

DIE ERDE

Journal of the Geographical Society of Berlin

You Cannot Shift an Old Tree Without it Dying—Home Swapping as a Suitable Strategy for Older Downsizers?

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Manuscript submitted: 22 November 2023 / Accepted for publication: 24 September 2024 / Published online: 13 December 2024

Abstract

The current global trend of increasing per capita living space in combination with more and smaller households will intensify resource and energy consumptions in the housing sector. Scientific scholars, thus, unanimously plead for a reduction of per capita living consumption. Since the demographic trend of aging will further contribute to a high increase of single households and cause further under-occupation of living space, the potential to spatially downsize is particularly high among those older age cohorts. However, the often-limited housing choices for seniors do not allow for a large-scale downsizing development. Beyond that, the discourse on housing downsizing lacks a discussion of distinct strategies of how to effectively offer options for older people to do so. Hence, the paper at hand presents the distinct instrument of home swapping which has lately been introduced by several German municipalities to more adequately allocate the existing housing space. Since a profound scientific debate of this approach is still pending, this contribution discusses home swapping as a suitable strategy to incentivize older households to downsize on their living space. In order to do so, the home swapping schemes of four German cities have been analyzed to add scientific evidence on the potentials and challenges of the instrument to downsize housing consumption.

Keywords downsizing, home swapping, elderly, housing consumption, housing policy

1. Introduction

Although the Organization for Economic Co-operation and Develoment (OECD) sees the size of living space as an indicator for quality of live (OECD, 2020), the ongoing development featuring ever increasing per capita living space as well as the increasing number of smaller households requires more and more energy and resource consumption. Thus, it comes not without a surprise that the building sector is considered a major source of the negative environmental impact of humankind (Sandberg, 2018) and of upmost importance for the fulfilment of climate targets (Intergovernmental Panel on Climate Change [IPCC], 2018; Krausmann et al., 2018; United Nations Environment Program [UNEP], 2022). However, the current debate and development regarding the fulfilment of climate targets in the housing sector are narrowed down to efficiency measures, thereby largely neglecting sufficiency approaches (Lorek & Spangenberg, 2019), for exam-

Kitzmann, R. (2024). You cannot shift an old tree without it dying—home swapping as a suitable strategy for older downsizers? *DIE ERDE*, *155*(1), 14–28.



https://doi.org/10.12854/erde-2024-677

ple, downsizing the per capita housing consumption. Thus, the latest IPCC report urged for more sufficiency efforts in the building sector, since "the projected increase in electricity demand can be avoided through demand-side mitigation options ... and socio-cultural factors that influence electricity usage in industry, land transport, and buildings" (IPCC, 2023, p. 29). In this regard, researchers have identified downsizing potentials in the field of housing particularly among the elderly, since they are overconsuming housing space after life events like children moving out or the death of a spouse (Clark & Deurloo, 2006). Although there is a certain share among older people willing to downsize, this is opposed by an insufficient supply of suitable housing options. Policies for senior housing seem to concentrate on segregated retirement homes, neglecting a necessary variety of housing options to downsize, thereby not acknowledging the heterogeneity of senior citizens' needs and wants. Thus, housing policy should adapt measures to overcome those limited housing choices (Burgess & Quinio, 2021; Park & Ziegler, 2016).

The paper at hand analyzes the instrument of home swapping which was purposefully introduced to more adequately distribute the given housing space by incentivizing older households to free up living space for growing households in need. By offering a variety of housing options, the home swap approach seems promising in offering housing choices for the elderly without forcing them into retirement homes. However, a limited but existing public discourse on the topic of home swapping indicates a malfunctioning of the instrument (Falletta, 2021; Mieder, 2020). Thus, the goal of this paper, the assessment of home swapping as a suitable instrument for older residents willing to downsize, will be achieved by answering the rather practical research question: "What challenges hinder a successful widely-effective realization of home swaps?" This way, a possible discrepancy between the theoretical potential and practical implementation of the instrument will be examined.

The remainder of the paper is structured as follows: Chapter two outlines the need for a general reduction of per capita living space, the contribution of the elderly in doing so and the home swapping approach as an instrument within the context of downsizing. After introducing the home swapping schemes of the analyzed German municipalities, chapter three outlines the research design, before the results are presented in chapter four. Chapter five discusses the results prior to the conclusion of the paper.

