical mobility demands in such a way that not only career starters have been affected but women and men of different educational levels in all stages of their occupational career. A compromise on geographical relocation in the search for work and job promotion has thus become a more salient issue especially among two-earner couples in Germany and other countries in Western Europe today than it was during first modernity. Undoubtedly, women take over an important part regarding the rising complexity of geographical mobility patterns as women's traditional migration role of a trailing spouse seems to be on trial (Smits, Mulder and Hooimeijer 2003, Van der Klis and Mulder 2008, Hardill 2002). Against the background of changing employment conditions and societal change multilocational living arrangements as solutions for co-location conflicts arising in household settings have attracted increasing interest from both academia and the public in the last couple of years.

From a geographical and housing point of view a distinction between two types of residential multilocality must be made in terms of household and centre of life issues: On the one hand, there is commuting between a main residence and a job-induced secondary residence, which is often labelled *long-distance weekly commuting* in English literature (Green, Hogarth and Shackleton 1999) and *Shutteln* in the German literature (Schneider and Limmer 2008). On the other hand, sociological researchers pay much attention to couples that do not share their household. In the literature, the kind of partnership arrangement that involves commuting between two separate households, i.e. without a shared

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household, situated either close by in the same city or over long distance in different cities is often labelled *living apart together* partnerships.

This chapter investigates the type of multilocational way of life mentioned first, in which men and women have a secondary residence which he or she uses regularly for work. According to the German Microcensus¹, this type of circulation migration has gained in importance in Germany over the last years. For the Federal Republic 357,000 persons with a job-related secondary residence were registered in 2004 (including trainees). This corresponds to an increase of 12 % compared to 1996 (Federal Statistical Office 2005: 61). Further information about the dwelling situation of commuters cannot be derived from Microcensus data. This also applies to the German Socio-Economic Panel (GSOEP)² and empirical studies conducted to date on job-motivated multilocational household structures, which also do not provide information about the dwelling of commuters. Therefore, little is known about residing in multiple locations for job reasons in contemporary Germany.

The aim of the chapter is to explore dwelling conditions, housing needs and residential location of men and women with a job-related secondary residence on an individual level in the context of the type of household concerned. A comparison of dwelling circumstances between the two residences which take objective dwelling characteristics and subjective housing needs into account will give answers to the following major questions: To what extent do the physical setting and preference patterns differ between the two locations? What types of dwelling are in demand as job-used secondary residence? What kind of particular housing preferences are provoked in the multilocational way of life? In this regard, it will be asked whether female and male commuters have distinct dwelling conditions and subjective housing preferences at the job-related secondary residence. A classification of certain types of secondary residence will shed more light on the (contemporary and future) housing demand in cities with a good economic performance, which will therefore possess a substantial amount of job-related secondary residences. For Germany, agglomerations in the economically stronger regions in the south-west, namely Bavaria (Munich), Baden Wuerttemberg (Stuttgart) and North Rhine-Westphalia (Cologne, Dusseldorf), are considered (see Federal Statistical Office 2005: 61).

First, a review of the current status of research on multilocational living arrangements from a housing and spatial point of view will be given (section 2). Then the sampling will be explained and a description of the sample will be

¹ The German Microcensus is a representative annual sample of one percentage of all households in which a commuting survey is included every four years.

² A representative annual household panel survey of private households.

given (section 3). Empirical results will be presented in section 4, closing with concluding remarks in section 5.

2 Literature Review of job-induced dual residences and housing

Job-induced commuting between two residences has been examined in some surveys in German speaking areas and the UK since the late 1960s, the focus being on regional economic development or activity spaces (Lutz and Kreuz 1968, Breyer 1970, Vielhaber 1987, Junker 1992, Hackl 1992, Hogarth and Daniel 1988). In these empirical studies more or less attention was devoted to housing conditions either at the main residence or at the secondary residence. As Junker (1992) and Hackl (1992) showed for the so called weekly commuting in southern Germany, homeownership and the importance of building the own family house in the home town are a main trigger for running a secondary residence near the workplace in an agglomeration further away. Deeper insights into the living situation at the job-related secondary residence were provided by Vielhaber (1987) in his survey of dual activity spaces in Austria. Here, the provisional way of residing in mass lodgings provided by the employer was the prevalent characteristic of residential multilocality concerning the secondary residence. However, these case studies concentrate on the commuting of lowqualified male workers - mainly employed in the building and construction industry - from structurally weak regions to labour market centres like Vienna and Munich. The working sphere is therefore strongly related to the fordistic production regime. As regards societal change, the mobile living arrangements were closely connected to traditional gender roles as can be exemplified by means of the male breadwinner model being a crucial part of the living arrangements of the male workers and their family. Even the researcher's point of view is stuck in the traditional gender division of work as becomes apparent in the ex-ante exclusion of female commuters from the sampling by Hogarth and Daniel (1988).

