

Trouble in Paradise? Reasons to Relocate and Objective Environmental Changes Among Well-
off Older Adults ¹

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Note. A later version of this article was published in the Journal of Environmental Psychology, 22 (3), Oswald, F., Schilling, O., Wahl, H.-W., & Gäng, K., Trouble in paradise? Reasons to relocate and objective environmental changes among well-off older adults, pp. 273-288, © (2002), and is posted with permission from Elsevier. For more information: <http://www.sciencedirect.com/science/journal/02724944>

Abstract

Drawing from an environmental gerontology perspective that highlights the proactivity of older adults, this study regards relocation from home to home predominantly as an active and goal-directed process of person-environment regulation. The main objectives of the study were to explore: (1) what kind of relocation motivations are prevalent, (2) what objective environmental changes are associated with relocation, and (3) what relations exist between motivations and environmental change. With respect to relocation motivations, the study differentiates between content (person, physical environment, social environment, other external or societal) and level of need (basic needs, anticipated basic needs, higher-order needs). Furthermore, four domains of objective change (household amenities, stimulation, availability of resources, social network) are addressed. Data collected by a phone interview procedure was drawn from a sample of 217 older adults (mean age = 70.7; range 60-89; 37.8% male and 62.2% female) who moved from home to home within a 3-year period ($M = 1.9$ years, $SD = 0.9$) before assessment. Results indicate that subjects had multiple reasons for moving, a considerable portion of which addressed higher-order needs. Subjects generally improved all domains of the sociophysical setting as a consequence of the move. The relationship between objective environmental change and subjective motivation could only be partially confirmed. However, links were found between basic needs and barrier reduction, as well as between social motives and proximity of family after the move.

Introduction

Residential mobility and relocation have been key topics of gerontological research for decades. "To move or not to move is really part of the aging in place debate" (Pastalan, 1995, p. 1). Moving was discussed recently in connection with the situation of older migrants in the USA (Pastalan, 1995; Carlson et al., 1998; Golant, 1998; Sweany et al., 1999; Serow, 2001), but also with reference to differences and similarities in the migration and spatial redistribution behaviour of older adults in the USA and Germany (Serow et al., 1996) or other European countries (e.g., Warnes, 1994). Current survey data for Germany show that about 50% of adults over 55 years of age will move at least once before the age of 75 (Heinze et al., 1997). This study attempts to shed some light on the process of relocation from an environmental gerontology perspective. It employs data from an urban sample of older German adults who moved from home to home, i.e., did not move into institutions.

One of the most-often cited theoretical models on relocation is the "Retirement-Migration-Model" (Wiseman, 1980) which could be interpreted as a two-stage model of migration decision (Cuba, 1991). It has been extended to a more sophisticated heuristical framework based on empirical data on key events in the migration process (Haas & Serow, 1993), on reasons for choosing a destination (Cuba, 1991), and other factors affecting the relocation process (Carlson et al., 1998). Empirical evidence from a subjective motivational perspective often differentiates between various kinds of "push" and "pull" factors in to the relocation process. One of the main findings in the literature seems to be that aspects which "pull" the person to the new destination seem to be more important than those which "push" older adults away from where they lived before (Haas & Serow, 1993; Carlson et al., 1998). Although

the push-pull dichotomy is a useful one, it can be improved by also examining the content or type of motive (e.g., personal vs. environmental reasons); the very same reason (e.g., housing amenities) can, in one case, be a push motive, and in another case, a pull motive. Another important differentiation can be derived from the "Complementary-Congruence Model" of person-environment fit (Carp & Carp, 1984). Although this theory has not yet been applied to relocation motives, it is plausible to assume that the hierarchy of intrinsic environmental needs can be transposed onto the relocation process. In a nutshell, the model differentiates between "basic environmental needs" and "higher-order needs." Whereas basic needs are oriented towards maintaining one's own autonomy with respect to the necessary activities of daily living and competencies in everyday-life, higher-order needs reflect the more development-oriented commodities such as privacy, comfort, familiarity, stimulation or favoured personal activities. Because it can be assumed that relocation often occurs in anticipation of age-related changes (such as chronic health impairment), a further differentiation between basic needs and anticipated basic needs should also be considered (e.g., De Jong et al., 1995). As the foregoing arguments indicate, research on relocation motivation would do well to categorise the reasons for moving in as differentiated a manner as possible, e.g., with regards to content and level of intrinsic need (Carp & Carp, 1984).

Another stream of research on relocation in old age follows an objective environmental and outcome-oriented perspective of moving types. Litwak and Longino divided types of relocations into first, second and third moves in later life (Litwak & Longino, 1987). Whereas first moves often take place early in the ageing process, i.e., close to retirement, and are usually prompted by the amenities associated with the desired place of residence (e.g., scenic landscape, warm climate), second moves are predominantly characterised by moving back to the place of

