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NEIGHBOURHOOD SHARING
ON THE PROSPECTS OF AN ALTERNATIVE HOUSING
MODEL

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Summary

This thesis begins with the observation that, over the last few decades, the housing sector in Europe has shown only very modest reductions in energy demand and contributes significantly to other environmental problems, such as waste, soil sealing, and biodiversity loss. This is attributed to escalatory trends, most importantly an increase in average living space per person, which counteract technical improvements. Neighbourhood sharing is then suggested as one potential avenue for making housing more sufficient. Collaborative housing and developer-driven neighbourhood sharing are identified as two novel and promising organised constellations of neighbourhood sharing. I argue that there has been surprisingly little research on the lived experiences with neighbourhood sharing, which are ultimately decisive for its potential to be mainstreamed. This thesis aims to address this lacuna. Guided by the overarching research question: “Does everyday sharing, enabled by the settings of collaborative housing and developer-driven neighbourhood sharing, hold the potential of becoming an established pattern in housing?” it presents evidence from two French and German cases of collaborative housing and one German case of developer-driven neighbourhood sharing. Theoretically, the study is grounded in thinking from Social Practice Theory, which essentially understands social change as a result from the making, re-arranging and breaking of links between collectively shared practice elements, as well as from evolving nexus-relationships between practices, ordered across time and space. This positioning is elaborated in a theory-oriented paper on the diverging dynamics of collaborative consumption practices, illustrated by the examples of co-housing and peer-to-peer accommodation. Empirically, the work primarily draws on a combined analysis of data from two-week diary records provided by residents and interview data from the same individuals. A comparison between the two German cases reveals that study participants in the collaborative housing case share more frequently, regularly, and extensively than their counterparts in the developer-driven case. They also engage in a wider range of sharing practices, including those that involve greater coordinative efforts and the co-presence of several people. This is explained by two factors: first, a better fit of available practice elements, which has enabled the evolution of more meaningful practice configurations; and second, a better integration of sharing practices into residents' typical life patterns. In a second empirical endeavour, drawing on data from all three neighbourhoods, I identify two important families of sharing practices that are popular across all three cases, which indicates the highest potential for normalisation. These are: community-oriented sharing practices, held together by the idea of creating, maintaining and experiencing social ties with neighbours; and convenience-oriented practices, which are characterised by a desire of getting day-to-day tasks done smoothly and efficiently. In line with the strong use-orientation of sustainability sciences, the thesis presents ideas on how housing actors, most importantly housing companies, may support the establishment of these families of sharing practices by distinctive infrastructural arrangements. Thus, convenience-oriented sharing practices may be promoted by infrastructures and associated services that optimise the availability of shared facilities and minimise temporal stretches and consumption work involved in practice performances. Community-oriented sharing practices may benefit from infrastructural arrangements that enable chance encounters, privilege community spaces over private areas, and create welcoming spatial atmospheres. Overall, this thesis shows that sharing — notably convenience-oriented and community-oriented sharing practices — has a strong potential to become normalised, particularly if housing actors proactively support it through suitable infrastructures. This can be regarded as an encouraging result for those in the realms of politics, businesses, civic organisations and research who strive to make housing more sufficient.

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PhD projects are long-term journeys characterised by phases of euphoria, creativity, and productivity on one hand, and, probably in most cases, by periods of uncertainty, self-doubt, blockages, and frustration with slow progress on the other. Mine has been no different in this regard, with ups and downs following each other in cycles. Especially during these more difficult periods, the guidance and support from my academic supervisors, as well as from my partner, family, and friends, were of outstanding importance.

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1. Introduction

1.1 On the search for more sufficient housing alternatives

As an energy researcher and environmental sociologist, I have always been intrigued by the question of how energy demand might be significantly reduced to complement efforts to decarbonize energy supply. Against the background of novel, highly energy-intensive developments such as the accelerating use of cloud computing and complex AI-applications (Buyya et al., 2024; Dauner & Socher, 2025), which are likely to further increase energy demand, a purely supply-side strategy appears more insufficient than ever. Apart from the political, regulatory and social difficulties in expanding energy generation and distribution infrastructures, any energy generation technology, even those based on renewable sources, comes with non-negligible environmental impacts related to the extraction and depletion of necessary raw materials (such as lithium for solar PV), land use, biodiversity loss, embedded “grey” energy and material waste processing at the end of the product life cycle (Gasparatos et al., 2017). Consistency solutions alone thus appear insufficient, and addressing demand appears unavoidable, if we adopt comprehensive perspective on sustainability.

When taking a closer look at dynamics of energy demand, it is striking that remarkably little has changed since the beginning of my PhD project in one respect: the building sector, along with transportation, continues to display stubbornly high levels of energy consumption, causing more than one-third of global carbon emissions (UNEP, 2020). At first glance, this might be surprising, given that over decades energy performance standards of buildings and electric appliances have become tougher and tougher. If energy efficiency has constantly improved, what then has kept demand more or less stable?

Zooming into one important part of the building sector, the residential sector, Figure 1 presents the overall variation in energy consumption across the European Union and different developments which have influenced the evolution.

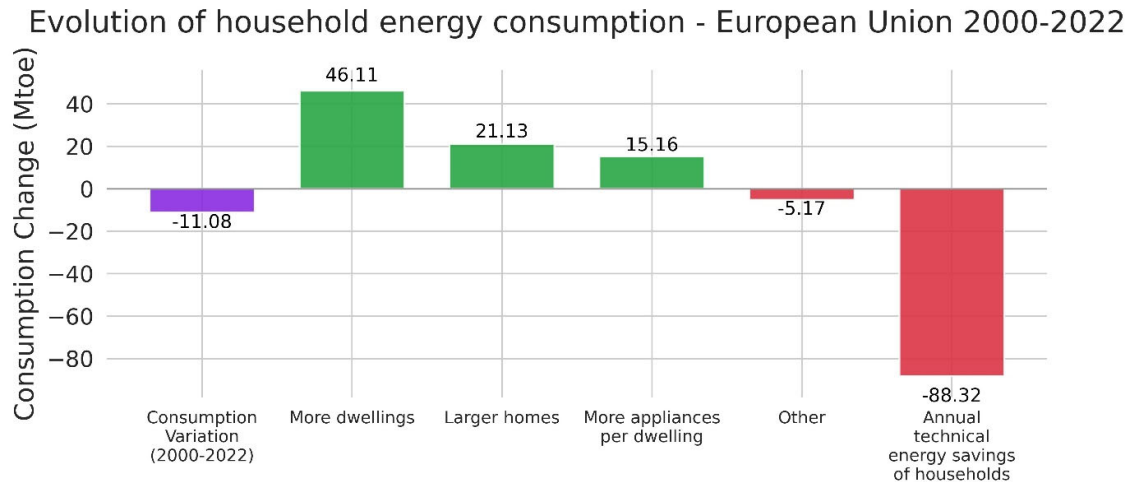


Figure 1: the evolution of household energy consumption in the European Union from 2000 to 2022. Own representation, based on *Odyssee-Mure* (<https://www.indicators.odyssee-mure.eu/decomposition.html>).

The graph shows that technical improvements (labelled as “technical energy savings”, the second column from the right) have indeed contributed significantly to reducing energy consumption. However, a number of demand-escalating societal trends have counteracted these efficiency gains: larger sizes of homes (Cohen, 2020; Stephan & Crawford, 2016) and a rising number of dwellings, which are equipped with ever more appliances (Pothitou et al., 2017;

Sahakian, 2022). Per capita living space has been constantly rising since WWII in both Germany and France, reaching today 47m² in Germany (Bagheri et al., 2024, p. 302) and 40m² in France (Spinrath & Davenas, 2025, p. 6; data from 2013), compared to around 34 m² in both countries in 1992 (ibid.). This growth mostly results from a growing number of one- or two-person households and aspirations of home comfort (Ellsworth-Krebs, 2020). More space, in turn, is associated with an increased demand for heating, lighting and an accumulation of more stuff and electronic devices. As a result, the overall energy consumption has remained more or less stable, with only minimal reductions over a period of more than two decades (first column from the left in Figure 1). Because heat provision in particular is still heavily dependent on fossil fuels in many European countries, this extremely slow progress appears incompatible with many countries' climate protection objectives, such as Germany's plan to become carbon-neutral by 2045.

If we widen the perspective to include other aspects of environmental concern, the urgency for change becomes even more evident. 37% of all occurring waste in the EU and around half of extracted raw materials can be attributed to the construction sector (Lage et al., 2024, pp. 1–2). Land use for buildings and transportation has been the main contributor in Germany to accelerated soil sealing, which is a main cause of biodiversity losses (Bagheri et al., 2024, p. 302). Altogether, the current way our (Western) societies organise housing appears far from “sufficient”, defined as corridors between two levels of “enoughness”: minimum standards that satisfy everyone's basic needs and upper limits that prevent excess consumption to the disadvantage of others (Fuchs et al., 2021; Hartmann, 2024; Spengler, 2016). The current housing model fails to limit the consumption of current generations, to the detriment of future generations and people in other regions of the world, most importantly in the Global South.

Given these findings, it is surprising from a scientific point of view (and irritating for an environmentally concerned citizen) that the standard—and almost only—response to the very serious shortages and regional imbalances in European housing markets is to build more of exactly the same (Lage et al., 2024). Debates on the environmental footprint of the current housing model and its policy implications are almost non-existent in public discourse (Spinrath & Davenas, 2025; Wuppertal Institut, 2023), leading Brokow-Loga (2024, p. 19) to conclude that policies for alternative housing are “political no man's land”. As this thesis is grounded in the normative aspirations of sustainability sciences (Heinrichs et al., 2016) and its objective to live within planetary boundaries (Richardson et al., 2023; Steffen et al., 2015), this narrowed discourse is strongly problematic. Business as usual, notably the continued construction of large single-family houses, appears as one-sided solution for the current “housing crisis”, ignoring the environmental pillar of sustainable development goals. Together, science, policy makers, housing actors and tenants must “unlearn” the resource and energy-intensive way of living and explore alternative models with lower ecological footprints.

The need to overcome today's insufficient housing model is hence the starting point of the present thesis. But what, then, are potentially more sustainable alternatives for housing people? There is an increasingly rich literature on potential pathways and approaches towards more sufficient housing. Many recent publications address the most significant problem — the growth of per-capita surface — and explore ways of “living smaller” (Lehner et al., 2024). Lage et al. (2024), estimate that the number of “under-occupied” dwellings in Europe, calculated using the Zurich formula for sufficient housing¹, represents a theoretical potential for homes for around 100 million people — approximately one-fourth of the European population. Approaches to

¹ For public and cooperative housing, the following rule for flat allocations applies: the maximum number of rooms that is available for a given household is equal to the number of persons + 1. For instance, a family of two parents and one kid is eligible for a flat of maximum 4 rooms (plus kitchen and bathroom).

harness at least part of this potential include, for instance, moving agencies and other advice services that support home swapping between households living in dwellings that exceed their needs (frequently elderly couples) and those in need of more space (notably families) (Kitzmann, 2023; Thomas et al., 2019). Another possibility are adaptable small flats with optional, temporary extra rooms (Tarpio & Huuhka, 2022). Furthermore, tiny houses presents a low-surface housing niche inspired by the idea of decluttering and simplifying life (Ford & Gomez-Lanier, 2017).

This thesis examines another alternative housing model: neighbourhood sharing. This choice emerged at a time when the rise of the so-called Sharing Economy and Collaborative Consumption spurred tremendous expectations regarding more sustainable, community-based consumption patterns. The next section shortly introduces the context of this thesis and today's most prevalent constellations of neighbourhood sharing.

1.2 Forms of neighbourhood sharing

In the early phase of my PhD project I was fascinated by Rachel Botsman's and Roo Roger's book "What's mine is yours" (Botsman & Rogers, 2011). A whole new world seemed to open up around a new set of social practices the authors referred to as "collaborative consumption", which, they claimed, was "changing the way we live" (subtitle of the book). According to Botsman and Rogers, digital tools had spurred a revival of traditional practices—such as bartering, lending, reselling, gifting, and sharing material and immaterial goods— privileging shared access to assets over private ownership. These practices had moved beyond the traditional realm of family and friends and were about to spread among larger communities of more loosely networked individuals, a phenomenon Juliet Schor termed "stranger sharing" (Schor, 2014). The new trend spanned across many areas of life, ranging from food (e.g. food sharing), to maintenance (e.g. tools libraries), mobility (e.g. carpooling), tourism (e.g. home exchange), working (e.g. coworking spaces), and skills (e.g. time banks). The transversal character of the phenomenon made some wonder whether a new consumption culture around a rising "sharing economy" is in the making (Heinrichs & Grunenberg, 2012).

Moreover, this development spurred hopes – and among some even euphoria – that some of our most serious societal problems might be addressed: social inequalities may be alleviated through cost savings, social cohesion may be strengthened through community building among peers, and – my central concern – our environmental footprint may be reduced, possibly even without the burdensome efforts to purposefully "change behaviours", as Botsman and Rogers suggested: *"Sustainability is often an unintended consequence of Collaborative Consumption. It is unintended in the sense that the initial or driving motivations for a company or the consumer may not be about 'being green'. (...) These positive unintended or unexpected consequences happen because sustainability (...) [is, the author] an inherent, inseparable part of Collaborative Consumption and not an afterthought or add-on"* (Botsman & Rogers, 2011, p. 74). The premise of 'unintended' positive effects resonated with practice-theoretical thinking, as will be further detailed in Section 2. According to this school of thought, resource and energy consumption (and hence also its avoidance) is rarely an integral part of social practices, but usually happens inconspicuously in the course of practices (Shove & Walker, 2014; Warde, 2005). Of course, the devil is in the detail and implies, among other things, the risk of various rebound effects through the multiplication of practice performances (Schmitt et al., 2017; Sonnberger & Gross, 2018), but there was and is good reason to expect overall positive environmental effects of sharing (Heinrichs, 2013), resulting from the "use intensification" and "use prolongation" of material goods (Gsell et al., 2015; Scholl, 2009) with strong "idle capacity" (Frenken & Schor, 2017). The scarce empirical evidence available on environmental impacts of sharing practices (cf. Brohmann & Gsell, 2017; M. Martin et al., 2019; Schmitt et al., 2017) tends to confirm these expectations.

Sharing practices appeared hence as a very intriguing field of investigation for anyone interested in social innovations with potentially transformative impacts (Jaeger-Erben et al., 2015).²

One possibility for studying the transformative potential of sharing practices is to zoom onto one specific practice, such as carsharing, carpooling or reselling. This PhD project takes a different approach by exploring the dynamics of sharing practices within a central sphere of life: the home. The home is the place where many daily practices are routinely reproduced and connect with each other. Thus, if sharing were to become a widespread, transversal everyday phenomenon, it should take hold in and around our homes, developing into a normal, unquestioned pattern in the way we move, eat and drink, manage our household, socialise and meet friends, spend leisure time activities and so on. This focus on the home and neighbourhoods coincided with the evidence discussed in the previous section, highlighting the residential sector as one with the most urgent need for change towards more sufficiency.

With this foundational orientation, I first conducted a series of exploratory qualitative interviews with actors from the housing markets in France and Germany to better understand the ongoing trends and constellations of neighbourhood sharing.³ How is neighbourhood sharing happening today? The interviewed experts were representatives from housing associations, housing cooperatives as well as architects engaged in experimental housing projects, real estate developers, research bodies, municipal associations, tenant as well as landlord associations, and civic network organisations promoting sharing. This research resulted in a conference paper (Huber, 2016)⁴, which revealed three important socio-technical constellations, in which neighbourhood sharing is happening today in both countries. Research from other countries, for instance in Denmark and the UK (Jensen & Stender, 2024; Ruiiu, 2015), brought up similar developments elsewhere.

First, self-managed co-housing (in French: *habitat participatif*) looks back on the longest history of all three forms. It mainly originated in Denmark and Sweden (Beck, 2019; Caldenby, 2020; Larsen, 2020; Vestbro & Horelli, 2012) and has experienced a recent boom since the 90ies of the last century also in Germany and France (Ache & Fedrowitz, 2012; Bresson & Denèfle, 2015), while still not exceeding a few hundred examples (Schmitt et al., 2019)⁵. Co-housing is usually carried by “intentional communities” (Jarvis, 2019) who share similar aspirations for mutual support, solidarity and environmental protection and who together conceive, organise and implement collective housing projects. Typically, it involves a small number of fully autonomous households (usually around 10-15), who dispose of own bath rooms and kitchens, yet contend themselves

² Discussions of the terms “sharing” and “collaborative consumption” and my own understandings can be found in Articles A and B and will not be recapitulated in detail in this framing paper. In Article A, I define Collaborative Consumption as “all forms of practices in which at least two members of a community get engaged in direct interaction (1) and draw on the same units of material goods or services for performing practices (2)” (p. 55). I refer to sharing as a more encompassing term, which includes many organisational and ownership models, commercial and non-commercial forms. However, in contrast to other scholars (cf. Koch et al., 2024; Ryu et al., 2019; Sánchez-Vergara et al., 2021), I exclude in my definition non-material sharing practices such as service exchanges via time banks or knowledge sharing. I am hence “interested in practices in which the use of spaces, mobility carriers, stuff, infrastructures, or food is temporarily and socially distributed between several households, leading to a use intensification and prolongation of those material goods” (Article B, p. 527).

³ This choice for France and Germany resulted from the initial embedding of my PhD project into a larger French-German research project on emerging alternative patterns of life and important differences between these two countries regarding their housing markets. For more details, see Section 3.1.

⁴ Attached for information (see Annexe 5), not part of the peer-reviewed articles submitted for assessment in the frame of this cumulative dissertation.

⁵ See for Germany: <https://www.wohnprojekte-portal.de/> and for France: <https://www.basededonnees-habitatparticipatif-oasis.fr/?ListE>.

with below-average flat sizes share. In turn, residents have access to a number of community spaces and other shared resources such as cars, bikes, tools and devices (Jarvis, 2011; McCamant & Durrett, 1994; Meltzer, 2005; Tummers, 2016).

Crucially, co-housing groups are, to varying degrees, intentionally self-organised (Thörn et al., 2020), a characteristic that stems from a certain mistrust of speculative housing markets and market actors. However, this choice implies that co-housing is very demanding to its community members during all phases of a project, from the planning, to the implementation and dwelling phases. Bidding for land, deciding on an appropriate legal form and ensuring the project's financial viability, negotiating with and monitoring building professionals, building a community identity and trustful intra-group relationships, and finding forms of group coordination and democracy that “work” for everyone are just some of the many challenges that self-organised co-housing must face. Evidence from my interviews with housing actors and other studies (cf. Caldenby, 2020, p. 52; Jensen & Stender, 2024; Tummers, 2016) indicate that the time efforts, the mental load, and the practical, professional and social skills are too demanding for many people. The time required to realize a project, from the initial ideas to the move-in date, frequently amounts to 10 years. It is therefore not surprising that many co-housing groups experience a significant member drop-out during the planning phase alone. The strong requirements also tend to favour the frequently lamented socio-economic and socio-cultural homogeneity of co-housing groups, with well-educated, white, “progressive” middle-class people being overrepresented in typical co-housing communities (Bresson & Labit, 2020; Bresson & Tummers, 2014; Jensen & Stender, 2024; Larsen, 2020).

Overall, these features of self-managed co-housing clearly limit the chances of this type of organised neighbourhood sharing to become mainstreamed. This is why a *second type* of neighbourhood sharing has recently (since around 2010) gained importance in Germany, France (Ache & Fedrowitz, 2012; Bresson & Labit, 2020; Czischke, 2018) and elsewhere, for instance in Denmark (Beck, 2019), Sweden (Caldenby, 2020) and the UK (Ruiu, 2015), “collaborative housing”. While some use this term as an umbrella term for diverse community-based housing forms (Lang et al., 2018), my understanding aligns with that of Czischke et al (2020, pp. 6–7) who state that *„[c]entral to this type of housing is the presence of a significant level of collaboration amongst (future) residents, and between them and external actors and/or stakeholders, with a view to realizing the housing project. [...] This collaboration can take place at different stages of the project – sometimes from the conception, design and development – and may extend to the daily maintenance and management of the housing”*. Thus, while collaborative housing is similar to classical, self-managed co-housing with regard to its foundational idea of sharing community spaces and other resources at the expense of smaller personal living areas, it differs from it with regard to the actor set-up. Typically, housing companies – in Germany most frequently cooperative and public ones and in France cooperative social housing companies – are co-producing and co-maintaining this type of housing in participatory processes with residents. In addition, municipal urban planning bodies, process moderators, network associations and local civic organisations are frequently involved in projects of collaborative housing. All of them contribute important professional skills, which alleviates many of the burdens that self-organized co-housing groups often experience (Czischke, 2018). For people who feel attracted to the principles of co-housing, but who are repelled by the numerous demands of self-managed co-housing, collaborative housing is likely to present an appealing model. In turn, housing companies and municipalities may benefit from improved image, stronger social cohesion, higher social diversity, a stimulation of public life through semi-public spaces of co-housing projects as well as a decrease of violence and vandalism in neighbourhoods (Droste, 2015; Fromm, 2012). This “win-win-situation” for both, tenants and housing companies (Sinning &

Spars, 2019, p. 11) may lead to a continued rising popularity of collaborative housing, which is why it was chosen as one of the cases for empirical investigation.

The third trend of organised neighbourhood sharing that emerged from my exploratory study can be referred to as “developer-driven neighbourhood sharing”. This can be considered as the most recent development. Most of the examples I came across during my research for suitable cases for empirical inquiry were still in the advanced planning or construction phases and only a very small number of examples in France and Germany, most of them in urban environments, had already come into being – which shows the “brand-new” character of this housing form in these countries. Evidence from Denmark (Jensen & Stender, 2024) shows similar developments. As the name suggests, the initiator and main actor of this form of neighbourhood sharing is a real estate developer. In a few cases, this can be a public company, but usually it is private and hence profit-oriented enterprises, who plan and implement projects. Future residents are usually not, or only marginally, involved in this process, although interviewed representatives from these companies reported extensive upfront consumer market research. This also means that, in contrast to the previous two cases, the real estate developer or commissioned service providers are responsible for the management, cleaning, and maintenance of shared resources once residents have moved in. Another major difference to the previous two cases is also the quantity of apartment units: neighbourhoods can comprise several hundred dwellings, because this increases the profitability of projects.

Other than that, developer-driven neighbourhood sharing is similar to the previous two constellations regarding the sharing idea: small, space-efficient, and usually fully autonomous (and in some cases partially furnished) dwellings (often marketed as “micro-living”) are combined with a number of shared facilities and resources (frequently: tools, laundry machines, libraries, guest rooms and cars) as well as additional services such as apartment cleaning and parcel pick-up, enabled by community managers and concierges. Company interviewees emphasized that their main concern is to make life “as easy as possible” for residents, because, they claimed, this model of neighbourhood sharing is only competitive if it does so. Developer-driven neighbourhood sharing displays significant similarities with another new developing housing form, “co-living”, which seems to develop very dynamically in the US, the UK and Benelux countries (Casier, 2024; Cohen, 2020; Ronald et al., 2024; Uyttebrouck et al., 2020). Co-living and developer-driven neighbourhood sharing projects both offer numerous shared spaces and amenities to their residents. However, in co-living the private space of residents is even smaller, including little more than a sleeping room, while kitchens and sometimes also bath rooms are shared.

Similar to collaborative housing, the involvement of professional housing market actors offers an increased potential for the standardization and multiplication of such neighbourhood sharing. The recent explosion of new projects confirms this premise. I hence chose this emerging type of neighbourhood sharing as second case for empirical investigation. The next sections discuss the main identified research gap and the guiding research question that resulted from this.

1.3 Research gap

As both selected forms of neighbourhood sharing are relatively new — collaborative housing is recent, and developer-driven sharing is very recent — research on them is necessarily still piecemeal. In comparison to developer-driven neighbourhood sharing, collaborative housing is better researched, as exemplified by a systematic review of Lang et al (2018). Most of this work has addressed the setup of collaborative housing, including the kind of actors who become involved (Czischke, 2018; Lang & Stoeger, 2018), the roles different actors can take (Czischke, 2018; Szemző et al., 2019), different types of tenure (Bossuyt, 2022; Griffith et al., 2024), motivations and values sustaining collaborative housing projects (Griffith et al., 2024), and federal and local

institutional environments (Lang & Stoeger, 2018; Szemző et al., 2019). Other studies have researched the impacts of collaborative housing on neighbourhood “repair” (Fromm, 2012) and social inclusion (Bresson & Labit, 2020).

Research on developer-driven neighbourhood sharing is still very much in its infancy. To my knowledge, the work of Jensen and Stender (2024) is the only one that empirically examines this new housing form. It explores the advantages and challenges of developer-driven sharing, in explicit opposition to self-managed co-housing with its strong demands, as discussed above. Based on interview data on residents’ experiences in three neighbourhoods, the authors find that residents appreciate the main features of their shared housing. In particular, Jensen and Stender highlight the distinct notion of community that is inherent in top-down neighbourhood sharing. Instead of “mandatory commitments” to the community, as found in resident-led neighbourhood sharing, developer-driven neighbourhoods invite residents to make “voluntary commitments”. In addition, there is a rapidly growing body of research on the closely related housing form of co-living, which addresses, for instance, its sub-forms (Ronald et al., 2024), involved actors and its institutional context (Uyttebrouck et al., 2020), the business models of real estate companies (Casier, 2024), and the (potentially negative) social impacts it may have for young adults in precarious living conditions (Harris & Nowicki, 2020).

What is largely missing from both bodies of literature, however, are empirical accounts of residents’ lived experiences within these novel constellations of neighbourhood sharing. There are a few studies on the every-day life of residents in co-housing and its relationship with the features of spaces and infrastructures (Horelli, 2013; Jarvis, 2011) as well as one more recent study on sharing practices at the level of a whole town (Westskog et al., 2020). However, I have no knowledge of studies on the lived experiences of sharing in collaborative housing and developer-driven neighbourhood sharing. This is very surprising, as one can assume that only if residents *do* indeed regularly make use of the shared spaces and resources and experience it as an attractive model of living (compared to conventional forms of dwelling), is there a chance that the suppliers of collaborative housing and developer-driven neighbourhood sharing continue engaging with it and producing more of it. If not used, shared spaces and resources become meaningless material objects that can, moreover, suffer from vandalism and sadly serve as reminders of failed community experiments, as has been reported on post-war social housing “grands ensembles” in France. Moreover, producing and maintaining common facilities, in particular spaces, is also expensive. Thus, if housing companies and real estate developers gain the impression that shared resources essentially end up as dead matter, they will refrain from producing more of such neighbourhoods. Overall, one can conclude with the words of Schmid (2019), who argues that experiences with previous alternative living forms “have shown that their success should not be assessed based on the planning and implementation phase, but rather on the use phase” (Schmid, 2019, p. 234)⁶.

1.4 Research questions

In the previous sections I first laid out the necessity to adapt our dominant housing model, which is responsible for stagnant (and high) levels of energy consumption and carbon emissions and other environmental problems such as huge amounts of industrial waste and soil sealing. I then suggested the sharing of resources among neighbours as one potential way forward to make housing more sufficient and introduced collaborative housing and developer-driven neighbourhood sharing as two of the most promising recent developments of organised sharing constellations. The overarching research question of this dissertation project is hence: ***Does everyday sharing, enabled by the settings of collaborative housing and developer-driven***

⁶ Translated from German.

neighbourhood sharing, hold the potential of becoming an established pattern in housing? I argued that ultimately, it is the lived experiences within such neighbourhoods that will determine whether or not these housing niches can take hold in the long run. Only if sharing “works” for residents and is competitive against conventional housing, then neighbourhood sharing is likely to become gradually mainstreamed. However, there is surprisingly little research on the occupancy phase of collaborative housing and developer-driven neighbourhood sharing.

Addressing this lacuna, this PhD project shall empirically investigate the practicalities of everyday sharing practices in three German and French cases of developer-driven and collaborative housing (see research design). More precisely, my work shall be guided by three sub-questions:

- 1) *To what degree have sharing practices become established as a day-to-day pattern in the chosen cases, and how can the observed differences be explained?*
- 2) *Are there certain types of sharing practices that are particularly popular across cases, indicating the strongest potential for mainstreaming, and if yes, what do these practices have in common?*
- 3) *Building on the previous question, how may real estate developers, housing companies, or other actors infrastructurally support the proliferation of those types of sharing practices with strongest potential?*

The first two questions hence aim at taking stock of the observable sharing practices and their diverging popularity in the assessed neighbourhoods, trying to understand what made them successfully gain ground in residents’ lives or fail to do so. The third question is rather of strategic matter, addressing the practical implications for actors of the housing sector who want to normalise sharing between neighbours through conducive material arrangements.