Residential multilocality in the light of the ongoing modernisation of society has been examined predominantly since the 1970s in the US in social sciences with respect to couples and socio-psychological effects on partnership and family (see Farris 1978, Gross 1980, Gerstel and Gross 1984, Winfield 1985, Anderson and Spruill 1993). In this regard, dual career couples, i.e. couples with either partner having a strong professional career orientation and a high degree of individual commitment to work (see Hardill and Wheatley in this book), have been an important issue. Since the emphasis of this research has been on couples and families – while singles have been neglected – from a sociological and socio-psychological point of view the international literature to date can only provide partial insights on housing issues of multilocational living arrangements and residential location choices at the job-induced secondary residence. Apart from the scarce findings on housing issues, most studies draw empirical data on a small and non-random sample.

Winfield (1985: 14) describes a diverse housing pattern at both residences in terms of dwelling tenure and dwelling type for the US in which rented dwellings and owner-occupied homes and several types of dwelling like hotel rooms, apartments, town houses, single-family homes, condos and high-rises are involved. Contrary to these multi-faceted housing conditions of commuters, the interviewees (n = 25) in a study on long distance weekly commuting by Green, Hogarth and Shackleton (1999: 27-28) show strong preferences to renting a flat at the job-related secondary residence. This is also true for the commuters in an empirical study by Schneider, Limmer and Ruckdeschel (2002: 97-98) for Germany. The non-randomly selected respondents (n = 106) most often live in rented accommodations both at the main and the secondary residence. Against the background of the differentiation of the labour market and rising geographical mobility demands one may therefore assume a greater importance of rented multifamily housing for the late-modern multilocational way of life in Germany, opposed to substantial influences of owner-occupied housing at the main residence on residential multilocality during the first modernity (Junker 1992, Hackl 1992).

Concerning dwelling quality, the housing situation at the secondary residence is described in recent research as "minimalist" housing (Axtner, Birmann and Wiegner 2006), whereas Rolshoven (2007: 19), regarding various types of multilocalists including others than job-induces commuters, argues that the bipolarity of a main and a secondary residence in late-modernity is increasingly blurring. As a result, Rolshoven distinguishes between "double nesters", who reproduce their main residence in their secondary residence, and "contrasters", who have a high dwelling quality at the main residence opposed to a sparse dwelling at the secondary residence. This assumption is in line with findings of a study by Van der Klis and Karsten (2005: 11) on the meaning of home in a dual residence situation of commuters in couple households in the Netherlands, in which a broader continuum of job-used secondary residences from "purely functional residence" to "being a full home" in terms of material functions, activity patterns and the social dimension of home becomes apparent.

Since the literature on housing choice and relocation mostly regards migration and moves as a housing adjustment process of the (whole) household one can only find some advices for residential choices in a multilocational way of life at the secondary residence. The investigation carried out by Meier (2006) on German expatriate bank employees in London provides some information in this respect. The younger respondents (25 to 30 years old) who opted for a multilocational household organisation purposely chose a flat in the city within walking

distance to their workplace. Important for their decision was that their workplace and leisure facilities were close-by. This corresponds to findings that the relative residential location, i.e. the distance to other locations, is of greater importance for younger persons and households than for families, for whom site characteristics (e.g. open space amenities) are more important (Mulder and Hooimeijer 1999). Accordingly, the continuous spatial monitoring by the Federal Office for Building and Regional Planning reveals that among in-movers to German cities voung persons in single-person households prefer central residential locations while older in-movers in multi-person households tend to move to locations on the outskirts (Sturm and Meyer 2008). It has to be noticed that in such ("representative") secondary data-sets people who commute between two residences for job reasons are an underrepresented group as they are hardly reachable at their registered main residence. Surveys carried out by Green (1997) and Behnke and Meuser (2005) on dual career couples, however, suggest that because of the high costs of coordinating the multilocational way of life the relative housing location in terms of accessibility to long distance traffic and work trip distance is an important determinant of residential decisions at the secondary residence for commuters, whatever age and household composition.

3 Sample design and sample description

The study is based on a quantitative research design. A random sample of people with a secondary residence is drawn from official registers of inhabitants kept by municipalities throughout Germany. Since a central register does not exist in Germany, it was necessary to select particular municipalities as study areas. Furthermore, the register of residence does not give any information about why people are registered at a secondary residence. To ensure that a sufficient number of people with a job-related secondary residence are represented in the random sample, only large cities with metropolitan functions were chosen: Munich (Bavaria), Stuttgart (Baden-Wuerttemberg), Dusseldorf (North Rhine-Westphalia) and the federal capital Berlin.

The random sample includes people who at the time of the drawing of the sample were aged 25 to 59, and who moved to the study areas during the last five years and have registered a secondary residence there. As a comparison group, people of the same age group were chosen who had also moved to the study areas at the same period of time but had registered their main residence there. In Stuttgart it was not possible to divide recent movers into main and secondary residences, so that a random sample of people had to be taken of those who either had a main *or* a secondary residence.