origin, a higher need for support and proximity to kinship (Longino et al., 1991). Third moves often are relocations to institutions, where very old or frail adults often must live due to severe disability (Longino, 1990; Hazelrigg & Hardy, 1995). Although this typology of moves is useful in categorising objective environmental outcome in global terms, it reduces the broad range of conceivable environmental change and individual relocation behaviour to a minimum, and it implicitly merges subjective or motivational aspects with the objective outcomes of relocation (Speare & Meyer, 1988; Meyer & Speare, 1995). Besides categorising first, second or third moves, research must address the question of how elderly individuals change their sociophysical environment through relocation in greater detail. Whereas one focus could be to examine individual adaptation processes during relocation, another is to examine how the sociophysical environment changes through moving, and to what extent elders improve or optimise the physical setting. From an applied point of view, it is often stated that environmental interventions in general, like home modifications towards optimisation can make "the important difference in the lives of older and younger persons with disabilities" (e.g., Pynoos, 1995) and that residential relocation is a major form of environmental adaptation (Golant, 1998). From a developmental psychology perspective, moving "from home to home" can be understood as an ecological transition, and thus as an important part of the developmental process of the individual through the life course (Bronfenbrenner, 1979, 1999). Theoretical assumptions based on environmental gerontology claim environmental adaptation to be interpreted not only as "environmental docility" or a reaction to a stressful event, but as "environmental proactivity." "The individual's active shaping of his or her environment" (Lawton, 1985, 1998; Wister, 1989; Parmelee & Lawton, 1990, p. 470) can be very important, especially when moving from home to home after a perceived misfit between the person and the environment (Kahana, 1982). The private home environment can be understood as a "resource center" (Lawton, 1999), characterised objectively

in terms of household amenities or presence of barriers (Kendig & Pynoos, 1996), opportunities for stimulation, the availability of outdoor resources, or the proximity of significant others (especially family). Nevertheless, moving from one home to another does not guarantee better environmental conditions, however it is defined (Lawton, 1989). Thus, according to the "Environmental Proactivity Model" (Lawton, 1985, p. 506), environmental changes that occur by relocation must be examined in order to identify whether they were truly goal-directed efforts to optimise one's environment or simply occurred through happenstance.

Classic psychological research has long shown that behavioural attitudes, intentions or motives do not always lead directly to subsequent behaviour (Ajzen & Fishbein, 1977, Ajzen, 1985; Ajzen & Madden, 1986; Stroebe et al., 1992) or, as far as relocation is concerned, to environmental change. Concerning, for instance, the topic of ecological attitudes and behaviour, the impact of knowledge, values, or behaviour constraints beyond people's control has lately been examined in great detail (Kaiser et al., 1999). The decision-making process which leads to relocation in old age can take many years and is triggered by several moderating aspects (Ryff & Essex, 1992; Johnson-Carroll et al., 1995; Smider et al., 1996). Previous research on the relocation process has uncovered a great deal about the differential importance of factors like age, health and well-being (e.g., Ryff & Essex, 1992; Choi, 1996; Nelson, 1997), proximity to kin, socioeconomic characteristics and demographic considerations (e.g., Hazelrigg & Hardy, 1995; Sweany et al., 1999), environmental bonding, neighbourhood ties, and the chance to form attachments with new places (e.g., Carlson et al., 1998; Rowles & Ravidal, in press), or more general psychological resources, mechanisms and evaluations, like environmental mastery, purpose in life, or positive relations with others (Ryff & Essex, 1992; Smider et al., 1996). A recent model explains personal and outcomes of environmental change by recourse to the

temporal context of the individual, e.g. in terms of past levels of experienced person-environment fit and other individually defined subjective reference points of current outcomes (Golant, 1998). Although the identification of moderating aspects on the relocation process is integral to such research, a more general and interesting question concerns if and how subjective motivations and subsequent environmental changes are linked.

Essentially, the study follows three aims. Our primary goal is to deepen our understanding of subjective move motivation among older adults through semistructured data collection and a theory-guided coding procedure. We expect to find relocation motives differ greatly in terms of content and level of need. Furthermore we expect typical constellations of relocation motives, each with different relations to basic personal variables and environmental features. The second aim of the study was to examine what has objectively changed in different domains of the sociophysical environment (e.g., household amenities, access to outdoor resources). We expect optimisation across the whole scope of domains and throughout all age groups. Finally, the third goal of the study was to explore the relation between move motivations and objective changes achieved after the move. Balancing proactive behaviors as well as intention-behavior gaps, we expect only a moderate relationship between relocation motives and objective relation outcomes.

Methods

Sample

Participants of this study were all older adults who had moved recently to or within the German city of Heidelberg (over 100,000 inhabitants). In order to exclude individuals who moved only transitionally, that is, who did not intend to stay in the city permanently, the

minimum interval between relocation and interview was one year. To enhance the subject's ability to recall and express move motives -- which requires one to mentally shift back to the time before relocation -- a maximum of three years occurred between relocation and interview (the mean time-period between moving and the interview was 1.9 years; SD = 0.6). From a total of N = 861 adults officially listed, we randomly dropped n = 108 persons in married couple households; the target of the survey was the individual, and it thus included only one person per household. Another n = 220 older adults could not be reached after extensive efforts (up to 10 phone calls and several letters), and n = 116 persons had died. Additionally, an interview was not possible due to cognitive impairment or language problems with n = 65 persons. Another n = 110 refused or dropped out for various reasons (e.g., anxious about participation). Finally, n = 25 persons were excluded due to a large amount of missing data. The remaining N = 217 older adults participated in a semistructured telephone survey. As was expected, the participants tended to be younger and better educated; they also tended to reside for a briefer interval in the former house or apartment than the average elderly individual in Germany (Scheewe, 1996; Klein et al., 1997; Motel, Künemund & Bode, 2000). Due to the positive selection bias in our sample and data collection setting, we would restrict the validity of our results to well-off urban elders. However, note that a considerable portion of our participants were dissatisfied with their health. All basic person and environmental aspects are shown in Table 1, whereas data on basic person-environment relations (which become relevant in the context of change) are presented later (Table 5).