2. Downsizing and the Relevance of Home Swapping

The individual housing consumption has been increasing for decades: The German development, where the average per capita living space was increasing from 34.6 m² to 47.4 m² from 1987-2020 (an increase by 37%; Destatis, 2021a), is representative for a global trend of increasing per capita living space. This development can be observed in many countries worldwide (Viggers et al., 2017) and is caused by a general increase of average home sizes (e.g., Germany: 81.4 m² to 92.0 m² from 1987–2020 [+ 13%]—Destatis, 2021a; see also Delbiaggio et al., 2018; Dowling & Power, 2012), but also by a decrease of household sizes, which is currently even more rapidly advancing in developing countries (Bradbury et al., 2014). While the latter process cannot be reversed since it is a result of social progress, Keilman (2003, p. 490) pleads that "policy interventions will have to focus on the average household resource consumption, in order to combat the adverse effects of smaller households," namely downsizing. This claim is supported by the importance of housing size on energy and resource consumption: Today, the domestic energy consumption is basically determined by space heating, 70% in Germany and roughly 2/3 in the European Union (Destatis, 2021b; Eurostat, 2023), resulting in house sizes being the largest determinant of domestic energy consumption (Ellsworth-Krebs, 2020), even more important than the individual energy consumption behavior of occupants (Santin et al., 2009). In addition, it is shown that small houses with a poor energy efficiency still consume considerably less energy compared to large high energy-efficient houses (Wilson & Boehland, 2005). If developing countries reached a similar level of per capita consumption of living space as today's industrialized countries, this "would require enormous amounts of raw materials and represent a huge driver of additional GHG emissions far exceeding any climate-change mitigation goals" (Krausmann et al., 2020, p. 8).

Following these findings, it is argued that "sufficiency concepts may become the best—perhaps only—chance to ensure that climate targets can still be reached" (Lorek & Spangenberg, 2019, p. 288). With regard to energy and resource consumption, the relevance of downsizing cannot be emphasized enough since a recent study suggested that a decrease of per capita living space from 40.8 to 39.0 m² (Milan) and from 50.5 to 44.2 m² (Oslo) "will nullify the need

for new housing construction" (Mete & Xue, 2021, p. 21). Furthermore, it was shown that those reductions of per capita living space in Milan and Oslo could stabilize or even decrease total energy consumption in those cities until 2030 (Mete & Xue, 2021). Similar findings are provided by Fischer et al. (2016) who calculate tremendous average potential savings (energy [1%], gas [8%], fuel [5%], coal [5%] and district heating [10%]) until 2030 when introducing a maximum per capita living space of 40 m² by 2030 (compared to 2014) in Germany. The total saving potential equals 30 kWh for electricity and 900 kWh for heating per household in 2030. The highest potential savings were calculated for single households and households without children living in the same unit. Similarly, Kenkmann et al. (2019) calculated potential energy savings in Germany, assuming a decrease of per capita living space by 0.5% per year until 2030 and showed that this would result in overall energy savings of 20.4 TWh/a (13%) with reduced emissions of 4.8m t/a CO₂. An assumed decrease of per capita living space by 3% per year until 2030 would even save 58.9 TWh/a (38%) energy and 13.8m t/a of CO_2 (38%).

One age group that has received particular attention with regard to downsizing housing consumption are older households. After their children have moved out, they often remain in their home which results in a quantitative overconsumption of living space. The potential of downsizing among the elderly is not only relevant for avoiding new constructions by better distributing given living space, but for energy savings as well, as older people consume more energy, particularly for space heating (Liao & Chang, 2022).

The theoretical potential for downsizing among the elderly seems huge since it was shown that 65-80% of households over 60 years are overconsuming living space in the Netherlands-with the "group of owners, overconsumption is almost inherent" (Clark & Deurloo, 2006, p. 268). In Germany, 27% of single households over 65 had a living space of over 100 m² each in 2022, with an average per capita living space of single residents in this age cohort of 83 m². This is the highest value among all single residents age cohorts—57% higher than households below 25, 30% higher than 25-44-year-old single households and still 12% more than 45-64-year-old single households (Destatis, 2023). This clearly indicates that overconsumption of living space and downsizing potential are not first and foremost a matter of household size,

but of age. Overconsumption, however, is not only an objective measure but also a subjective feeling: In Germany, 20% of people between 60 and 85 perceive their housing situation as too spacious with 1/3of owners and 1/10 of renters being overburdened with their current home size (Bundesministerium für Verkehr, Bau und Stadtentwicklung, 2011). Brischke et al. (2016) back these findings by showing that 10% of their respondents (with an average of 78 m² per capita living space, mostly homeowners, 54% over 60, and mostly [86%] living alone or with only one more person) regard their current housing unit as too large. Among respondents with a per capita living space of 90–110 m², even 40% perceived their housing units as too spacious. Likewise, about 10% of households in Switzerland see their current housing unit as too spacious, particularly older as well as one-person households (Delbiaggio et al., 2018). This subjective overconsumption imposes the possibility for downsizing which is backed by Fiori et al. (2019) who found a greater likelihood for downsizing with older single movers. Burgess and Quinio (2021) showed that the likelihood for downsizing increases with higher age, particularly when the heads of the household are retired. Consequently, they identify downsizing as the second most important reason for movers over 55. In their study on the moving behavior of 60+ residents, Haacke et al. (2019) found that around 25% of respondents that actually moved after they turned 60, chose a smaller apartment-downsizing was their most important reason for relocation. Moreover, Gibler and Tyvimaa (2015) identified a higher likelihood of downsizing among single households with limited income that have lived in their house for a long time.