The standardised questionnaire was sent out by mail in January 2006. The net random sample amount of all in-movers was 2,007 including 483 people with

a secondary residence. Out of the latter about half as many (n = 226) could be classified as commuters who commute between two accommodations for work ("commuters"). In brief, significantly more men than women have a job-related secondary residence (61 %). Female commuters are younger than their male counterparts: The median age of women with a job-related secondary residence is 31 years compared to 36 for their male counterparts.³ Men more often than women commute in a partnership with children (31 % vs. 12 %). About 44 % of the female commuters live in a single household; this household composition applies only to almost one third of the men (for further socio-structural characteristics see Reuschke 2009).

In the sub-sample of respondents without a further residence, 837 respondents moved over a greater distance (≥ 50 km) into the study area and are currently employed ("employed long distance movers"). In contrast to the commuter sub-sample the ratio of men to women is almost balanced. The median age, which is 32 years for female employed long distance movers and 34 years for their male counterpart,⁴ does not differ significantly from the age of the commuter sub-sample. More than one third of employed long distance movers lives in a single-person household (38 %).

4 Empirical Results

4.1 Residential location at the secondary residence

In the sample the commuters' secondary residence is predominantly located in one of the study areas and the main residence lies outside of the chosen metropolises either in another large city (38 %), a medium-sized city (26 %), a small town (15 %) or in a rural village (21 %). Commuters' accommodations are dispersed in different residential areas of the city at the job-used secondary residence similar to young employed long-distance in-movers in single-person households who moved to one of the study areas with their whole household: the highest percentage of 44 % has their secondary residence in the inner city. More than a third lives in other inner city areas (37 %), and one fifth has their secondary residence on the edge of the city. Consequently, the vast majority of commuters do not live at the job-used secondary residence in areas with pure residential use according to their self-reported housing characteristics.

As argued in section 2, the residential location of commuters at their jobused secondary residence (inner city, other inner city areas, on the outskirt) is not determined by the commuters' age and household composition. Other sociodemographic or socio-economic characteristics do not have an effect on the resi-

³ The lower quartile for women is 29 compared to 30 for men, the upper quartile is 40.5 vs. 46.5, standard deviation for women = 8.3, and SD for men = 9.7.

⁴ Standard deviation for women = 7.8, and SD for men = 7.9.

dential location either. Considering all in-movers of the total random sample while excluding commuters, however, several socio-structural effects and influences of the migration biography on the residential location can be detected which have been pointed out in other housing studies (Mulder and Hooimeijer 1999, Bailey 1993, Sturm and Meyer 2008): (1) Young in-movers in single-person households have moved to the inner city, (2) in-movers in family households tend to live on the outskirts, (3) people with highly qualified positions less often moved to the edge of the city, (4) the higher the number of past interregional moves the higher the propensity for living in the inner city, (5) among all in-movers women less often live on the outskirts, which corresponds to the finding that female in-movers significantly less often live in family households than men do.⁵ Two findings may contribute to the explanation of the particular residential location patterns of commuters at their secondary residence:

- Among commuters those with a secondary residence in the inner city can be distinguished by shorter journey-to-work trip times compared to commuters who live outside the inner city (17.2 minutes vs. 24.8 minutes). At the same time, the residential area in the city is the central explained variable for commuters' trips to work (travelling time and length).⁶
- After controlling for the dwelling size a correlation between the residential area and the rent is obvious for commuters in that the rent per square meters in other inner city areas is less than in inner city areas and on the edge of the city taken together.

Searching for an inexpensive rented apartment some commuters – regardless of age, occupational position, gender, and number of past inter-regional moves – might prefer residential location in other inner city areas, while for others work trip times are the crucial point for residential choice. Evidence for a spatial manifestation of strong preferences for a good connection to high speed networks (motorways, long distance railway lines, and airplanes) in the dispersion of the secondary residences over different residential areas of the city is not directly found in the sample as has been argued in section 2. After controlling for other residential environment features (open space environment, infrastructure) the

⁵ It has to be noticed that only the residential location at the time of the survey is known and that residential mobility within the study areas after the respondents have moved to one of the metropolises cannot be detected with the data-set.

⁶ After controlling for age, gender, per capita income, and occupational position significant at the 0.01 level.

subjective importance of the transport connection⁷ provides no additional clarity for the residential location in multivariate analysis.

4.2 Dwelling conditions at the two residences

The vast majority of respondents live in rented accommodations at their job-used secondary residence, only 10 % of the male commuters and 8 % of the female commuters live there in a privately owned accommodation. The housing tenure at the main residence shows a completely different picture: More than half of the commuters live there in their own property (58 % men and 54 % women). Accordingly, the dwelling type differs significantly between the two residences: Whereas the highest portion of men and women live in a residential building with more than eight flats at the job-related secondary residence (44 % and 48 % respectively), a single-family house constitutes the main home of 55 % men and 48 % women. For comparison, the present homeownership rate is 42.6 % in West-Germany and 31 % in East-Germany (Federal Ministry of Transport, Building and Urban Affairs 2007: 26). The higher-than-average own-occupied housing especially for male commuters results from the residential location of the main household in suburban areas of agglomerations, smaller towns, and rural villages. Thus, the assumption that multilocational household organisations for job reasons in the late-modern German society are associated with multifamily rented dwelling is only partially confirmed as living in owner-occupied housing at the main residence is dominating the multilocational way of life as it was noticed for Germany in the first modernity (see Hackl 1992, Junker 1992).