Insert Table 1 about here

Data Collection and Coding Procedure

Data was collected through a standardised phone interview which took on the average 40 minutes. Beside simple requests for basic data on the person-environment relation (see Table 1 and 5), two different data collection procedures were conducted in order to examine the reasons for relocating and the objective changes achieved through relocation. The reasons for relocating were first assessed with an open-ended question followed by a probing of all motives the participants mentioned. These relocation motives were coded later. Objective changes in the environment were examined with a list of detailed questions concerning four domains: 1) household amenities, 2) stimulation, 3) availability of resources, and 4) social network; the assessment procedure was predicated upon the different basic functions of the housing environment (e.g., Golant, 1984, 1998; Sixsmith, 1986; Lawton, 1990; Parmelee & Lawton, 1990; Regnier, 1994; Pynoos, 1996). Participants were asked to rate their old and new environments using these dimensions and to indicate whether relocation produced a change in these living conditions (for better or for worse). Due to the design of this study, an exploration and assessment of relocation motivation as well as of objective changes was possible only from a hindsight perspective, as was the case in other studies (e.g., Ryff & Essex, 1992; Carlson et al., 1998). To minimise the bias produced by cognitive dissonance, interviewers were extensively trained to help the participants mentally shift back to the time before they moved. Relocation itself was a precipitous event for all participants, and hence, the time period before the move could be easily remembered by most. To reduce mistakes concerning objective changes through relocation, we only employed indicators which were easy to recall and minimised the complexity of response scaling (Lavrakas, 1993).

Coding of relocation motivation. In categorising reasons to relocate, we differentiate between the content of the motivation and level of need. Recent studies (Johnson-Carroll et al., 1995; Carlson et al., 1998) have identified four domains of motivational content, namely person-oriented aspects (e.g., maintaining independence, functional disabilities), physical environment-oriented aspects (e.g., living in a safer place, in a nicer place), social environment-oriented aspects (e.g., living closer to friends, closer to family), and other external or societal aspects (e.g., expiry of lease, retirement). Based on theoretical assumptions from Carp and Carp (1984), we chose to distinguish between three levels of motivation, namely basic needs (autonomy-oriented), anticipated basic needs (autonomy-oriented), and higher-order needs (development-oriented). For instance, the motive "living closer to children" could be either categorised as a basic need ("... because I will get more support from them with my daily routine"), or as a higher-order need ("... because I want to spent more time with my grandchildren"). If move motives were verbalised as combined arguments of experienced person-environment misfit (e.g., "I found housework to become harder because of the many steps and my bad health"), the interviewer asked the participant either to decide on the most prevalent domain if possible, or listed both aspects as different motives. Each single motive was characterised by two independent raters in a 4 x 3 disjunct category system with satisfying inter-rater reliability (Cohen's kappa = .77 - .85) (for examples of each category see Table 2).

Insert Table 2 about here

Assessment of changes through relocation. The assessment was based on well-established environmental components found in both the previously occupied and the presently occupied setting and which were easily recalled from a hindsight perspective (e.g., Golant, 1998). In our analysis of changes in "household amenities", we examined if the facilities before and after relocation were modern, if the apartment before and after relocation was barrier-free, and if the house or apartment before and after relocation was in good condition. Changes in "stimulation" were assessed in terms of the existence of a garden or balcony, a scenic view or landscape, and good natural lighting. Changes in the availability of outdoor resources measured the proximity to the nearest grocery store, physician and public transportation stop (n.b., public transportation is typically available in most European cities). Three indicators of the social network had been chosen from an environmental gerontology perspective: proximity to family, proximity to friends, and friendliness of the neighbourhood.

Results

Relocation Motivation

On the average, 4.4 single motives per person were coded ($SD = 1.9$; range 1-13). Descriptive data analysis based on our coding procedure clearly indicate the presence of multiple reasons to relocate (see Table 3). Frequencies are based on the occurrence of each motive combinations per person to counter the effects of talkativeness. The most frequently mentioned contents of motivation were related to the physical environment (43.1%), whereas person-oriented aspects (24.1%), social aspects (21.2%) and other external or societal aspects (11.6%) clearly played a minor role (for examples see Table 2). Both higher-order needs (51.3%) as well as basic needs and anticipated basic needs (48.7%) were equally prevalent. Only 8.3% of the

reasons given were explicitly based upon anticipated basic needs. The most frequent constellation between content and level of need were physical environment-oriented aspects in order to accommodate higher-order needs: 23.5% of the coded motivations reflected a need to change the physical environment in order to improve leisure time activities, foster one's own development or to acquire amenities that make everyday life more comfortable or enjoyable.

Insert Table 3 about here

In order to identify typical constellations of motives which were expressed by the elderly respondents in the semistructured interview, a hierarchical cluster analysis (using Ward's minimum-variance method) was performed (Ward, 1963). The analyses was based on the occurrence of each motive combinations per person. To test differences in means and frequencies between clusters statistically, one-way ANOVAs and χ^2 -tests were conducted. Hierarchical cluster analysis revealed three typical constellations of move motivation: (1) predominantly motivated by basic needs, (2) predominantly motivated by higher-order needs, and (3) predominately motivated by needs referring to the physical environment ($R^2 = .20$) (Table 4). The smallest cluster ($n = 56$, "Basic need movers", 25.8%) consists of individuals who were chiefly concerned with maintaining independence, regardless of the specific content mentioned. More than 1/3 of the participants ($n = 80$, "Higher-order need movers", 36.9%) were primarily interested in self-development. Another $n = 81$ "Physical environment motivated movers" (37.3%) moved due to aspects in the physical environment which impinged on both basic and higher-order needs. Comparison of the three clusters showed statistically significant differences