2. Theoretical lenses for looking at neighbourhood sharing

Conventional psychological or economic approaches would examine the establishment of sharing practices by researching individuals’ attitudes and value orientations, their economic considerations regarding sharing versus owning resources, and the choices and behaviours resulting from these. Other agentive forces, for instance material settings, would be “externalised” from explanatory models as “contexts”. This perspective on social persistence and change was provocatively labelled the “ABC-model” (attitude-behaviour-choice) by Elizabeth Shove (2010), to point at its simplistic representation of the dynamics of social life.

The present PhD work joins this criticism and instead draws on Social Practice Theories (SPT) to conceptualise the potential popularisation of sharing practices. SPT are rooted, amongst others, in the work of Giddens (Giddens, 1984) and have gained increasing popularity in social science theory over the last three decades, prompting some to call out “a practice turn” (Knorr Cetina et al., 2001) in social theories. Instead of taking individuals as primary unit of analysis, SPT put social practices centre-stage and ask what it takes to perform social practices. With this “emphasis on practical happenings” (Kent, 2022, p. 225), SPT appear very suitable to explore the chances of sharing practices to settle in neighbourhoods, as intended by this dissertation project.

A core idea of SPT is that practices are constituted by interlinked elements that form meaningful entities that are recognisable across multiple moments of performance by different individuals. As Nicolini rightfully points out, “there is there is no such thing as a unified practice theory” (Nicolini, 2012, p. 8), but rather different variations of practice-theoretical thinking. My work is primarily inspired by the work of Elizabeth Shove and colleagues (cf. Cass et al., 2018; Shove, 2017; Shove et al., 2012), but also Theodore Schatzki (cf. Schatzki, 2002, 2010) and Harold Wilhite (cf. Wilhite, 2008, 2012). These scholars have in common that they attribute strong importance to the role of the material world in shaping practices, be it things in use such as tools and devices,

spaces, infrastructures, human bodies or “material arrangements” (Schatzki, 2010) in which the beforementioned elements form situations that encourage or disable certain practices in “practice-arrangement-nexuses” (ibid.). All of this can be expected to play a crucial role for the establishment of sharing practices in neighbourhoods. Together with sense-giving elements, referred to as “meanings” (Shove et al., 2012) or “teleoaffective structures” (Schatzki, 2002), skills-components referred to as “competences” (Shove et al., 2012) or “practical understandings” (Schatzki, 2002), and formal and informal rules (Gram-Hanssen, 2010; Schatzki, 2002), material elements form “(...) so to speak a ‘block’ whose existence necessarily depends on the existence and specific interconnectedness of these elements, and which cannot be reduced to any one of these single elements” (Reckwitz, 2002, pp. 249–250). When examining the establishment of sharing practices in the observed neighbourhoods, the question is then to which degree available elements — which at the time of move-in were ‘innovations-in-waiting or proto-practices’ (Shove & Pantzar, 2005, p. 48) — have been integrated by larger cohorts of tenants through repeated performance into meaningful and recognisable entities of sharing practices: “The emergence of a new practice requires a process of innovation where agents configure a set of bodily-mental activities by integrating elements of meaning, material and competence. If such a configuration diffuses by being taken up by others, a new practice can emerge as a provisionally stable and recognizable entity. (...) Practice innovation is about making new links between existing or new elements” (Røpke, 2009, p. 2494). An important part of my empirical work, which is presented in papers B and C, was hence dedicated to discerning the evolution of more or less competitive practice configurations of diverse forms of sharing.

A second important contribution of SPT is its ability to analyse the emergence, persistence and disappearance of practices not in isolation, but in connection to the immense web of mostly routinised activities that are organised in spatial and temporal patterns and that, in essence, make up most of our life. “Zooming out” (Nicolini, 2009) from the level of singular practices and their constitutive “ingredients” to the level of “bundles”, defined as “loose-knit patterns based on the co-location and co-existence of practices”, and “complexes”, which are “stickier and more integrated combinations” (Shove et al., 2012, p. 81), allows to understand the “place” of particular practices in the typical organisation of our lives. Practices can be very flexible time-fillers in between other practices, for instance hanging up laundry for drying, or they can demand for more fixed positions in daily orders, often those termed by Yates (2018) “simultaneous sharing”, which imply coordination and arrangements with others (Southerton, 2006; Torriti et al., 2015). With regard to sharing practices in projects of collaborative housing and developer-driven neighbourhood sharing, this entails studying how different sharing practices have or have not managed to get integrated into residents’ daily routines spanning across time and space.

In terms of theory development, conceptualising the interconnectedness of practices and how they make up “large” societal phenomena is probably the most challenging topic. Responding to criticisms that SPT with its “flat ontology” and a perceived “micro-focus” on singular practices is not well suited to explain more “systemic” issues (cf. Geels, 2010; Sovacool & Hess, 2017), most of the recent theoretical efforts have concentrated on developing concepts for grasping the interlinkages of practices (cf. Budde et al., 2024; Hui et al., 2017; Shove, 2023). In parallel to the theoretical challenges, tracing practice connections is also more demanding empirically, which is why probably most of the practice-theoretical work so far has concentrated on understanding the characteristics of singular practices. “While studies regularly reference the concept of bundling and, indirectly, the need to understand the links between [...] practices, very few studies use the concept of practice bundles effectively” (Kent, 2022, pp. 231–232). In my own work, I have tried to integrate a perspective on wider temporal-spatial patterns in residents’ lives and how these interfere with different types of sharing practices (article B), but certainly with limitations, related to the applied methods. These will be discussed in the next section.

3. Research design and methodology

3.1 Research design

As my dissertation was embedded into an EDF⁷-funded, French-German research project on emerging alternative patterns of life and their potential impacts on energy demand, I began with exploratory research in France and Germany. Both countries differ quite strongly with regard to their housing markets and the actors involved (Couch et al., 2011, pp. 13–16; Kohl, 2014).

Historically, France has a strong social housing sector, with emblematic high-rise building blocks (“grands ensembles”) typically located in the suburbs of large cities. It also has a high share of owner-occupied homes (61% in 2024⁸), which is why condominium associations (“copropriétés”) are very important actors. Germany, in turn, is characterised by a significantly higher share of rented homes (53% in 2024⁹), which are often part of multi-family buildings, especially in larger cities. 2/3 of owners are small private owners (Henger et al., 2019, p. 604). Public housing plays a minor role, especially since the liberalisation wave from the 1990ies onwards. Arguably, these differing situations are likely to influence the organisation of sharing practices in neighbourhoods.

As discussed in the introductory section, my initial exploratory study with housing market actors in both countries (see Annexe 5) had revealed two promising trends in the residential sector, collaborative housing and developer-driven neighbourhood sharing. While both of them typically offer multiple sharing facilities, they strongly differ with regard to co-creation (pretty strong in the collaborative constellation, weak in the developer-driven constellation). This constellation with two clearly distinguishable models appeared as a typical situation for conducting comparative case study research, with a case study being defined as “an empirical method that investigates a contemporary phenomenon (‘the case’) in depth and within its real-world context” (Yin, 2018, p. 15). I therefore began to compile a list of potential cases for both constellations in France in Germany. The exploratory interviews, grey literature, journal articles, newspaper articles and recommendations by other researchers helped to identify potential examples. Very soon, it became clear that many of the most interesting examples with multiple sharing facilities were still in the conceptual or construction phase, particularly those corresponding to the developer-driven type. Only a small number of projects of this type (less than five per country) had already reached the occupation phase. While in Germany it was nevertheless possible to gain access to one of these few potential cases (Campus Gardens), field access in France proved to be very complicated.

This situation led to pragmatic adaptations of my empirical research, which initially followed a most-different, multiple-case study approach (Seawright & Gerring, 2008, pp. 304–306; Yin, 2018). First, due to better field access in Germany, I decided to concentrate on the two German cases for my comparative empirical work, as presented in Article C (see Section 4). Second, for my practically oriented work on sharing infrastructures, as elaborated in Article D, my main objective was no longer to reveal differences between collaborative housing and developer-driven sharing neighbourhoods, but to identify commonalities across cases that would indicate a potential for replication in different settings.

Information on the cases (location, number of apartments and residents, involved actors, etc.) is not detailed here, but can be found in Articles B and C.

⁷ Electricité de France

⁸

https://ec.europa.eu/eurostat/databrowser/view/ILC_LVH002_custom_3359192/default/table?lang=en

⁹

https://ec.europa.eu/eurostat/databrowser/view/ILC_LVH002_custom_3359192/default/table?lang=en

3.2 Methodology

As outlined in Section 2, this PhD project is influenced by practice-theoretical thinking, which implies a certain decentralization of individuals and a focus on collective, shared elements that form practice configurations. Most of our daily practices, such as cooking, commuting, and laundry washing, are routine activities performed without much thinking. The materials, embodied skills, meanings and rules, which are integrated in moments of practice enactment, are often unquestioned, tacit elements in the background.

This insight has methodological implications. Practices are not a “straightforward research object for empirical enquiry” (Maréchal & Holzemer, 2018, p. 20). Qualitative interviews as probably most popular data collection method in practice theoretical research (as shown, for instance, for the field of mobility by Kent (2022, pp. 229–231)) come with certain limits. The tacit, taken-for-granted elements involved in practice performance, such as infrastructural arrangements and embodied skills, do not easily surface during interviews, as they are mostly not part of people’s “discursive consciousness” (Giddens, 1984). Consequently, scholars have called for mixed-methods designs combining “accounts in action” and “accounts of action” Halkier (2017), which “enable familiarity with both tacit, embodied and material elements (...) and the more explicit, discursive and conventional elements of a practice” (Kent, 2022, p. 231). Such research approaches may include, among others, interviews, workshops, participatory observations, photographs taken by study participants, and diaries (cf. Littig & Leitner, 2017; Mock & Wankat, 2024; Rabiü & Jaeger-Erben, 2024)

In addition, dealing empirically with practices also means dealing with matters of time. In order to draw a picture of the importance of sharing practices in people’s daily lives, it is necessary to trace their occurrences, their regularities, and their temporal extensions. While interviews are not useless for such explorations, more quantitative accounts of people’s time use can provide more thorough data on the frequencies, regularities, intensities, and positioning of practices in daily activity patterns. Diaries, more recently also integrated in smart phone-based applications, have become increasingly popular to examine these temporal aspects of practices (cf. Greene, 2018; Mock & Wankat, 2024; Southerton, 2006). Comprehensive time use surveys monitoring longer time spans in short time intervals (cf. Anderson, 2016; Plessz & Wahlen, 2020; Sahin & Rau, 2023; Southerton & Whillans, 2024) can also provide more systematic information about practices’ allocations, their rigidities and flexibilities within larger webs of practices, which have been described as bundles, complexes or constellations (see Section 2).

Overall, it thus appears useful to combine different data collection methods, each with particular strengths and weaknesses, to generate data sets that complement each other and provide, as far as possible, a holistic perspective on the various aspects relevant for the rise, establishment and persistence of (sharing) practices. Largely resembling the “explanatory sequential design” as outlined by Creswell and Plano Clarke (2011, pp. 81–86), the following methods were mixed (see also Figure 2):

- 1) In a first phase, four to seven exploratory semi-structured interviews with residents and one key housing actor per case were conducted in each of the observed neighbourhoods (see interview guideline in Annexe 1). These interviews aimed at getting to know the (short) history of the neighbourhoods, the diversity of residents with their typical biographical situations, the range of sharing practices and facilities, and the organisational set-up of sharing practices, with different actors and their roles. Interviewees were mostly recruited with the help of a central contact person (e.g., a cooperative representatives or community manager) and during resident gatherings (e.g., parties, resident assemblies).

- 2) Subsequently, for each neighbourhood 9-11 residents were recruited to record their daily sharing practices over a period of 14 days in diaries. As far as possible, participating residents represented the diversity of tenants in terms of age, family status, professional status and gender. Residents were asked to fill in an Excel sheet on a daily basis, reporting on: the type of sharing practices they engaged with (e.g. doing laundry with the community washing machine), where they performed the respective practice, the starting and end time of the activity, the preceding and succeeding activity, and (if applicable) other persons who were involved. The diary provided hence important information on popular practices, their temporalities, their location and social constellation. Data from the individual diaries were aggregated to generate averaged data across all participants from a given neighbourhood.
- 3) Diary participants were also asked to take pictures and videos during moments of practice enactment, with the goal of better capturing more implicit, tacit practice elements, particularly material arrangements and typical procedures (see above). However, only few residents (4 out of 29 across all three neighbourhoods) responded to this request. Hence, the initial idea of systematically analysing visual material was abandoned. Instead, resident pictures and videos as well as own pictures were used to illustrate verbal accounts of practices.
- 4) Diary results were the basis for in-depth, semi-structured interviews (Przyborski & Wohlrab-Sahr, 2010, pp. 138–145) with diary participants about their practices (see interview guideline in Annexe 1). At several stages of the interviews, tenants were shown graphs presenting data of their most frequently performed practices, observed regularities and durations, as compared to other study participants. In order to make also more tacit elements of practices surface, residents were asked to report on typical moments when they would perform specific practices, the procedures involved in performing them, and their very practical experiences in doing so (to make surface elements of their “practical consciousness”). Following the suggestions of Hitchings (2012), who defends the value of interviews for researching practices against criticisms (“people can talk about their practices”), residents were also invited to compare their sharing practices with competing conventional ones regarding central qualities and to compare their practices with other people’s practices (family members, direct neighbours, people in larger surroundings).
- 5) Participatory observations helped to get immersed with the neighbourhoods, with sharing facilities, their material arrangements and perceived atmospheres, with some observable practices, as well as daily resident interactions and forms or resident organisation. In particular, I spent twice several days within the Aux 4 Vents neighbourhood, staying in one of the available guest rooms. I therefore had the opportunity to participate in shared meals, social gatherings on the rooftop terrace, and resident assemblies. As for Domagkpark and Campus Gardens, guest rooms were fully booked respectively do not exist. Nevertheless, also there I spent extended periods of time and participated, for instance, in a resident party and a general assembly. After the interviews, several residents also offered visiting tours through their neighbourhoods to present the spaces and places where they typically perform sharing practices.

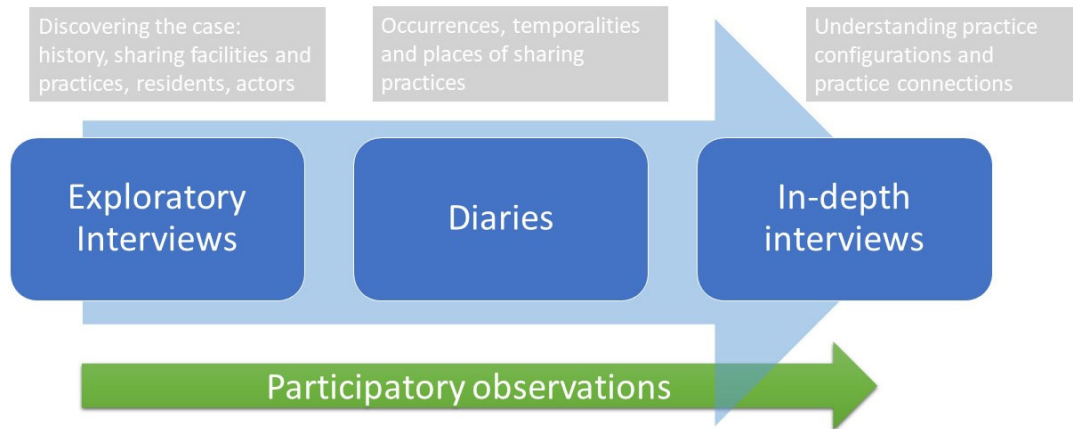


Figure 2: methods of data collection

Interviews were fully transcribed. Subsequently, a coding scheme was developed using NVivo software. This coding scheme emerged through a deductive-inductive procedure as suggested by Kuckartz (2016, pp. 63–96): a number of parent codes were theoretically derived, for instance Shove’s elemental scheme of meanings-competencies-materials, plus a fourth rules component, while other codes (mostly the sub-categories of the parent codes) emerged from the engagement with the material. All codes were described in code memos to ensure consistent application. The coding scheme was rearranged and cleaned-up twice to make categories mutually exclusive and to ensure the scheme was sufficiently detailed to capture empirical richness while remaining lean enough to be operational. As suggested by Kuckartz (2016, p. 85), I strived not to exceed 10 parent codes. I ended up with a hierarchical coding scheme of exactly 10 parent codes, and between three to twelve sub-codes. The parent codes included analytical categories (e.g. practice bundles and relationships; practice elements; recruitment and defection; temporal patterns of practices) and rather descriptive codes (e.g. sharing practices, shared resources, living situation, neighbourhood history and actors) (Kuckartz, 2016, p. 34). The code book can be found in Annexe^o3.

The entire body of material was coded according to the scheme, resulting in a total of 5,042 codings. Subsequently, text segments from selected categories of interest were evaluated, and, line with the research questions, relationships with other variables were explored, primarily by running matrix queries in NVivo. For instance, for the analysis in Article B, different types of sharing practices were put in relation with the codes “fitting practice configuration” and “non-fitting-practice configuration” to examine to which degree attractive practice configurations have evolved in the two compared German neighbourhoods. This then led to a detailed analysis of the two examples of shared meals and the circulation of used stuff and leftover food. In Article C, the co-occurrence of frequent meaning codes with popular sharing practices was assessed via matrix queries to develop a typology of sharing practices.

4. Overview of publications

This article-based thesis consists of four publications in peer-reviewed, recognised journals. Two of them were published in co-authorship, the other two as single author. Formal details on these articles are listed in Table 1 and in Annexe 6. Articles A, B and C form the core of this dissertation, while Article D is a complementary contribution. Article A elaborates the theoretical framework, which guided the subsequent empirical work. It suggests Social Practice Theories as theoretical lenses to explore why various collaborative consumption practices (as sub-form of sharing) in France and Germany display diverging trends of normalisation. Co-

housing and Peer-to-peer accommodation are used as illustrative examples. Together with Article B, Article A also presents conceptual foundations, that is: my understanding of collaborative consumption and sharing as more encompassing term. Articles B and C are dedicated to my empirical work. Article C analyses to which extent sharing practices have become normalised in the German cases of collaborative housing and developer-driven neighbourhood sharing and explores how observed differences are reflected by the formation (or not) and reproduction of competitive practice configurations and the integration of sharing practices into residents' typical life patterns. Article C adds to this work by identifying groups of sharing practices that are most popular across the three neighbourhood cases and that are characterised by similar sense-giving orientations: convenience- and community-oriented practices. Article C also has a strong practical ambition: it sketches a number of infrastructural strategies, that are likely to be conducive to the rise and continued reproduction of convenience- and community-oriented practices. It hence provides housing actors with empirically grounded ideas of how to promote sharing between neighbours by suitable artefacts and material arrangements. Article D is an additional contribution to the theoretical framework of this PhD. It focuses on one particular aspect of practice-theoretical thinking, the interrelatedness and co-evolution of practices in larger bundles and complexes. By evaluating secondary literature on different societal spheres (working, dwelling, moving, eating, recreation), it shows how different fields of social life are interconnected and how important nexus practices (such as home working) can create new dynamics within certain fields.

Publication	Title	Authorship Details	Main contributions	Addressed research questions
A	Huber, A. (2017). Theorising the dynamics of collaborative consumption practices: A comparison of peer-to-peer accommodation and cohousing. <i>Environmental Innovation and Societal Transitions</i> , 23, 53–69. https://doi.org/10.1016/j.eist.2016.12.001	Single author	Theoretical and conceptual	Theoretical-conceptual framing for all research questions
B	Huber, A. (2022). Does Sharing with Neighbours Work? Accounts of Success and Failure from Two German Housing Experimentations. <i>Housing, Theory and Society</i> , 39(5), 524–554. https://doi.org/10.1080/14036096.2022.2039286	Single authorship	Empirical, conceptual and practical	To what degree have sharing practices become established as a day-to-day pattern in the chosen cases, and how can the observed differences be explained
C	Huber, A., Heinrichs, H. and Jaeger-Erben, M. (2024). Promoting neighbourhood sharing: infrastructures of convenience and community. <i>Buildings and Cities</i> , 5(1), p. 349–367. https://doi.org/10.5334/bc.442	Predominant authorship. Conception, methodology, data collection and analysis, writing. HH and MJE: Conception and revision of manuscript	Empirical and practical	Are there certain types of sharing practices that are particularly popular across cases, indicating the strongest potential for mainstreaming, and if yes, what do these practices have in common? How may real estate developers, housing companies, or other actors infrastructurally support the proliferation of those types of sharing practices with strongest potential?
D	Klitkou, A., Bolwig, S., Huber, A., Ingeborgrud, L., Pluciński, P., Rohrer, H., Scharinger, D., Thiene, M., & Żuk, P. (2022). The interconnected dynamics of social practices and their implications for transformative change: A review. <i>Sustainable Production and Consumption</i> , 31, 603–614. https://doi.org/10.1016/j.spc.2022.03.027	Equal share authorship. Conception, analysis and interpretation, writing (Sections 2 and 4.1). Other authors: conception, analysis and interpretation; writing of all other sections;	Theoretical	Illustration of the interconnectivity of practices

Table 1: overview of publications

5. Publications

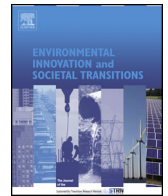
5.1 Article A

Huber, A. (2017). Theorising the dynamics of collaborative consumption practices: A comparison of peer-to-peer accommodation and cohousing. *Environmental Innovation and Societal Transitions*, 23, 53–69. <https://doi.org/10.1016/j.eist.2016.12.001>



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Theorising the dynamics of collaborative consumption practices: A comparison of peer-to-peer accommodation and cohousing

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ABSTRACT

This article aims to make a contribution to a more nuanced, theory-based interpretation of current dynamics of Collaborative Consumption (CC). First, I develop my own definition of CC practices, highlighting the engagement of at least two individuals who get involved in direct interaction and make use of the same units of goods and services. This conceptualisation leads me to a compilation of some exemplary CC practices. Empirical data shows a very uneven diffusion of these practices in France and in Germany. Social Practice Theory (SPT) is suggested as very fruitful theoretical framework to explain these diverging dynamics. To illustrate the usefulness of this approach, I then compare two specific CC forms, P2P accommodation and cohousing. My analysis shows that P2P accommodation has formed a highly attractive practice configuration with very good chances to 'recruit hosts', while cohousing presents a rather demanding 'practice-as-entity' with rather restricted opportunities to find practitioners. To conclude, I suggest to complement SPT with insights from the Multi-Level-Perspective in order to better account for 'systemic', vertical processes, which affect the 'availability' of practice elements.

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1. Introduction

In recent years, major newspapers and magazines have reported extensively on practices often referred to as Collaborative Consumption (CC), such as peer-to-peer (P2P) car renting, carpooling, P2P goods lending, bartering and reselling, P2P accommodation, home exchange, cohousing, food sharing, community supported agriculture, and community gardening (c.f. Amberger, 2013; Baumgärtel, 2014; Belot, 2011; brandeins, 2013; Bund, 2011; *The Economist*, 2013; Metzger, 2015; Ratzesberger, 2012; Walsh, 2011). In parallel, these consumption forms have appeared on the agendas of some major cities (declaring themselves 'sharing cities', e.g. Seoul, San Francisco, Amsterdam (*City of Amsterdam*, 2016; McLaren and Agyeman, 2015; *Seoul Metropolitan Government*, 2012)) and EU policy making (*European Economic and Social Committee*, 2013).¹ This strong public attention is reflected by a growing number of recent academic works dealing, for instance, with organi-

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¹ CC is often discussed as part of an overarching new 'collaborative economy' or 'sharing economy', which comprises also cooperative knowledge creation (cf. Wikipedia), finance (crowd-funding, social lending, alternative regional currencies), software and goods generation (open source software, FabLabs) (*Sharing Economy Working Group*, 2013: 4; Bauwens et al., 2012: 16).

sational/business models, the potential environmental, social and economic impacts of CC practices, as well as with value orientations/motivations and narratives underpinning them (c.f. Bardhi and Eckhardt, 2012; Belk, 2014; Daudey and Hobian, 2014; Gsell et al., 2015; Martin and Upham, 2016; Martin, 2016; Piscicelli et al., 2014; Schor and Fitzmaurice, 2015).

Some observers, both from science and public, have euphorically welcomed CC as promising consumption trend which is able to profoundly change our life. Thus, Botsman and Rogers (2011) argue that a 'Generation We' is about to create a society where access to goods predominates over exclusive ownership and use. Jeremy Rifkin (2014) expects the rise of a new hybrid economy around 'Collaborative Commons'. Novel and Riot (2012) see a 'co-revolution' ongoing, which spans consumption practices, but also inter-organisation relationships and company management. Désert (2014: 5) finds that CC practices are about 'to shatter the foundations of our economic system',² while Bauwens and colleagues argue that CC is part of a new collaborative economy, which presents 'a deep transformation of economic practices' (2012: 4). Finally, the Time Magazine (Walsh, 2011) characterised CC as 'one of the 10 ideas that will change the world'.

CC is frequently expected to have multiple positive effects, not least on environmental protection (Heinrichs, 2013). In its 'global call for sharing', STWR argues that, due to its 'versatility, commonality and wide applicability', sharing may be a potential 'solution to the world's problems' (Share the World's Resources, 2014: 2), amongst them climate change and resource depletion. Botsman and Rogers (2011: 74) argue that CC may result in unintended positive environmental side effects – and hence free our societies to some extent from the burdensome work to reduce our environmental footprints: 'Sustainability is often an unintended consequence of Collaborative Consumption. It is unintended in the sense that the initial or driving motivations (...) may not be about "being green". (...) These positive unintended (...) consequences happen because sustainability and community are an inherent, inseparable part of Collaborative Consumption and not an afterthought or add-on'. In addition, CC is also expected to have positive effects on social cohesion and community building (Désert, 2014; c.f. European Economic and Social Committee, 2013; Seoul Metropolitan Government, 2012).

While such very optimistic accounts of new societal trends are probably pretty common (and meanwhile, a growing number of observers portrays CC and the Sharing Economy more critically³), they also point to two important shortcomings of the current debate. First, scholars have only started to analyse CC practices empirically, which will enable stronger, evidence-based descriptions of current dynamics. Second – and this is the central concern of this article – these fairly unbalanced presentations of CC also reflect a lack of conceptualisation and theorisation of CC practices. Currently, new buzz words are appearing in the debate, such as 'gig economy', 'rental economy', 'platform capitalism' and 'on-demand economy' and add on the already considerable collection of existing terms such as 'cooperative economy', 'access-based consumption' and 'peer economy'. This further obscures the picture and makes nuanced interpretations of current CC dynamics difficult. With my paper, I want to contribute to a debate which is grounded on clear conceptual demarcations and informed by theory. My objective is to develop and illustrate a theoretical framework, which can explain why CC practices differ strongly in their dynamics. This can allow for a more differentiated assessment of CC practices' potential to transform our societies.

I will first develop my own definition of CC, which is taking the (few) existing definitions and their weaknesses as starting point (Section 2). My conceptualisation of CC excludes some frequently cited practices, for instance B2C services and fairly conventional services disguised as 'sharing'. Based on this definition, I present a (non-exhaustive) compilation of currently debated CC examples from different consumption sectors. Available empirical data on the current engagement with these practices shows a highly uneven development (Section 3). The remainder of the article is then concerned with how we can explain these very variable dynamics. I suggest Social Practice Theory (SPT) as very fruitful theoretical framework, which offers insights into how different elements of meaning, skills, material and rules form novel configurations and into how practices 'recruit carriers' or not (Section 4). To illustrate the usefulness of this approach, I compare two specific CC forms, P2P accommodation and cohousing, with regard to their current dynamics, drawing on existing empirical studies (Sections 5 and 6). To conclude, I then discuss one major limitation of SPT: With its focus on the 'circulation of elements' it takes more 'systemic' elements only insufficiently into account, notably the role of supply systems, regulations and related power relations. More vertical approaches such as the Multi-Level-Perspective might hence complement SPT to further enhance our understanding of diverging CC dynamics (Section 7).

2. What is collaborative consumption?

The term Collaborative Consumption is nowadays widely used, but, surprisingly, there is no commonly agreed-on definition, as Rachel Botsman (2013), one of the main contributors to its popularity, has recognized herself. It was coined by Felton and Spaeth who defined 'acts of collaborative consumption (...) [as; the author] events in which one or more persons consume economic goods or services in the process of engaging in joint activities with one or more others.' (Felton and Spaeth, 1978: 614) As examples the authors cite 'drinking beer with friends' or 'driving to visit someone'. The authors' main criterion for defining CC was hence the event of joint activities – which can, but must not necessarily involve the use of the same goods, for instance when several friends sit together, each one with a glass of beer of its own. While I sympathise with

² Translated from French.