In the German housing market the housing situation of households is strongly correlated with housing tenure, owners for example have a considerably higher space consumption per person than renters (see Federal Office for Building and Regional Planning 2007: 170). The observed differences in housing tenure therefore may suggest contrasting objective dwelling conditions at the two locations. In fact, the living space consumption is significantly lower at the secondary residence: The median living space for male commuters is 40 sq. m at the secondary residence compared to 120 sq. m at the main residence, which corresponds to 50 sq. m per person. The median space consumption of female commuters amounts to 45 sq. m at the job-used secondary residence and 80 sq. m and 47 sq. m per person respectively at the main residence. According to the average space consumption per person in Germany in 2006 (Federal Office for Building and Regional Planning 2007: 173), the median living space of single-person

⁷ The subjective importance of the transport connection of the living area was measured by means of a ranking system. In this system respondents were to grade in downward order the local public transport (bus/city railway) and the long distance traffic differentiated into main train station, motorway and airport.

households who have moved in the last two years is 54 sq. m. Thus, the space consumption of commuters at their job-used secondary residence can be considered as below average.

	job-used second- ary residence		main residence				
			single-person household		couple/family household		
	women	men	women	men	women	men	
room > 30 sq. m	19.8 %	24.4 %	46.2 %	55.6 %	61.7 %	67.0 %	
separate kitchen	75.6 %	66.7 %	79.5 %	84.4 %	80.9 %	91.0 %	
workroom	24.0 %	15.4 %	51.3 %	51.1 %	46.8 %	68.0 %	
guestroom	10.5 %	11.4 %	33.3 %	46.7 %	42.6 %	55.7 %	
bright rooms	72.0 %	60.2 %	84.6 %	84.4 %	85.1 %	89.8 %	
comfortable bathroom	54.7 %	46.3 %	64.1 %	64.4 %	89.4 %	85.2 %	
separate lavatory	20.9 %	21.1 %	35.9 %	53.3 %	53.2 %	71.0 %	
balcony/terrace	65.0 %	52.8 %	61.5 %	66.7 %	85.1 %	89.8 %	
garage/parking space	33.7 %	40.7 %	56.4 %	73.3 %	68.1 %	73.9 %	
n	86	123	39	45	47	88	
1 1 1			nn .n				

Table 1:	Dwelling quality at both residences, percentage of given dwelling
	features for men and women

shaded: average percentage is higher compared to the other residence, $p \le 0.05$

Source: author's calculations

Dual dwelling differences become apparent in greater detail when single dwelling features are considered, as can be seen in table 1, showing the percentage of given dwelling characteristics of male and female commuters at the secondary residence and at the main residence. As the dwelling characteristics at the main residence depend on the household composition a distinction between commuters in single-person households and multi-person households is made for the main residence. For the comparison of the selected dwelling features between the two locations (given or not given) paired t-tests were employed. Significant differences ($p \le 0.05$) are shaded in table 1.

Dwelling conditions are of considerably lower quality on average at the jobused secondary residence compared to the main residence, whereas the differences between the two locations are greater for men than for women in general and greatest for men in couple or family households. Differences in dwelling conditions are least distinct for women in single-person households. For them the differences between the two locations is mainly due to living space features (spacious room, a further room). The varying extent of objective dwelling differences between the two locations by household type results from housing tenure, i.e. the higher proportion of homeowners among commuters in couple or family households.

Comparing the average dwelling size and dwelling attributes of the job-used secondary residence of women and men, no significant differences in terms of living space can be noticed, but after controlling for age and household income, women's accommodation at the workplace more often possesses a balcony/terrace and/or a workroom than men's secondary residences. The only dwelling feature that shows a broader (but no significant) spread by gender in favour of male commuters is a garage or parking space corresponding to the finding that the accessibility of motorways at the secondary residence is significantly more important for men than it is for women. These preferences refer to gender specific transportation behaviour which is pointed out by a number of geographical mobility studies (e.g. Blumen 1994 and see Flade in this book).