Since globally speaking, the aging process will intensify (UN, 2019), it is expected that the amount of objective and subjective overconsumption and, thus, the demand for downsizing will further intensify. Hence, suitable strategies to enable senior households to downsize are urgently needed. Indirect measures could be applied, like changing current tax systems which often incentivize senior citizens to remain in their large homes (Mclaughlan, 2020). Moreover, more direct approaches that would encourage downsizing should encompass the creation of suitable downsizing options. Such strategies are, however, hardly existent and thus, the outlined theoretical potential of downsizing among the elderly is counteracted by the limited availability of suitable accommodations for the elderly. Public policies focus primarily on residential

care institutions to free up capacities in the health care system instead of providing suitable housing options (Park & Ziegler, 2016). This results in a large share of senior citizens willing to downsize but feeling forced into retirement accommodations due to "the absence of appropriate housing options" (Mclaughlan, 2020, p. 18). Within this context, Burgess and Quinio (2021, p. 1178) argue that downsizing "is not presented as an alternative to specialist retirement housing for vulnerable older people, but rather as a solution to housing shortages." This narration classifies older households as a burden for the housing market and denies their individual housing aspirations (Burgess & Quinio, 2021). Since retirement homes lead to a segregation of the elderly, Park and Ziegler (2016, p. 12) argue "for a much greater policy focus on housing that is attractive and affordable for downsizers but, crucially, more flexible and better integrated into existing neighborhoods." This claim is in line with findings that inadequate government policies and the provision of inappropriate housing by the housing industry are the most important structural barriers to downsizing (Judd, 2019). Since Engerstam et al. (2023) showed that building policies affect the apartment sizes of residential construction, it is obvious that the government can and should exploit its influence to cater for the needs of prospective downsizers.

Thus, this paper analyzes the home swap approach as an instrument to provide suitable options for downsizers. Home swapping aims at the direct exchange of housing units between two households without house-hunting to better allocate the existing living space, while maintaining the individual housing choice of households (Kitzmann, 2024). The home swapping approach is generally not limited to the type of housing owner. Currently, home swapping is, however, mostly discussed in the sphere of tourism (Andriotis & Agiomirgianakis, 2014; Casado-Diaz et al., 2020; De Groote & Nicasi, 1994; Forno & Garibaldi, 2015). At the same time, the instrument itself is not new and has been frequently used throughout history, mostly with regard to housing provision in the absence of market mechanisms (Roquette, 1927; Schulz, 1991). In 1981, Austria even enshrined home swapping in its rent law (Bundesministerium für Digitalisierung und Wirtschaftsstandort, 2022). Nevertheless, the approach has only received little scientific attention so far and was only discussed in theoretical terms (Eriksson & Sjösstrand, 2007; Kitzmann, 2022; Kitzmann, 2023), lacking an assessment of its practicability. Recently, the home swap approach has been introduced by several municipalities. Within this context, Singapore introduced the "Silver Housing Bonus" scheme in 2013 to incentivize senior homeowners to downsize (Housing & Development Board , 2023). Moreover, several German municipalities, amongst them the three biggest cities Berlin, Hamburg, and Munich, started home swap schemes, particularly addressing older people (Behörde für Stadtentwicklung und Wohnen, Freie und Hansestadt Hamburg [BSW], 2023; Die Landeseigenen, 2018; Landeshauptstadt München – Sozialreferat, 2021).

By analyzing the practical challenges of home swapping approaches of four German municipalities, the following empirical analysis seeks to assess if home swapping represents a valuable option for the elderly willing to downsize. Such an analysis of a specific instrument is of the utmost importance: While the need for strategies to downsize per capita living space is widely acknowledged (Bierwirth, 2015; Cohen, 2021; Hagbert, 2016; Sandberg, 2018), Nelson (2019, p. 11) still criticizes "little attention to the per capita space in new 'sustainable' homes," calling for a thorough analysis of instruments that are capable of incentivize personal downsizing.

3. Empirical Design

The empirical analysis was carried out in the four German municipalities Berlin, Hamburg, Munich and Potsdam which all introduced municipal home swapping instruments designed for renters (see Table 1). The municipalities were chosen based on a snowball sampling approach since no overview of municipal home swapping approaches exists. Although the cities vary in size, their common characteristic is a very tense housing market, that was one rationale behind issuing the home swap schemes. Although there are several privately-led web portals that offer home swapping options in private housing stock, tenants are largely dependent on the good-will of the landlord, who has to agree to the swap. Thus, such an offer does not differ much from a formal house-hunting procedure. Municipalities' home swapping schemes, however, allow tenants to swap freely without a general permission of the landlord (tenants only have to fulfil general requirements by the landlords—e.g., no rental debt).