³ Though, a growing number of critical voices challenge these promises and point, for instance, to the likelihood of rebound effects and the risks of a pauperisation through sharing services (c.f. Baumgärtel, 2014; Cagle, 2014; Leismann et al., 2012; Lobo, 2014; Lotter, 2013; Scholl et al., 2013; Schultz, 2014; Servet, 2014).

Felson and Spaeth's idea of peers interaction, my understanding of CC is anchored in the joint use of material goods and services (see my own definition attempt below).

Around 30 years later, the term gained new prominence with Botsman and Rogers' seminal book 'What's Mine is Yours' (2011), albeit with a quite different meaning. CC is presented as 'traditional sharing, bartering, lending, trading, renting, gifting, and swapping redefined through technology and peer communities' (Botsman and Rogers, 2011: xv). However, by merely listing different practices the authors avoid providing an explanation of which characteristics the former share in the end. Instead, they emphasise the role of (IC) technology, which 'redefines' these 'traditional' practices.⁴ Other authors have also adopted this technology-based understanding of CC (Schor and Fitzmaurice, 2015; Stokes et al., 2014) highlighting Web 2.0 and mobile app technology. Although there is little doubt about the central role of these technologies for the recent success of platforms such as Airbnb, Blablacar and Zilok, narrowing down CC to these internet-based forms excludes practices, which are, mainly or exclusively, taking place offline. Yet, most of us will intuitively agree that community gardens, cohousing, gift boxes, and swapping parties are indeed very 'collaborative'. Thus, I argue that ICT cannot be a conceptual element to distinguish CC from other forms of consumption, but rather an element taken into account for analysing practice dynamics (see later in this article).

Belk (2014: 1597) criticises Botsman and Rogers' definition as 'too broad' as it 'mixes marketplace exchange, gift giving, and sharing.' Instead he suggests that '[c]ollaborative consumption is people coordinating the acquisition and distribution of a resource for a fee or other compensation. By including other compensation, the definition also encompasses bartering, trading, and swapping, which involve giving and receiving non-monetary compensation.' (Belk, 2014: 1597) Two aspects deserve attention in this definition. First, Belk presents CC as cooperative acts of people, who 'coordinate' the use of a resource. This emphasis of peers' interaction appears very helpful for distinguishing CC from other practices of shared access which do not involve any interaction between people, for instance most forms of organised car sharing. Second, Belk's central criterion to distinguish CC from other coordinated consumption practices is then compensation, be it monetary or non-monetary. Although this is certainly a 'sharper' delineation of CC, I find compensation as main definitional element problematic, as it excludes other sorts of gratifications, such as the pleasure of socialising, the positive emotions of making a gift to someone, or 'simplifying' one's life by getting rid of unused goods. Following his definition, Belk includes into his CC concept overnight stays enabled by the rental platform Airbnb while he excludes the for-free service Couchsurfing – although both share the core idea of making private homes temporarily accessible to travellers. Moreover, discerning gratifications involved in a practice is also a matter of empirical investigation and hence of limited use for definitions.

Interestingly, other, often non-academic authors advocate precisely the opposite of Belk's definition, namely to exclude Airbnb and other for-fee practices from the concept of CC. In their perspective, a 'rental economy' or 'platform capitalism' has developed, which is about to destroy the altruistic ideals of 'true' sharing. They blame the commercial platform providers of presenting their activities as 'sharing economy' services, while in reality commercially exploiting previously non-marketised goods such as hospitality (Airbnb) (Cagle, 2014; Denoun and Valadon, 2013; Lobo, 2014; Metzger, 2015). While from a normative point of view, this debate around the misuse of the term is very important, I argue that in conceptual terms it is less useful to distinguish between solidary, non-marketised 'true' CC forms on the one hand and commercial, 'false' forms on the other hand, as many practices are in reality mixed forms, combining 'social' and commercial logics (Bauwens et al., 2012: 35). Again this needs to be studied empirically and is hence not a solid base for defining CC.

To conclude, I find none of the existing definitions fully satisfactory for the purpose of this article and hence suggest in the following my own working definition. Before doing so, I want to point out that with this definition I do not strive for universal applicability, but this presents a tentative, pragmatic and certainly provisional attempt to approach CC practices. Thus, in the frame of this article, I will speak of practices of Collaborative Consumption to refer to all forms of practices in which at least two members of a community get engaged in *direct interaction* (1) and draw on the *same units of material goods or services* for performing practices (2).

This requires some further explanations. First, taking up Belk's idea of coordination, I put the *engagement of two members of a community in direct interaction* centre stage (see also Chronos (2014) as well as Daudey and Hobian (2014: 30) with similar suggestions).⁵ In this context, my understanding of communities is non-normative and pragmatic to avoid similar problems as in the definitions discussed above. The minimum condition to form a community is that at least two individuals get into direct contact (be it face to face or virtually) to engage in the performance of a practice. Thus, my understanding includes very 'thick' intentional communities, characterised by 'strong ties' (Granovetter, 1973) between a small number of peers, who share common histories and frequently meet in person, as well as 'fluid' communities involving large numbers of peers, who often experience only one-point encounters of limited duration (for this distinction I found inspiration in Grabber's (2004) concepts of 'communality' and 'sociality'). Membership in thick communities usually involves face-to-face approval through

⁴ Indeed, CC is by no means a new phenomenon. Many CC forms – for instance second hand markets, cohousing, carpooling, the gifting of clothes, sharing tools between neighbours – have medium or long-term histories and have been analysed by previous research under a different terminology. For instance, German scholars used to discuss CC practices as 'Nutzen statt Besitzen' ('using instead of owning') strategies (Hirschl et al., 2001; Scholl, 2009; Scholl et al., 2010; Schrader, 2001; Rabelt et al., 2007).

⁵ Note: while here I have not made an explicit link with SPT, I have indeed borrowed some of its terminology and thinking for conceiving this definition. This is also true for the importance given to communities. Shove et al. highlight communities and networks as "crucibles" for the performance of practices and "conduits through which practices flow" (2012, p. 66–69). Similarly, Sahakian and Wilhite (2014) discuss communities and networks as opportunities for individuals to get engaged with new practices.

other community members, while a simple online registration may be sufficient to join fluid communities. Cohousing and community gardens are typical examples of thick communities, while carpooling or online P2P lending platforms fall into the second category.

The emphasis on peers *interaction* excludes other practices, which are also often mentioned in relationship with the 'Sharing Economy', namely Product-Service-Systems (Tukker, 2004) based on business-to-consumer (B2C) or government-to-consumer (G2C) constellations (Scholl et al., 2013). In such models, companies or public entities provide temporary access to a service or good, for instance commercial car sharing and public bike sharing schemes, but usually without any act of 'collaboration' between users. Such practices could be framed as 'access-based' consumption practices.⁶ In a wider perspective, one might conceive CC and access-based consumption practices as two important constituents of a wider Sharing Economy, together with other elements such as collective knowledge creation and collaborative financing. Despite the focus on P2P interaction, my definition allows for the possibility that companies, civic and public organisations intervene in CC practices as intermediaries, who enable peers interaction. For instance, this relates to P2P internet platforms, which create matches between complementary 'haves' and 'wants'.

With point 2, I want to stress distributional effects, that is the benefits of one material *good or service unit* are split among several individuals. By this, I join Botsman and Rogers (2011) for their interest in the unexploited 'idling capacity' of goods and Scholl et al. (2015) for their concern for 'use prolongation' (through the change of ownership) and 'use intensification' (through the simultaneous or serial use) of goods. The emphasis on *one and the same good or service unit* may appear trivial at first sight, but when applying this criterion to currently discussed practices it allows to exclude conventional service provisions disguised as 'sharing'. For instance, ordinary holiday apartments advertised on Airbnb do not fall into my definition of CC because their owners do not share *their* apartments where they live themselves but offer another 'unit of good', a holiday apartment. Similarly, Uber rides, which only occur upon request by a peer, do not match this second criterion because driver and passenger do not share the same service unit as in the case of carpooling (reaching a common destination). Following my definition, such a trip would present nothing else than an ordinary taxi ride. This conceptualisation of CC leads me now to a compilation of different CC practices, which fit my definition, and their current diffusion in France and Germany

3. Examples of CC practices and their current diffusion in France and Germany

Table 1 presents a selection of CC practices and their current rates of practitioners in France and Germany.⁷ The listed practices were chosen because they are frequently mentioned in debates on CC but this compilation does not present an exhaustive list of existing practices. The examples span the areas of mobility (P2P car lending, carpooling), housing/tourism (P2P accommodation, cohousing), consumer goods (goods bartering, reselling, and lending) and food (food gifting, community gardens, food cooperatives).⁸ The table presents evidence from different sources, mainly surveys. Some clarifications are necessary. First, not for all practices extensive empirical data was found. Hence, for some practices the rating of prominent websites on alexa.com was chosen as auxiliary indicator for their diffusion, which of course has to be interpreted with caution. Second, the distinction of low (<5%), medium (5–30%) and high levels (>30%) of diffusion is somehow arbitrary and others might define different classes. Third, the roles of supplier and demander, for instance for second hand goods, are not clearly distinguished by all referenced studies. Thus, some collected data presents aggregated information integrating both roles. This hides potential differences of engagement, which may exist between those who demand and offer. Finally, the table doesn't specify the intensity of practicing, which results in daily, occasional and exceptional practitioners all being merged into one figure. Data on the frequency of engagement with a practice would of course strongly enrich the assessment of the importance of a given practice, but again such data was not systematically available.

The overview shows that the current diffusion of CC practices is very uneven. Based on this evidence, CC can hardly be presented as new transversal societal trend as some euphoric commentators have put it. Rather, the evidence points to 'own' histories of the presented practices. How can these highly variable developments be grasped? In this article I argue that Social Practice Theory is a very fruitful theoretical approach for this endeavour.⁹ Rather than reducing the analysis of social change to the level of individual choices and 'life styles' which are determined by more or less stable attitudes and external "drivers and barriers" – the dominant paradigm which Shove (2010), slightly provocatively, called the 'ABC model' – it suggests social practices as 'units of enquiry' (Shove, 2010). Social practices are conceptualised as blocks of co-evolutionary elements comprising technologies and infrastructures, systems of provision, embodied know-how, institutions, and repositories of meaning. Such a perspective appears more appropriate than individualistic approaches to investigate CC dynamics, which seem to be related to a diverse set of interrelated elements such as social conventions of privacy and collectiveness, technological developments (ICT), and social and coordinative skills. Furthermore, SPT understands practices as being interwoven into large bundles of practices that together form every-day life and evolve in relation to each other

⁶ Bardhi and Eckhardt (2012) use this term but then mix B2C and G2C with P2P practices.

⁷ This country choice is due to the empirical work of the author on these two countries.

⁸ Some of them are hybrid forms which combine production and consumption, confirming the rise of 'prosumers' (Ritzer and Jurgenson, 2010).

⁹ In the following I will speak of Social Practice Theory in singular, which obscures the differences that exist between different strands of thinking within the field (leading some authors to speak rather of 'theories of social practice' in plural). However, the objective of this article is not to elaborate on these differences but rather identify the common ground between authors and apply it to CC.

Table 1
The current diffusion of selected Collaborative Consumption practices in France and Germany.

CC practice	Sector	Examples	Current diffusion in France and Germany
P2P accommodation	residential/tourism	airbnb.com, couchsurfing.org, homeexchange.org	Medium in both countries: 6% in G (Scholl, 2016) 12–22% in F (La Fabrique Ecologique, 2014; l'ObSoCo, 2013: 164).
Cohousing	residential	Le Village Vertical Lyon, Greves Garten Berlin	Low, albeit growing in both countries since around 2000. Around 250 cohousing projects in F (Euvrard, 2011: 63; Tummers, 2015b: 66), around 500 in G (Ache and Fedowitz, 2012: 395).
P2P Goods lending	consumer goods	zilok.com, leihdirwas.de	Low in G: Leihdirwas.de ranked at position 56,452 on alexa.com (accessed in February 2016). Medium in F: 6–15% French practitioners (La Fabrique Ecologique, 2014; Mediaprism, 2014: 24;).
Goods bartering	consumer goods	tauschticket.de, kleiderkreisel.de, pretachanger.fr	Medium. For clothes, Scholl (2016) found that 20% of the Germans have gathered experience with clothes bartering and (mainly) reselling (as demanders). 9–11% of the French barter (l'ObSoCo, 2013: 137; Oudghiri and Brunet, 2013: 13).
Goods/food gifting	consumer goods/food	freecycle.org, gift boxes, foodsharing.de	High in F (59%) and G (83% according to Observatoire Cetelem (2013: 19)).
Goods reselling	consumer goods	Flohmarkt, brocante, vide grenier, quoka.de, leboncoin.fr	High. 50–60% in both countries, both online and offline (second hand markets) (Heinrichs and Grunenberg, 2012: 12; Mediaprism, 2014: 24; l'ObSoCo, 2013: 112; l'ObSoCo, 2015: 1; Oudghiri and Brunet, 2013: 13).
Community supported agriculture	food	reseau-amap.org, solidarische-landwirtschaft.org	Low. 5–6% of the French are part of an AMAP (l'ObSoCo, 2013: 131; Oudghiri and Brunet, 2013: 13). No data found for G.
Community gardening	food	jardins-partages.org, Prinzessingarten Berlin, Essbare Stadt Andernach	Low, but growing in both countries (estimation, no data found). Long tradition of 'Schrebergärten' in G and 'jardins ouvriers' in F.
P2P car rental	transport	tamya.de, drivy.com	Low but growing. Only 1–2% of the French (La Fabrique Ecologique, 2014: 19; l'ObSoCo, 2015: 1) and the Germans practice P2P car renting (Scholl, 2016).
Carpooling	transport	blablacar.com, flinc.org	Medium. Around 19–25% of the French practice carpooling (La Fabrique Ecologique, 2014: 19; l'ObSoCo, 2015: 1) and around 11% of the Germans (Scholl, 2016)

– an aspect which ABC-approaches largely neglect, although it can be hardly denied that, for instance, carpooling must be organised in a smooth way to get easily integrated into the rhythms of daily life. In the next section, I will introduce SPT more thoroughly and elaborate on how it conceptualises social change. Subsequently, I will illustrate the potential of this approach by zooming in on two practices, P2P accommodation and cohousing, which have displayed strongly diverging dynamics over the last years.

4. Social practice theory

Over the last couple of years, a growing body of literature has dealt with the potential of SPT to frame consumption patterns (see for a useful overview Halkier et al. (2011)). Although not yet a fully developed, consolidated theory (Røpke, 2009: 2490), SPT has been suggested as alternative approach to the prevailing, rational choice thinking on the one hand, and structuralist, norm-following conceptualisations of human behaviour on the other hand (Reckwitz, 2002; Shove, 2010; Strengers, 2012; Warde, 2014). While rejecting both, the idea of autonomous, resource-optimising individuals – in the words of Y. Strengers (2013): 'resource men' – and the idea of individuals as socially determined 'dopes who conform to norms' (Reckwitz, 2002: 256), social practices are proposed as mediating concept in social sciences (McMeekin and Southerton, 2012). According to Reckwitz, a practice 'consists of several elements, interconnected to one other: forms of bodily activities, forms of mental activities, "things" and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge. A practice – a way of cooking, of consuming, of working, of investigating, of taking care of oneself or of others, etc. – forms so to speak a 'block' whose existence necessarily depends on the existence and specific interconnectedness of these elements, and which cannot be reduced to any one of these single elements.' (Reckwitz, 2002: 249–250) These configurations of linked components – something Schatzki (1996) referred to as 'practice-as-entity' – vary in terms of terminology and content according to different authors (Gram-Hanssen (2010); Gram-Hanssen (2011); I will discuss this aspect below). When people perform a practice they routinely draw on the constitutive elements of the practice-as-entity and thus reproduce them ('practice-as-performance'), while also constantly sewing the 'seeds of change' (Warde, 2005: 141) by improvising and experimenting through small adjustments. Performed repeatedly and recognizably by a significant number of agents, social practices become 'ordering, orchestrating entities in their own right' (Shove and Walker, 2010: 471), which, as interrelated, mutually stabilising bundles and complexes of practices (Shove et al., 2012)

make up most of what societal life is made of. Consequently, Watson argues that ‘any sociotechnical transition has to be a transition in practices’ (Watson, 2012: 489).

Individuals have their role to play in this, but a different one as suggested by rational choice and norm-guided conceptualisations. They are knowledgeable ‘carriers’ (Reckwitz, 2002) or ‘hosts’, who get ‘recruited’ or ‘captured’ by practices (Shove et al., 2012) and, by performing them, keep them alive. In this sense, social diversity is no more understood as resulting from people’s deliberate lifestyle choices, but from different social practices attracting different cohorts of people who reproduce them with varying intensity. Personal individuality in turn stems from the singular combinations of practices capturing each individual – which is why Reckwitz (2002: 256) conceptualised individuals as ‘unique crossing point of practices’.

SPT has also shifted the focus in consumer research from the *purchase* of goods and their expressive value to the rather ‘inconspicuous’, ordinary, routinized *use* of artefacts, technologies and infrastructures (Warde, 2005: 147). This interest in largely routinized, mundane everyday doings and sayings is seen as ‘the default mode of engagement in the world’ (Warde, 2014: 292). How then is change conceptualised? Based on the existing literature, I want to distinguish two central processes in this respect: 1) the reconfiguration of existing practice-as-entities or the creation of new arrangements of elements. This can be understood as the emergence of innovation. 2) The recruitment of growing numbers of individuals to a practice, to the detriment of other, competing practices (‘defection’). This process is related to the degree of ‘normalisation’ of a new practice. In the following sections I will discuss these two processes.

4.1. (Re)configuration of practice elements

As mentioned in the previous section, practices can be understood as settings of bodily and mental activities stabilised by a number of interlinked elements. These configurations are integrated through the repeated performances of practice carriers. The ‘ingredients’ of these arrangements vary in detail from author to author (c.f. Gram-Hanssen, 2010; Gram-Hanssen, 2011; Sahakian and Wilhite, 2014; Schatzki, 1996; Shove and Pantzar, 2005a; Strengers, 2010; Wilhite, 2012), but nevertheless there are considerable similarities between the conceptualisations, which often are only hidden behind different terminologies.

For my work, I want to use Elizabeth Shove and colleagues’ (2005a; Shove et al., 2012) well-known and comprehensible configuration of skills-meaning-material, complemented by the additional element of ‘rules’ as suggested by Gram-Hanssen (2010). Gram-Hanssen argues that Shove and colleagues’ category of skills is ‘overly simple, as the authors do not distinguish between the two main types of competences: know-how or nonverbal knowledge and explicit, rule-based, or theoretical knowledge’ (Gram-Hanssen, 2010: 155). I follow Gram-Hanssen and integrate an explicit *rules* component into my conceptualisation of practice-as-entities. *Skills* in contrast shall refer to embodied, mostly tacit competences, which are acquired through repeated performance of a given practice (e.g. the coordinated movements of arms and legs for swimming) or several similar practices (e.g. typing as skill necessary for both, emailing with friends and article drafting).

The element of *meaning* is, in the words of Røpke, ‘about making sense of the activities. This includes the *ideas* of what the activities are good for (or why they are considered problematic), the *emotions* related to the activities, the *beliefs* and *understandings* [own emphasis]’ (Røpke, 2009: 2492). This quotation points to the diversity of sense-making components that may be involved in practices. These may include very practical rationales (getting around quickly by airplane), emotions such as fun (the excitement in the moment of take-off) and conventionalised beliefs and understandings (flying as part of a cosmopolitan, flexible and mobile life). It may also, but does not necessarily include moral orientations (Røpke, 2009: 2496) such as solidarity and fairness in ethical consumption (buying fair trade products) and environmental protection (doing holiday trips by train rather than by aircraft).

Finally, while Giddens (1984), one of the main contributors to SPT, has not considered material elements for his conceptualisation of practices, the more recent SPT contributions have highlighted the importance of infrastructure, technologies and artefacts for shaping practices. For instance, the embedded ‘scripts’ (Akrich, 2000) of fridges have changed traditional Indian cooking practices (Wilhite, 2008); standardised mechanical cooling technology has shaped expectations of normal indoor temperatures and dressing habits (Shove, 2003; Shove, 2013; Wilhite, 2008); and the massive presence of networked ICT appliances in the home has enabled a new culture of ‘connectedness’ (Gram-Hanssen, 2010).

These elements of material entities, practical know-how, institutions and sense-making form relatively stable configurations, which hang together and co-evolve. However, these can be rearranged by the ‘the circulation of elements’ (Shove and Pantzar, 2005a). ‘New’ meaning elements ‘migrating’ from other practices may reshape the practice-as-entity and thus ‘refresh’ historically grown practices; technology innovations such as smart phones may add to existing configurations and thus change the conditions of practice performance; changing codified and informal rules (such as the obligation to fasten seat belts) can cause a re-ordering of the other constitutive elements (such as the weakening association of car driving with the feeling of liberty). And finally, embodied skills acquired in existing practices (balancing in skateboarding) may ‘travel’ to other practices to form new alliances (snowboarding). As Spaargaren (referring to Schatzki (2002)) argues, scholars interested in potentially upcoming changes should hence pay attention to ‘prefigurational relationships’ (Spaargaren, 2011: 817) or, as Shove and Pantzar term it, to ‘innovations-in-waiting or proto-practices’ (Shove and Pantzar, 2005a: 48), that is configurations of elements which potentially fit well together but have not yet formed links. However, it is only through the repeated performances of knowledgeable agents that these proto-practices may become relevant for people. In the next section I will address this issue.

4.2. Recruitment and defection

Practices can be seen as competitors for people's time, money, mental and physical capacities. Elizabeth Shove comments on a specific type of practices – habits: '(...) [I]f habit-demanding practices are to survive they have to be capable of persistently and consistently colonising slots of time and other resources. This requirement puts them in quite specific forms of competition with other practices (...). For any one practice, becoming a habit (...) is likely to involve displacing or reconfiguring others' (Shove, 2012: 106). Of course, habits require regular repetition and are hence very 'demanding' but the basic argument of competition is true for all types of practices: If they are to take a recognizable role in the organisation of social life, they need to repeatedly attract a significant number of practitioners (a process frequently referred to as 'recruitment'). In contrast, if practitioners refrain from performing a practice ('defection'), this practice dies and materials objects involved in their performance may become social fossils (Shove and Pantzar, 2005b).

While this essential idea of practice reproduction seems to be common ground between scholars, SPT still appears relatively underdeveloped regarding *why* some practices are more successful in recruiting carriers than others. Drawing on ideas from different authors, I want to frame this question as one of *opportunities of embodiment*. I suggest that embodiment, understood as an individual's achievement of practical know-how or practical consciousness (Wallenborn and Wilhite, 2014), varies according to (1) the frequency of exposure to a practice (2); the match with available capitals and embodied practice 'histories'; and (3) the fit into existing arrangements of practices, ordered in time and space.

First, following Lave (1991) social learning is a situational, participative, interactive and experience-based process. Thus, being 'captured' by a practice inevitably depends on exposure to performances of it (Wilhite, 2012). This may be deliberately enabled, for instance in demonstration projects, where people can experience 'what it feels like' to engage with a practice (Sahakian and Wilhite, 2014; Wallenborn and Wilhite, 2014). However, for the vast majority of practices, exposure is rather enabled through individuals' social ties, which create 'chance encounters and unpredictable experiences' (Shove et al., 2012: 68). Family members, friends, neighbours, and acquaintances may act as transmitters of practices. However, exposure to new practices also happens *en passant* when taking part in any sort of social life. For instance, nowadays the frequent use of public transportation brings us almost inevitably in touch with the practice of e-book reading. To sum up, frequent exposure to practices, enabled through personal relationships or participation in social life, creates a perception of its normality and thus increases the likelihood of being captured by it.

Second, the opportunities of embodiment vary according to social inequalities. This refers to both, the 'objective' positioning in society, depending on disposable economic, cultural, social and symbolic capital, and embodied dispositions of valuing, reasoning, judging, and (dis)liking, as described by Bourdieu's (1979) *habitus* concept. A person's endowment with different resources and its experiences with other practices makes the engagement with emerging practices more or less likely (McMeekin and Southerton, 2012; Wallenborn and Wilhite, 2014). For instance, the wealthy French 'Bourgeoisie' tends to move around in SUVs and live in spacious apartments and villas (Girard et al., 2011), which makes its recruitment for cargo bike transportation and the tiny house living movement unlikely.

Third, the chances of embodiment will increase with a practice' potential integration into the flow of existing, spatially and timely ordered activities, that is relatively coherent, interdependent complexes of practices. As Watson puts it, '[a]ppreciating the relations between practices (...) is in fact essential to understanding dynamics within practices' (Watson, 2012: 491). Most of the daily patterns of working, commuting, living, and leisure activities are embedded into recurring sequences of time and bound to specific geographical places (Shove et al., 2012). Thus, any emerging practice needs to find its place within these existing practice settings and be able to co-evolve with them. As people today face the constraints of an accelerated every-day life (Rosa, 2005) and have multiple options to engage with practices (Warde, 2005) it is fair to assume that any novel practice making time-intensive and 'inflexible' claims will have to 'struggle' hard to attract large numbers of hosts.

In concluding this section, I suggest framing the diffusion of CC practices as a twofold process. First, change comes about when elements of meaning, materiality, skills and rules are (re)configured (emergence of new practices or adaptation of existing ones). Second, the 'normalisation' of a practice happens when significant numbers of hosts get recruited by it. The 'chances of embodiment' depend on frequent exposure to a practice, social inequalities regarding capitals and previous practice histories, and the integration of a novel practice into existing structures of practices ordered in time and space.

To illustrate the usefulness of this approach to explain diverging practice dynamics I will now apply it to two selected CC practices with very different diffusion levels in France and Germany, P2P accommodation and cohousing.¹⁰ For this analysis I have drawn on different data sources (see Table 2): First and most importantly, I have done a comprehensive literature review of empirical studies on cohousing and P2P accommodation. Second, I have scanned documents produced by actors from the two sectors on relevant information. Finally, I evaluated website material from P2P accommodation providers, newspapers, magazines and websites reporting on the two practices. The information gained from these different data sources was then aggregated to interpret the evolution of both practices through the lenses of SPT.

¹⁰ The picture may be totally different in other regions of the world.

Table 2
Data sources.

Documents	Euvrard (2011); Göschel (2010); Sharing Economy Working Group (2013)
Provider websites	Airbnb.com, Couchsurfing.com, HomeExchange.com, Wohnprojekte-portal.de
Newspapers, magazines, websites	Ouishare.org, Shareable.org, Denoun and Valadon (2013); Götze (2013); Jacquin (2015); Mayer (2015); Streitfeld (2014); Wild (2012); Winde (2012)
Empirical studies	Ache and Fedrowitz (2012); Andriotis and Agiomirgianakis (2014); Bangel (2016); Bauwens et al. (2012); Belk (2014); Bialski (2012); Bresson and Denèfle (2015); CETE (2013); Droste (2015); Fedrowitz (2011); Forno and Garibaldi (2016); GermannMolz (2013); Gsell et al. (2015); Guttentag (2015); Heinrichs and Grunenberg (2012); Horelli (2013); Iorio (2011); Iorio (2013); Jarvis (2011); Lauterbach et al. (2009); Le Groupe la Poste (2013); Lietaert (2010); Liu (2012); l'ObSoCo (2013); Maury (2012); McCamant and Durrett (1994); Mediaprism (2014); Meltzer (2005); Millonig et al. (2010); Oudghiri and Brunet (2013); Pätzold et al. (2014); Pick (2012); Robert et al. (2014); Ronzhyn (2013); Ruiiu (2016); Sanguinetti (2014); Scholl et al. (2015); Schor and Fitzmaurice (2015); Servet (2014); Tummers (2015b); Tummers (2015a); Vestbro (2013); Vestbro and Horelli (2012); Wagner et al. (2015);

5. Peer-to-peer accommodation

P2P accommodation can be seen as alternative form of tourism, following the tradition of the Anglo-Saxon bed and breakfast lodging or the French rural tourism of 'Gîtes de France'. P2P accommodation is typically not a life earning activity for the hosts (although platforms such as Airbnb have clearly promoted commercialisation) and rooms and apartments are only occasionally offered to travellers and otherwise used by the hosts themselves. The recent popularisation of P2P accommodation dates back to the early years of the last decade when platforms such as Couchsurfing.org (2004), homeexchange.com (established already in 1992) and Airbnb (2008) started to expand. After moderate expansion in the first years of existence, Airbnb in particular has developed very dynamically over the last years (Guttentag, 2015: 1192).