A comparison of the dwelling characteristics of commuters, who have their job-used secondary residences in one of the metropolises, with employed long distance movers in single-person households yield no significant differences in objective dwelling conditions for women. In contrast, men with a job-used secondary residence in one of the metropolises have a lower average space consumption than male long distance in-movers in single-person households without dual residences. Due to the smaller dwelling size, the average dwelling quality is also lower with regard to dwelling layout (a further room), dwelling amenity values (bright rooms) and sanitary accessories (separate lavatory).⁸

4.3 Housing needs at the secondary residence

The analyses of housing tenure, size and dwelling features revealed some important differences in objective dwelling conditions at both residences which are especially remarkable for men in couple and family households. Whether housing needs differ similarly between the two locations will be investigated in this section. Apart from preferences for specific dwelling features, housing needs with regard to residential environments will be also considered. In the questionnaire, subjective preferences were measured by a four-item scale ranging from

⁸ Among the control group the median living space consumption is 54 sq. meters for women and 56 sq. meters for men and thus equals the representative mean of spatially mobile households well (see section 4.2). Control variables for the comparison group analyses: age (in years), per capita income, residential location in the metropolises (inner city, other inner city areas, on the outskirt), $p \le 0.1$. To compare, almost one-fifth of male employed long distance movers in single-person households has an additional workroom in his accommodation, about three-fourths report having bright rooms, and one-third has a separate lavatory (compare table 1 for male commuters).

very unimportant, rather unimportant, rather important to very important. Table 2 sums up the percentage of male and female commuters for whom the selected dwelling characteristics are important or very important for both the secondary residence and the main residence. The evaluations for the main residence are again differentiated by household type. Subjective preferences at both residences were compared by applying non-parametric paired Wilcoxon-tests. Significant differences ($p \le 0.05$) are shaded in table 2.

	second-	men main r	esidence	second-	women main residence	
	ary residen- ce			ary residen- ce		
	all	couple/ family house- hold	single- person house- hold	all	couple/ family house- hold	single- person house- hold
room > 30 sq. m	40.4 %	77.0 %	71.0 %	51.4 %	74.0 %	57.0 %
separate kitchen	69.6 %	91.0 %	84.0 %	76.0 %	81.0 %	85.0 %
workroom	23.8 %	68.0 %	54.0 %	47.0 %	51.0 %	61.0 %
guestroom	17.3 %	53.0 %	41.0 %	33.0 %	56.0 %	34.0 %
bright rooms	85.8 %	99.0 %	93.0 %	94.0 %	100.0 %	95.0 %
comfortable bathroom	70.8 %	89.0 %	73.0 %	85.0 %	95.0 %	90.0 %
separate lavatory	29.9 %	71.0 %	57.0 %	38.2 %	63.0 %	53.0 %
balcony/terrace	56.3 %	94.0 %	80.0 %	77.0 %	91.0 %	89.0 %
garage/parking space	58.0 %	72.0 %	64.0 %	49.3 %	63.0 %	61.0 %
n	115	86	45	84	45	39

Table 2: Subjective preferences for dwelling features at both residences, percentage of important and very important features for men and women

n varies slightly for the features due to missing values

shaded: average percentage is higher than it is at the other residence, $p \le 0.05$

Source: author's calculations

The comparative analysis of dwelling needs yields an overall lower grade at the job-used secondary residence compared to the main residence. Hence not only are the objective dwelling conditions lower on average at the job-used secondary residence than they are at the main residence but also are commuters less demanding at their secondary residence in terms of dwelling quality. Once more, the preference structure differs in general more for male commuters than for female commuters whereas the greatest distinction in dwelling preferences

emerge for men in couple or family households which is due to the high rate of owner-occupied housing at the main residence among these men. Regardless of household type, men do not attach great importance to such dwelling features referring to a higher living space consumption which corresponds to their average small living space. In accordance with findings regarding objective dwelling conditions at the two locations, differences in the preference patterns are least distinct for women in single-person households.

	men		women	
	secondary residence	main residence	secondary residence	main residence
commercial stores: important	91.0 %	91.0 %	98.0 %	98.0 %
thereof: very important	42.0 %	33.0 %	56.0 %	61.0 %
leisure/cultural facilities: important	67.0 %	79.0 %	80.0 %	94.0 %
thereof: very important	22.0 %	20.0 %	29.0 %	31.0 %
gastronomy: important	62.0 %	62.0 %	77.0 %	81.0 %
thereof: very important	20.0 %	11.0 %	23.0 %	20.0 %
open space amenities: important	77.0 %	94.0 %	94.0 %	98.0 %
thereof: very important	34.0 %	47.0 %	53.0 %	63.0 %
quiet residential environment:				
important	90.0 %	94.0 %	90.0 %	90.0 %
thereof: very important	42.0 %	53.0 %	46.0 %	59.0 %
good neighbourhood: important	46.0 %	68.0 %	59.0 %	66.0 %
thereof: very important	10.0 %	24.0 %	9.0 %	19.0 %
n	127	133	82	82
n varies slightly for the features due to shaded: less important than it is at the				

Table 3: Subjective preferences for features of the residential environment at both residences, percentage of important and very important features by gender

Source: author's calculations

The average low dwelling needs of male commuters at their secondary residence are underlined by the result that they evaluate the amenity and recreation values of their dwelling in one of the study areas (separate kitchen, balcony/terrace, bright rooms, and comfortable bathroom) as less important than employed long distance in-movers in single-person households. By contrast, female commuters' preferences at the secondary residence in the metropolises differ from the evaluation of the female control group only with respect to one dwelling feature (bright rooms).⁹