| | Berlin | Munich | Potsdam | Hamburg |
|---------------------------|--|--|---|--|
| Inhabitants | 3.75 million | 1.51 million | 0.19 million | 1.90 million |
| Introduction | 2018 | 2019 | 2020 | 2019 |
| Approach | digital exchange platform | analogue contact point | analogue contact point | analogue contact point |
| Mode | one-on-one swap | one-on-one swap | one-on-one swap | smaller-sized empty apartments are offered |
| Housing stock included | municipal housing stock (ca. 330,000 units) | non-rent-controlled municipal housing stock (37,000 units) | dependent on interested tenants (not limited to certain owners) | cooperation with 14 housing companies and associations |
| Successful swap | s 463 (01/2023) | 33 (12/2022) | 8 (04/2023) | 4 (04/2023) |

Note. Table own elaboration

Hamburg, Munich and Potsdam currently offer analogue approaches, where households, interested in swapping their apartment have to register with a municipality's employee, stating wants and needs of the new flat (BSW, 2023; Landeshauptstadt Potsdam, 2020; Landeshauptstadt München - Sozialreferat, 2021) This information is matched with other households' data to find home swap opportunities which are then facilitated by the municipal employee. While Potsdam and Munich offer a one-on-one swapping scheme, thus addressing both downsizers and upsizers, Hamburg is only targeting households willing to downsize, submitting data of interested households to associated housing owners, asking for available empty apartments. Although Hamburg does not offer home swapping in a narrow sense but rather a home change, it was nevertheless included in the analysis, since the approach tries to incentivize downsizing by offering a mode for tenants outside the usual house-hunting. Berlin, however, has introduced a completely digital home exchange platform where households are able to browse through available home swap offers and directly contact households willing to swap. Tenants of all six municipal housing companies (with a total of about 330,000 housing units) are able to register and swap apartments. Only when both households agree on swapping apartments, the respective housing companies engage in the necessary paper work. In Munich, the included stock consists of the non-rent-controlled housing units of the two city-owned housing companies (ca. 37,000). Hamburg and Potsdam have no predefined housing stock included in their swap schemes. While Hamburg has a cooperation with currently 14 housing companies (state-owned and private) and associations, Potsdam is negotiating swaps with the

housing owners on a case-by-case basis with regard to residents' requests. Still, the actual number of realized swaps is rather sobering in all of the analyzed municipalities (see Table 1). The 463 successful cases in Berlin seem marginal, taking into account that in more than three years, over 15,000 apartments have been offered. In total, more than 217,000 times households expressed their interest in swapping with someone else, resulting in only 1,000 mutual expressions of interest, of which not even 50% were successfully realized. In Munich, only 33 successful swaps were realized, despite 740 registered inquiries for home swaps. These low numbers seem even more astonishing, given the fact that Berlin and Munich offer their tenants financial benefits: Tenants in Berlin and Munich take over the rent level (net cold) of the previous tenant, thus, avoiding a markup for new leases.

Since home swapping is a rather uninvestigated instrument, an explorative research approach was chosen, built on qualitative methods which feature a theory-discovering logic, and, thus, are particularly suitable for the explanation of unknown issues and their causal mechanisms (Gläser & Laudel, 2010; Lamnek, 2010). The research was based on the deductive research question: What challenges hinder a successful widely-effective realization of home swaps? This deductive approach was based on the limited number of realized swaps that indicate a malfunctioning of the instrument as well as on a restrained public discourse that suggested that the approaches fall short of expectations (Falletta, 2021; Lauterbach, 2019; Leiß, 2020; Mieder, 2020). Answering the research question will allow for the assessment of home swapping as a suitable instrument for older residents willing to downsize. The data collection was carried out by either semistructured problem-based interviews (Mayring, 2023) as well as a document analysis (Bowen, 2009; Morgan, 2022). The document analysis was based on 30 documents covering the home swapping instruments in the respective municipalities (commentaries of stakeholders, media articles discussing effects and challenges of the instrument, municipalities' press releases and online presence, as well as municipalities' legal documents). This limited number indicates that home swapping is still rather a niche phenomenon than an instrument of broad scope. The problembased interviews were carried out with employees of the municipalities, responsible for the home swap instrument (or commissioned external companies), responsible employees of housing companies included in the swap schemes and tenants advisory board members. In total, 10 in-depth interviews with 12 participants were conducted. Although this number appears to be little, the research field of home swapping in the respective municipalities is far from extensive and could be covered quite well by the conducted interviews, which took between 17 and 66 minutes. Table 2 gives an overview of the data collection.

The fact that Berlin is strongly represented in the sample is due to the fact that the city's home swapping instrument was the first and most extensive one to be introduced, even resulting in a national media reflection (Kaemmel, 2021; Uhlmann, 2020). Moreover, the research field is much more extensive compared to the other municipalities, featuring a broader variety of possible interviewees. Although the interviews were recorded and transcribed literally, the language has been smoothened.