Within the practice of P2P accommodation there are different sub-practices. Homeexchange.org is a home swapping service which brings together households swapping their homes for holidays. The platform currently counts 65,000+ listings from more than 150 countries (HomeExchange, 2016a). Couchsurfing.org allows travellers to spend overnight stays at the homes of locals, who offer an air mattress, a couch or a guest room for free to their invitees. The hospitality platform says it currently gathers 10 million travellers (Couchsurfing, 2016b). Following the entry of investors in 2011, the platform was transformed into 'a mission-driven for-profit corporation' (Couchsurfing, 2016c). This implied a change in the terms of use allowing the new owners to commercialise user data and created a wave of fierce protest. Different from Couchsurfing.com, a number of other websites such as the highly popular Airbnb.com offer home overnight stay against fees. The sector is developing very dynamically. For instance, Berlin counts already 10.000–15.000 P2P accommodation offers (Mayer, 2015) and Paris even around Airbnb 50.000 hosts (Jacquin, 2015).

5.1. (Re)configuration of practice elements

Above I have introduced the (re)arrangement of interlinked elements of materiality, institutions, meaning, and competence as the first process of change. Applying this framework to the recent development of P2P accommodation, one needs to emphasise first of all the role of 'social internet' and smart phone applications which have enabled geographically distant foreigners to build up relationships (*material dimension*) (Bauwens et al., 2012: 136–137; Schor and Fitzmaurice, 2015; Servet, 2014). Internet platforms have dramatically decreased the transaction costs, increased mutual trust and made P2P accommodation and other CC forms very practical (Belk, 2014; GermannMolz, 2013; Guttentag, 2015; Pätzold et al., 2014; Robert et al., 2014; Schor and Fitzmaurice, 2015). Travellers can easily make their 'match' among hosts and homes, which are illustrated by pictures, personal notes, and evaluations from previous hosts. Previously, finding hosts was only possible with huge personal efforts.¹¹ It is fair to assume that this enabling 'background' infrastructure has been more important for the current dynamics than the 'real' physical entities involved in the actual over-night stays (buildings, furniture etc.) (Scholl, 2009: 200).

Closely related to this technical infrastructure is the *institutional dimension* of the practice-as-entity, more precisely rules of appropriate conduct. The operators of P2P accommodation services provide quite detailed guidelines of what it means to be a good guest. These relate to cleanliness and order ('Keep your things in order and always clean up after yourself.' (Couchsurfing, 2016a)), respect for diversity ('The diversity of people across the globe is a beautiful thing, so contribute by respecting (...) those differences.' (Couchsurfing, 2016a)), as well as to open-mindedness and curiosity ('Being

¹¹ This is illustrated by the legend of Couchsurfing founder Casey Fenton, who once on a trip to Iceland had to email countless local students to find a host – a burdensome experience, which inspired him to create Couchsurfing.org.

open to any exchange offer will bring you opportunities you have never even imagined.’ (HomeExchange, 2016b)) and fairness (‘When writing a review, please stick to the facts and back them up with examples.’ (HomeExchange, 2016b)). These recommendations seem to present more than empty wording, but the frame for peer evaluations. Thus, Ronzhyn (2013) found in his analysis of Spanish Couchsurfers that these highlighted in their references mostly the personality traits of openness, trustworthiness and respectfulness. Despite problems with inflationary referencing (Schor and Fitzmaurice, 2015: 419), evaluation systems have greatly contributed to overcoming trust problems (Andriotis and Agiomirgianakis, 2014; Bialski, 2012; Lauterbach et al., 2009) and keeping the number of reported severe incidents (rapes, vandalism, thefts etc.) very low (Belk, 2014). Indeed, a good reputation is likely to become more valuable for successful bookings than a filled-up bank account (Pick, 2012). Empirical interviewing data on Couchsurfing by Liu (2012) shows that peer evaluations are the most important criterion for searching hosts or accepting guests. No surprise that recently websites such as ZenWeShare.com and TrustCloud have appeared, which compile feedback messages from several P2P platforms to create aggregated reputation profiles.

The new technical possibilities of social internet and the institutionalisation of rules of good conduct have been ‘fuelled’ by attractive *meaning elements*. The platform providers present P2P accommodation as an alternative to the uniform experiences of mass tourism. It is highlighted as a possibility of making authentic experiences (c.f. the HomeExchange slogan ‘Live Like a Local.’). The host may give useful hints on excellent restaurants or interesting current exhibitions. The providers also stress the chance of making unforgettable encounters. Rather than being welcomed by professional hotel receptionists, trained in friendliness, P2P accommodation is presented as a way of making exciting and inspiring personal contacts: ‘Make new friends and help each other discover new things about the world’ (Couchsurfing, 2016a). These self-presentations are largely confirmed by empirical research. Liu (2012) found out in her study that Couchsurfers’ main gratifications were cultural experiences – living with locals and getting introduced to local culture – emotional fulfilment – experiencing close personal exchanges and socialising – practical reasons – getting advices for visiting – and affordability (see also Germann Molz Couchsurfing study (2013: 222–223) with similar outcomes). Data from a large-scale online survey on HomeExchange.com users confirms this search for authenticity as main meaning-element along with affordability¹²: ‘Considered as a whole, it emerges that swappers are attracted by this alternative form of hospitality because of their desire to get to know a different context, and immerse themselves in a place’s daily life in an authentic way, living ‘like a local’, rather than like a tourist.’ (Forno and Garibaldi, 2016)

Coming to the necessary *skills*, it is fair to say that P2P accommodation is more demanding towards its practitioners than mass hotel tourism. As many journeys lead abroad, travellers have to be able to communicate properly in English or other, locally spoken languages to exchange with their hosts. In addition, intercultural skills such as the respect for local customs and differing conventions (e.g. of intimacy) are necessary on both sides to make encounters enjoyable. Practitioners also need strong planning and coordination capabilities to arrange the different stages of their itinerary in interaction with their hosts. Finally, basic ICT skills are obviously indispensable to create an own profile and find matches. All in all, it is fair to argue that these competencies exceed those of organised hotel tourism booked in travel agencies. However, increased internationalisation of working and private life as well as the more complex job requirements have made these elements ‘circulating’ and thus available for the performance of P2P accommodation. Fig. 1 presents the practice-as-entity of P2P accommodation.

In conclusion, I argue that social internet, institutionalised rules of good conduct and peer evaluation systems, attractive meaning elements, as well as increasingly available coordinative, communicative, ICT and intercultural skills have formed a meaningful and practicable configuration, which has been the basis for the recruitment of growing numbers of carriers. I will now turn to this question of recruitment.

5.2. Recruitment and defection

Following the argument in the section on SPT, P2P accommodation can be understood as a competitor of other practices, in particular of hotel mass tourism. I argued that the chances of embodiment of a novel practice depend on the frequency of exposure to it, people’s differing endowments with capitals as well as practice histories, and its potential integration into existing structures of practices ordered in time and space.

Starting with the question of *exposure*, at least some segments of Western societies have today good chances to meet practitioners and learn from their experiences. Empirical evidence on Germany from 2012 (Heinrichs and Grunenberg, 2012) indicates that, except for the cohorts of +60 years, the rates of those who have already ‘booked or let private apartments’ exceed 20% (28% of all Germans), attaining close to 50% for those aged 30–39. Available data on France indicates a slightly lower participation in P2P accommodation (12–22% practitioners (l’ObSoCo, 2013: 164; Mediaprism, 2014), again with higher rates among younger cohorts (Le Groupe la Poste, 2013)). Yet, in both countries it is fair to speak of ‘critical masses’ of practitioners. Existing practitioners of P2P accommodation seem to be the most important entry points for new ‘recruits’. A survey among HomeExchange.com users by Forno and Garibaldi (2016) revealed that around half of the home swappers registered on that platform got attracted to it through word-of-mouth advertising. Moreover, the for-profit platforms, most

¹² It is fair to assume that affordability is a more important meaning element for the for-profit forms of P2P accommodation. Survey data on Wimdu users – a platform comparable to Airbnb – indicates that saving money is the main reason for booking stays on this platform (Scholl et al., 2015: 35).

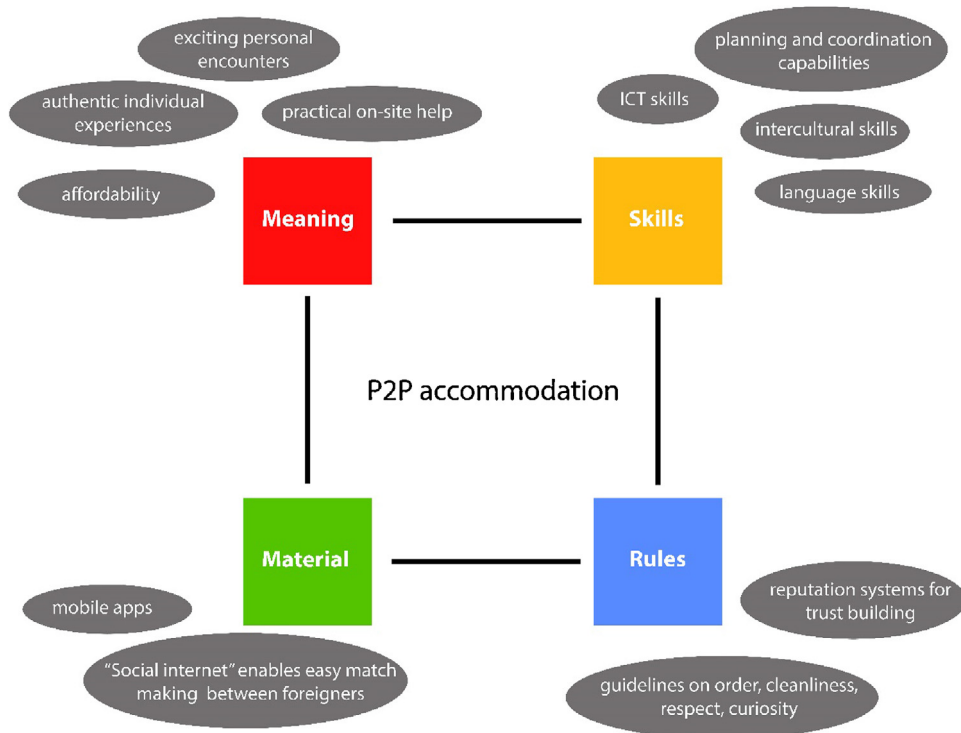


Fig. 1. The practice-as-entity of P2P accommodation.

importantly Airbnb, have started massive advertisement, which is likely to further increase the perception of P2P accommodation as being 'normal'. Scholl et al. (2015: 37) report on a recent survey by the Stern magazine, which indicates that 9 out of 10 Germans know Airbnb. Overall, one can assume that significant parts of French and Germans populations have got exposed to P2P accommodation, and more will be.

There are, however, *social inequalities* affecting the likelihood of embodiment. In purely economic terms, P2P accommodation can be considered as a very 'democratic' form of tourism, as it allows also rather vulnerable households to travel. Yet, the embodied practice histories of different social segments are likely to have differential impacts on the engagement with P2P accommodation. As argued in the previous section, P2P accommodation requires intercultural, language, coordinative and planning as well as basic ICT skills. In particular younger, well-educated people are used to international encounters (for instance by participating in the Erasmus student exchange program); their working life has taught them the need of flexible adaptation; and they are routinized users of laptops, smart phones and tablets. All of which makes them almost obvious carriers of P2P accommodation. Available empirical evidence confirms that urban, young and well educated cohorts exhibit the highest rates of practitioners (Bangel, 2016; Heinrichs and Grunenberg, 2012: 13).¹³ In contrast, other segments of society, notably less cosmopolitan individuals with lower educational levels are less likely to get recruited by the practice. In this sense, Germann Molz observed for the case of Couchsurfing that 'a global digital divide, as well as (...) a generational divide (...) make connections between certain kinds of people likely and others impossible.' Germann Molz (2013: 221)

Turning to the question of *integration into bundles and complexes of practices*, I argue that P2P accommodation matches very well with experienced-based, 'creative' tourism (Richards, 2011) self-organised 'backpacking' as opposed to standardised 'mass tourism' (Richards and Wilson, 2004).¹⁴ These travellers do not seek primarily comfort or luxury, but want to discover authentic local life, make unique experiences, and encounter the unexpected. Staying with locals in their individually designed apartments in authentic residential surroundings meets these desires better than standardised rooms of international hotel chains, situated in business areas or at isolated beaches. In addition, cheap and fast transportation networks are also likely to support spontaneous trips on individual routes.

Overall, the chances for embodiment of P2P accommodation appear rather good. Large parts of Europeans get exposed to the practice and significant cohorts dispose of practice histories which potentially link up with it. P2P accommodation

¹³ Though, this general picture seems to be more nuanced when one compares sub-forms of P2P accommodation. Home swappers seem to be older than Couchsurfers or AirBnB subscribers: According to survey data by Forno and Garibaldi (2016: 14), 52,1% of HomeExchange.com members are between 35 and 54 years old.

¹⁴ However, the popularity of backpacking has also led to massification and standardisation effects, with some places becoming global traveller hot spots (Howard, 2007).

also matches with the trend of individualistic, self-organised 'experience' tourism. Taken together, my analysis of existing empirical literature indicates that both, the formation of a meaningful and very practicable practice-as-entity and the rather high chances for embodiment point to a continued normalisation of P2P accommodation.

6. Cohousing

In contrast to the temporary encounters of P2P accommodation, cohousing is a permanent CC form. It originated in Denmark, Sweden and the Netherlands, from where it spread to other countries such as the US, Australia, Germany, and France (Meltzer, 2005). Cohousing was defined as 'housing with common spaces and shared facilities' (Vestbro and Horelli, 2012: 315). Typically, individual apartments (usually between 15 and 35), which are fully autonomous but slightly smaller than average housing units, are combined with shared spaces and facilities such as community rooms and kitchens, guest rooms, craft rooms, and gardens (Lietaert, 2010: 577; Pätzold et al., 2014: 44–45; Sanguinetti, 2014: 86). These features distinguish cohousing from other communitarian forms of living, such as communes and student shared flats, where residents usually only have one private room while sharing all other parts of the flat (Vestbro and Horelli, 2012: 315–316). Likewise, cohousing should not be confused with groups such as the German 'Baugruppen', which jointly implement a building project, but do not necessarily share spaces (Göschel, 2010: 2). Resident self-management and non-hierarchical decision making have been described as key principles of cohousing (McCament and Durrett, 1994; Meltzer, 2005; Tummers, 2015b), but collaborations with housing companies are, for instance, typical for Sweden (Vestbro, 2013) and becoming more frequent in Germany and France. As for P2P accommodation, I first deal in the following with the constitutive elements of the practice-as-entity of cohousing before turning to the question of recruitment.

6.1. (Re)configuration of practice elements

For cohousing, the *material dimension*, more precisely the participatory design of private housing units and shared spaces, seems to be a key aspect to create community life. According to Lietaert (2010: 676; see also Iorio, 2013) cohousing communities need to 'creatively mix private and common dwellings to recreate a sense of community, while preserving a high degree of individual privacy'. Finding this good balance between intimacy and connectivity is a tricky architectural challenge for any cohousing project, as Göschel (2010: 3–4) contends: 'Complete, autarkic flats must be linked to communal spaces in a way that, on the one hand, the communal spaces are somehow naturally integrated in the whole housing structure, without appearing artificial. On the other hand, the communal spaces must not be the place of permanent control of the private housing units'.¹⁵ However, this careful spatial organisation appears to be a necessary, but not sufficient condition for the flourishing of cohousing communities (Horelli, 2013; Ruiiu, 2016: 6).

With regard to the institutional dimension, Meltzer states that '[c]ohousing communities always have one or more sets of codes, rules or agreements that affect the behaviour of individual members.' (Meltzer, 2005: 129). These typically involve regular services for the community, such as cooking or cleaning the shared spaces, as well as expectations of mutual support, notably with regard to child caring and each one's financial contributions (Millonig et al., 2010: 87–89; Meltzer, 2005) (*institutional dimension*). Ruiiu reports that in some communities these rules form a complex 'self-management system': 'Usually, when people become cohousers, they have to accept the cohousing "infrastructure of daily life" (Jarvis, 2011), which provides a wide range of collective activities and work within the community. (...) In fact, new members receive a detailed document that concerns the internal regulation. Moreover, in the common houses there are registers which report all activities, group tasks, names of the people who belong to each group.' (Ruiiu, 2016: 7–8)

Turning to the *skills dimension*, the requirements can be tremendous in the case of self-organised groups (Meltzer, 2005). The future residents must have or acquire significant financial, technical, architectural, planning and, not to forget: social skills, which are necessary to implement a cohousing neighbourhood (Iorio, 2013: 11; Pätzold et al., 2014: 37–38). It is evident that the complexity of cohousing projects – with usually 15–35 households – exceeds by far the circumstances of single-family houses. Frequently, the communities collaborate with professionals such as architectural firms to cope with the multiple challenges, but still these professionals need competent counterparts on the residents' side. For the every-day life, a culture of compromise-finding and mutual respect needs to be developed to overcome tensions and conflicts between residents Jarvis (2011: 569). Decision-making is described as 'exhaustive' (Ruiiu, 2016: 7) because many cohousing groups strive for unanimity decisions. Furthermore, coordinative skills are needed to get communal activities organised. Finally, practical know-how (for gardening, building maintenance, finance etc.) is paramount for the smooth functioning of the community (Iorio, 2013; Millonig et al., 2010). All in all, Jarvis concludes that cohousing means constant 'circuits of learning, doing, being, and becoming' (Jarvis, 2011: 568) for the residents.

At this point of the discussion, the practice-as-entity of cohousing appears to be composed by a very complex set of skills, material and institutional elements, which makes it quite demanding to potential hosts. In contrast, the *meaning elements* appear to be the 'glue' of the practice. Cohousing is presented as an alternative to anonymous, atomized neighbourhoods where people live in isolation from each other and often suffer from loneliness (Millonig et al., 2010: 58). Thus, cohousing is said to spur the recreation of social ties between neighbours, a feeling of belongingness and a rich social life (Iorio, 2013;

¹⁵ Translated from German.

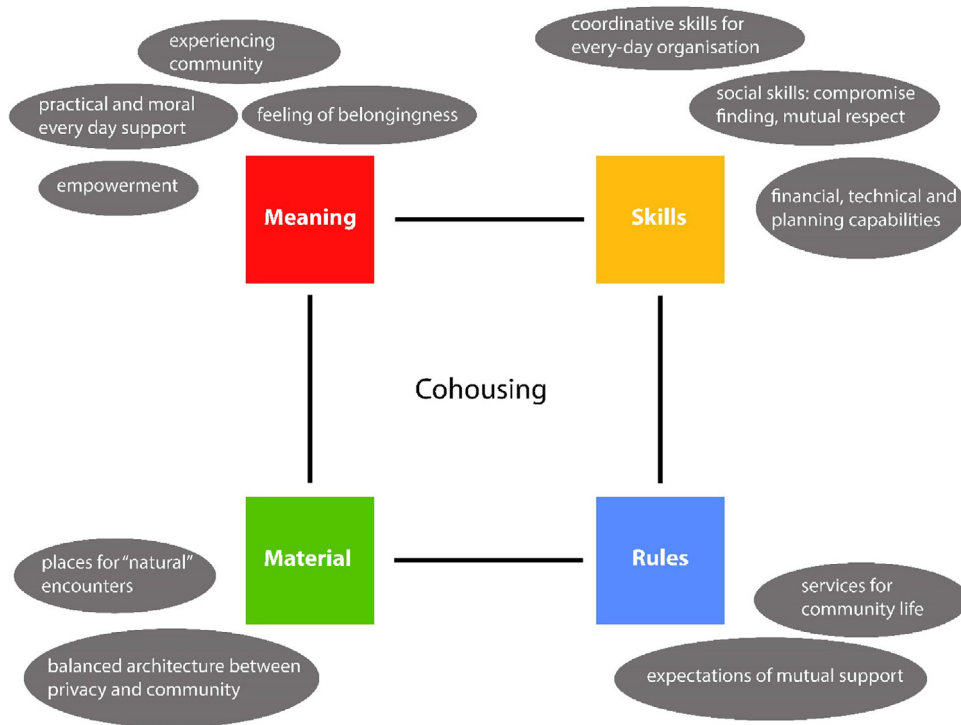


Fig. 2. the practice-as-entity of cohousing.

(Lietaert, 2010: 577; Ruiu, 2016). Closely related to this, cohousing practitioners appreciate the practical day-to-day help and moral support between residents (Lietaert, 2010: 578; Ache and Fedrowitz, 2012: 395). Mutual child caring and communal cooking save time and help to reconcile professional and private life (Meltzer, 2005: 142); and in moments of psychological crises or physical diseases neighbours help to alleviate the pain (Millonig et al., 2010: 136). Finally, cohousing is sometimes also associated with empowerment in tough real estate markets with exploding prices (Iorio, 2013; Maury, 2012; Meltzer, 2005). Fig. 2 provides an overview of the practice configuration of cohousing.

In conclusion, the attractive meaning elements of social cohesion, practical day-to-day support, and empowerment appear currently as the main pull-element. However, the manifold skill requirements and committing community rules make the current practice-as-entity rather demanding towards potential recruits.

6.2. Recruitment and defection

Cohousing is today a micro housing form. Even in Denmark, the country which is commonly perceived as the pioneering country of cohousing, its share is estimated at only 1% of the total housing market (Horelli, 2013: 47). Other countries such as Germany and France count only a few hundred cohousing communities (Euvrard, 2011: 63; Fedrowitz, 2011). Most Europeans are hence not very likely to make the acquaintance of practitioners and learn about their experiences. In addition, empirical evidence indicates that cohousing communities are rather homogeneous social groups. Most practitioners seem to be well-educated persons with above-average incomes and post-materialist orientations (Bresson and Denèfle, 2015: 8; Lietaert, 2010: 580; Vestbro and Horelli, 2012: 332),¹⁶ which further restricts the possibilities of chance encounters. Thus, the possibilities of *getting exposed* to the practice can be expected to be very low for most Europeans.

Regarding *social inequalities*, the investment needs of self-organised cohousing tend to exclude poor households from engaging with the practice (Droste, 2015: 82). Ruiu observed a high degree of homogeneity among cohousing groups and contends that 'higher costs may represent invisible barriers that avoid the access of disadvantaged people.' Ruiu (2016: 10) In addition, the quite complex skill requirements, comprising planning, coordination, finance, technical, and social competences, may impede the recruitment of many cohorts, as their practice histories have not allowed them to develop those skills. Again this makes massive recruitments of practitioners unlikely.

In a wider *bundles-of-practices* perspective, the picture appears mixed. On the one hand, cohousing demands a priority status in people's life: 'Experiences recorded on websites and in publications indicate that being involved in a co-housing

¹⁶ For the case of the US, Meltzer (2005: 131) observes that Afro-Americans, gay and handicapped people as well as low-income households are strongly underrepresented in cohousing communities.

initiative is a major and time-consuming effort.' (Tummers, 2015a: 1) Different from 'ordinary' housing, residents live not independently from their neighbours, but are embedded into extended 'infrastructures of daily life' (Jarvis, 2011), which include services for the community, regular common activities, and long-term commitment to the community (Göschel, 2010: 3). This centrality and regularity in people's life might not always be easily compatible with increased professional and private mobility, flexible working hours, rapidly changing job positions and partnerships (Jarvis, 2011: 567–568), as well as the multiplication and diversification of practice options (Warde, 2005). Against this background, some cohorts will simply reject the 'claims' of cohousing. On the other hand, some people might get attracted to cohousing precisely for its supportive structures, which could help to reconcile the tensions of modern life (Millonig et al., 2010). The neighbourhood community may be the solid, unchanged ground in the face of the complex tasks of every-day life organisation. Overall, the chances of cohousing to get integrated into the practice-bundles of every-day life appear mixed.

To sum up, I argue that the chances for embodiment of cohousing are currently rather limited. First, the very low number of existing cohousing projects makes chance encounters for most people rather unlikely. Furthermore, the complex skill requirements and the financial burdens tend to exclude poorer and low-educated cohorts. Finally, the integration into practice complexes can be expected to work only for some parts of societies. Together with the rather demanding practice-configuration, this can explain a great deal of why cohousing has developed rather slowly compared to P2P accommodation.

7. Discussion: complementing SPT with a hierarchical perspective?

The aim of this article was to elaborate a theoretical framework to analyse diverging dynamics of CC practices. Based on insights from SPT, two processes of change were suggested: (1) the (re)configuration of material elements, skills, rules and meaning forming a practice-as-entity, and (2) the opportunities practices have to recruit (and maintain) hosts. This framework was illustrated by zooming in on two examples with very different engagement rates in France and Germany, P2P accommodation and cohousing. I have argued that the current boom of P2P accommodation has been enabled by the appearance of matchmaking internet platforms and trust-building peer evaluation systems, which have formed a powerful configuration with available coordinative, planning, language, and intercultural skills as well as with the meaning elements of authentic experiences, personal encounters and practical help. The frequent exposure to P2P accommodation and fitting practice histories of many Europeans, as well as the smooth integration of P2P accommodation into experience-based tourism present high chances for embodiment. In contrast, cohousing is a rather demanding practice-as-entity, which is characterised by complex skill requirements (practical know-how, social skills, and coordinative abilities) and committing community rules (services for the community). I also see very low chances of embodiment, especially for low-educated, low-income cohorts, which often lack the financial means and the manifold skills to engage with cohousing.

My proposed analytical framework can serve to explain a great deal of the differing dynamics of P2P accommodation and cohousing and may be applied to other practices. One first major strength of SPT is its interest in *doings* and the different socially shared elements that together form meaningful and interdependent configurations that constitute these doings as a practice-as-entity. By considering practices as 'ordering and orchestrating entities in their own right' (Shove and Walker, 2010: 471) SPT emphasises the collective and coevolutionary character of infrastructures, products, repositories of meaning, social conventions, formal and informal rules and available know-how that hang together. This perspective prevents researchers from the traps of methodological individualism, which would tend to reduce the explanation of diverging CC dynamics to their comparative price competitiveness or to values and attitudes (c.f. Piscicelli et al., 2014; Martin and Upham, 2016), such as the decreased attachment to private property accumulation and environmental concerns, leading to weaker or stronger 'adoption' and 'acceptance' rates. A second strength of SPT is the attention it pays to the embedding of practices into wider systems of practices ordered across time and space. This helps to understand why some CC practices seemingly smoothly integrate into the routines and rhythms of people's lives (e.g. ebay trades), while others have more difficulties in finding their place in the organisation of daily activities (e.g. online P2P lending of household goods).

To conclude this article, I want to point to one important limitation of SPT and suggest the Multi-Level-Perspective as one approach which might complement SPT in this respect. It is important to note that I do not suggest a merger of both approaches, but my aim here is rather to shed light on another important research tradition, which might provide answers where the SPT encounters limits. As argued before, SPT has the potential to contribute to a more nuanced understanding of the current CC developments, which is rooted in an interest in the reproduction of every-day life. Even though SPT recognises the importance of systems of provision, standards and regulations in shaping practices, its horizontal conceptualisation implies that SPT is less suitable to grasp more 'systemic' developments which may alter the availability of practice elements, the strength of links between practice elements or the chances to engage with practices (McMeekin and Southerton, 2012: 355–356).

A look at the two CC practices discussed in this article illustrates the importance of such vertical processes. In the case of P2P accommodation, hotel associations have started massive lobbying activities against commercial P2P online platforms such as AirBnB. They contend that hosts of P2P accommodation are benefit-driven entrepreneurs competing for the same tourists as hotels do, but are not subject to the sector's usual safety and hygiene-regulations, nor do they usually pay taxes on their revenues (c.f. Götze, 2013; Wild, 2012). Responding to such criticisms, some cities such as Amsterdam have made agreements with Airbnb to legalise the practice within certain boundaries, while others such as Berlin resolutely take action against violations of existing laws (Gsell et al., 2015: 68; Streitfeld, 2014; Winde, 2012). In some cities, this has obviously changed the possibilities to engage with P2P accommodation.

Coming to cohousing, it is remarkable that over the last two decades the cohousing movements in France and Germany have been quite successful in facilitating the establishment of cohousing communities. Network organisations (Forum gemeinschaftliches Wohnen and Coordin'action) were set up to support cohousing groups. According to Bresson and Denèfle, these network organisations were of key importance for the recent multiplication of French cohousing communities because they offered 'invaluable support as mediators' and provided 'advice on administrative, financial, legal, or technical issues.' (Bresson and Denèfle, 2015: 11) Moreover, new collaborations with traditional actors from the housing market such as investors and housing companies may gradually make cohousing more compatible with traditional ways of 'producing' homes. Thus, Ache and Fedrowitz argue that these actors may become "the most important supporters for co-housing projects" (Ache and Fedrowitz, 2012: 408). In addition, the network organisations were also successful in shaping the regulatory framework for cohousing. In France they successfully lobbied for giving cohousing a juridical status in the ALUR law, which is supposed to increase the trust of housing actors in this (still unfamiliar) model. In Germany, many municipalities have started launching specific 'conceptual' calls for tenders which protect cohousing groups from the competition with professional real estate and housing companies (Droste, 2015).