Except from a garage/parking space, all dwelling features of the job-used secondary residence are more important to very important for women than they are for male commuters, these findings being significant after controlling for age with respect to a workroom, a guestroom, a comfortable bathroom, and a balcony/terrace. The dwelling features which are most important for both male and female commuters at his/her job-used secondary residence are bright rooms, followed by a separate kitchen and a comfortable bathroom. A separate kitchen is generally of greater importance at the secondary residence the younger the commuters are, a fact which explains the higher proportion of women to men for whom a separate kitchen is important to very important. A balcony/terrace is almost as important for female commuters as a separate kitchen in the job-used secondary residence. Half of them evaluate a balcony/terrace even as very important, whereas almost half of the male commuters could do without one at the jobused secondary residence. The percentage of commuters who evaluate a comfortable bathroom in his/her secondary residence as important seems to be rather high in comparison with other dwelling attributes, but in fact only one-fourth appreciates this feature as very important.

The analysis of subjective preferences for features of the residential environment suggests that commuters are rather willing to make compromises regarding the dwelling size and quality at their job-used secondary residence than the residential environment. Taken together, the selected residential environment features in table 3 are considerably higher in importance at the job-used secondary residence than has been noticed for the item battery of dwelling features in table 2 – an observation that does not apply to such an extent to the main residence or to the control group either. Whereas all selected dwelling features in table 2 indicate a considerably lower level of importance at the job-used secondary residence compared to the main residence both for men and women regardless of household type, infrastructure facilities gain in importance at the secondary residence to some extent. Thus, the percentage of male commuters for

⁹ Control variables for the comparison group analyses: age (in years), per capita income, residential location in the metropolises (inner city, other inner city areas, on the outskirt), $p \le 0.05$. For comparison, among the control group 86 % of the male respondents evaluate a separate kitchen as important or very important; the percentage amounts to 83 % for a balcony/terrace, 92 % for bright rooms, and 85 % for a comfortable bathroom. Almost all women of the control group appreciate bright rooms (99 %).

whom close-by commercial stores and gastronomy are very important is higher (but not significantly) at the secondary residence than it is at the main residence. The same can be noticed for female commuters who evaluate gastronomy slightly (but not significantly) more often very important at the secondary residence than at the main residence. In comparison with female employed long-distance in-movers women also consider close-by gastronomy at their job-used secondary residence significantly more important.¹⁰ In accordance with the findings of Van der Klis and Karsten (2005: 8) one may therefore assume that some male and female commuters more often go out for dinner at the job-used secondary residence than they usually would at the main residence. In contrast, both men and women attach more value to open space amenities, a quiet residential environment, and a good atmosphere in the neighbourhood at the main residence than at the job-used secondary residence.

Close-by commercial stores are the residential environment feature that is on average regarded as most important at the job-used secondary residence by both women and men. Subjective preferences for residential environment features at the job-used secondary residence are strongly connected to the commuting arrangement: For commuters who travel on a weekly basis between the two locations residential environment features are generally less important than they are for commuters who travel every two weeks or less to the main residence.¹¹

Leisure and cultural facilities are significantly more important for commuters in a single-person household or for those living in a separate household with the partner. For men and women in a couple or family household close-by leisure and cultural facilities are rather unimportant at the job-used secondary residence. Regardless of commuting arrangement and household composition, shops and leisure/cultural facilities become more important at the secondary residence the longer men and women live in a multilocational household organisation.

Gender-specific residential environment needs at the job-used secondary residence can be noticed for open space amenities and a good atmosphere in the neighbourhood.¹² The greater importance women attach to open space amenities also applies to the control group, thus, this gender specific environment prefer-

¹⁰ Control variables for comparison group analyses (important and very important): age (in years), per capita income, couple household (yes/no), children in the household (yes/no), residential location in the metropolises (inner city, other inner city areas, on the outskirt), $p \le 0.05$. Among the female control group 68 % appreciate close-by gastronomy.

¹¹ In the sample 59 % of the respondents commute on a weekly basis between the two locations. Here, men after controlling for age, distance between the residences and relationship status (partner yes/no) are significantly more often weekly commuters than women are. Therefore the term "weekly long-distance commuter" often find in literature applies better to male commuters than for female commuters.