Table 2 Overview of Collected Data

4. Results

In order to gain a deeper insight into the instrument of home swapping and its particular challenges, the interviews' transcripts as well as the documents were analyzed by a qualitative content analysis which aims at reducing the material to its core essence (Devi Prasad, 2019). To achieve this, a deductive-inductive coding was applied with the research question generating the deductive main code (challenges of home swapping), while the inductive coding created subcodes which constitute the different challenges of the practical realization of the instrument. The code system is depicted in Table 3. Finally, a category-based analysis of the subcodes was conducted (Kuckartz, 2018).

The results reveal that there are two main strands of challenges that hinder an effective swapping of apartments: while challenges on individual scale refer to the mind-set and individual perceptions of households, the structural challenges include systemic malfunctioning that hinder home swapping. In the following, the specific barriers are explained.

4.1 Individual Challenges

The most overall individual challenge, why older people do not engage in home swapping is the general low or even missing willingness to move in general. Interviewees collectively reported on talks with older tenants that clearly showed that moving is a high burden for older households for multiple reasons which will be explained in more detail in the following.

| | Berlin | Munich | Potsdam | Hamburg |
|-------------------------------------|--------|--------|---------|---------|
| Number of interviews (interviewees) | 6 (7) | 2 (3) | 1 (1) | 1 (1) |
| Documents total | 17 | 3 | 7 | 3 |
| Online media articles | 5 | 2 | 4 | 1 |
| Official municipal documents | 9 | - | 1 | 1 |
| Municipal homepage | - | 1 | - | 1 |
| Municipal press releases | 1 | - | 2 | - |
| Statements of stakeholders | 2 | - | - | - |
| | | | | |

Note. Table own elaboration

| Individual challenges | Structural challenges | | | |
|--|--|------------------------------------|--|--|
| | Current state of rental market | Organization of swap schemes | | |
| Missing willingness to move | Mismatch of demand and supply of | Accessibility | | |
| a) Attachement to the neighborhood | swap options | | | |
| b) Very specific notions of new apartments | | | | |
| among downsizers | Formal criteria for a new lease are | Circulture cours are the same day. | | |
| c) Emotional barriers | not met | Simultaneous move on the same day | | |
| d) Level of suffering low or accepted | | | | |
| Difficult to address possible downsizers | No financial improvemente | | | |
| Irrational behavior of tenants | No financial improvements | | | |
| | Housing owners not supportive | | | |
| | Swap options not in good condition/ bad accessibility | | | |

Note. Table own elaboration

Attachment to the neighborhood: The most important individual factor why the elderly are reluctant to move, is the attachment to the neighborhood. "... the limiting factor is always the location—that darn neighborhood" (Interviewee Potsdam). No other individual challenge was highlighted this much by the interviewees. This attachment refers to the social networks of the tenants as well as to their (daily) routines (physician, pharmacy, supermarket etc.). Older households are willing to do everything possible to remain in their apartment to not lose their social environment. "... and then the tree outside the window is a very important factor, and the neighborhood which sometimes only exists in parts. So, the saying 'You cannot shift an old tree without it dying' is a huge issue" (Interviewee Hamburg).

Emotional barriers: Senior citizens do not only feel attached to their neighborhood, they also have an even stronger emotional attachment to their apartment. Older tenants might have been living in their apartment for decades—they have seen their children grow up and given each notch in the door frame an emotional meaning. These emotional meanings are also attached to personal belongings and household goods, which might act as memory anchors. "And there are cases where the chest of drawers, which survived the Second World War and was dragged here to Hamburg, did not fit into the new apartment And then the move did not happen because of that" (Interviewee Hamburg). This emotional attachment results in struggling with sorting out, which mostly is a precondition when spatially downsizing, and leads to staying in the current apartment.

Very specific notions of new apartments among downsizers: Another crucial factor is the very specific list of requirements that people, willing to downsize, have with regard to the conditions and design of their possible new apartment. While people looking for a bigger apartment, particularly in (the four analyzed) tight housing markets, reduce their requirements in hope of finally finding any kind of apartment, downsizers can afford to cherry-pick at discretion. "... the balcony points to the wrong direction, the staircase is not pleasing, ... the hallway is too small" (Interviewee Potsdam).

Level of suffering low or accepted: This very selective choice behavior goes along with a low level of economic pressure. Regardless if retired or single, older households often sit on decade-old rental contracts, which put them in a fairly comfortable situation of paying low rents. "If, as I said, this economic pressure is not existent, then the motivation to move is relatively low" (Interviewee Berlin). This is even more true in municipal-owned housing companies (particularly in Berlin), which currently follow an extremely socially-oriented rental policy (Kitzmann, 2018). Even if the economic pressure should get tense, senior residents rather cut back on other expenses to be able to remain in their current housing situation. A further level of suffering arises from physical health conditions, which do not allow the same level of mobility (e.g., not being capable of climbing stairs). These worsening physical conditions are accepted and instead of relocation, the elderly purposefully reduce their everyday mobility. "The only circumstance that would lead to this [relocation], is a situation when there is no way forward at all" (Interviewee Potsdam).