Altogether, these examples from cohousing and P2P accommodation show that the dominant systems of provision (the housing and tourism industries) and their rule sets, standards and roles can impact the availability of practice elements (e.g. suitable land and buildings for cohousing), the strength of links between practice elements (e.g. weakened links when restrictive rules are adopted for P2P accommodation) or the chances to engage with practices at all (e.g. when P2P accommodation is prohibited). From this background, practice-as-entities can be seen as 'a nexus between producers and consumers' (McMeekin and Southerton, 2012: 356), where modes of provision meet the consumption world. I join other authors (Hargreaves et al., 2013; McMeekin and Southerton, 2012; Røpke, 2009) in their proposal that the Multi-Level-Perspective (c.f. Geels, 2002; Geels and Schot, 2007) may complement the SPT in order to grasp these hierarchical processes which impact on this nexus.

MLP is interested in large scale socio-technical transitions, which it conceptualises as an interplay between dominant socio-technical configurations of regulations, policies, technology, infrastructures, industry arrangements, user practices, and belief sets (the regime), alternative, emerging socio-technical arrangements (niches) as well as wider 'landscape' developments such as demographic changes and globalisation. Reconfigurations of the regime happen when landscape pressures and regime-immanent tensions destabilise the regime and 'ripe' niche elements can reshape regime structures. In this reading, cohousing would be interpreted as one amongst other niches (e.g. the "tiny-house" movement) competing mainly¹⁷ with the current housing regime, organised around a model of fully autonomous, individual apartments with rising average floor spaces (Tummers, 2015a: 70; Tummers, 2015b). P2P accommodation would be analysed as an alternative form of tourism, which is mainly in opposition to the regime structures of standardised mass tourism.

I see in particular two fields where MLP insights might complement SPT in the understanding of practice evolutions. First, it might be fruitful to learn from the works done on *niche ripening*, second, the recent studies on *regime resistance* might be applied to the analysis of dominant regimes interfering with CC 'niches'. To study how niche innovations can ripen outside the selection pressures of regime structures, the previously abstract concept of 'protected spaces' was recently specified by Smith and Raven (2012) and Raven et al. (2016), who broke it down into the processes of 'shielding, nurturing and empowerment'. It appears promising to apply these concepts to how the communities and formal organisations, which have built around CC practices, try to make their practices more 'practicable' (Sahakian and Wilhite, 2014). For instance, the recent efforts of cohousing communities to improve the conditions of their living form might be interpreted as combined processes of shielding (specific municipal land use rules for cohousing communities) empowerment (shaping regulations at the federal level in their favour), and nurturing (offering advice services, learning and networking opportunities to interested neighbourhood groups). Coming to the question of regime changes, Geels (2014), in his review of literature on power and politics, identified four different forms of power and resistance – instrumental, discursive, material and institutional – that incumbent actors may exert to protect the predominating socio-technical constellation. As SPT is rather blind for the 'frustrating' power of regime structures on practices (Hargreaves et al., 2013), an analysis of regime actors' strategies to strengthen the dominant current practices against upcoming alternative CC practices may help to understand the difficulties of some CC 'niches' to gain ground in the competition for practitioners. For instance, the ongoing struggles between the hotel industry and P2P accommodation platforms might be analysed by drawing on these concepts.

Hence, while this article focused on highlighting the potential of SPT to frame societal transformations, studies informed by a MLP perspective might complement the understanding of diverging dynamics of CC by shedding light on the systemic processes impacting on practice configurations and the possibilities to engage with them.

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¹⁷ As practice elements circulate horizontally across 'regimes', they often will span several regime structures (Shove and Walker, 2010), for instance from housing and transport.

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5.2 Article B

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Does Sharing with Neighbours Work? Accounts of Success and Failure from Two German Housing Experimentations

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ABSTRACT

This paper analyses the normalization of everyday sharing practices in two exemplary German neighbourhoods, which both provide numerous opportunities for sharing spaces, stuff, food and mobility carriers, but differ regarding their “philosophy”. The first case belongs to the increasingly popular “collaborative housing” model, the second one is a developer-driven, service-based project. Inspired by core ideas from Social Practice Theory, the guiding questions of this research are then 1) to which extent have sharing practices become a normal part of residents’ lives in these neighbourhoods and 2) what may explain observed differences? Evidence shows that residents in the collaborative housing case share more frequently, more regularly and over longer timespans than their counterparts in the developer-driven neighbourhood. I argue that this is due to a higher share of fitting practice configurations and a better integration of sharing practices into tenants’ typical patterns of everyday life.

Introduction

There is increasing evidence that efficiency strategies and green building techniques alone will not be sufficient to reduce the environmental and carbon footprint of the housing sector. Despite improved building energy performance levels and more efficient household appliances, the overall household energy demand in the EU has only slightly decreased by 3,4% from 2000 to 2019 (Odyssee-Mure). Amongst others, this “rebound effect” is due to an increased average floor area/person, a higher number of single households, and a higher rate of electric devices. In a similar vein, biodiversity losses are frequently attributed to the building sector’s relentless hunger for land. Against this background, several scholars have recently advocated a sufficiency turn in the housing sector (Sylvia and Spangenberg 2019; Cohen 2020; Ellsworth-Krebs 2020; Thomas et al. 2017).

Forms of neighbourhood sharing, in particular “collaborative housing” (Czischke, Carriou, and Lang 2020; Czischke 2018), may present a promising approach towards more sufficiency. Even though empirical evidence is still piecemeal, it holds the potential

for positive environmental (and also social) effects. Residents in such alternative housing constellations typically share certain resources with their neighbours, be it spaces, domestic stuff and appliances, mobility carriers or food, while living in housing units with below-average living spaces, which are nevertheless fully autonomous, equipped with own kitchens and bathrooms (Vestbro and Horelli 2012).

Neighbourhood sharing has recently flourished as alternative housing models across several European countries such as Denmark, Netherlands, France or Germany (cf. Ache and Fedrowitz 2012; Bresson and Denèfle 2015; Tummers 2016). Hardly surprising, academia has shown rising interest for it (see for overviews Lang, Carriou, and Czischke (2018); Tummers (2016); Mullins and Moore (2018)). Much of the research has focused on the *pre-moving-in phase*, in particular the role of different actors such as municipalities, housing companies, intermediary actors or residents in planning, financing, coordinating, facilitating, and implementing housing projects (Droste 2015; Lang and Stoeger 2018; Szemző et al. 2019; Tummers 2015; Ache and Fedrowitz 2012; Schelisch, Spellerberg, and Vollmer 2019). Others have studied the socio-economic and cultural profiles of those who get attracted to (or excluded from) collaborative housing to hypothesize on its growth potential (Droste 2015; Fromm 2012; Bresson and Labit 2020).

While these studies have made important contributions for promoting neighbourhoods with shared resources, they have largely overlooked *the occupancy phase* and residents' everyday lived experiences in sharing the resources at their common disposal (Jarvis (2011); Horelli (2013); Leitner and Littig (2017) are among the few exceptions). This is surprising, as only positive feedback stories from existing projects of neighbourhood sharing may encourage actors on the supply side to become or remain engaged with innovative housing models. Similarly, only if evidence spreads that sharing resources between neighbours "works" on an everyday basis and is experienced mostly as "better" (in multiple meanings) compared to standard living, there is a chance that more people get attracted to it and thus normalize it. In this sense, I join Schmid (2019, 234) who argues that experiences with previous alternative living forms "have shown that their success should not be assessed based on the planning and implementation phase, but based on the use phase."¹

With this article, I want to contribute to addressing this gap in current research on neighbourhood sharing. I do so by presenting evidence from field work on the lived experiences from two exemplary neighbourhoods in Germany, which represent very different housing constellations. In the first example, residents closely collaborated with cooperative housing companies, architects and municipality services to conceptualize and design their future homes and shared facilities. Since moving in, tenants hold the main responsibility for maintaining the shared resources and organizing their common use, which implies a significantly higher amount of "consumption work" (Wheeler and Glucksmann 2015; Wieser 2019). In the second, contrasting example, a real estate developer constructed a building block with hundreds of fully autonomous residential units, accompanied by numerous shared resources and services, but without any previous involvement of the future tenants of the buildings, who today also play only a minor role in keeping the sharing "running".

The first important question for my work is then: to which extent sharing practices have become a normal part of resident's lives in those two differing neighbourhoods? And second, if there are differences, what may be possible explanations thereof? On a more practical level, the study shall explore how neighbourhood sharing may be promoted in different housing constellations with the aim of normalizing it.

To respond to these questions, I first briefly present my understanding of "sharing" in the light of the broader literature on the "sharing economy". I then suggest an analytical framework to assess the diverging dynamics of sharing practices in the two case studies, which is informed by Social Practice Theory (SPT). Subsequently, the two exemplary neighbourhoods and the sharing "infrastructures" they offer to their residents are introduced. After presenting my methodology, I turn to the core of this study: first, I present evidence on the variety of observed sharing practices and differences regarding performance frequencies, intensities and regularities. Two explanations are then discussed to explain those differences: the first one is grounded in the idea that practices come into being and persist only if competitive practice configurations form; the second one is based on the understanding of social life as a web of interconnected practices, which implies that any "new" practice must find "its place" in people's everyday life. I conclude by drawing conclusions on how sharing may be normalized as living arrangement.

What Is Sharing in the Frame of This Study?

Around a decade ago, the public and subsequently also academia started becoming interested in seemingly novel types of practices such as bike sharing, carpooling, or peer-to-peer (P2P) accommodation, which were said to be part of a rising "Sharing Economy" (Botsman and Rogers 2011). Ironically, despite a multiplication of research in the field (see for overviews Curtis and Lehner (2019); Ryu, Basu, and Saito (2019); Cheng (2016); Acquier, Daudigeos, and Pinkse (2017)), which is increasingly difficult to track, there is still no consensus on what sharing actually is (Mont et al. 2020; Netter, Rahbek Gjerdrum Pedersen, and Lüdeke-Freund 2019). Many scholars (cf. Frenken and Schor 2017; Curtis and Lehner 2019; Scholl et al. 2013; Ulrich and Peitz 2016) define sharing as forms of "access-based" consumption practices, in which the use of goods is distributed among several peers, without changes of ownership. Within this group of authors, some further confine the concept of sharing by including only non-market-based, non-monetarized practices, which typically happen in families or close communities (Eckhardt and Bardhi, 2016; Belk, 2009). In this perspective, money-earning practices enabled by platforms such as Airbnb or Blablacar do not present sharing, as they have little in common with altruistic behaviour and, in some cases, even monetarise previously non-marketized realms such as the home. Others (cf. Frenken and Schor 2017), in turn, have no issues with monetary compensations, but put peer interaction centre stage and exclude government-to-consumer (G2C) and business-to-consumer (B2C) constellations as part of product-service systems (e.g. classical carsharing) from their conceptualization.

Yet, despite differences in detail, the aforementioned authors agree that access rather than ownership is the central criterion for defining sharing. In contrast, other scholars (Heinrichs 2013; Ryu, Basu, and Saito 2019; Mair and Reischauer 2017; Schor and Fitzmaurice 2015) suggest a wider conceptualization of sharing and include also practices involving ownership transfer in their definition. According to them, sharing also

comprises forms of gifting, reselling, bartering or swapping between peers. This anyway complicated picture gets further blurred by additional terms, most importantly Collaborative Consumption (Botsman and Rogers 2011; Barnes and Mattsson 2016; Huber 2017) and Collaborative Economy (Ertz and Leblanc-Proulx 2018; Bauwens, Mendoza, and Iacomella 2012), but also on-Demand, Gig or Platform Economy.

Due to this complexity, some have suggested giving up altogether on the challenge of defining sharing and using “Sharing Economy” rather as an umbrella term (Acquier, Daudigeos, and Pinkse 2017; Netter, Rahbek Gjerdrum Pedersen, and Lüdeke-Freund 2019), whereas others prefer to speak instead of a “sharing paradigm” (McLaren and Agyeman 2015). My intention here is not to resolve this definitional puzzle, either, but to outline a concept of sharing that is useful for the purpose of my analysis. Coming with an environmental sustainability perspective, my view of sharing is one that is first and foremost grounded in a concern for reduced material consumption. I am interested in practices in which the use of spaces, mobility carriers, stuff, infrastructures, or food is temporarily and socially distributed between several households, leading to a use intensification and prolongation of those material goods (Scholl 2009). By exploiting “economies of scale” in the joint use of objects (Yates 2018), such practices hold the potential of absolute reductions of CO² emissions and resource consumption, even though there is the risk of rebound effects through the engagement in the multiple activities of life (Sonnberger and Gross 2018). This focus on material consumption implies to exclude any sort of practices involving intangible goods and services such as filesharing, time-banks, skills and knowledge sharing. Otherwise, my understanding of sharing is large: it includes market-based or non-market-based forms, pecuniary or non-pecuniary practices, collaborative consumption among peers or product-service-systems offered by governments or businesses, simultaneous or sequential forms as well as forms with or without ownership transfer.

Within this general frame, my focus lies on multiple, mostly offline forms of everyday sharing at neighbourhood level, against the platform-based, “globalized” and commercialized sharing practices (such as Couchsurfing and Airbnb rentals) which are dominant in most of the literature on the Sharing Economy (Ryu, Basu, and Saito 2019). I hence share an interest in the local unfolding of sharing practices which is present in the mushrooming literature on “sharing cities” (Sánchez-Vergara, Ginieis, and Papaoikonomou 2021; McLaren and Agyeman 2015; Bernardi and Diamantini 2018; Wang, Ninomiya, and Gussen 2021). However, so far this strand of literature seems to be mostly concerned with local actor systems and policy measures for boosting sharing initiatives, rather than researching practice dynamics themselves and their spatial-temporal ordering (see however Westskog et al. (2020)). Researching neighbourhoods as “doing places” where multiple, partially co-dependent (sharing and non-sharing) practices “anchor” (Hui and Walker (2018) referring to Schatzki (1991)) may hence fruitfully complement this literature.

Having mapped out my understanding of sharing as the use of material items distributed among several households and my focus on localized everyday sharing in small-scale neighbourhoods, I now turn to the theoretical framing of my work. How can the dynamics of sharing practices at neighbourhood scale be grasped? I argue that Social Practice Theory with its interest in practice configurations and in the spatial-temporal organization of everyday life provides useful inspiration to address this question.

Social Practice Theory and its benefits for understanding the potential normalization of neighbourhood sharing

Recently, Social Practice Theory² (SPT) has gained momentum in the debates on unsustainable patterns of societal life and possible change trajectories, in particular regarding the question of how environmentally harmful practices may be destabilized, while competing ones with potentially lower ecological footprints may be supported in their development (Strengers and Maller 2014; Shove and Walker 2010; McMeekin and Southerton 2012; Røpke 2009). Its attractiveness for scholars seems to lie in the frustrations with classical approaches of behaviour change and cultural expressivism and the novel perspective on human activities that SPT offers instead (Shove 2010; Keller, Halkier, and Wilska 2016; Heiskanen and Laakso 2019; Warde 2014). It has opened up new intellectual directions for rethinking persisting problems of resource depletion, biodiversity loss and climate change. Rather than looking at individuals with their interests, attitudes and choices, it asks what it takes to perform a practice. Rather than analysing certain behaviours in isolation from a wider societal “context”, it is concerned with the embedding of practices in larger temporal-spatial patterns of daily life.

Those new lenses appear also promising for dealing with the potential normalization of sharing practices in neighbourhoods and districts. Building up on previous work on theorizing the diffusion of sharing and collaborative consumption (Huber 2017), I will in the following elaborate how exactly SPT may help to understand the successful establishment of sharing practices in neighbourhoods or, the opposite case, failed attempts. Two central ideas from SPT, which follow Nicolini’s (2009) suggestion of “zooming in” and “zooming out”, can help in structuring my analysis. First, SPT conceptualizes practices as doings and sayings, which are held together by different collective and coevolutionary “ingredients” that form practice-as-entities (Schatzki 1996; Reckwitz 2002). These configurations make them more or less attractive to potential “carriers” who reproduce them (and not other, potentially rival practices) (Shove, Pantzar, and Watson 2012). Second, SPT scholars postulate that practice dynamics can only be fully understood by analysing them as part of a larger web of spatially and temporally organized social practices. Practices develop in relationships which have been termed “systems” (Watson 2012), “bundles and complexes” (Shove, Pantzar, and Watson 2012), “arrangements” (Schatzki 2010) and “nexuses” (Hui, Schatzki, and Shove 2017b). In this perspective, the “popularity” of any one practice, sharing or not, also depends on how it aligns with patterns of daily activities that are typical for the lives of potential hosts.

Fitting Practice Configurations

Several typologies for grasping the constitutive elements of practice configurations have been suggested (Gram-Hanssen 2011), but Elizabeth Shove’s and colleagues (Shove, Pantzar, and Watson 2012) distinction of meanings, skills, and material elements appears like the pragmatic essence of all proposals. First, meanings refer to what gives sense to a practice: shared understandings, beliefs and teleoaffective structures. Practices have their “own affective order”, which are not “interior properties of individuals” but “properties of the specific affective ‘attunement’ or mood of the respective practice.” (Reckwitz 2017, 118–9). Second, skills are embodied repertoires of mostly tacit, routinized know-how such as

coordinative capacities, research competencies, or handicraft procedures. Third, the material dimension deals with the crucial role of human bodies, the physical environment, devices, appliances, tools and infrastructures, which have own agency and can dramatically change the capacity of practices to “attract” hosting individuals (Wilhite 2012). Shove (2017) suggests distinguishing “things that get used up” (e.g. energy) in moments of practice performances, “things in action” which are directly involved in moments of performance, and “things in the background” that have an infrastructural relationship with practices. This distinction appears particularly useful for analysing sharing practices in neighbourhoods, because these often take place in community rooms. The shared rooms with their location, accessibility, luminosity and their aesthetic qualities form a background “material arrangement” (Schatzki 2010) which is not directly involved in the performance of concrete practices (e.g. playing an instrument), but can “preconfigure” (ibid., 140) the experience of practices in a certain way, for instance by creating positive or negative “spatial atmospheres” (Reckwitz 2017, 123): “Prefiguration is better understood as a qualification of possible paths of action on such registers as easy and hard, obvious and obscure, tiresome and invigorating, short and long, and so on.” (Schatzki 2010, 140) Following Gram-Hanssen (2010), I complement Shove’s and colleagues’ typology of material objects, skills and meanings by a fourth element, which are explicit rules. Rules govern how, when, by whom and under what conditions practices are enacted and thus appear equally important for understanding the attractivity of sharing practices.

In their doings, practitioners draw on elements from those four domains and thus reproduce practice-as-entities. Whether or not and how frequently people perform a practice, depends on whether they have suitable practice “ingredients” at their disposal that can be integrated into meaningful performances. In this context, it is important to note that practices compete with each other for potential hosts. Consequently, if sharing practices (e.g. carsharing) are to substitute conventional ones (e.g. driving one’s own car) then the “balance of competition” (Spurling and McMeekin 2015) must be in their favour, that is: their practice configurations must be more attractive than the ones of competing practices. Altogether, the first central question for studying the normalization of sharing practices in the observed neighbourhoods is then: *to which degree have sound sharing practice configurations developed that are capable of “winning” over conventional, alternative practices?*

Daily Life as a Web of Temporally and Spatially Ordered Activity Sequences

The second central insight of SPT, understanding social life as a web of interconnected activities, reminds us to go beyond the analysis of practice configurations. Some practices are strongly glued to others to form co-dependent practice “complexes”, others are more loosely coupled in “bundles” (Shove, Pantzar, and Watson 2012). Bundles and complexes in turn can add together to form larger “constellations” and interlinked constellations can constitute “plena”, which present “an immense maze of interconnected practices and arrangements” (Schatzki 2015, 16). Time and space are crucial elements in this maze (Nicolini 2017; Hui, Day, and Walker 2018; Schatzki 2009).

Bundles and complexes are typically temporarily ordered in sequences, and, when they get repeated at similar times, rhythms establish, both at the level of individuals and larger sociodemographic groups (e.g. families), or even at the level of whole societies (Walker

2014; Southerton 2003). Whether practices are flexibly allocated or get a fixed position within these activity sequences seems to be linked to their performance characteristics. Southerton (2006) found that activities enacted with others, in particular non-household members, usually come with increased needs for coordination and arrangement and therefore tend to have a fixed position in people's daily schedules. In contrast, activities performed alone are flexible in their allocation and therefore often constitute "time fillers" between two fixed activities (ibid.). It is likely that such tendencies are also relevant for the popularity of different kinds of sharing practices. Practices of sequential sharing (Yates 2018), which are performed alone, may be more flexible and "easy to integrate" time fillers, while forms of "simultaneous sharing" (ibid.), which require coordination between peers and by tendency hold fixed positions in people's daily schedules, may be too demanding for some social groups.

Practices are also spatially ordered. They can be concentrated at certain places, which become "doing places", where multiple practices "anchor" (Hui and Walker (2018) referring to Schatzki (1991)) (e.g. neighbourhoods and dense multi-usage districts), or they can be spatially distributed across districts, cities and beyond, implying usually increased mobility and coordination efforts (Shove, Watson, and Spurling 2015). If we research how certain practices gain or lose ground, we must hence not only analyse how changing practice configurations successfully (or not) compete with other practices for "hosts", but also examine how these practices hang together with spatial-temporal patterns of life. Applied to the issue of "failure and success" of sharing practices in the two analysed neighbourhoods, the second key research question is then: *to which degree are different types of sharing practices compatible with residents' typical patterns of daily life, ordered across time and space?*

Both analytical directions, the analysis of working (or not) practice configurations and smooth (or not) integration into daily activity chains, shall help in understanding diverging dynamics of sharing practices in neighbourhoods. In the following section, I present the two case study sites and explain their differing philosophies.

Domagkpark and Campus Gardens as examples of collaborative housing and developer-driven neighbourhood sharing

My empirical data stems from two German neighbourhoods, which can be considered exemplary for two recent housing models in Germany and other European countries, which recently have developed dynamically (Huber 2016).³ The first neighbourhood, Domagkpark district in Munich (in the following: DP), corresponds largely to what has been termed "collaborative housing". Collaborative housing is an "arrangement where a group of people co-produce their own housing in full or part in collaboration with established providers. The degree of user involvement in this process may vary from high level of participation in delivery and design within the context of a provider-led housing project, to a leading role of the user group in the different stages of the housing production process." (Czischke 2018, 61). The residents hence play a very active role in the planning and implementation of their future homes and the shared spaces and resources. However, in contrast to classical cohousing they do not bear the main responsibility for the housing project, but can rely on the expertise and economic power of housing companies and other housing professionals.

DP⁴ is a newly built district (finalized only in 2019) where around 4500 people found new homes (Mühleisen 2017). The City of Munich made community spaces mandatory for any real estate project in the area. Three cooperative housing companies, Wagnis, Wogeno and Frauenwohnen, responded to this request by suggesting apartment complexes with multiple shared spaces, which were to be planned in collaboration with groups of future tenants. Among the implemented projects, the one developed by Wagnis, WagnisArt,⁵ is particularly outstanding for its countless community spaces. For Dürr and Kuhn 2018, 93) it is therefore “one of the ambitious housing projects in Germany”.⁶ Adopting a wholistic district perspective, the three housing cooperatives also coordinated their plans for several semi-public multifunctional community rooms to avoid double sharing “infrastructures”. In addition, until the end of its existence in December 2020⁷ the district cooperative, Domagkpark Genossenschaft, was located in the middle of this area developed by the three cooperative housing companies. This organization offered multiple devices and tools for rent as well as a coworking space. It also hosted the district conciergerie service and co-managed the district “mobility station”, which offers E-scooters, E-bikes and cars for rent. Overall, this zone implemented by the three housing cooperatives can therefore be considered the “hot spot” of sharing opportunities in DP. I will hence treat this area as one case study, although my data reveals that there are also some differences between the cooperative housing projects. Together, those buildings are home to 289 households of different sizes (singles, couples, families), ages (from kids to retired persons) and social backgrounds (social housing and “regular” housing).

In contrast, the second neighbourhood, Campus Gardens in Heidelberg⁸ (in the following CG), corresponds to developer-driven, service-based neighbourhood sharing (Huber 2016) with strong philosophical elements of “co-living” as described by Cohen (2020): “Residents rent a private apartment (or bedroom) and have access to common facilities like fitness studios, movie-screening rooms (...) as well as services such as housekeeping (...). A social manager may also be employed to plan a regular calendar of events ranging from cocktail parties to recreational excursions.” In this type of housing, future residents are usually not involved in the conceptualization of their future dwellings and shared resources. It is the real estate company who decides on the type and shape of shared resources, based on assumed resident “preferences”. The company (or an entrusted service provider) will also ensure the management and maintenance of the shared spaces during the occupancy phase.

CG was inaugurated in 2016. Four buildings with four different types of apartment accommodate 370 households, mostly young people in their early career or in their studies, but also some senior single managers in their 50ies. Residents benefit from a couple of community spaces and the services of a community manager (parcel, cleaning, repair and laundry services), who is also managing the cleaning and maintenance of the shared spaces.

While both neighbourhoods significantly differ in terms of governance, they are pretty similar in terms of apartment sizes. In both of them, residents have significantly less personal space (as compared to German average), for the benefit of numerous community spaces. The Wogeno flats count in average 33 m²/person and the ones in WagnisART even less (Weissmüller 2017). CG is strategically marketed as living in “micro-apartments” with shared spaces. Most of the CG tenants live in one of the 210 “comfort apartments”,

Table 1. Overview of shared resources.

Shared resource	Domagkpark	Campus Gardens
Community kitchen	✓	✓
Music room	✓	
Guest room	✓	
Craft room	✓	
Sewing room	✓	
Sauna/shared bath tubs	✓	
Indoor sport room	✓	
Launderette	✓	✓
Multifunctional community room	✓	✓
Event room	✓	
Outdoor sport ground		✓
Roof terrace	✓	✓
Community garden	✓	
Inner yard and community terrace	✓	✓
Lounge area		✓
Gym room		✓
Kids room	✓	
Coworking/studying room	✓	✓
Community café	✓	
Give away shelf	✓	✓
Cargo E-bikes	✓	
E-Scooters	✓	
Cars	✓	✓
Household appliances, tools	✓	✓
Hen house (eggs sharing)		✓
Laundry service		✓
Cleaning service		✓
Parcel service	✓	✓
Repair service		✓

which count only 21–30 m².⁹ In contrast, the German average is of 47 m²/person (Bierwirth and Thomas 2019, 14). Table 1 provides an overview on the shared resources in both neighbourhoods that “compensate” for the smaller apartment sizes.

Those shared resources build a potentially fertile ground for sharing practices, but, as will be seen, the latter will not necessarily flourish. Before I will discuss this further in detail, the next section presents my methodological approach.

Methodology

If one aims to transpose the theoretical insights from practice theory (see above) into a fruitful research design, it appears advisable to combine multiple methods capturing both, discursive and tacit practice elements (Halkier 2017; Halkier and Jensen 2011; Littig and Leitner 2017). In the present study, five kinds of data collection methods were employed: initial exploratory interviews, semi-standardized diaries, in-depth semi-structured interviews with the diary participants, photographs (taken by residents and myself), as well as participant observations and site visits. Data collection took place from late 2017 to mid-2019.

First, semi-structured interviews were conducted to gain a broad overview on the neighbourhoods, the diversity of residents with their residential “careers”, observable sharing practices, involved actors and their roles. These interviews served to orient the subsequent data collection instruments. In a second step, around 10 residents per neighbourhood were recruited to fill in a diary on their sharing practices over

a period of 14 days. Diaries have proven very useful in practice-theoretical research, especially for recording which kind of practices are performed, how often, when and where (Palm and Ellegård 2017; Southerton et al. 2012; Greene 2018; Anderson 2016). Participants were provided with an Excel tool of identical 14 sheets (one per day), containing predefined categories and drop-down menus regarding: the type of sharing practice (1); when it started (2); when it ended (3); where it was performed (4); with whom (5); which activity preceded (6) and which one succeeded (7) the sharing practice in question. The selected participants were recruited during site visits and public assemblies and events. They were chosen to cover as far as possible the social diversity in the neighbourhoods in terms of age, gender, family and employment status (see Table 2: Overview on study participants).