in housing tenure ($\chi^2 [2] = 8.67$; $p < .01$; $\underline{w} = .20$), age ($F [2, 216] = 4.25$; $p < .01$; $\underline{R}^2 = .04$), and functional capacity ($F [2, 216] = 12.48$; $p < .01$; $\underline{R}^2 = .10$). [Effect-sizes of the χ^2 -tests (k x m-Tables) are reported as \underline{w} , as proposed by Cohen (1988, 1992), with $\underline{w} \geq .1$: "small effect", $\underline{w} \geq .3$: "medium effect", $\underline{w} \geq .5$: "large effect".] As statistical analysis showed, basic-need movers more often were tenants, older, and had lower functional capacity. No significant differences were found concerning other variables, such as education ($F [2, 214] = 3.18$; n.s.; $\underline{R}^2 = .03$), marital status ($\chi^2 [6] = 4.18$; n.s.; $\underline{w} = .14$) or gender ($\chi^2 [2] = 0.58$; n.s.; $\underline{w} = .05$) (Oswald, Wahl & Gäng, 1998, 1999). Whereas social motives did not characterise any of these clusters, the standardised score for social environment-oriented move motives is highest among the "higher-order need movers." As far as person-oriented motives are concerned, the score is highest among the "basic need movers."

 Insert Table 4 about here

Changes Through Relocation

Let us first examine some basic data on the person-environment relation after relocation. Housing tenure, household composition, and home size before and after relocation are shown below (Table 5). The frequency of tenants appears relatively stable before (77.4%) and after relocation (74.2%), although certainly, some persons changed from tenant to owner and vice versa. This may also be due to the fact that about 2/3 moved within the city, whereas 1/3 moved to the city from abroad. Although the general proportion of tenants among the older adults (60 and older) in western Germany is higher (ca. 56%) than in other countries (BMFSFJ, 1998;

Scharf, 1998), tenants in this study are still slightly overrepresented in our sample. About 4 out of 5 participants did not change their household composition through relocation, although single person households increased slightly. Among older Germans (65 and older) living in private households, about 52% live alone (BMFSFJ, 1998; StBA, 2000). Overall home size did not decrease very much, and an age-effect could not be observed.

Insert Table 5 about here

The assessment of objective change in the four environmental domains described above is our next point of inquiry. Instead of merely reporting the number of people with modern amenities, or the percentage of those who had family members close by after relocation, we decided to focus on the real amount of improvement or deterioration, as well as those who report no change in a particular aspect of housing after relocation. Thus, the proportion of respondents reporting change due to relocation were analysed using a series of McNemar- χ^2 -tests; we compared the relative number of persons reporting improvement to those reporting no change or deterioration through relocation. In addressing the issue of multiple statistical testing, it seems reasonable to adjust significance levels (for details see Rule, 1976). Since we expected some change due to relocation (but not necessarily in all domains), the significance level for the McNemar- χ^2 -tests was adjusted based on the Bonferroni rationale to .004. [Effect-sizes of the McNemar-tests are reported as g , as proposed by Cohen (1988, 1992), with $g \geq 0.05$: "small effect", $g \geq 0.15$: "medium effect" , $g \geq 0.25$: "large effect".]

Most participants report good housing conditions before and after relocation. Although there were high amounts of stability (range: 50.0 - 77.0%), optimisation was generally more prevalent (range: 8.8 - 38.8%) than deterioration (range: 3.2 - 18.0%). Figure 1 shows results due to stability, improvement, and deterioration in household amenities, stimulation, availability of resources and social network. As the figure shows, participants optimised their environments in all domains, even in terms of stimulation. Significant improvements occurred frequently with respect to "household amenities" (range: 18.4 to 38.8%); only a few persons reported a worsening of their housing facilities through relocation (3.2 to 6.9%). It may be of interest to also note that about 45% of the participants had at least some degree of barrier-free housing before moving, whereas the frequency after moving was 78% (data not shown in Figure 1). Although statistically significant improvement in the amount of "stimulation" was found only with respect to the quality of the view and lighting conditions, medium effects for all three indicators were observed. Note that 54% of the older people already had good lighting before relocation, and after moving, the frequency was about 75%. In all three indicators of resource availability, improvement was higher than deterioration. However, only changes in the proximity of public transportation showed a significant effect, primarily due to the fact that hardly any participants deteriorated in this respect. Whereas 72% reported that they had already had public transportation within immediate reach before relocation, the frequency was 92% after moving. Changes in the proximity to a physician showed a small to medium effect, but the result did not reach statistical significance. Concerning the social network, changes in the proximity of family and friends showed medium to high effects, whereas only the 21.2% improvement in the proximity of family was statistically significant. Only 6% of the participants moved further away from kin. About 60% reported having close family members in the immediate area before relocation, and about 75% reported the same after moving. Remarkably, more participants moved further away from

their friends rather than closer to them. The relationship to neighbourhood improved in the sample as much as it deteriorated.

Insert Figure 1 about here

Relation of Relocation Motivation and Subsequent Changes

In the third step of the analysis, we focus on the cognitive (subjective) as well as on the behavioural (objective) data in an attempt to identify whether – and which – relocation motivations are related to subsequent objective changes and improvements in the sociophysical environment. For this purpose, logistic regression analyses were carried out in a two-fold manner. First, we used the frequency of relocation motives (subdivided into personal, physical environment, social environment, and other external or societal categories) to predict objective improvements in household amenities, stimulation, availability of resources, and social network. Second, we used the frequency of motives categorised according to the three hierarchical levels of motivation (basic needs, anticipated basic needs, higher-order needs) as predictors. The reported results of these logistic regression analyses include standardised logit coefficients and odds ratios for the single predictors, and the adjusted generalised coefficient of determination (\underline{R}^2) proposed by Nagelkerke (1991), which serves as a well-established attempt to imitate the interpretation of \underline{R}^2 in multiple regression (for further details on logistic regression see Rice, 1994; Wright, 1995).