Difficult to address possible downsizers: All these justifications for the individual unwillingness to relocate, which highlight the abandonment of home as a very emotional topic, lead to a mindset of older residents that makes it really hard to address the topic of relocation and downsizing to further advertise the possibility of home swapping. In Berlin, municipal housing companies that approach older residents have been confronted with heavy indignation. "At that time, we wrote to the 'old ladies' and got indignant feedback: 'What? You want to drive me out of here?', so this is a very sensitive communication topic" (Interviewee Berlin). "This gets, of course, very quickly to a point where it is perceived as encroaching" (Interviewee Potsdam). Thus, housing owners and municipalities hardly get to a point where they are able to communicate possible individual advantages of home swapping and downsizing.

Irrational behavior of tenants: This challenge simply describes that humans do not act completely rationally. Within the process of a possible home swap, it is likely that tenants cancel the process quite spontaneously due to their gut instincts-sometimes even without communicating a reason: "... even the tenants cancel the process in course of time because something no longer suits them, even if there was agreement before" (Interviewee Berlin). Thus, swaps are frequently literally cancelled at the last minute: "There are quite a few who say at the last minute that they have changed their minds" (Interviewee Berlin). Sometimes, and that is part of the "human surprise package" (Interviewee Potsdam), tenants do also provide false information with regard to their tenant status which, in the end, renders a swap impossible.

4.2 Structural Challenges

The structural challenges include housing market barriers and the organization of the swapping schemes itself. In the following, the specific barriers are explained. The most important category hindering home swapping are challenges associated with the current state of the rental markets, that basically refer to the tight housing market situations in each of the four analyzed municipalities.

Mismatch of demand and supply of swap options: The most important single challenges refer to a com-

pletely unbalanced demand and supply of smaller and larger apartments. The majority of households interested in home swapping has a desire to move to a bigger apartment. "So right now, we have about 700-800 registered tenants. Of that, fewer than 100 are looking in the direction of downsizing, while the rest are looking for a bigger place" (Interviewee Munich). This, in turn, means that only 100 bigger apartments are available for several 100 households that are eager to upsize. Thus, the demand for bigger apartments cannot be met due to their little supply, and the oversupply of smaller apartments does not meet a proper demand. This mismatch differs only slightly among the municipalities from roughly 2/3 in search for a bigger housing unit in Potsdam to around 80% in Berlin and Hamburg and slightly over 80% in Munich. This mismatch clearly refers to the individual challenges, particularly to the missing willingness to downsize, but also to other structural factors, limiting the supply of bigger flats (see below).

Formal criteria for a new lease are not met: Although this challenge includes criteria like outstanding rent debts of (one of the) tenants, a general negative credit report or necessary modernization which all rule out a home swap at a given time, another crucial factor is the subsidized social housing stock which creates a two-tier system that can be impermeable for swapping tenants. If an apartment is rent-controlled and the interested swapping household is not eligible to move into such an apartment, for example due to a high pension, the process has to be cancelled. "The whole issue of subsidized housing, that is, housing permit, is of the utmost importance" (Interviewee Potsdam).

No financial improvements: Downsizing can be appealing if you are able to reduce your future expenses. Firstly, a costly relocation might not be possible at all or reduces possible future savings, and, thus, swaps are not realized because "... of the high costs that such a move is accompanied with: There are the actual moving costs, the various expenses for suitable new furniture and other furnishings" (Uhlmann, 2020). The more important reason for no or only marginal future savings are, however, the current rent prices in smaller apartments. Since those units have a higher fluctuation, their net cold rent increases faster and, hence, there is a higher rent per square metre, which in total sometimes even exceeds the larger apartment's rent. This is particularly true in the above-mentioned cases, where an older household sits on a decade's old

rental contract, hence, has a quite low net cold rent, and consequently restraints from moving to the more expensive smaller apartment. "With extremely rising quoted rents, it is not particularly attractive to downsize now, if you are sitting on an old existing lease, and would end up paying more just because of expensive quoted rents" (Interviewee Berlin).

Housing owners not supportive: Another obstructive factor can be seen in the behavior of housing owners. Since a home swap would mean that the rent cannot be increased (particularly when required by the municipality), "... swapping is an unpopular subject, because it is a zero-sum game for the rental agent" (Interviewee Hamburg). For the housing owner, it is even worse since they end up with nothing but work:

... they only have efforts: they have to issue two new contracts, they have to ... adjust the utility costs, do a bit of correspondence afterwards, send the old utility costs bills to the old addresses, and so on. So, they have an effort from which they do not earn a single cent. (Interviewee Berlin)

This unpopularity of home swapping for owners leads to practices that can be seen as protraction, where owners suddenly have to do modernization works or security checks before letting new tenants in, hence discouraging them to swap because of time constraints.