While such a standardized diary tool is good for identifying popular practices, their timing and length, as well as patterns of repetition and typical places of enactment, they can neither grasp the elements of practice configurations, nor wider patterns of temporal-spatial organization of daily life. To gain a better understanding of these issues, in-depth semi-structured interviews of around 90 minutes were conducted with the same residents who had filled in diaries.¹⁰ Interviewees were first presented important results from the evaluation of their diary data. Selected very popular and, in contrast, rarely/never reported sharing practices were then discussed with regard to practice configurations and the integration of sharing practices into daily activity chains. To capture practice elements, interviewees were asked to adopt a processual perspective and to recall what it makes easy/difficult, pleasant/unpleasant, convenient/tiresome etc for them to perform a certain practice. Interviews were recorded and transcribed in anonymous form.

As nevertheless interviews encounter certain limits when it comes to grasping taken-for granted elements of practices that are usually not part of “discursive consciousness” (Giddens 1984), residents were also asked to take photographs/record

Table 2. Diversity of study participants.

Case study	Pseudonym	Age	Gender	Household composition	Employment status	Study phase	
Domagkpark	Becker	40–60	male	couple with children	working	diaries	
	Fichtner	60 +	female	single household	retired	expl. interviews	
	Gruschel	40–60	female	couple with children	working	diaries	
	Hashemian	60 +	female	couple without children	retired	diaries	
	Kehrer	40–60	male	couple with children	working	expl. interviews	
	Kotting-Uhl	30–40	male	couple with children	working	diaries	
	Müller	60 +	male	single household	retired	diaries	
	Ruffer	60 +	female	single household	retired	diaries	
	Schuster	40–60	female	single household	working	expl. interviews	
	Sommer	30–40	female	couple with children	working	diaries	
	Stamm	30–40	male	couple with children	working	expl. interviews	
	Campus Gardens	Alexa	20–30	female	single household	studying	expl. interviews
		Altmeier	20–30	female	single household	other	expl. interviews
		Bauer	20–30	male	father with child	studying	diaries
Bommer		20–30	female	single household	studying	diaries	
do Santos		30–40	male	couple without children	working	diaries	
Eichel		20–30	female	single household	working	diaries	
Gärtner		20–30	male	single household	working	diaries	
Hakimi		20–30	female	single household	working	diaries	
Klotz		20–30	male	single household	studying	diaries	
Kohler		20–30	male	single household	other	diaries	
Rosenkohl	20–30	male	single household	working	expl. interviews		
Yildirim	20–30	female	single household	studying	diaries		

videos from typical moments of practice performances and the material settings in which they took place. Unfortunately, as this touches people's privacy, only few participants were willing to provide such visual material. Own pictures that were taken during site visits add to the few resident pictures.

Finally, although not implemented systematically, moments of participant observations and site visits helped to immerse myself in residents' lived experiences. They also proved very useful for the difficult task of recruiting people for exploratory interviews and the diary recordings. In particular, I participated in a social gathering event organized by the CG community manager and a plenary meeting to discuss controversial issues regarding the development of DP district.

The interview material was then analysed in NVivo. Following Kuckartz (2016, 97–121), first a coding scheme was designed in a deductive-inductive approach, starting with broad, theory-driven parental codes, that were then enriched with sub-categories emerging from the material. After a first inspection of 7–8 interviews, the system of categories was revised and "cleaned up", aiming for clear and mutually exclusive categories. Coding rules and examples were defined for each code to ensure a consistent application of the coding scheme. Subsequently, the totality of interviews was coded. This was the basis for targeted queries with NVivo, in particular matrix queries, to reveal differences between the studied neighbourhoods.

Comparing Frequencies, Average Durations, Regularities and Practice Types

This first empirical section is entirely descriptive, while the following explanatory sections provide evidence which builds on the theoretical arguments outlined above. I start by analysing how strongly sharing practices have been normalized in the two investigated neighbourhoods. To approach this question, I examined how often diary participants engaged in sharing practices during the observed period, how much time they devoted in average to them, and if they exhibit patterns of repetition. The evaluation of all diaries revealed remarkable differences in this respect: in average, DP study participants reported twice as many daily sharing practices (1,2 compared to 0,6 among CG participants) and the recorded average duration of those activities was also significantly longer, with 1,25 hours against 0,75 hours.¹¹ Furthermore, study participants from DP showed a stronger propensity to regularity, with an average of 1,56 activities that were reported on the same weekdays in both weeks, against only 0,63 among CG participants. Overall, those numbers indicate that sharing practices are more strongly institutionalized in the DP neighbourhood than in the CG building complex: residents seem to share more often, for longer periods of time, and more regularly. It is possible that the selected residents are not fully representative for their neighbourhoods because those who are willing to participate in a study on sharing might be also those who are more engaged with sharing than "average" residents. However, this potential bias is likely to have occurred in both case studies as for both case studies participants were mainly recruited at public events where usually more committed tenants show up.

Another interesting difference refers to the variety of practices that were reported. [Figures 1 and 2](#) show the absolute frequencies of different kind of sharing practices that were recorded by all diary writers in both neighbourhoods.

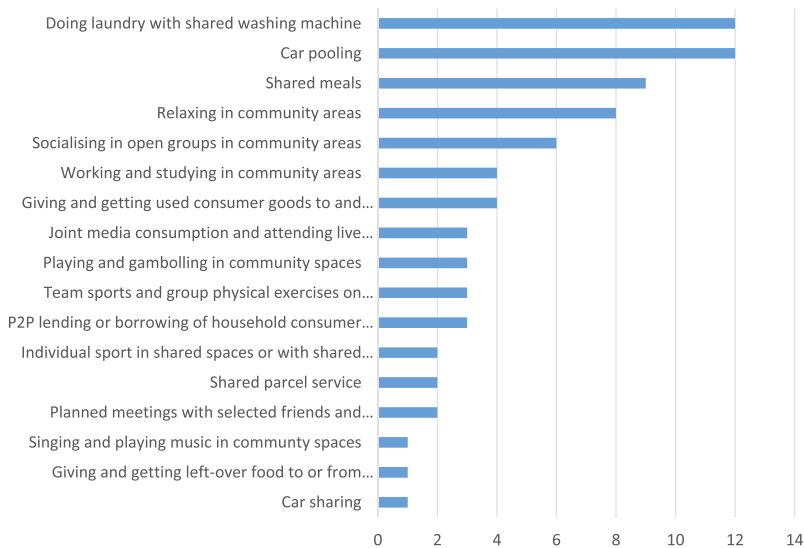


Figure 1. Reported practices, campus gardens diaries (absolute frequencies).

Individual diary evaluations were cross-checked during the interviews. Study participants were asked to scrutinize results from their dairies with regard to their representativity, both for their own typical everyday life and more generally for the neighbourhood as a whole (which, of course, has to be interpreted with some caution as tenants can't be fully aware of all their neighbours' daily activities). Those checks globally confirmed the diary evaluation, with a few modifications. In the case of DP, the practice of hosting friends and relatives in one of the numerous shared guest rooms was not at all reported in diaries, despite repeated accounts of its strong popularity. This is probably due to the pre-Christmas period when most of the diaries were filled in, a time when people usually experience end-of-year hurriedness and are probably less keen to welcome others at their homes. A similar seasonal bias may have slightly distorted the CG data: practically all interviewees reported on very frequent parties, which take place in the huge inner yard of the building complex, however mostly during the warm period of the year; likewise, beach volleyball matches on the open-air volleyball ground in the inner yard (appearing as team sport in [Figure 1](#)) seem to be more popular than diary data make believe. As diaries were filled in in early spring with still chilly outside temperatures, it can be expected that partying and playing beach volleyball are in reality more important practices than indicated by the diary data. In addition, according to interviewees the rather high absolute frequencies of carpooling do not correspond to the normality of most residents, who do most of their daily commuting in Heidelberg by bike or public transportation.

Altogether, evidence suggests a larger variety of sharing practices in DP. A total of 24 different sharing practices were recorded by diary writers, compared to only 17 indicated by CG residents. A closer look at DP data reveals that those practices also cover very different areas of daily life: practices of household organization and personal care (gifting and getting used consumer goods and left-over food, lending and borrowing tools and appliances, doing laundry, bathing), interest-based leisure activities (playing

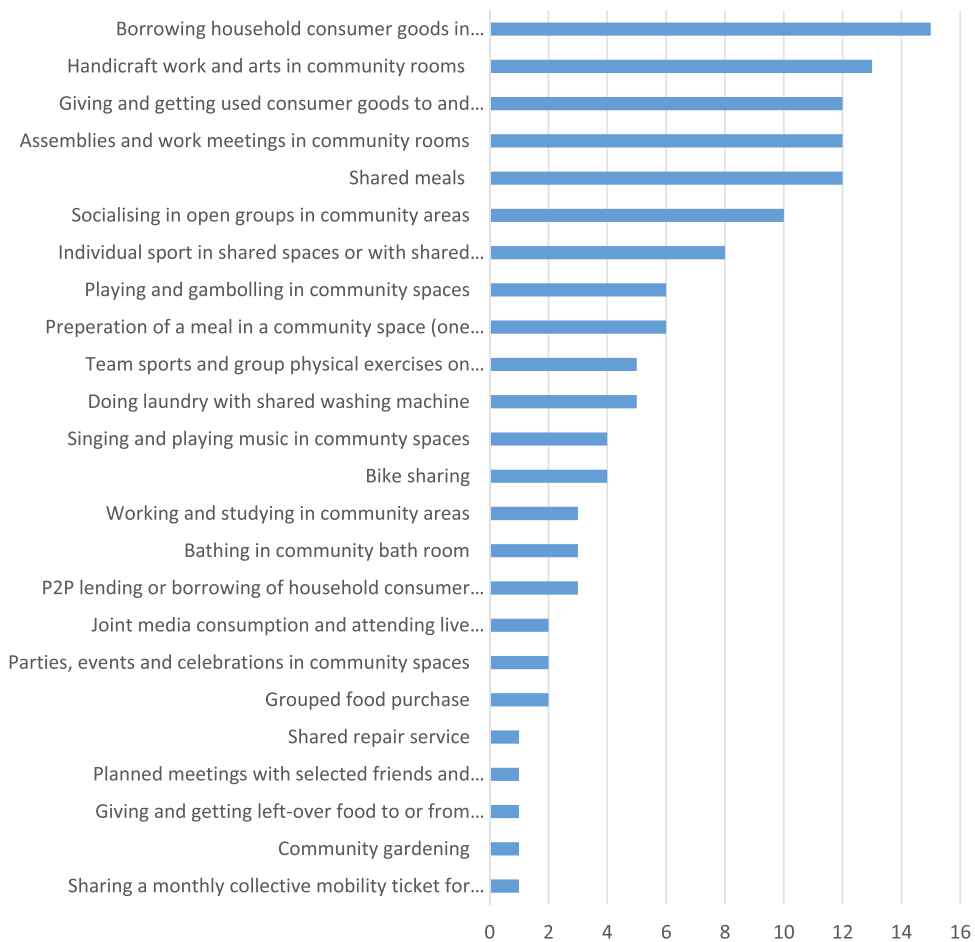


Figure 2. Reported practices, Domagkpark diaries (absolute frequencies).

music, handicraft working and arts, individual and team sports, playing and gambolling), social activities (shared meals, parties, events, assemblies, work meetings, socializing) and mobility practices (bike sharing). There is also a broad mixture of “thicker” forms of “simultaneous sharing”, that require co-presence of several neighbours over longer time, and forms of “sequential sharing” performed alone (Yates 2018). Thus, the basic idea of sharing resources seems to have “suffused” (Hui, Schatzki, and Shove 2017a) many daily activities of residents’ lives.

In contrast, data on CG shows an overall lower (albeit still remarkable as compared to standard housing) diversity of sharing practices. Most of the very frequent activities belong to two larger blocks: first, practices related to household organization (doing laundry with the shared washing machine, giving household goods away or getting them from neighbours) and, second, leisure time activities with a strong focus on relaxation and “fun” (parties, events, socializing and playing billiard in the lounge area, playing volleyball, sun bathing on the roof terrace). In this sense, interviewees frequently made associations to holiday resorts (“Mallorca feeling”) to describe their

experiences in CG. In contrast, interest-based sharing practices (e.g. singing, playing music, doing art in community areas), which are very popular among DP residents, seem to be almost inexistent in CG.

In conclusion, both neighbourhoods differ considerably with regard to the variety of observable sharing practices, as well as with regard to the frequencies, average durations and regularities of practice performances. In DP, sharing resources has become a pervasive element of daily life, while in CG sharing has been normalized only partially so far. In the next two sections, I discuss important explanations of these differences, which, I argue, are related to “fitting” practice configurations and larger spatial-temporal patterns of daily life.

Comparing Practice Configurations

The evidence presented in this section stems from the analysis of interview segments that contained descriptions of practice enactments. In the following, I oppose the distributions of “fitting” and “non-fitting” practice configurations. When interviewees described the performance of a given practice as a meaningful, consistent procedure that was experienced as “pleasant”, “cheerful”, “convenient”, “effortless” or similar, the respective practice configuration was coded as “fitting”. In contrast, when study participants reported a certain unease in the course of a performance that they experienced as “too complicated” to perform, as “tiring”, “unpleasant”, “inconvenient” or similar, the text segment was coded as “non-fitting”. The crucial question in those interpretative acts was whether available practice elements have formed sound combinations with other elements, similar to pieces of a puzzle that need other matching pieces to make a meaningful picture. This implies that a practice can be demanding in terms of time, efforts or other resources and still be coded a “fitting configuration” if the demanding elements correspond to the other available practice “ingredients”. It also means that a practice must not necessarily be enjoyable and that other meaning elements such as “having it easy” (e.g. gifting used stuff) can be the teleoaffective glue.

Figure 3 shows far more configurations “that work” for DP (almost 80% of relevant text segments coded as “fitting”), while Campus Garden residents seem to encounter more frequently difficulties to integrate practice elements into meaningful practice performances.

To illustrate this general finding, it is insightful to zoom on two specific sharing practices: 1) having shared meals and 2) circulating leftover food and stuff.¹² Both practices can be observed in both neighbourhoods, however they are more frequent in the DP case study.

Sharing Meals

In both neighbourhoods, a form of “unregulated” and low-coordinative shared meals is very popular, symbolized by the barbecue: open groups of neighbours get together at easily accessible shared spaces (the yard or the roof terrace) with flexible timing (coming and leaving according to personal schedules), and preparing food according to personal taste and hunger. The skill demands (**S**¹³) in this practice are moderate, as little coordination between neighbours and only basic cooking skills are necessary. People meet in

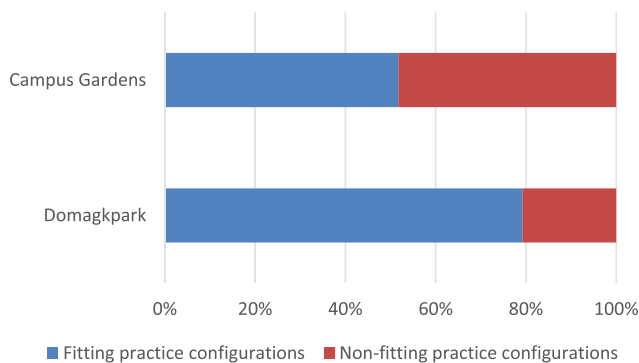


Figure 3. Comparing practice configurations.

physically open “material arrangements” around a shared object, the barbecue (**MA**), which perfectly matches the main meaning element of relaxed socializing (**ME**). Anyone who eats and drinks is expected to contribute own food and drinks, but other than that there are only little constraining rules (**R**). Overall, this presents a very attractive practice configuration in both neighbourhoods.

While this sub-form of shared meals is flourishing in both studied communities, another, more demanding sub-form has fully established only in DP: smaller groups of residents (mainly families) sharing more complex meals on a regular basis. Both neighbourhoods dispose of attractive facilities for shared meals (**MA**): well equipped, spacious and nicely designed community spaces with modern kitchens, in the case of DP even several (see Figure 4).

While the material setting hence appears favourable in both neighbourhoods, it seems that residents in CG have more difficulties in integrating this suitable material setting with other available practice ingredients for meaningful practice enactments. My evidence suggests that it is mainly the involved skills which make this sub-practice demanding: most importantly, it requires a high degree of coordination between participating neighbours (**S**). Who joins this week? Who cooks? Who goes shopping? Interviewees also report that cooking for larger groups of people requires more advanced cooking skills, and adapting recipes to individual tastes or even allergies (**S**). In addition, the rules are more committing: households who regularly want to take part in the shared meals are expected to take over the main responsibility for preparing a community dinner every now and then (**R**). This social pressure is clearly felt by interviewed practitioners in DP – and for some of them the rule is too constraining. However, those who accept the demanding “claims” of this practice report big rewards. Parents highlight the time-saving effect°(**ME**):

It just makes life with children a bit easier, as you (...) have to cook (...) only once a month (...), and on the other days others serve you food.

They also find new culinary inspirations in the dishes prepared by their neighbours (**ME**). And of course, chatting with other families around a shared meal creates and maintains social bonds, something which is experienced as very precious (**ME**). Overall,



Figure 4. Community dining rooms: Domagkpark, example WagnisArt cluster apartments (own picture) and campus gardens (picture use with kind permission of iLive).

a (comparatively) larger part of DP residents is ready to accept the demanding rules and skills as necessary elements for experiencing the benefits of dining together in a comfortable and pleasant material setting.

In contrast, in CG no regular practice of shared meals in the community “event kitchen” has established. The necessary planning ahead of the gathering – find a suitable date, reserve the room with the community manager, pick up the key at his office, return the key – is experienced as too arduous by most of the residents (**S**). Also, the necessary coordination with neighbours appears too cumbersome for many residents (**S**) as the following quotation illustrates:

You first have to agree on what you’re going to cook. Some are lactose intolerant, others gluten intolerant, and again others fructose intolerant. And then there are a bunch of people who don’t eat pork, so I don’t know ...

Moreover, the strict closing time (midnight) for noise prevention, the rental fees (Initially 100€, then 25€) and the obligation to clean the room afterwards, present demanding rules elements (**R**) which does not match with the idea of “normal”, uncomplicated and

spontaneous meals with a small group of friends (**ME**). As a consequence, the “event kitchen” is not being used as imagined beforehand, as the interviewed CG community manager acknowledges: “The initial purpose of this event kitchen, cooking and eating together, (...) that happens really rarely. So providing a specific room for it didn’t really make sense.”¹⁴ If at all, CG residents book this space for exceptional moments such as birthday or thanksgiving parties. Ironically, during such events the kitchen is mostly not used for cooking, but rather for cooling drinks in the huge fridge and comfortably storing food that was prepared beforehand. The oven and cooker are hardly used, as one interviewee reports. “True” shared meals seem to happen rather among small groups in the private apartments, and often they are unplanned. For instance, when larger amounts of food are at risk of perishing soon, residents may spontaneously decide to invite neighbours or, as another interviewee reports, when direct neighbours accidentally see each other on their balconies, they may on the spot decide to invite each other.

Overall, while both neighbourhoods dispose of attractive community dining rooms, residents in CG encounter more difficulties to integrate available practice elements into meaningful practice performances. This partially explains why DP residents engage more frequently and more regularly with the practice of shared meals than CG residents, who tend to have only occasional and mostly unplanned meals with their neighbours.

Circulating Used Stuff and Leftover Food

In both neighbourhoods, people swap, give away or sell redundant clothes, furniture, household goods or food. Yet, again my data shows that DP residents engage more frequently with those practices (to a lower degree in Frauenwohnen buildings) and in larger numbers. To a certain extent, this is not surprising as CG tenants move into ready-furnished flats and hence simply bring and accumulate less own stuff that they may want to get rid of one day. However, another important explanation seems to be that circulating used stuff and leftover food is less “practicable” (Sahakian and Wilhite 2014) in CG.

In DP, the circulation of redundant things and food seems to be firmly institutionalized. Evidence suggests that the numerous material devices are the key element for making this sharing practice very easy to perform (MA). There are public book shelves (in the WagnisArt laundry café and in the DP Conciergerie), give-away shelves (WagnisArt and Wogeno, see example [Figure 5](#)), all of them located at places, where people frequently are passing by. One interviewee explains:

Our give-away shelf is located in the waste room. Because it’s simply practical: you have to go anyway to the waste room. It seems that now even people from outside come, because it’s freely accessible, without a key, (...) and find things they can use.

Furthermore, there are food boxes in the arcades (Wogeno) and in the Domagkcasino (a semi-public restaurant at Wogeno) where vegetables and fruits can be donated. There are also occasional flea markets at the Frauenwohnen building complex. More bulky stuff such as big pieces of furniture is usually offered on various internal mailing lists, in particular at WagnisArt. Such items usually get picked up within very short time, as one interviewee explains: “The other day, I offered a meditation bench on the mailing list and in ten minutes it was gone. I simply placed it next to the entrance of our apartment. So that’s very practical and pleasant for everyone.” This very favourable



Figure 5. Give-away shelves in WagnisArt building. Own picture.

and essentially hyper-local “material arrangement” is decisive for keeping coordination efforts very low (**S**). This is considered a great advantage over online platforms such as freecycle, which involve repeated communication between peers and often require commuting for the handover. Overall, the circulation of things and food is experienced as extremely convenient, which is the main meaning element of this practice: people want to declutter their homes without much thinking (**ME**) (see also Wieser (2019) for similar findings). Regarding the rules dimension, interviewees pointed out that it is crucial that the give-away facilities are not misused as “dumping ground” for totally run-down and damaged things (**R**). Initially, this was problematic at the Wogeno building, which is why now a resident periodically takes care of clearing out things that don’t find new owners.

In CG, there is no comparable material infrastructure for circulating food and stuff. Initially, there were no facilities at all and only later on a public book shelf for passing on literature was attractively installed in the lounge area in the main building. Other than that, giving things and food away is not facilitated by any material amenities (Ma). This situation has pushed some residents to search own solutions, as one interviewee explains:

If (...) here [there was a give-away shelf; the author], I would just put it [my stuff] there and someone could take it. Yesterday, for example, (...) I put a whole box with things in the waste room, and left a note: ‘to give away’.

Usually those second-hand things then get picked up very soon. Alternatively, some redundant stuff is occasionally given away or sold in the CG Facebook group. With regard to food, several interviewees report that they occasionally gift left-over food to neighbours, for instance before leaving for holidays or after cooking too large quantities for themselves. In this case, they would often simply knock at their neighbours’ doors to offer the food. These examples show that, despite a lack of supportive material infrastructures, some CG residents do find ways for circulating food and stuff. Nevertheless, the insufficient material give-away infrastructure led to a “prefiguration” (Schatzki 2010) that made

the practices of circulating food and stuff more complicated to enact. It is fair to conclude that this is the main reason why CG tenants swap, give away and sell less frequently left-over food and no-more useful stuff than their DP counterparts.

In summary, both practice examples show that the “success” of sharing practices depends on whether residents can draw on available practice elements that they manage to integrate into meaningful practice performances. Such moments of successful practice enactment are more frequent in DP. The material infrastructures are crucial in this regard, but, as the example of shared kitchen-dining rooms shows, do by no means guarantee the widespread performance of sharing practices. I now turn to the second question for understanding the normalization of sharing practices: how easily do these integrate into residents’ patterns of daily life?

Comparing Wider Patterns of Life and Their Implications for Sharing Practices

What can residents’ typical life patterns, organized across time and space, tell us about the potential “success” of sharing practices in the two analysed neighbourhoods? In the following, I first present results on three recurring themes, which emerged over time from the interview material, before speculating about implications for the enactment of different kinds of sharing practices. The first theme deals with the temporal-spatial extension of residents’ activity patterns. If interviewees reported that much of their daily life happened in the neighbourhood or in the close surroundings, the respective text segment was coded as “temporal-spatial concentration”. In contrast, accounts of frequent travel (for business or private reasons), of long commuting to work, of leisure time activities far from home etc. were coded as “temporal-spatial extension”.

When comparing the two neighbourhoods with regard to this dichotomy between temporal-spatial extension vs concentration, the differences are striking (see Figure 6): DP residents seem to spend larger parts of their daily life in and around their building complex, while CG residents tend to have a larger geographical range for their day-to-day activities.

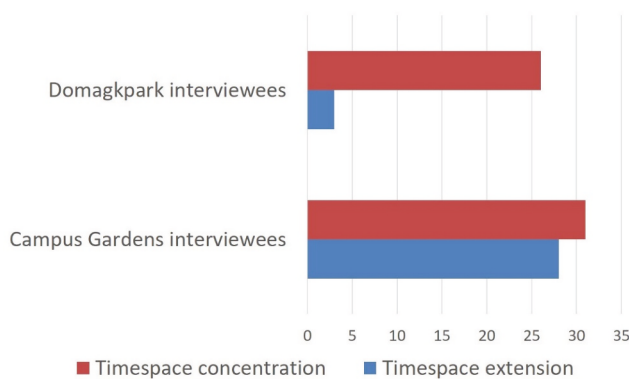


Figure 6. Temporal-spatial range of activities (absolute frequencies).

This can be explained by the differing life stages of typical residents in both neighbourhoods: the (mostly young) CG tenants tend to be quite mobile, both for their private life (partners/families living in other cities) and professional life (frequent business trips), whereas DP residents, in particular the retired persons and numerous families, seem to be already more “settled” in their lives and plan their mid and long-term future in this district.

A second recurring theme was the extent to which interviewees felt they were in control of their daily schedules. How many of a person’s daily activities and their timing is determined by others, and how much flexibility is left for “free” arrangements of activities? Again, two opposed codes emerged, “time autonomy” and “time heteronomy”. Text segments describing moments of independent time management were coded as “time autonomy”, while accounts of dependence – for instance work obligations and a need to take care of kids or sick relatives – were coded as “time heteronomy”. Results (see [Figure 7](#)) show again important differences between the two neighbourhoods: Interviewed Campus Gardens residents frequently reported that they felt constrained in their time management, mainly by work obligations and university schedules, but in some cases also by necessities of child care and supporting relatives.

Given the high share of young adults in their early career or late studies, this result may at first sight appear surprising, as we habitually associate this phase of life with liberty. However, my data suggests that people in their 20ies and 30ies rather experience their daily schedules as being “squeezed” by (working/studying/care taking) tasks and that they feel “harried” (Southerton 2003). In contrast, the higher share of retired persons and, to some degree, also part-time working parents explains the slightly higher share of text segments in DP transcripts coded as “time autonomy”. As Palm and Ellegård (2017, 252) argue, “the biggest difference in the aggregate activity pattern occurs with retirement. The restrictions in the timing of activities caused by work schedules that until retirement have structured everyday life disappear”.

On a more abstract level, a third distinguishing dimension is related to residents’ mid- and long-term life plans. There is abundant evidence in my data that most residents in CG do not expect to stay longer than a few years in their current apartments. Some plan to

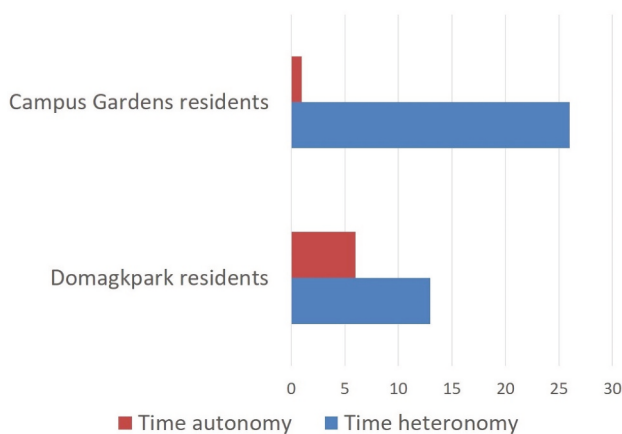


Figure 7. Comparing degrees of time autonomy (absolute frequencies).

move out once their studies are finished, others hope to move in together with their partners, and again others wait for a more stable job situation allowing them to invest in their own flat. In contrast, most DP tenants see their current living arrangement as a mid or even long-term engagement. As one interviewee puts it: not even a million Euro lottery win would make her consider moving out. Parents perceive DP as an ideal place for growing their children, whereas retired persons enjoy the social network around them and mutual support.

My data is not sufficiently robust to postulate causal links between the popularity of specific practices and those patterns of daily life, but there is some evidence that those differences regarding time sovereignty, the temporal-spatial extension and the mid- and long-term life plans do have influence on what kind of sharing practices residents engage with and how often. Generally speaking, practices of “simultaneous sharing” (Yates 2018) such as shared meals, yoga classes or community gardening are more likely to occur between neighbours who manage to reserve “cold spots” (Southerton 2003) in their daily schedules and who spend extended periods of time in their neighbourhood. Others who feel harried and are very mobile tend to experience the demands of sharing practices that require coordination between neighbours as another element of time squeeze and a potential threat to their few remaining “cold spots” (Leitner and Littig 2017). Furthermore, even though I found little supporting evidence in my data, it is also fair to assume that residents who see their current living arrangement only as an interim solution before moving somewhere else are less likely to commit to regular, thicker forms of sharing, bonding them to their neighbourhood.