The relationship between motivation categories and objective environmental changes are shown in Table 6. It is evident that the adjusted generalised coefficients of determination (\underline{R}^2) are quite low. Nevertheless, when one differentiates in terms of content or level of need, some relationships can be observed between motivation and environmental change. For example, consider the content of motives (regression series 1): person-oriented aspects did not predict any change in specific environmental domains. Whereas relocation motivations addressing the physical environment were only slightly related to improvement in interior facilities (barrier-free apartment), they were significantly related to improved proximity to all three outdoor resources (physician, grocery store, public transportation). However, proximity to family (a social network indicator) is negatively related to these motives. Unexpectedly, improvement in all aspects of the household amenities and to some extent in environmental stimulation (good natural lighting) was observed among those who moved for other external or societal reasons, not environmental reasons. The most relevant finding from these analyses, however, was that motives for improving the social environment were very strongly related to actual improvement in the social network, i.e., distance to kin.

As far as the hierarchical levels of motivation are concerned (regression series 2), we found that basic needs are strongly related to the optimisation of household amenities (reduction of barriers) as well as to the availability of necessary outdoor resources (proximity to a physician, to a grocery store). Those who anticipated an increase in basic needs moved closer to physicians and their family, whereas those concerned with higher-order needs (to some extent) improved access to public transportation. In terms of statistical coefficients, the relation between basic needs and subsequent changes in barrier reduction, as well as the relation between basic and anticipated basic needs and subsequent proximity to a physician after relocation, are most

relevant. Objective changes in terms of stimulation are only weakly related to relocation motives; neither the specific content, nor the level of need seems to help predict environmental improvement.

Insert Table 6 about here

Finally, the environmental changes reported by three subgroups of participants (each exhibiting a certain cluster or constellation of relocation motivations) are presented. Since these results are essentially a further description of the relationship between relocation motivation and objective environmental change, no statistical analyses were carried out. The amount of objective change in all domains of the sociophysical setting for each cluster is reported (Table 7). The percentage of persons in each cluster which experienced improvement in each domain tends to confirm the results of the regression analyses. Earlier, we found that respondents who mentioned basic needs reported large improvements in household amenities (especially, reduction in barriers); similarly, the largest percentage of individuals who reduced barriers in the environment were found in the cluster of "basic need movers" (52.7%). Reducing barriers was even more prevalent among those reporting poor household amenities before relocation (78.4%). As far as other aspects of the household amenities are concerned, "basic need movers" again reported more improvement relative to the other subgroups. The results of the regression analyses were confirmed again for the group of "physical environment motivated movers," who showed more improvement in the availability of outdoor resources compared to the two other clusters. The cluster of "higher-order need movers" was not exceptional in improving any environmental

domain. In a similar vein, the strong relationship between social environment-oriented motives and changes in the social network (especially proximity to family) is distributed fairly equally among participants of all three clusters.

Insert Table 7 about here

Discussion

The first aim of this study was to add some complexity to research on relocation motivation, which frequently only differentiates between "push" and "pull" motives. We employed a semistructured interview method and a theory-guided coding procedure for this purpose, based on suggestions by Carp and Carp (1984) and others (e.g., De Jong et al., 1995). Individual motivation could be successfully coded according to a hierarchy of needs (Carp & Carp, 1984), as well as according to several contents, including both "push" and "pull" factors (Haas & Serow, 1993; Johnson-Carroll et al., 1995; Carlson et al., 1998). The average respondent reported four reasons for moving, reflecting different content and level of need. This finding underscores the fact that relocation is a multifaceted and complex life-event (Speare & Meyer, 1988; Ryff & Essex, 1992; Johnson-Carroll et al., 1995; Choi, 1996; Smider et al., 1996; Serow, 2001). From a hierarchical need perspective, basic needs and higher-order needs were equally prevalent, which shows that older people relocate to pursue individual interests and enhance personal development as well as to overcome environmental restrictions or "environmental press" (Lawton & Nahemow, 1973; Lawton, 1985, 1989; Rowles & Ravdal, in press). This strengthens

the notion that relocation is the intentional regulation of development in later adulthood, and thus, moving "from home to home" can be understood as an ecological transition that can take place at any point throughout the lifespan (Bronfenbrenner, 1979). However, longitudinal analyses are needed in order to understand how different cohorts (reflecting also different moving biographies and experienced environmental qualities) fulfil their needs and desires through relocation (e.g., Warnes, 1994). On the other hand, relocation was rarely motivated by the anticipation of future housing situation, a result also found by other authors (e.g., De Jong et al., 1995). The relative infrequency of such motivations, which admittedly were assessed in free recall, would either downplay the importance of anticipated needs in the relocation process, or otherwise indicate that one should foster anticipation in environmental decision making; if older adults are encouraged to evaluate what might happen to them in the future and how their environment should be accommodated accordingly, their coping resources will be strengthened. In terms of content, physical-environmental motives account for about 43% of all coded motives, which means that older people relocate to a great extent for environmental reasons, and not merely for personal (e.g., health; Nelson, 1997) or social reasons (e.g., proximity of kinship). However, the value of content differentiation alone should not be overestimated and it first becomes truly useful when used in combination with hierarchical levels of move motives. By combining the concepts of content and level of need, we find that 23.5% of higher-order need motives focused directly on the physical environment, covering both "push" and "pull" aspects described elsewhere (Haas & Serow, 1993; Johnson-Carroll et al., 1995; Carlson et al., 1998). Cluster analysis, supported the notion of need hierarchies and motivational content. Two clusters underlined the need to differentiate between basic and higher-order needs, whereas a third showed the differentiating power of physical environment orientation on both hierarchical levels. The fact that social environment-oriented motives do not characterise a cluster of participants does not mean that