¹² Control variables: weekly commuting (yes/no), age (years), household type, $p \le 0.05$.

ence is not due to the multilocational way of life but rather refers to general gender differences of in-movers to the selected metropolises. The remarkable low subjective preferences of male commuters for open space amenities and the neighbourhood are confirmed by comparison group analyses with male employed long-distance in-movers who attach significantly more importance to these residential environment features.¹³

4.4 A Typology of job-induced secondary residences

Housing conditions and preferences at the secondary residence have been investigated so far with regard to particular dwelling and residential environment features. In order to explore the housing situation from a more overall viewpoint as to what kind of job-induced secondary residences may be distinguished and who prefers what type of dwelling, a cluster analysis is applied taking all selected objective dwelling features of the job-used secondary residence into account (see table 2).¹⁴ A distinction of three dwelling types can be derived from this:

- Very small and simple dwelling (n = 79): The median dwelling size is 34 sq. m; the dwelling therefore does not have a spacious room, a work-room or guestroom, a separate lavatory, and rarely has a balcony/terrace. A garage or parking space does not belong to the dwelling either. Almost half of the commuters of this type have a separate kitchen and bright rooms. Only one-third has a comfortable bathroom. The dwelling amenity values and the sanitary accessories are on a low level altogether.
- Small dwelling with higher amenity values (n = 81): With a median size of 43 sq. m the dwelling of this group of commuters is rather small, but possesses a balcony/terrace, bright rooms and a separate kitchen and therefore a higher level of amenity values. A garage/parking space often belongs to the dwelling. Living space related features as a workroom/guestroom, separate lavatory and a spacious room barely exist.
- Sizeable dwelling with high quality (n = 46): Almost all dwellings of this group have a separate kitchen, a balcony/terrace and bright rooms, and most

¹³ See control variables in footnote 10. For 90 % of the male employed long distance in-movers in single-person households open space amenities are important to very important; and a good atmosphere in the neighbourhood is important to very important for 57 %.

¹⁴ All dwelling attributes are binary-coded (given: yes/no). Therefore problems with the equal weighting of variables are excluded. According to Backhaus et al. (2006, pp. 486-555), a single linkage cluster analysis is applied in the first step in order to identify and then exclude outliers (n = 3). After this, groups were estimated by using Ward's method and the Euclidean distance. Cases with missing values were listwise deleted (n = 17). It has to be noted that the Ward's algorithm tends to estimate groups of about the same size.

of them possess a workroom, a separate lavatory and a spacious room. With 69 sq. m the median size is considerably higher than it is for the abovementioned groups.¹⁵ The sanitary accessories are on a high level.

Very small and simple dwellings are rented accommodations whereas sizeable dwellings of high quality are rather own-occupied. As has already been argued with regard to residential environment needs, the commuting arrangement has an important effect on the group building: Weekly commuters and therefore more men than women and significantly older commuters live in very small and simple dwellings. By contrast, commuters who travel to the main residence every two weeks or less and therefore more women than men and younger commuters live in sizeable dwellings with a high quality at the job-used secondary residence.¹⁶ After controlling for the commuting arrangement, the observed gender differences with regard to given dwelling attributes at the job-used secondary residence (balcony/terrace, workroom) are not significant anymore. That means that the gender differences in dwelling conditions result from the fact that women tend to travel to the main residence less often on a weekly basis than their male counterparts.

The above classification corresponds with the dwelling needs to a certain degree, hence (1) commuters who have a very small and simple dwelling tend to have overall low dwelling needs, (2) commuters who have a sizeable, high quality dwelling also have overall high dwelling needs, and (3) commuters with a small dwelling and higher amenity values have higher preferences for leisure values of the dwelling but do not set a high value on living space related features (spacious room, further room, separated lavatory). However, there is another important group of commuters (4) who would also wish to live in a dwelling with higher amenity values, i.e. in a dwelling with a balcony/terrace, a separate kitchen, and a comfortable bathroom, but actually live in very small and simple secondary residences that lack higher amenity values.

The housing situation of commuters with a very small and simple job-used secondary residence and corresponding overall low dwelling needs (1) might be described as a "minimalist" way of dwelling, which is pointed out in other empirical studies on multilocational household organisations (Axtner, Birmann and Wiegner 2006). In the sample this housing situation applies especially to two groups of commuters: married male commuters in a family household on the one hand and unmarried men *and* women in single-person households with short-

¹⁵ Eta = 0.532, p < 0.01.

¹⁶ Characteristics of commuters of the identified dwelling groups were investigated by controlling reciprocal effects by means of multinomial logistic regression models. All mentioned characteristics are significant at the 0.05 level.

term employment contracts on the other hand. As married men mostly live with their family in an own-occupied single-family house their multilocational housing situation exhibit a "contrasting" multilocational housing arrangement. Their low dwelling needs at the secondary residence coincide with overall high dwelling needs at the family home. The housing situation of the latter group of unmarried commuters in single-person households does not display such an extreme contrast as their dwelling standards at the main residence are not on such a high level as it is true for married men in a family household. Since fixed-term employment often correlates with a career start and/or part-time employment and therefore with a low income (e.g. research assistants) they rather opt for a provisional way of dwelling at the job-used secondary residence.

A contrasting way of living also applies to commuters in very small and simple dwellings who cannot satisfy their dwelling preferences for higher amenity values at the secondary residence (4). Among these commuters women in a couple household with both partners in highly qualified positions are outstanding. For them the multilocational way of life is only a temporary arrangement and the majority will abandon the job-used secondary residence over the next two years. Certainly, that is why living at the secondary residence has been regarded as a rather provisional arrangement and dwelling standards at the jobused secondary residence have not been adapted to the higher dwelling needs.