In line with these arguments, in CG sharing practices with no or little coordinative efforts dominate, which can be spontaneously enacted when it fits and without commitment over time: “chilling” with others on the roof terrace, “hanging out” with friends in the lounge area after stressful days, unplanned parties developing dynamically with crowds, spontaneous volleyball matches if enough people gather, or working out in the gym space. As one interviewee puts it:

This spontaneity, that’s just cooler here. For example, let’s say you don’t have planned anything special on a Saturday evening, you actually wanted to have a quiet evening and then someone writes to you: ‘How is it going? Shall we meet in one hour in the lounge?’ And then let’s see how the evening goes.

In contrast, forms of simultaneous sharing with considerable “consumption work” (Wheeler and Glucksmann 2015) such as shared meals are less common in CG and, when they happen, then mostly as unregular performances.

Turning to DP, also here residents highlight the joy of spontaneous encounters and sharing activities, but in addition also simultaneous and more repetitive sharing practices have established, such as shared dinners, singing together, doing art and handicraft work in groups, or joint yoga sessions. Those practices’ “claims” for fixed spots in people’s daily agendas are more easily accepted, because this can help in turn to decomplexify daily life, as one interviewed mother explains:

Table 3. Key results.

	Domagkpark	Campus Gardens
<i>Housing model</i>	Collaborative Housing	Developer-driven neighbourhood sharing
<i>Social composition</i>	Diverse: all ages, active and retired persons, families, singles and couples without children	Mostly young people in their studies or early career; mostly single households
<i>Normalization of sharing</i>	Broad, spanning across different areas of life and types of sharing	Piecemeal, centred on household organization, relaxation, fun and socializing
<i>“Fit” of practice configurations</i>	++	+ -
<i>Typical patterns of life</i>	Spatial-temporal concentration; Some residents with high time autonomy, mid- and long-term life planning	Spatial-temporal extension; Most residents with strong time heteronomy; short term life planning
<i>Most compatible sharing practices</i>	Low- and high-coordinative sharing practices	Mainly low-coordinative, spontaneous sharing practices

For example, I used to sing (...) in choirs. I don't do that any longer, because here in the building we [have a group of people who; the author] sing together. (...) It just makes life easier. You have more time for yourself and your family instead of always driving around, because that always eats up a lot of time.

In conclusion, it seems that residents' typical patterns of daily life, which essentially result from their phase of life, influence the likelihood of engagement with different kinds of sharing practices. Together with a smaller amount of “fitting” practice configurations, this provides an explanation why DP diary participants engage with more different kinds of sharing practices and dedicate more time to them than their DP counterparts. [Table 3](#) summarizes key findings of my study. In the final section, I reflect on practical implications of my results for actors from the housing markets.

Conclusions

The research presented here started from the observation that most of the academic work on novel housing models with shared resources is concerned with supportive conditions during the planning and implementation phase and tends to neglect residents' living experiences in the *occupancy phase*. To address this shortcoming, the present study analysed the dynamics of everyday sharing practices in two exemplary German neighbourhoods, which both provide numerous opportunities for sharing spaces, stuff, food and mobility carriers, but feature differing “philosophical” approaches. The analysed DP neighbourhood is an example of “collaborative housing”. It was conceived by cooperative housing companies in collaboration with future tenants, who today are the main actors for the maintenance and use conditions of shared resources. In contrast, CG is a developer-driven project that was conceived without any participation of future tenants. Even now in the occupancy phase, the real estate company is in charge of cleaning, maintaining and organizing the use of shared resources.

The main research questions of this article were then: 1) to which extent have sharing practices become a normal part of residents' lives in those neighbourhoods? 2) What may explain differences in this regard? According to the evaluated diary data, DP study

participants in average engage with twice as many sharing practices per week, spent around 30 minutes more per practice, and show a higher propensity to regularity in their activities than CG tenants. Results also show a higher number of different sharing practices (24 against 17), which cover more areas of life. "Interest-based" sharing practices such as joint singing, handicraft or arts works in community spaces are largely missing in CG. My subsequent analysis, which is informed by Social Practice Theory, dealt with potential explanations for those differences. First, my data suggests that DP residents are more successful in integrating available "practice elements" of skills, meanings, material elements and rules into configurations that fit. This was illustrated by the examples of shared meals and the circulation of redundant food and stuff among neighbours. Second, differing life patterns were identified as another important element for understanding uneven levels of engagement with sharing practices. My data indicates that activities of DP residents tend to cluster in their neighbourhood and its surroundings, whereas CG tenants tend to have a higher geographical range in engaging with day-to-day activities. Also, CG study participants complained more often than their DP counterparts about squeezed schedules and dependencies from others. Moreover, the latter tend to see their mid- and long-term future in their current neighbourhood, while many CG tenants are uncertain about where they may live in a few years. These differences, I argue, may imply that sharing practices that require co-presence and significant coordination between neighbours have more difficulties in "finding their place" in CG tenants' activity sequences than in those of their DP counterparts. Altogether, these differences regarding fitting practice configurations and regarding the integration of sharing practices into residents' patterns of daily life provide important explanations why sharing resources has become a more pervasive aspect of everyday life in DP.

Based on these findings, I suggest two conclusions which I deem of relevance for real estate developers and housing companies. These conclusions follow the twofold empirical analysis of this article and are driven by the "big" question if and how sharing resources may be "normalised" in housing markets. First, my analysis has shown that material infrastructures can strongly support sharing practices (e.g. give-away shelves in DP), but that their mere existence does not automatically lead to frequent practice performances (e.g. community dining room in CG), as other elements – matching skills, meanings, rules – need to form competitive practice configurations with those material entities. Even if these other elements are thoroughly considered in the planning phase and some sort of future practice "prototypes" are imagined, there is no certainty that future residents will indeed perform practices as expected. My data suggests that up-front participation of future residents helps to increase the likelihood of frequent practice enactments. The main purposes, size and design of sharing infrastructures, most importantly rooms, can then be aligned with residents' visions of their future life, with their intuition and practical experience of what might work, and with their ideas regarding what rules may be needed to make sharing practicable. The considerably higher share of text segments coded as "fitting configurations" among DP interviewees supports this hypothesis.

The question for "top-down" housing companies is then how they can still increase the likelihood of practice performances, for instance by providing very appealing and easily accessible material environments, by defining rules for very flexible practice enactments, or by providing practical help to residents on how to make use of shared material objects. As

housing constellations with shared resources are no doubt still in an experimental phase, it is likely that growing experiences will help to identify such best practices which then may be multiplied. Nevertheless, to increase their internal learning curve, it appears advisable for “top-down” housing suppliers to integrate more participatory elements into the planning phase of new building complexes. They may organize up-front workshops with future tenants or, if these are not yet known, conduct very thorough market research on what kind of sharing practices might work with which societal groups: young, single adults or retired persons, young couples without kids or families, academics or workers, migrants or natives, or a mixture of all?

This brings me to my second suggestion. My research indicates that certain sharing practices may fit better with certain sociodemographic groups and their characteristic patterns of daily life. Sharing practices that are low-coordinative and can be performed spontaneously seem to match with most people’s daily lives as they are mostly easy-to-integrate “time fillers”. Thus, doing laundry with the shared washing machine, exercising in the shared work-out room and sun-bathing on the shared roof terrace appear overall less complicated to enact than, for instance, joint singing and cooking.¹⁵ In contrast, “thicker” forms of simultaneous sharing with stronger necessities for coordination, with more demanding “claims” for people’s time and long-term commitments are likely to have more uneven “fits” with different societal groups. Consequently, when “top-down” real estate developers such as iLive (CG) decide to focus on highly mobile, young adults they may concentrate on sharing infrastructures which are supportive of low-coordinative, “easy-to-perform” sharing practices. In contrast, concepts for multi-generational living with families and retired persons may include also offers for “thicker” forms of sharing that involve extended periods of shared time. Altogether, one may conclude that sharing practices have different markets,¹⁶ though markets which are not based on individuals’ values and interests – as conventional marketing approaches would suggest – but on typical life patterns, which are dominant in certain sociodemographic groups.

I end with three short notices on useful complementary research. The first one refers to different housing models and how they may support different sharing practices. My findings lead me to the tentative conclusion that top-down real-estate developers who aim to industrialize sharing facilities at large scale may concentrate on low-coordinative practices that can be spontaneously enacted, because these are likely to fit with most people’s daily lives. Projects of collaborative housing, in turn, may be more ambitious and provide sharing facilities for a wide range of practices, including interest-based sharing forms requiring extensive times of resident co-presence. However, my study had a strongly exploratory character and more research is needed for a fine-grained analysis of housing models and their suitability for different types of sharing practices. For instance, future work may examine if there are some elements of a kind of basic “sharing infrastructure” with a very high likelihood of stimulating performances, such as doing laundry with shared washing machines, gifting used stuff and socializing in community areas. These basic sharing facilities may be part of any housing project. On top of this, a wide array of more specialized housing offers may emerge, oriented towards certain sociodemographic groups or mixtures of them. These offers may be first developed and

tested in collaborative housing, and then, based on these experiences, be selectively integrated into more industrialized top-down projects for specific societal segments. Upcoming research may guide such experimentations.

My second notice on complementary studies is related to environmental sustainability. The present study is motivated by the increasing evidence that green building techniques alone won't be enough to reduce the massive environmental footprints of the housing sector and that a sufficiency turn is needed (Sylvia and Spangenberg 2019; Cohen 2020; Ellsworth-Krebs 2020; Shove 2018). There is good reason to claim that neighbourhood sharing as discussed here holds great potential for reducing the environmental impacts of housing (Meltzer 2000). However, this is by far not certain and, as often, the devil is in the details. So far, only little research has been done in this respect, and most of this work has focused on singular sharing practices in isolation from wider practice bundles and complexes (cf. Martin, Lazarevic, and Gullström 2019; Gsell et al. 2015). Hence, studies that compare the resource throughput and carbon emissions of neighbourhood sharing models with conventional housing would usefully add to the work presented here, in particular if they adopt an encompassing perspective on people's daily activities (Leitner and Littig (2017) present an insightful example of this). Analysing sharing practices and other frequent daily activities helps to avoid overlooking important rebound effects (Sonnberger and Gross 2018).

Finally, on a more abstract level my study integrates into works that deal with the blurring boundaries between the spheres of the home, neighbourhoods, districts and cities (cf. Martella and Enia 2021). Neighbourhood sharing as discussed in this paper can be considered an extension of the home – and some of the interviewees were fully aware of that benefit, for instance by referring to community rooms as their “extra living room”. In contrast, the “re-rooting” of instituted practices in the home observed during the Covid crisis (Holmes, Lord, and Ellsworth-Krebs 2021), in particular the increase of teleworking (Nansen et al. 2010; Doling and Arundel 2020), presents a counter development which reinforces the importance of the private space. It is an intriguing research question how such developments will reshape our conventions of the home – and what is considered to be part of the “outside world”. Likewise, it is important to evaluate the sustainability implications of such dynamics, as elaborated in the previous paragraph.

Notes

1. Translated from German.
2. Some (cf. Welch and Warde 2015) have rightfully pointed out that speaking of *one* Social Practice Theory is misleading as there is not yet a fully consolidated theory, but rather several branches of practice theories. While I fully agree with this observation, the purpose of my article is not theory development, but rather to make use of SPT thinking as a “heuristic aid stimulus for empirical research capable of rendering visible phenomena (...) that were previously off the radar.” (Reckwitz 2017, 115) For reasons of simplicity, I will hence use in the following the singular form of Social Practice Theory.
3. Nevertheless, both trends are clearly still niches in housing markets, with only a few hundred projects.
4. <https://www.domagkpark.de>
5. <https://www.wagnis.org/projekte/realisierte-projekte/wagnisart.html>
6. Translated from German.

7. <https://www.DP.de/genossenschaft.html>
8. <https://www.campus-gardens.de/>
9. <https://www.campus-gardens.de/de/campus-gardens.html>
10. I hence join Hitchings (2012) who postulates that despite widespread scepticism “people can talk about their practices”.
11. As diary participants were asked to fill in their diaries at the end of the day, it appeared not accurate to track practice durations at the level of minutes. The lowest assumed time unit was hence set at 0,25 hours. Consequently, the values presented here are approximations of reality and numbers are rounded.
12. This code was created by aggregating the two practices of “getting and giving left-over food” and “getting and giving away used consumer goods”.
13. In the following, I will use the abbreviations MA for material elements, ME for meaning, S for skills and R for rules.
14. The same can be said about the very hybrid “learning lounges” which, counter-intuitively, are also equipped with a TV and a table football.
15. Even though also these low-coordinative practices may request some coordination with and adaptation to others: for instance, some interviewees reported that it took them some time to figure out busy and less busy times for doing laundry with the community washing machines.
16. I am grateful for this thought to one of the anonymous reviewers.

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5.3 Article C

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Promoting neighbourhood sharing: infrastructures of convenience and community

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ABSTRACT

Against the background of high levels of energy and resource demand in the residential sector, this paper investigates one potential way of making housing more sufficient: sharing at the neighbourhood level. Evidence from French and German case studies of ‘collaborative housing’ and ‘developer-driven neighbourhood sharing’ is used to identify two types of popular sharing practices: community-oriented and convenience-oriented. The first group of sharing practices is underpinned by creating, maintaining and experiencing social ties with neighbours. The second group of practices is guided by getting day-to-day tasks done smoothly and efficiently. To support the establishment of such sharing practices, some social and organisational measures are suggested. Thus, convenience-oriented sharing practices may be promoted by infrastructures and associated services that optimise the availability of sharing facilities and minimise temporal stretches and consumption work involved in practice performances. Community-oriented sharing practices may benefit from infrastructural arrangements that enable chance encounters, privilege community spaces over private areas and create welcoming spatial atmospheres.

PRACTICE RELEVANCE

Together with other alternative housing models such as tiny houses, micro-apartments or modular flats, neighbourhood sharing presents an innovation that has the potential to redefine the understanding of what the home is for. Which daily activities will be located within the home in the future, and which ones might be ‘externalised’, for instance, by making use of shared resources? This study provides valuable insights. By analysing three exemplary neighbourhoods in France and Germany, it identifies two popular kinds of sharing practices: convenience-oriented and community-oriented. New ideas are presented for how housing actors, in particular, housing companies, may support such sharing practices by suitable infrastructures and services.

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Sufficiency has gained prominence as a serious sustainability strategy to counteract climate change, promoted by prominent international and national bodies such as the Intergovernmental Panel on Climate Change (IPCC) (2023), the German Advisory Board Council on the Environment (SRU 2024) as well as governments (e.g. see the 'Plan for Energy Sufficiency' by the Gouvernement de France 2022) and transdisciplinary networks (e.g. the Sufficiency Manifesto¹). Meanwhile, research on sufficiency has also gained momentum (for overviews, see Jungell-Michelsson & Heikkurinen 2022; Lage 2022), indicating a 'sufficiency turn' within the scientific community (Cohen 2020). Against the background of the continuing increase of carbon emissions (IPCC 2023) and alarming evidence of biodiversity losses (IPBES 2019), there is a growing recognition that efficiency and consistency approaches need to be complemented by sufficiency measures (Haberl *et al.* 2020).

While there is still an ongoing process of conceptual refinement among competing definitions of sufficiency (Lage 2022; Sorrell *et al.* 2020: 3), scholars seem to converge around the idea that sufficiency is about minimum and maximum levels of 'enoughness' (Spengler 2016), as well as delineating 'consumption corridors' (Fuchs *et al.* 2021). Minimum consumption standards imply that all human beings should be enabled to lead a decent life through access to adequate services and goods. The need for upper limits of consumption ensures that others can meet their basic needs, now and in the future. Consequently, the latter group of sufficiency measures will help to achieve absolute reductions of resource and energy demand involved in our consumption and production patterns (Lorek & Spangenberg 2019; Zell-Ziegler *et al.* 2021). Buildings, and in particular residential ones, are of utmost importance in this regard because they count for more than one third of global CO₂ emissions (UNEP 2020), and the built environment decisively contributes to continued soil sealing. Data for the European Union show that despite improved energy performance standards of buildings and appliances, the energy consumption attributed to residential buildings has even slightly increased in the period from 2000 to 2021 (Odyssee-Mure 2024). This is due to demand-escalating tendencies: the rising numbers of households, increasing flat sizes and decreasing household sizes, which together have resulted in rising per capita living areas (Ellsworth-Krebs 2020; Lorek & Spangenberg 2019). Consequently, most of the debated sufficiency-oriented approaches aim at reducing average personal living spaces, e.g. promoting home swapping (Kitzmann 2023; Sandberg 2021; Thomas *et al.* 2019), boosting tiny houses and micro-apartments (Cohen 2020; Moore & Doyon 2023: 207–209; Lehner *et al.* 2024), implementing modular, adaptable flats (Zimmermann *et al.* 2022; Tarpio & Huuhka 2022), and adopting regulations that limit the number of rooms according to household size (Lage 2023).

Another promising avenue for decreasing the environmental footprint of housing is neighbourhood sharing. Increasingly organised in constellations of 'collaborative housing' (Czischke *et al.* 2020; Griffith *et al.* 2024) or in developer-driven housing projects (Bergan & Power 2024; Cohen 2020), it typically includes the sharing of spaces (e.g. guest rooms), food (e.g. shared meals), mobility carriers (e.g. cars) and 'stuff' (e.g. clothes). While the potential of neighbourhood sharing for making housing more sufficient has been repeatedly acknowledged by scholars (*cf.* Moore & Doyon 2023: 209–215; Sandberg 2021), little is known about the practicalities of sharing. In theory, the scope of what could be shared is almost unlimited, but not all types of sharing practices are likely to become an established part of future housing.

This paper explores the contours of a neighbourhood sharing model. Are there certain types of sharing practices that may constitute a sort of baseline sharing, while others will remain exotic phenomena? And if this is the case, how might actors from the housing markets encourage the performance of identified important sharing practices by suitable infrastructures and services? These questions are investigated by (1) introducing two (empirically derived) types of sharing practices and (2) suggesting infrastructural arrangements that support these sharing types.

The paper is structured as follows. The next section outlines a conceptualisation of 'sharing' as well as current organisational forms of neighbourhood sharing. Social practice theory (SPT) is then briefly introduced as a theoretical frame of this study in Section 3, while Section 4 presents the three case

studies and the mixed-methods approach applied for empirical enquiry. The core findings are then discussed: families of sharing practices (Section 5) and their infrastructural support (Section 6). Section 7 reflects on possible complementary research and practical implications.

2. FORMS OF NEIGHBOURHOOD SHARING

Since the rise of the so-called ‘sharing economy’ the term ‘sharing’ has been booming. However, a shared understanding does not yet exist of what sharing actually is. For some (Curtis & Lehner 2019; Frenken & Schor 2017), sharing is defined by the shared access of communities of users to goods (e.g. shared guest rooms), while others (Mair & Reischauer 2017; Schor & Fitzmaurice 2015) also include practices that involve ownership transfer, such as reselling. Furthermore, some scholars (Belk 2009) argue that the term should be restricted to non-monetarised practices, while others have no issues with market-based forms implying payments. The perspective on sharing adopted in the present study is very inclusive regarding the aforementioned conceptual differences. What matters most from the perspective of sufficiency is the use intensification and prolongation of material objects (Scholl 2009) (compared with privatised practices), including mobility carriers, tools, clothes, food and spaces:

By exploiting “economies of scale” in the joint use of objects (Yates 2018), such practices hold the potential of absolute reductions of CO₂ emissions and resource consumption.

(Huber 2022: 527)

With this very material perspective on sharing in mind, the question arises in which constellations does sharing occur today, besides ad-hoc, informal sharing?² First, in ‘cohousing’ projects, smaller groups of households join for a common housing project and self-manage the provision and use of shared resources, while also disposing of fully autonomous private flats (Jarvis 2011; Lietaert 2010). The second constellation, ‘collaborative housing’ (Czischke *et al.* 2020; Griffith *et al.* 2024; Tummers 2016), is similar to classical cohousing in many respects, but differs from it regarding its more complex organisational model. It is an:

arrangement where a group of people co-produce their own housing in full or part in collaboration with established providers. The degree of user involvement in this process may vary from high level of participation in delivery and [...], to a leading role of the user group.

(Czischke 2018: 72)

Finally, in top-down, developer-driven housing projects, shared resources are provided, managed and maintained by housing companies, often in collaboration with service providers, and, in contrast to the previous types, with no or little involvement of residents (Bergan & Power 2024; Cohen 2020; Huber 2016).

Due to the participation of professional housing actors it can be assumed that the latter two constellations have the strongest potential to become to a certain degree mainstreamed, while classical cohousing with its very strong demands for residents’ time and resources appears rather confined to a smaller niche (Huber 2017). Hence, the three case studies selected for the empirical analysis in this study are examples of collaborative housing and developer-driven neighbourhood sharing. Before presenting these, the following section introduces the theoretical background of this study.

3. THE VALUE OF SOCIAL PRACTICE THEORY: UNDERSTANDING THE ESTABLISHMENT OF SHARING PRACTICES

The present paper is grounded in social practice theory (SPT) thinking as elaborated, amongst others, by Shove *et al.* (2012), Reckwitz (2002), Schatzki (1996) and Warde (2014). As opposed to individualistic approaches, SPT³ places social practices at the heart of social change and stability.

Social practises are conceptualised as mostly routinised doings, which are constituted by a range of interlinked and socially shared elements and reproduced by individuals (as their ‘carriers’) in moments of enactment. Shove *et al.*'s (2012) suggestion to conceive practices as configurations of meanings, competencies and material elements has been taken up in numerous empirical studies. In terms of sufficiency, it is important to note that SPT conceives consumption not as practices, but as an inherent part in moments of practice performances (Warde 2005). Attempts to decrease consumption levels—as this is the ambition of sufficiency approaches—must hence target the change of practices behind escalating energy and resource demands. In line with this, the present study is interested in how less resource-intensive sharing practices may become normalised to replace more resource-demanding privatised practices. But how does social change happen in the lenses of SPT?

First, new links may be established between available practice elements to form attractive practice configurations (Shove *et al.* 2012). When this happens, emerging ‘proto’ practices (e.g. gifting used things to neighbours through a newly installed give-away shelf) may become more attractive compared with existing ones (e.g. throwing used things away). Second, social practices do not change in isolation, but are embedded in a wider web of social practices (Klitkou *et al.* 2022), conceived as ‘arrangements’ (Schatzki 2010) or ‘bundles and complexes’ (Shove *et al.* 2012). Thus, interlinkages between practices can equally spur or inhibit practice dynamics.

While the dynamics of the second kind are likely to play a crucial role for the establishment of sharing practices (Huber 2022), the main focus of the present work is on the formation of attractive practice configurations. This entails investigating elements of meaning as the ‘glue’ of practices (Section 5), and the material elements, which shape practices in diverse ways (Section 6). Meanings are:

about making sense of the activities. This includes the ideas of what the activities are good for [...], the emotions related to the activities, the beliefs and understandings.

(Røpke 2009: 2492)

Mock (2023: 379), drawing on Hui *et al.*'s (2017) concept of ‘suffusing’, suggests that elements of meaning can pervade several practices, giving them a common orientation. Following this idea, the subsequent section clusters diverse practices into families of sharing practices with similar meaning elements.

Material elements have own agentive capacity (Wilhite 2012), be it as elements directly involved in practices (‘things in action’), be it as ‘things in the background’, which potentially ‘thread through’ (Hui *et al.* 2017) diverse practices (Shove 2017). The placement, design and embedding of diverse material objects in ‘material arrangements’ (Schatzki 2010) can preconfigure practices:

Prefiguration is [...] a qualification of possible paths of action on such registers as easy and hard, obvious and obscure, tiresome and invigorating, short and long, and so on.

(Schatzki 2010: 140)

By their material arrangement, infrastructures can also generate certain ‘spatial atmospheres’ (Reckwitz 2017) creating a positive or negative ‘feeling’ in moments of practice performances. Such spatial atmospheres can play a crucial role for the popularity of certain sharing practices, as will be shown below.

4. CASE STUDIES AND METHODOLOGY

Three case studies in Germany and France were conducted in the present study. One of the cases corresponds to the developer-driven type, the other two to the collaborative housing type. Initially, a fourth case study on a French example of developer-driven neighbourhood sharing was planned. However, despite repeated efforts, no agreement could be reached with any of the housing companies that have implemented relevant projects in France. Before introducing the three case studies, the situation on the national and local residential markets is presented as they are important contextual elements for understanding the rise of neighbourhood sharing.

Compared with other countries, Germany has a very high share of rented homes (52% in 2023⁴). Around two thirds of the rented housing stock is owned by private landlords, while public housing companies and cooperatives are less important in quantitative terms (Henger et al. 2019: 604) but play a very important role as innovators, especially in dense housing markets (BBSR 2016). Hardly surprising, the German collaborative housing case was implemented by three cooperatives. There is a growing shortage of affordable housing in booming cities such as Munich and smaller university cities such as Heidelberg, where the cases of this study are located (Rink & Egner 2022). The situation in Munich, which displays the highest average rental prices of Germany, is particularly dramatic in this regard, as for many years population growth has exceeded the growth of the housing supply (Rink & Egner 2022: 437). Heidelberg, although being ‘only’ a medium-sized city, faces similar problems (Over et al. 2020: 309), with the sixth highest average rental prices of Germany.⁵

France displays a higher homeownership rate (63% in 2023⁶) than Germany, albeit lower than liberal countries such as the US. Since the post-Second World War era, when ‘grands ensembles’ were built in many cities to provide decent housing for the growing working class, social housing has played an outstanding role in France (Kohl 2014). This was reconfirmed by the Solidarity and Urban Renewal Act (SRU) in 2000, which provides that any city of more than 50,000 inhabitants must ensure a share of 20–25% of social housing (Pollard 2023: 282). In this tradition, the French collaborative housing case was steered by a social housing company. Similar to the German case study cities, Toulouse is also characterised by increasing rental prices, even though these have not yet reached the levels of the most expensive French cities, Paris and Nice (AUAT 2023). In all three case study cities, neighbourhood sharing is hence a way of ensuring access to plenty of resources (minimum side of sufficiency), while at the same time responding to the extreme scarcity of affordable housing by restricting apartments sizes (maximum side of sufficiency).

The German developer-driven case is Campus Gardens (CG) in Heidelberg.⁷ Since its inauguration in 2016, it accommodates 370 households who rent ‘micro-apartments’ of 21–30 m². Residents have several community spaces at their disposal and can count on the support of a community manager, who manages and maintains the shared spaces and provides important services to the community (laundry, repairs, parcel pick-up, etc.). Most of the residents are students and young professionals, but some are also senior citizens in leading positions.

The first case of collaborative housing is Domagkpark (DP) in Munich.⁸ Within this relatively new city district (finalised in 2019), home to around 4500 people (Mühleisen 2017), three projects of neighbourhood sharing are outstanding. These were planned and implemented by the cooperative housing companies Frauenwohnen, Wagnis and Wogeno, in close cooperation with each other, the City of Munich, and future tenants. Overall, 289 households, comprising residents of very diverse incomes, ages, marital and professional statuses, live in those three housing projects. Located in vicinity to each other, multiple shared spaces were realised, some as semi-public spaces. In addition, the district cooperative,⁹ the DP Association, as well as Stattauto, a shared mobility company, provide further sharing facilities, for instance coworking spaces, tools, cargo bikes and electric vehicles.

The second case of collaborative housing is the Aux 4 Vents project (A4V) in the eco-district of La Cartoucherie in Toulouse.¹⁰ With four buildings, it accommodates 89 households in mixed tenure of tenants and owners and of diverse backgrounds, including some families with a migration background. The project was developed and implemented in the frame of a multi-actor constellation, involving, amongst others, the City of Toulouse, the social housing company Les Chalets, future residents and the housing cooperative Abricoop. The latter pre-existed the A4V project and joined the consortium to benefit from Les Chalets’ professional building competences for the realisation of its—anyway planned—project. Therefore, Abricoop occupies a building ‘of its own’, with shared spaces serving by priority its member households, while the rest of the shared spaces is accessible to all residents.

In line with sufficiency thinking, all three analysed cases were chosen because they dispose of numerous shared spaces (kitchens, community, guest, exercise, craft and playing rooms, launderettes, roof terraces, etc.) and other sharing facilities (storage and give-away shelves, cars,

bikes, etc.). At the same time, the private apartments are of below-average size, following the idea of prioritising commonly used spaces. For instance, while the current German average per person floor area is 47 m²/person (Zimmermann et al. 2022: 15), residents in the Wogeno housing project (DP) are provided with 33 m²/person and tenants in the Wagnis buildings with even less (Weissmüller 2017). The same applies to A4V, in particular to the Abricoop flats, which from the very beginning were planned with strict rules regarding maximum room numbers according to household sizes. CG in turn is even marketised as ‘micro-living’.