Swap options not in good condition/bad accessibility: The last housing market-related challenge that distracts residents from swapping is the poor condition of the future new apartment. Particularly in cases where housing units have been inhabited for decades, the amount of redevelopment measures can get intense. Since the home swap has to be realized on the same day in some municipalities, tenants actually see the future apartment in an unfurnished state the day they have to move in, only then realizing "the swap apartments are simply not in the condition that they should be" (Interviewee Potsdam). This condition does not only refer to aesthetic aspects but, and this is particularly crucial for the elders, also to the accessibility which is in most cases simply not given. "In many cases, there is a desire for no longer having to climb stairs due to health restrictions. Only a small proportion of the offered apartments meets this requirement" (Landeshauptstadt München - Sozialreferat, 2023). This low availability dramatically limits the home swapping options for older tenants. "I cannot

offer residents ... adequate low-barrier apartments. They simply do not exist" (Interviewee Potsdam).

Besides the very limiting factors associated with the current (rental) housing market conditions, some minor but still relevant challenges arise with regard to the organization of the respective swap schemes, although limited to some of the analyzed municipalities.

Accessibility: This challenge solely arises in Berlin, where tenants have to navigate through a digital home exchange platform to find suitable swap options, which requires proper digital knowledge as well as a digital infrastructure.

They [older tenants] do not have the digital infrastructure, they cannot manage to deal with it, or they do not want to do it, or it does not work, or whatever So that is an entry barrier that is simply too high. (Interviewee Berlin)

Although relatives might help older tenants with the navigation through the exchange platform, this digital solution is generally not appropriate for one of the respective target groups in Berlin—the older households willing to downsize. Another shortcoming of the analyzed home swap scheme in Berlin is the fact that it is only available in German language, hence excluding households not capable of speaking German.

Simultaneous move on the same day: In Munich and Berlin, the new rental contracts for the new apartments are valid on the same day the old rental contract expires. This means that both households have to relocate on the same day, moving out of their old apartment and into the swap apartment. This simultaneous relocation adds further pressure compared to a usual move and requires a high degree of organizational abilities and trust in the other household's abilities. "I think it is something that requires a certain amount of self-organization, and it is not suitable for everyone" (Interviewee Munich). Particularly for older residents that might not have an extensive social network that they can tap, such an organizational task is hardly manageable. "That is difficult, and I think it can only be done with younger people who are quite flexible in this regard" (Interviewee Berlin). Since in both municipalities, no short-term apartments or storage capacities are provided, the only options to avoid the simultaneous relocation would include staying with family or friends for a while or privately booking hotel

accommodations and/or storage facilities. However, both options require either social networks or financial capacities, which not all households do possess.

5. Discussion

The amount and diversity of identified challenges that occur during the process of swapping homes can explain the low numbers of realized swaps in the analyzed municipalities and their current state as a niche phenomenon. The identified individual challenges might seem familiar, as they resonate with existing literature on moving behavior of older people. Burgess and Quino (2021) also identified the geographical proximity/the neighborhood as a crucial factor for the (un)willingness of older residents to move, while Gibler and Tyvimaa (2015), Kenkmann et al. (2019) as well as Judd (2019) already indicated the importance of the neighborhood with its economic and social infrastructure. Furthermore, the assumption that widowhood and, thus, the transition to a oneperson household, could increase the spatial mobility of older people has already been neglected (De Groot et al., 2011). The emotional attachment to the current housing unit and its furniture is also backed by earlier contributions (Judd, 2019; Kenkmann et al., 2019). The importance of the neighborhood and emotional barriers underlines the relevance of housing as a spatial and psycho-spatial practice that goes beyond the housing unit as a mere commodity, highlighting its embeddedness into complex spatial contexts (Jaureguiberry-Mondion, 2023) and "psycho-spatial dynamics of home-making" (Pohl et al., 2022, p. 1652). Thus, home swapping approaches can only be successful if they incorporate the spatial and psycho-spatial aspects of housing. Furthermore, the individual challenges identified in this study illustrate that even financial incentives fall short in increasing the willingness of older people to downsize: In addition to the waiver of the common rent increase for new leases in Berlin and Munich, the city of Berlin experimented with an individual financial support for relocation of up to 2,500€ to incentivize swaps. However, due to its rare use, this offer has already been discontinued. This clearly highlights that only financial incentives will not increase the amount of home swaps and downsizing. With regard to solo dwellers, Tervo and Hirvonen (2020, p. 1206) rightfully point to the fact that their "housing issue is more complicated than their household size implies and as suggested by public discussion." The approach to launch a home swap scheme,

backed with financial incentives, can only be one part of a more comprehensive downsizing approach. For this very reason, Kenkmann et al. (2019), besides financial moving assistance, urge for guidance and advice with regard to suitable moving options. Since the analysis has shown that addressing possible downsizers is a challenging task, such outreach consulting should be done in a very modest way to not generate fears of displacement.