Commuters with a sizeable job-used secondary residence of high quality and corresponding overall high dwelling needs (2) tend to have comparably high housing standards and needs at both residences and therefore "duplicate" their dwelling arrangements in a multilocational way of life. Such duplicating practices can be observed for example for a woman in a family household with two dependent children who used to commute to the family home but now her partner is the commuting partner. Presumably, the duplicated housing conditions were adapted for the well-being of the children. In another case a male respondent began commuting when he met his wife in a town further away. Both continue to work at their jobs and take turns to commute. According to the alternating commuting arrangement they "doubled" their housing conditions by keeping his owner-occupied apartment and buying a shared single-family house at her place.

The dwelling conditions of commuters with a small secondary residence who appreciate the high amenity values of the dwelling (3) do not differ significantly between both residences regarding some recreation and convenience features, i.e. bright rooms, balcony/terrace, and garage/parking space.¹⁷ The dual dwelling arrangement is thus characterised by duplicating the recreation and

¹⁷ For the comparison paired t-tests for single dwelling attributes were used.

convenience features on the one hand and a clear spread in the importance of living space related dwelling features in favour of the main residence on the other. Among this group men and women are almost equally distributed whereas men mostly live in a couple household without children and women more often live with their partners in separate households.

5 Concluding remarks and discussion

This chapter explored the housing situation of men and women commuting between two residences for job reasons. Literature to date on multilocational household organisations for job reasons has paid much attention to the "living in dual worlds" which is expressed in the bipolarity of housing situations and activity spaces. The comparative analysis of dwelling conditions and housing needs between both residences support, however, the thesis by Rolshoven (2007) that the bipolarity of a main and a secondary residence in late-modernity is increasingly blurring. Within the wider range of dwelling standards a striking distinction between 'contrasters' and 'double nesters' surfaces. Moreover, 'inbetweeners' appear whose multilocational dwelling arrangement are characterised by intertwining contrasting and duplicating practices. To conclude, the differences in dwelling conditions at both locations are largely linked to tenure status which, in turn, is connected to household type. Rented multifamily housing dominates dwelling at the job-used secondary residence, but is of minor importance at the main residence. The result that the majority of commuters live in owner-occupied housing at the main residence speaks for the assumption that homeownership is an important trigger for residing in multiple locales for job reasons in Germany in late modernity.

It is assumed that commuters – like employed long-distance in-movers in single-person households – more often live in inner city areas at the secondary residence than the representative cross-section of the urban population does (see Sturm and Meyer 2008). As expected, this spatial pattern is due to the importance of shorter work trips. However, the assumption that the relative residential location is more important at the job-used secondary residence than site characteristics could only be partly confirmed as – compared to features of the residential environment – accessibilities to long distance traffic are of less importance for the dispersion of the secondary residences on different residential areas of the city.

It might be suggested that a substantial part of commuters search for a small rented apartment of about 40 sq. m and with good amenity and convenience features (balcony/terrace, comfortable bathroom, separate kitchen, gara-ge/parking space) at the job-used secondary residence. In a second group there are commuters who prefer very small, simple and cheap rented apartments of

about 30 sq. m. In addition, a smaller group of commuters search for sizeable rented or owner-occupied apartments mostly of about 70-80 sq. meters and high dwelling quality (comfortable bathroom, bright rooms, spacious room, separate lavatory, garage/parking space). In metropolises job-induced commuting between two residences will thus increase the housing demand for small apartments in the inner city and other inner city areas. Given the shrinkage of affordable housing in expanding housing markets like Munich and Stuttgart due to the decreasing social housing stock and the restructuring of unemployment assistance, which has affected housing assistance in the last couple of years severely (employment benefit II), job-induced commuting between two residences will contribute to tighten the rental market for small and affordable housing.

The results show that both physical setting and housing needs at the jobused secondary residence are largely influenced by the commuting arrangement. Due to the interaction of commuting rhythms and commuter's socio-structural characteristics differences in the dwelling conditions at the job-used secondary residence of women and men become evident. Since women commute less often on a weekly basis and more often take turns commuting with their partner than men do, some convenience and amenity attributes of the dwelling are more often distributed among female commuters than their male counterparts (balcony/terrace, workroom). On the other hand, men more often than women live in very small and simple dwellings at the secondary residence. Although gender differences in objective dwelling conditions are all due to gender specific commuting arrangements, gender instead has an independent effect on the importance of residential environment features, namely open space features and a good atmosphere in the neighbourhood. One could therefore assume that women rather than men (wish to) spend some social time in the residential area and engage in activities at the secondary residence instead of spending all the time at work (cf. Green, Hogarth and Shackleton 1999, Van der Klis and Karsten 2005). In this regard questions about dual lifestyles in multilocational household organisations in a gender perspective arise for future research.

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