social aspects are not important for relocation decision making in general (e.g., Serow et al., 1996). Although the result is merely descriptive, we would emphasise that social motives are most prevalent among the "higher-order need movers." One might conjecture that social motives often reveal a desire for mutual social exchange rather than for direct social support. On the other hand, personal aspects are most prevalent among the "basic need movers," illustrating again that these persons express more autonomy-related needs to move, like health status. The variety of motives and prototypical clusters of relocation motivation may serve at least as arguments against a mere push-pull dichotomy and towards the assumption that relocation in old age is a multidimensional process. Thus, we would presume to find fairly comparable results in other countries in terms of different sets of relevant move motives not necessarily related to a single content at least among relatively well-off older adults, as long as one would use comparable coding strategies. One might consider, however, that despite the fact that older individuals do in general aspire for autonomy, self-determination, and the fulfilment of needs, the relocation process is triggered by country-specific given environments, offering, for instance, different amenities, attractive infrastructures for older adults or the climate, which may attract inflows of migration on a broader societal level of analyses (e.g., Warnes, 1994; Serow, 2001).

Our second aim was to analyse objective improvement in the sociophysical environment after relocation. The amount of stability in most of the environmental conditions was remarkably high, mostly due to the fact that respondents reported good housing conditions before and after relocation. However, we also observed optimisation of the sociophysical environment in various domains. Not only household amenities or proximity to family (Pynoos, 1995; Kendig & Pynoos, 1996), but in many cases, stimulation (in terms of scenic landscape and lighting) was improved (Parmelee & Lawton, 1990). The results support the assumption that relocation -- even in old age

-- is not necessarily a stressful event and that older movers do not always react passively to such "environmental press." To the contrary, the respondents in this study appear to have proactively optimised their environment and enhanced their "environmental richness" (Lawton, 1989, 1990, 1998, 1999; Parmelee & Lawton, 1990). This was evident in both the subjective motivational and the objective environmental data sets, although strictly speaking, this study did not focus on processes of relocation adaptation in the sense of assessing coping behaviour after moving. Due to the lack of overall age effects, moving appears to be a form of environmental adjustment that may occur at any point in the ageing process, i.e., not only at predetermined stages of development (Litwak & Longino, 1987). Thus, we would argue, that our data as well as empirical support against different phases of housing and location preferences from societal migration data in other countries (e.g., Warnes, 1994) support the necessity not to focus on different moving types, but on characteristics to be shared in all types of moves (e.g. Rowles & Ravidal, in press).

Third, it was our aim to examine the relation between subjective motivation and objective changes in order to show if and how relocation motivations and environmental changes are intertwined. Assuming that the changes reported by the respondents are valid, the low statistical relations we found suggest that subjective motives and objective changes are to some extent independent parts of the relocation process. One plausible explanation for the low statistical relations could be that the objective environment offers resistance during the transition process, i.e., objective circumstances may be less controllable than expected. That is, although the reasons mentioned for the move do reflect the real situation of the person prior to moving, the environmental circumstances during and after moving are constrained by the individual's ability to implement or realise these changes (e.g., Kaiser et al., 1999 in another life domain). Although the results did not perfectly support our theoretical assumptions, some relations are nevertheless

quite worth considering. First, a very strong relationship exists between socially-oriented motives and subsequent changes in the social network. In terms of a need hierarchy, anticipated basic needs prompted respondents to move closer to kin. Second, there was evidence that physical environment-oriented motives lead to improved access to the three outdoor resources included in this study. In terms of a need hierarchy, basic needs were the strongest predictors of improved housing facilities (barrier-freeness) and, together with anticipated basic needs, also predicted proximity to physicians. To a lesser extent, higher-order need motives were associated with closer public transportation. The three subgroups that we have defined based upon their particular constellation of relocation motivations (basic need movers, higher-order need movers, and physical environment motivated movers) showed roughly equivalent amounts of environmental improvement in all domains. However, and in order to break down the sample, the differential validity of these groups could be demonstrated by noting the proportion improving certain features of the environment (e.g., the tendency for basic-need movers--who were more often tenants, older and had a lower functional capacity--to improve household amenities).