... actually, the first task and also the second task and until the third meeting the main task is to talk with the people quite innocuously, simply about whether they feel comfortable and ... perhaps determining what is important to them with regard to their living environment. (Interviewee Potsdam)

Such claims are supported by findings of Burgess and Morrison (2016, p. 206), who show that such services, on the one hand, can help to make households "aware of options they had not previously known about or did not know how to access" and, on the other hand, can help households with housing applications and the challenging task of packing boxes. Particularly the latter one is of the utmost importance to help to deal with emotional attachments, particularly for older people with no existing social network. "... there has to be someone who says, 'Take this with you, throw that away!' And that is actually the big hurdle" (Interviewee Berlin).

With regard to the outlined structural challenges, the task is much more difficult. Particularly the housing market-related challenges hinder home swaps on a large scale. First and foremost, the existing stock of accessible housing has to be vastly increased. Only 2.9% of people aged 40-85 in Germany live in accommodations with reduced barriers (which are not completely free of barriers; Nowossadeck & Engstler, 2017). This indicates the high demand for accessible housing and the potential that a proper supply could have for home swapping and the downsizing activities of the elders. Haacke et al. (2019) identified the desire for an obstacle-free apartment as one of the main drivers for moves among the 60+ generation. The effect of the current shortage of appropriate housing for the elders on downsizing activities is in line with the findings of Burgess and Quinio (2021, p. 1180) who point to the fact that the "mismatch between the number of older people considering downsizing and actual moves suggests ... a lack of suitable housing for downsizers"

Also, Kenkmann et al. (2019) as well as Gibler and Tyvimaa (2015) identified the absence of available obstacle-free housing as a central problem for downsizing among older people. The adjustment the current housing stock will have to undergo, however, is a task of long-term feasibility. Also, current rental prices are subject to medium term adjustments, which, in turn, makes financial incentives still a necessary tool.

Concerning short-term feasibility, the two-tier system of subsidizes and free-market housing could be softened. Since subsidized housing is a political target that obliges particularly state-owned housing companies to fulfil certain quotas in certain neighborhoods (Kitzmann, 2018), there are currently no exemptions for the access of households that are not eligible to move in such social housing units. Here, exemptions should be made to the advantage of a better distribution of housing space to allow housing owners to fulfil their quota with another housing unit. To increase the accessibility of home exchange platforms, it is advisable to have digital solutions backed by analogue contact points to better access older households. The case of Berlin shows that tenants, interested in swapping flats, even if they have found a neighbor with whom they want to swap, are referred to the digital tool to make the whole process more consistent and convenient for the housing owners. "... 'Yes, a swap is no problem ..., but you would have to do it through the portal'. Then I have to make them aware that they have to register there and also search and find their swap partners" (Interviewee Berlin). Such efforts, particularly for older tenants, are certainly not incentivizing swaps. With regard to accessibility, a multilingual offer would furthermore increase the number of tenants potentially interested to swap. Last but not least, homeowners, who are required to waive the common rent increase for new leases, might get some compensation payments in order to trigger a more positive attitude of owners towards home swaps.

6. Conclusion

The presented study shed light on the topic of home swapping as a municipally-led downsizing approach, which aims at a better allocation of existing living space by addressing, first and foremost, older households, offering them an instrument to downsize. However, the analysis of the instrument's current practical execution indicates that home swapping is not (yet) a suitable option for older households to downsize, since it implicates too many challenges. Since older households' demand to downsize is given and will even rise with regard to the demographic development, the potential of an effective home swapping mechanism can be vast-this potential goes beyond the individual provision of suitable housing solutions for downsizers. Besides ecological aspects (resource and energy savings because of less need for new housing construction due to a better allocation of existing living space), a better allocation of given living space concerns aspects of social (in)justice, as pressure can be taken off certain highly demanded market-segments on tight (rental) housing markets, which results in decreasing rental prices. Thus, socially undesirable and precarious micro-living arrangements (Harris & Nowicki, 2020) could be avoided. It must therefore be of highest political priority to not only launch home swapping offers just hoping for older people to freeup living space by moving to a smaller apartment, but also to back them with the necessary support structures and structural changes. Last but not least, and this is a long-term task, the current dominant growth-oriented norms with regard to housing provision, where bigger is better (Charles, 2019; Dowling & Power, 2012; Kuhlmann, 2020; Nelson, 2019), have to be challenged, as downsizing is currently all too often associated with sacrifice and a social downgrade. Rather, new norms have to be promoted highlighting ecological and social aspects of the personal housing consumption. Thus, the challenging task will not only be to illustrate the personal but also the societal advantages of downsizing to older households, which were socialized with growth-oriented norms and values for decades.

Acknowledgments

The article processing charge was funded by the Deutsche Forschungsgemeinschaft (DFG, German Research Foundation) – 491192747 and the Open Access Publication Fund of Humboldt-Universität zu Berlin.

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