So, to return to the question posed in the title of this article, is there trouble in paradise? It is hard to give an unequivocal answer. There are low relations between move motives and changes in general, which could be interpreted as "trouble in paradise" after moving from home to home in old age. But despite the relatively weak relationship between relocation motivations and environmental changes, it seems nevertheless safe to say that the desire to be closer to kin is a good predictor for actually moving closer to family. Similarly, the desire to maintain autonomy is a good predictor for improving a home's facilities (reducing barriers) through relocation. Additionally, we would argue that increasing the proximity to outdoor resources (physician, grocery store, and public transportation) is, at least to some extent, the behavioural consequence

of certain motivations, characterised in terms of need and content. However, it is not clear why some motives, such as other external or societal ones, lead to improvement in housing facilities. Relocation in old age quite often, and not only in Germany, means moving from an older to a newer house, which automatically entails a better equipped and more modern apartment. While this study has shown a connection between relocation motivations and environmental change -- and never intended to explain relocation behaviour in detail -- we still have much to learn more about interference in the relocation process (Ryff & Essex, 1992; Smider et al., 1996; Carlson et al., 1998). From a methodological point of view, low relations between motives and subsequent changes might also be interpreted as an indication that respondents were able to think back to the time before the move and that the bias towards reducing cognitive dissonance was rather low. Future studies might also examine whether the temporal context of older person's current environmental outcomes or the former environmental optimality makes a difference in the experience of "trouble in paradise" after moving, at least for some individuals (Golant, 1998). And it might be also interesting to employ other environmental outcome categories related to more subjective attributes, like setting privacy, homelikeliness, security, or involvement in setting activities (Golant, 1998).

Concerning the limitations of this study, we have to consider however first, that our findings are only based on retrospective data, and thus, could eventually be biased in terms of interpretation from hindsight. Another limitation is the positive bias which resulted from our sampling procedure; we can only generalise our findings to well-off urban elders. Finally, this study has done little to explain adaptation processes due to relocation outcomes; however, it certainly has shed some light on the different subjective and objective aspects of relocation, as

well as on the relation between relocation motivations and environmental changes, from an environmental gerontology perspective.

Acknowledgements

¹ The authors greatly appreciate the helpful comments of David Burmedi and Yvonne Slangen-de Kort on an earlier draft of this article.

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Table 1

Sample Description

Sample size		<u>N</u> = 217		
Variable	Mean	<u>SD</u>	Range	
Age	70.7	6.4	60-89	
Health				
Functional capacity (scale 0-12) ^a	9.2	3.0	0-12	
Subjective health (scale 1-5) ^b	2.6	1.0	1-5	
Education (years)	9.9	2.2	6-13	
Duration of living in former house (years)	15.6	13.5	0.2-65	
		%	<u>n</u>	
Gender				
Women	62.2		135	
Men	37.8		82	
Marital status				
Married	46.1		100	
Widowed	41.9		91	
Single, divorced	12.0		26	

Note. ^{a)} Hamburger Rüstigkeitsskala (Kempe & Closs, 1979), higher scores indicate higher capacity.

^{b)} From 1 = "very good" to 5 = "very poor".

Table 2

Examples of Relocation Motives

Content of motivation	Level of motivation		
	Basic needs (autonomy-oriented)	Anticipated basic needs (autonomy-oriented)	Higher-order needs (development-oriented)
Person-oriented aspects	"Ever since I had this surgical operation, every single step bothers me too much."	"It looks as if my feet will get worse. That is what I have to be prepared for."	"We wanted to buy an apartment of our own. So we can do just as we please."
Physical environment-oriented aspects	"I found the apartment was too large to do my daily work."	"In a few years I will be happy to have a bus stop nearby."	"Because we're spending more and more time at home, we wanted to have a balcony and a view."
Social environment-oriented aspects	"My daughter can do the shopping for me now, because she lives just around the corner."	"I do not like the idea, but it is a reassurance to know that in an emergency, my son and his wife do not live far away."	"I wanted to spend more time with my grandchildren. So I decided to move closer to my daughter."
Other external or societal aspects	"My landlord told me that there was only one year left on the lease."	"The owner of the house has an 18-year-old son, and he will need this apartment soon, that much is certain."	"When my husband retired, there was no reason to stay [here] any longer."

Table 3

Results of Descriptive Coding Procedure of Relocation Motives: Frequency Distribution of Codings, Cross-classified by Level of Motivation and Content of Motivation

Content of motivation	Level of motivation							
	Basic needs (autonomy-oriented)		Anticipated basic needs (autonomy-oriented)		Higher-order needs (development-oriented)		Total	
	%	<u>n</u>	%	<u>n</u>	%	<u>n</u>	%	<u>n</u>
Person-oriented aspects	12.2	78	2.2	14	9.7	62	24.1	154
		(97)		(15)		(65)		(177)
Physical environment-oriented aspects	16.0	102	3.6	23	23.5	150	43.1	275
		(182)		(33)		(302)		(517)
Social environment-oriented aspects	4.5	29	2.4	15	14.3	91	21.2	135
		(33)		(20)		(129)		(182)
Other external or societal aspects	7.7	49	0.1	1	3.8	24	11.6	74
		(60)		(1)		(24)		(85)
Total	40.4	258	8.3	53	51.3	327	100	638
		(372)		(69)		(520)		(961) ^a

Note. ^{a)} Mean number of motives coded per person amounted to 4.4. Absolute number of mentioned motives per category in brackets.

Table 4

Results on Typical Motivation Constellations

Cluster	Content of motivation	Level of motivation		
		Basic needs	Anticipated basic needs	Higher-order needs
Cluster 1 ($n = 56$): "Basic need movers"	Person-oriented aspects	0.73 ^a	0.05	0.09
	Physical environment-oriented aspects	0.62	0.03	0.23
	Social environment-oriented aspects	0.29	0.01	0.20
	Other external or societal aspects	0.60	0.00	0.02
Cluster 2 ($n = 80$): "Higher-order need movers"	Person-oriented aspects	0.14	0.05	0.49
	Physical environment-oriented aspects	0.10	0.12	0.69
	Social environment-oriented aspects	0.08	0.08	0.80
	Other external or societal aspects	0.13	0.00	0.15
Cluster 3 ($n = 81$): "Physical environment motivated movers"	Person-oriented aspects	0.27	0.08	0.20
	Physical environment-oriented aspects	0.73	0.13	0.98
	Social environment-oriented aspects	0.04	0.08	0.20
	Other external or societal aspects	0.14	0.00	0.12

Note. Person-oriented hierarchical cluster analysis (Ward); $R^2 = .20$;

^{a)} Standardised scores of relocation motivation coding, varying from 0 to 1.

Table 5

Basic Data on The Person-Environment Relation Before and After Relocation

Variable	Before relocation		After relocation			
	%	<u>n</u>	%	<u>n</u>		
<hr/>						
Housing tenure						
Tenant	77.4	168	74.2	161		
Owner	22.6	49	25.8	56		
Household composition						
Living alone	38.7	84	47.9	104		
Living with others	61.3	133	52.1	113		
<hr/>						
	Mean	<u>SD</u>	range	Mean	<u>SD</u>	range
<hr/>						
Home size						
Rooms / person	2.1	1.5	0.3-10	1.9	0.9	0.5-6
m ² / person	57.4	44.6	3-300	55.7	27.6	15-170
<hr/>						

Garden / balcony	0.08	1.19	0.04	1.04	0.05	1.10	0.16	1.60	<u>0.02</u>	0.23*	1.31	-0.28	0.50	0.05	1.06	<u>0.07</u>
Scenic view / landscape	-0.14	0.73	-0.02	0.98	-0.12	0.80	0.14	1.51	<u>0.06</u>	0.02	1.03	-0.03	0.94	-0.15	0.85	<u>0.02</u>
Good natural lighting	-0.07	0.85	-0.02	0.98	-0.13	0.77	0.17*	1.68	<u>0.07</u>	-0.07	0.92	-0.07	0.84	-0.03	0.97	<u>0.01</u>
<u>Availability of resources</u>																
Proximity of grocery store	0.05	1.11	0.25**	1.29	0.01	1.01	0.03	1.09	<u>0.06</u>	0.21*	1.29	0.13	1.34	0.15	1.17	<u>0.05</u>
Proximity of physician	0.12	1.31	0.30***	1.35	0.15	1.33	0.05	1.15	<u>0.09</u>	0.34***	1.50	0.26**	1.89	0.14	1.16	<u>0.12</u>
Proximity of public transport	-0.04	0.90	0.23**	1.26	0.20*	1.47	0.08	1.27	<u>0.07</u>	0.06	1.07	0.10	1.27	0.27**	1.34	<u>0.07</u>
<u>Social network</u>																
Proximity of family	-0.05	0.88	-0.24*	0.98	0.39***	2.12	-0.23	0.50	<u>0.22</u>	-0.12	0.87	0.20**	1.65	-0.18	0.82	<u>0.07</u>
Proximity of friends	-0.13	0.75	0.19	1.21	0.19	1.44	-0.08	0.79	<u>0.06</u>	0.05	1.07	0.06	1.16	0.22	1.26	<u>0.03</u>
Friendly neighbourhood	-0.19	0.66	0.08	1.08	0.04	1.08	-0.03	0.90	<u>0.03</u>	-0.14	0.85	-0.07	0.84	0.17	1.19	<u>0.04</u>

Note. a) Stand. Estimate = Standardised Logit Coefficient, *** p < .001, ** p < .01, * p < .05

Table 7

Relocation Motivation and Subsequent Changes: Results on The Relation of Objective Environmental Changes and Typical Motivation Constellations

<u>Objective changes</u>	<u>Typical motivation constellations</u>		
	"Basic need movers" (<u>n</u> = 56)	"Higher-order need movers" (<u>n</u> = 80)	"Physical environment motivated movers" (<u>n</u> = 81)
<u>Household amenities</u>			
Modern facilities	32.1% (18)	20.0% (16)	25.9% (21)
Barrier-free apartment	52.7% (29)	29.1% (23)	38.3% (31)
House in good shape	25.5% (14)	16.5% (13)	16.1% (13)
<u>Stimulation</u>			
Garden / balcony	19.6% (11)	15.0% (12)	17.3% (14)
Scenic view / landscape	30.4% (17)	26.3% (21)	28.4% (23)
Good natural lighting	39.6% (21)	37.7% (29)	33.8% (27)
<u>Availability of resources</u>			
Proximity of grocery store	16.1% (9)	18.8% (15)	29.6% (24)
Proximity of physician	19.6% (11)	16.3% (13)	24.7% (20)
Proximity of public transport	14.3% (8)	23.8% (19)	28.4% (23)
<u>Social network</u>			
Proximity of family	19.6% (11)	22.5% (18)	21.0% (17)
Proximity of friends	3.6% (2)	7.5% (6)	13.6% (11)
Friendly neighbourhood	7.3% (4)	15.2% (12)	21.0% (17)

Note. Numbers indicate the percentage of persons in each cluster which experienced improvement in this domain related to the total number of cases in this cluster (absolute number of persons in parentheses).

Figure Captions

Caption to Figure 1

Observed Objective Changes and Continuity due to Relocation

Footnotes

Footnote to Figure 1:

Note. Mean proportions of changes are reported based on $N = 217$ subjects. Statistics for the difference in the proportions of changes due to relocation based on the McNemar-Test ($\alpha_{Bon} = .05/12 = .004$), power-index g used as effect size indicator (with $g \geq .05$: "small effect", $g \geq .15$: "medium effect" , $g \geq .25$: "large effect") (Cohen, 1988, 1992).

Figure 1