Methodologically, the case study draws essentially on data collected through (1) semi-standardised resident diaries and (2) semi-structured qualitative interviews with tenants. Diaries have been successfully employed in practice-theoretical studies to assess the occurrences and temporal ordering of daily activities (cf. Anderson 2016; Southerton et al. 2012). For each of the cases, around 10 residents were recruited to record their sharing practices in an Excel tool over a period of 14 days. Subsequently, results from the diary evaluation were used in interviews with the same persons to stimulate conversations about observed sharing practices, typical situations of their enactment and the elements shaping them. Participants were recruited during site visits as well as through snowballing processes, with the aim of representing as far as possible the diversity of residents. Interviewing data were then analysed in NVivo, applying a deductive-inductive approach (Kuckartz 2016: 97–121). Initial parent codes derived from theory were complemented by inductive codes emerging from the data. In the course of the coding process, the coding scheme underwent two revisions, in which subcategories were merged, deleted or moved elsewhere to improve consistency. After coding the totality of interviews, targeted queries such as matrix queries were conducted for exploring specific topics in the data. Participant and own photographs as well as participatory observations during site visits were used to complement diary and interviewing data.

5. A TYPOLOGY OF NEIGHBOURHOOD SHARING PRACTICES

Which sharing practices might hold the biggest potential to become normalised in neighbourhoods? To address this question, three analytical steps were carried out. First, the popularity of diverse sharing practices in the observed neighbourhoods was assessed by evaluating the most frequently reported practices. Second, important meaning-elements were identified and regrouped into families of meaning codes. Third, by associating families of meanings with popular sharing practices, a typology of sharing practices was developed.

5.1 FREQUENT SHARING PRACTICES

To assess the popularity of observed sharing practices, a two-step approach was applied, combining data from the diary study with interviewing data. The description of this process is beyond the scope of this paper and is summarised in the supplemental data online: ‘most popular practices’. The triangulation of these data allows a picture of the most popular sharing practices in the observed neighbourhoods to be drawn. Table 1 reveals that six sharing practices seem to be practiced frequently or at least occasionally in all three neighbourhoods, and another five practices in two out of the three neighbourhoods. This indicates a high potential of these practices to become normalised. The question is then: Do these practices have something in common? To explore this, the next section analyses the observed meaning elements.

POPULARITY		DP	CG	A4V
All three neighbourhoods	Giving and getting used consumer goods	✓	✓	✓
	Shared meals	✓	✓	✓
	Socialising in open groups in community areas	✓	✓	✓
	Playing in community spaces	✓	✓	✓

(Contd.)

Table 1: Most popular practices by neighbourhood.

Note: A4V = Aux 4 Vents (Toulouse); CG = Campus Gardens (Heidelberg); DP = Domagkpark (Munich); B2C = business to consumer; P2P = person to person.

POPULARITY		DP	CG	A4V
	P2P lending or borrowing of consumer goods	✓	✓	✓
	Team sports and exercising on community grounds	✓	✓	✓
Two neighbourhoods	Borrowing household goods in collective ownership	✓		✓
	Assemblies and work meetings	✓		✓
	Joint media consumption and live concerts	✓	✓	
	Using a shared guest room/apartment	✓		✓
	Doing laundry with shared washing machines		✓	✓
One neighbourhood	Handicraft works and arts	✓		
	Relaxing in community areas		✓	
	Car sharing P2P			✓
	Car sharing B2C	✓		
	Car pooling		✓	
	Bike sharing B2C	✓		
	Planned meetings with friends and neighbours in community spaces		✓	
	Lending a parking space P2P			✓
	Parties and events in community areas		✓	

5.2 MEANING CLUSTERS

As for other practice elements, meaning elements are typically not specific to a single practice, but circulate between multiple practices and form connections between them (Shove et al. 2012). When exploring commonalities between the identified popular sharing practices, it is hence revealing to identify frequently occurring meaning elements in relationship with these practices, which would indicate processes of ‘suffusing’ (Hui et al. 2017). Table 2 lists 17 different meaning codes that have emerged inductively during the coding process, as well as the frequencies of their application. Code descriptions can be found in the supplemental data online: ‘code descriptions’.

MEANING CODE	CODED SEGMENTS
Sense of community and conviviality	79
Practicability	61
Solidarity, mutual help and common goods	45
Cosiness, comfort and aesthetics	45
Spontaneity and informality	43
Extending the home	39
Hygiene	33
Friendship and relationships	27
Intimacy, privacy and data protection	27
Self determination	26
Getting to know people	25
Sustainability and sufficiency	25
Distraction and relaxation	21

Table 2: Meaning codes in relationship with practices and number of coded text segments.

MEANING CODE	CODED SEGMENTS
Satisfaction	19
Discovering, experimenting and learning	15
Exuberance	14
Safety	9
Miscellaneous	27

On closer inspection, certain similarities between some meaning elements become apparent. These may be grouped into clusters of sense-making. Thus, a first group of meaning codes converges around the gratifications of community and experiencing social ties. Another bulk of meaning codes shares the idea of striving for a convenient and easy everyday life. Third, some other meanings elements are oriented towards joy and wellbeing. Finally, a last group of codes, which can be referred to as the ‘controlling’ cluster, shows the importance of preserving personal boundaries. Being often coded with non-fitting practice configurations, this family of meanings points to the limits of sharing. Figure 1 presents the four meaning clusters and the meaning codes related to them. Not all meaning codes listed in Table 2 can be assigned to one of the four groups and remain ‘stand-alone’.

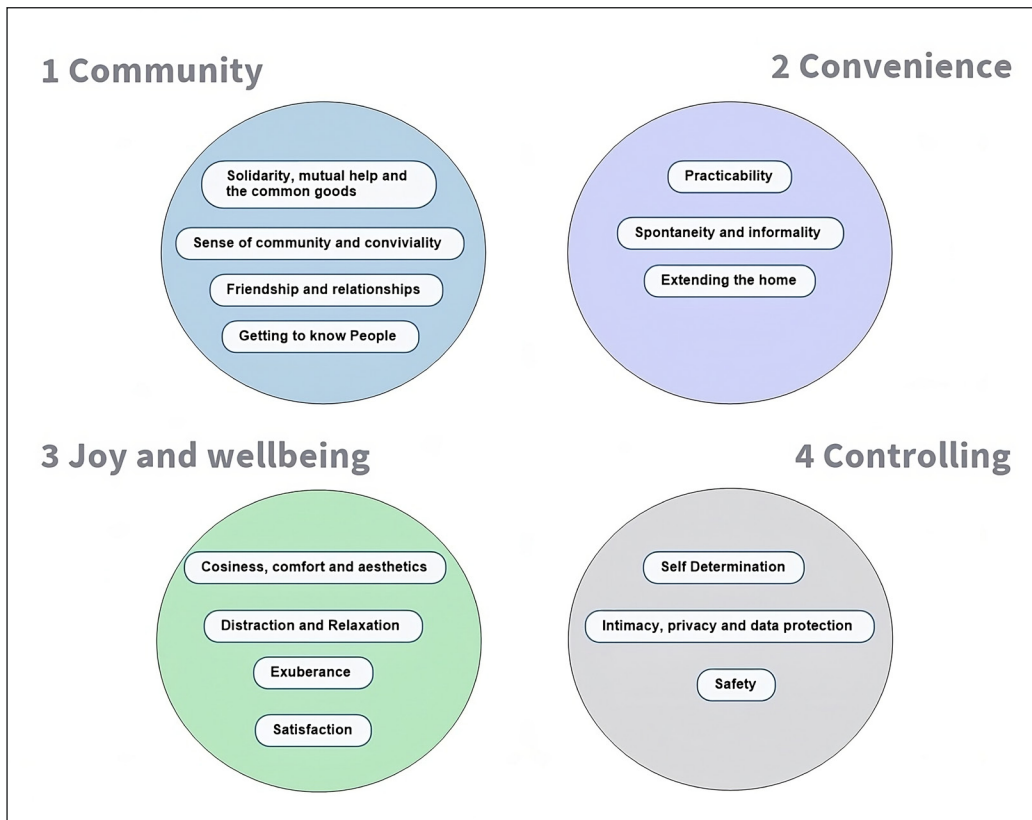


Figure 1: Clusters of meaning codes.

5.3 THREE FAMILIES OF SHARING PRACTICES

With these families of meanings at hand, the question is then whether these are related to the previously identified most popular practices. For this purpose, first four new ‘meta’ meaning codes (community, convenience, joy and wellbeing, and controlling) were created in NVivo by merging the meaning codes associated with them. Subsequently, a crosstab was generated displaying the co-occurrences of popular practices and the four meta-meaning codes (Table 3).

Table 3 reveals that most of the popular sharing practices ‘load’ either strongly on the community or the convenience meta code, some of them also on both. A few other sharing practices are also strongly related to the joy-and-wellbeing meaning family, while the controlling meta code

plays a minor role, except for two practices. It is important to note that these numbers should be interpreted with caution, in particular for those practices displaying only very low numbers of co-coded text segments. Nevertheless, Table 3 allows one to draw rough tendencies about sharing practices and their teleo-affective orientations. Thus, three main groups of sharing practices are suggested: the first family of sharing practices can be termed *community-oriented sharing practices*. These practices are held together by the idea of creating, maintaining and experiencing social ties with neighbours. This relates to both strong ties typical for close relationships of friendships and weaker ties corresponding to a more diffuse sense of belongingness to neighbours. Typical examples of this type of sharing practices are: socialising in open groups, carpooling, shared meals and playing in community areas. The second group of sharing practices can be referred to as *convenience-oriented sharing practices*. Typically, these are day-to-day household management practices, which are characterised by a wish of getting day-to-day businesses done smoothly and efficiently, with the least mental and coordinative efforts. Some examples among the identified popular sharing practices are: business to consumer (B2C) carsharing, doing laundry with shared washing machines, hosting guests in shared guest rooms, and giving/reselling/ swapping used consumer goods. Finally, the family of wellbeing sharing practices unites activities providing emotional gratifications. Typically, leisure time activities such as individual or team sports, relaxation or partying tend to be strongly guided by this idea of ‘having fun’.

In summary, evidence indicates that the first two groups of sharing practices might present something like the core of neighbourhood sharing, while the third group might be rather a variable ‘addition’, depending on the philosophy of a given neighbourhood. Consequently, the focus in the remainder of this article will be on the first two types to discuss how housing actors may encourage sharing through supportive infrastructures and services.

	COMMUNITY	CONVENIENCE	JOY AND WELLBEING	CONTROLLING
Carsharing B2C	1	9	0	7
Car pooling	7	1	0	0
Carsharing P2P	5	2	0	3
Joint cooking and shared meals	24	22	8	6
Assemblies and work meetings	4	5	2	0
Socialising in open groups	25	12	5	3
Doing laundry with shared washing machines	3	12	0	6
P2P lending or borrowing of consumer goods	1	4	0	0
Borrowing household goods in collective or third-party ownership	3	4	2	0
Giving, getting and swapping used consumer goods	5	12	11	1
Hosting guests in a shared guest room/apartment	1	6	3	2
Team sports and exercising in community areas	3	4	3	0
Relaxing in community areas	4	1	12	2
Playing in community spaces	13	8	8	12
Handicraft works and arts	9	3	5	3
Lending a parking space P2P	2	5	0	1

Table 3: Popular practices and dominant parent meaning codes

Note: B2C = business to consumer; P2P = person to person.

(Contd.)

	COMMUNITY	CONVENIENCE	JOY AND WELLBEING	CONTROLLING
Planned meetings with selected friends and neighbours in community areas	5	4	2	2
Parties and events in community areas	9	2	10	2
Joint media consumption and live concerts	4	2	2	0
Totals	128	118	73	50

6. ENABLING NEIGHBOURHOOD SHARING

This section presents a set of suggestions for how to support the identified dominant types of sharing practices infrastructurally. In theoretic terms, the idea behind these reflections is to enable the formation of ‘fitting’ links between the previously identified meaning orientations as well as the material arrangements. It is important to note the non-deterministic character of such ‘interventions’ (Spurling & McMeekin 2015). Infrastructures and surrounding services can make the rise and perpetuation of practices more likely, but as practices and their constituent configurations of elements develop often in unexpected ways, the possibilities of purposefully steering them are limited.

6.1 INFRASTRUCTURES FOR CONVENIENCE-ORIENTED SHARING PRACTICES

As elaborated above, convenience-oriented sharing practices are guided by the idea of getting day-to-day household businesses done easily, with the least efforts in terms of time, mental processing and coordination. How then can housing actors infrastructurally support this family of practices to make them competitive with conventional practices? Three avenues of action are sketched out below.

6.1.1 Maximising availability

At first sight, ‘maximising availability’ sounds like a trivial recommendation, but surprisingly evidence shows some dramatic miscalculations regarding necessary infrastructural capacities—which indicates the premature state of current neighbourhood sharing projects. This is particularly true for shared guest rooms/apartments, which are in significantly more demand than expected by their planners, in both DP and A4V (CG has no guest rooms). For example, in the A4V neighbourhood, the 17 households living in the Abricoop building have three guest rooms at their disposal, whereas the remaining 72 households must content themselves with only one. While the three Abricoop guest rooms turned out to meet typical demand, the single guest room for the remaining A4V residents presents a striking ‘under-supply’. This obliged the resident association to restrict its usage to a maximum of three nights per year per household, which created frustrations and favours conventional practices, most importantly hotel stays. Similar mismatches can obstruct the normalisation of B2C carsharing: data indicate that cars of different type should be available in close proximity and also in the short term, otherwise the appeal of private car ownership is too strong for most people.

Beyond such obvious shortages, the detail is also important. A very frequently reported problem is that residents forget about their cleaned laundry after the washing cycle was completed (*i.e.* it remains in the washing machine), which obliges other residents to return repeatedly to the communal laundry room to check the availability of washing machines. Compared with the conventional practice—doing laundry with one’s own washing machine—this is a clear disadvantage because the practice requires more effort: in terms of adaptation and coordination with other activities. Simple ‘infrastructural’ additions such as permanently placed laundry baskets for intermediate storing of washed clothes (A4V) can solve this problem. Digital booking systems signalling to residents the availability of washing machines may also help.

These examples show the importance of thoroughly planning sharing infrastructures. For instance, Abricoop carried out a projection of the expected need for guest rooms, which was based on member estimations regarding their likely demand. It is also crucial to anticipate potential pitfalls by reflecting on typical characteristics of practices and their place in activity sequences. For instance, the blocked washing machine phenomenon appears pretty obvious, when considering that people typically do laundry in parallel to other activities, and rarely hang up their clothes for drying immediately after the washing cycle is completed.

6.1.2 Minimising temporal stretches

A second important role of infrastructures for convenience-oriented sharing practices is to reduce the necessary activity sequences involved in performances. For the example of carsharing schemes, Mock (2023) has shown that digital unlocking systems supported by smart phones are clearly preferable to systems where keys need to be handed over from person to person (P2P carsharing), because this makes the procedure more longish—which is in tension with the premise of private car ownership: immediate availability. Evidence from this study on the practice of giving away used stuff supports this idea of minimised temporal stretches. The following quotation by a CG resident shows how a comparatively simple sharing infrastructure, a give-away shelf, can significantly reduce activity sequences for accomplishing practices:

Many people contact you [...], and you waste most of your time just replying: ‘No, sorry, already gone’. Then you must wait for the people to pick up the stuff and it somehow must fit with my appointments. If there was [a give-away shelf], I would just put it [stuff] there and someone could take it. Yesterday [...] I put a whole box with things in the rubbish room and left a note ‘to give away’. I didn’t feel like publishing online advertisements again.

(Yildirim)

While CG tenants need to improvise to keep stuff circulating, residents in DP and A4V have several of such shelves at their disposal and use them very actively for giving things a second life. A part of this success story is also the location of these shelves in places where people frequently pass on their typical daily ways, be it the entry hall (A4V) or the waste rooms (DP).

When combining physical with digital infrastructures, the appeal of circulating stuff can be maximised. In all three neighbourhoods, Facebook groups and mailing lists exist; CG also has a neighbourhood app. These exchange channels are intensively used for lending or giving away stuff, in particular bulky items.

As these examples on gifting/reselling/lending household items illustrate, the popularity of convenience-oriented sharing practices depends essentially on their practicability: infrastructures should make them as easy as possible to perform. This also means leaving aside any ‘romantic’ social ideas about these types of sharing practices, as Mock convincingly postulates regarding carsharing:

Materials that require the physical meeting of people seem [...] to block the proliferation of shared mobility practices; the often-cited motto ‘sharing is caring’ [...] is questionable. [...] It seems that the fewer social interactions are involved, the easier it is to integrate and grow the practice.

(Mock 2023: 383)

6.1.3 Minimising consumption work

A last recommendation to support convenience-oriented sharing practices is to avoid as far as possible unnecessary ‘consumption work’ (Wheeler & Glucksmann 2015; Wieser 2019) through suitable services, as this can negatively affect residents’ engagements with practices. Getting back to the example of give-away shelves, this very convenient facility seems to invite some people to deposit abundant amounts of things, including damaged or dirty items, which then mix up with more ‘valuable’ pieces in huge piles of stuff. Potential re-users must then search through

these collections to find ‘good’ pieces, which can be too tiring for some. Active management of shelves, be it by an appointed tenant (as at DP) or by a professional community manager, helps to save time. Ideally, strategies of avoiding consumption work lead to constellations when sharing practices very tangibly ‘outcompete’ conventional practices, as illustrated in the subsequent quotation on carsharing:

I think it’s simply great that I just have to go there [the carsharing station ...] I just find it practical. And above all, I no longer need to go to repair shops. I always found it so humiliating how women were treated there. [...] For me, going to a repair shop was always the worst thing.

(Ruffer)

Overall, these examples show the crucial role of maintenance, cleaning and management services. In collaborative housing, these services are often provided by the residents themselves. In developer-driven sharing neighbourhoods, reliable maintenance and cleaning services should be the unquestioned base ‘value proposition’. Otherwise, this type of housing is unlikely to succeed in the long run. The paper now turns to the second important group of sharing practices: community-oriented sharing practices.

6.2 INFRASTRUCTURES FOR COMMUNITY-ORIENTED SHARING PRACTICES

Community-oriented sharing practices are mainly held together by the gratifications of experiencing social ties with neighbours. Infrastructural support for this family of sharing practices should hence spur community-building. Three guiding principles for enabling community-oriented sharing are suggested below.

6.2.1 Enabling unplanned encounters

All three analysed neighbourhoods have certain areas where people frequently walk by and tend to stop for spontaneous interactions with their neighbours. In CG this is a large and bright, lounge-kind of community area on the ground floor, which communicates to the outside volleyball field, the exercise room, the community manager’s office and the bin store. A4V has several places for chance encounters: the huge inner yard, where children play and parents (necessarily) meet other parents; the entrance area in one of the four buildings, where a couch and a book shelf are located, not far from the communal laundry room of this building; and gangways. Finally, DP has even more of such places, among them several inner yards and gardens with benches, gangways and a coffee corner next to shared washing machines. Common to such places is that people usually do not go there purposefully to meet neighbours, but they do so ‘along the way’, as the following quotation illustrates:

It happens often to me to sit down on the couches [in the entrance hall] while waiting for my washing machine to finish [...] and to meet neighbours who are also waiting there and then we have a chat. Which would have never happened in my previous neighbourhood [...] where such places didn’t exist.

(Kriek)

As the example of the couch shows, certain material objects can play a crucial role in bringing people together. In CG, the pool table seems to play a similar role for bonding:

The pool table is kind of an icebreaker. When you don’t know someone, you just invite the person for a match.

(Gärtner)

6.2.2 Privileging community spaces over private areas

Community spaces should be situated at the best spots of the buildings, centrally located and easily reachable for everyone, and, if possible, have abundant daylight. If some spots in the

buildings offer spectacular views, these should be reserved to community life. It is not surprising that in all three neighbourhoods the roof terraces are extremely popular places:

Often we have dinner with other families up there. [...] Not because we arranged it, but simply because many people gather there and meet.

(Stamm)

6.2.3 Creating welcoming spatial atmospheres

Spaces for social activities such as having meals together, celebrating and meeting friends should be thoughtfully equipped to create atmospheres where people feel ‘resonance’ when performing their activities. It appears worthwhile to dedicate a lot of time, debate and reflection to the design of community spaces. Yet, it seems that often it is rather an afterthought in the planning phase, something that is expected to happen somehow ‘naturally’ along the way, once construction works are finished. However, evidence suggests that this is perhaps the most crucial part, as illustrated by the following two examples.

In CG, one of the smaller community rooms was ‘overloaded’ with imagined usages, mixing the ‘social’ material objects of a couch, a television screen and table football with the working life equipment of coworking desks and office chairs. The pragmatic idea behind this mixed design—hosting different activities in a single room to maximise its usage—resulted in the opposite outcome: very low occupation times. Obviously, desks and office chairs symbolise working life and tend to irritate residents’ enjoyment of social activities that, at least for some, should help to forget the stressful experiences of work and studies.

Another example is the two community rooms at A4V, one located in the Abricoop building, the other in one of the three other buildings accommodating the rest of A4V residents. Both have a similar ‘basic’ infrastructure consisting of chairs, tables, fridges and cookers, and both were imagined for similar activities such as shared meals, socialising events or assemblies. Yet, Abricoop’s room is by far more popular than the second one. It is described by numerous residents as ‘cosy’, ‘convivial’ and ‘a place like at home’, while the other room is characterised as ‘cold like a town-hall assembly room’, ‘functional’ and ‘lacking soul’. Apparently, the differing material arrangements have created very different spatial atmospheres.

It seems that these quite different ‘vibes’ are not accidental but result from the planning period of the neighbourhood project. Abricoop’s residents report that they strongly engaged with the design of their future community room, imagining what different activities might take place there. Pieces of furniture were carefully chosen so that they stylistically fit each other, and they were thoughtfully placed in the room to divide the space into activity areas. In contrast, according to interviewees the other larger community room was designed less ‘strategically’. Most of the pieces of furniture are donations from residents who, when moving in, decluttered stuff from their previous households. While reusing things is of course fully in line with sufficiency thinking, the resident community did not sufficiently manage the selection of suitable items and their stylistic ‘match’ to create a welcoming atmosphere. Rather, the room gives the impression of an undefined space, with a random collection of furniture. Together, these examples show the importance of thoughtfully design community rooms to making them attractive for the ‘anchoring’ of community-oriented practices.

7. CONCLUSIONS

Drawing on evidence from case studies of collaborative housing and developer-driven neighbourhood sharing, two main types of popular sharing practices have been identified: community-oriented and convenience-oriented sharing practices. Infrastructural measures to support these families of sharing have been sketched out. For this analysis, practice-theoretical thinking, as outlined in Section 3, proved very useful. The exploration of meaning elements and their involvement in diverse practices showed their pervasive character, as conveyed by the concept of ‘suffusing’ (Hui *et al.* 2017). In addition, distinguishing ‘things in action’ (*i.e.* material objects involved in

moments of practice performance) and ‘things in the background’ (i.e. material arrangements that shape practices more indirectly) (Shove 2017) turned out to be very helpful for investigating suitable sharing infrastructures. This research revealed that practicability aspects in moments of engagements with singular devices such as washing machines are as much of importance as are wider material arrangements that can prefigure certain practices (Schatzki 2010), for instance, by creating cosy or cold ‘spatial atmospheres’ (Reckwitz 2017) in community rooms.

Five reflections can be drawn from this research: three are relevant mostly for practitioners, two for researchers. First, one open question is whether collaborative housing, respectively developer-driven neighbourhood sharing, should concentrate on one of the types of sharing practices. The authors’ tentative conclusion is that developer-driven projects might focus on convenience-oriented sharing, because these have the highest potential of professional standardisation and thus ‘scaling up’. It is mostly a matter of practical learning to develop infrastructural solutions that make people’s lives as easy as possible. Moreover, the necessary services are of the kind that most people do not appreciate carrying out themselves, so high-quality services can make developer-driven neighbourhood sharing very competitive with conventional housing. Collaborative housing, in turn, should not neglect convenience-oriented sharing, but may also invest more widely into forms of community-oriented sharing.

Second, this study is informed by evidence from newly built neighbourhoods, while the biggest challenge is changing the existing housing stock. Obviously, large-scale infrastructural measures are difficult to implement in existing housing, but nevertheless insights from this study could inspire measures in existing conventional neighbourhoods. Give-away shelves in entrance halls, and shared storage spaces are examples of low-cost and easy-to-implement convenience-oriented infrastructures, while benches in public zones or shared trampolines for children in inner yards are examples of community-spurring measures.

Third, the results of this study suggest that the environmental benefits of sufficiency are not the core sense-making elements behind most neighbourhood sharing practices. Although environmental considerations are not negligible (indicated by the frequencies of the ‘sustainability and sufficiency’ code in Table 2), it is fair to conclude that for most practices climate protection and nature conservation are, in the best case, inherent outcomes of sharing practices, but not driving forces of practices. Consequently, marketers of neighbourhood sharing should rather highlight the convenience and community benefits of sharing than its expected environmental effects.

Science, in turn, should increase efforts to research the environmental outcomes of sharing. Empirical evidence is still scarce. Future studies will need to engage in particular with potential rebounds (Sonnberger & Gross 2018; Sorrell et al. 2020) to avoid the fact that engagements in other, more resource- and energy-intensive practices counteract demand reductions resulting from sharing practices.

Finally, this research distinguished developer-driven neighbourhood sharing and collaborative housing as important organisational set-ups of sharing, but obviously the picture is more complex. Most importantly, housing tenure is very likely to affect the scope of infrastructural measures and, hence, also the type of potential sharing practices. The A4V case provides some evidence that mixed ownership structure may complicate the establishment of neighbourhood sharing. However, this was not the main focus of this study and presents a very promising avenue for further research. Similarly, the socio-demographic composition of neighbourhoods and its implications for sharing deserve to be more thoroughly investigated, notably regarding the question whether specific sharing ‘environments’ may be created for people of certain biographic phases, for instance families.

NOTES

- 1 See https://www.acrplus.org/images/position-papers/2024_03_Sufficiency_Manifesto.pdf (accessed on 7 April 2024).
- 2 It is important to note that neighbourhood sharing is not something totally new. For instance, Sweden looks back on more than a century of neighbourhood sharing in different forms

(Vestbro & Horelli 2012). Furthermore, countries such as the UK (e.g. Park Hill, Sheffield; Carter 2021), France (e.g. Unité d'Habitation, Marseille; Millais 2015) and Austria (Alt-Erlaa, Vienna) have gained—mixed!—experiences with communal spaces in multi-storey building complexes, starting in the 1950.

- 3 While acknowledging that there is not a unified theory of social practices but rather a family of theories, the term ‘social practice theory’ will be used in the following for reasons of simplicity.
- 4 See https://ec.europa.eu/eurostat/databrowser/view/ILC_LVH002__custom_3359192/default/table?lang=en (accessed on 18 June 2024).
- 5 See <https://de.statista.com/statistik/daten/studie/1885/umfrage/mietpreise-in-den-groessten-staedten-deutschlands/> (accessed on 18 June 2024).
- 6 See https://ec.europa.eu/eurostat/databrowser/view/ILC_LVH002__custom_3359192/default/table?lang=en (accessed on 18 June 2024).
- 7 See <https://www.campus-gardens.de/en/>.
- 8 See <https://www.DP.de/>.
- 9 Terminated in 2020.
- 10 See <https://www.faire-ville.fr/habitat-participatif/projets-en-cours/aux-4-vents-toulouse-31/>.

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COMPETING INTERESTS

The authors have no competing interests to declare.

DATA AVAILABILITY

For reasons of data privacy, interviewing and diary data cannot be publicly available. However, requests for access to data will be considered on a case-by-case basis.

ETHICAL CONSENT

Ethics approval by an ethics committee was not required. Informed consent was obtained from all participants for the interviews to be recorded, the diary data to be evaluated and for the findings to be written up for publication. Pseudonyms are used for the interviewee quotations to protect their anonymity.

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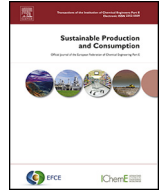
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5.4 Article D

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Review Article

The interconnected dynamics of social practices and their implications for transformative change: A review

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ABSTRACT

This review article analyses the interconnectedness of different fields of social practice. Our aim is to understand if and how the literature using social practice theory addresses these interrelations and how this is linked to questions of sustainability transformations. Based on our review, we suggest a framework that conceives everyday-life practices of working, dwelling, mobility, eating, and recreation as closely intertwined and not changing independently of each other. As our analysis demonstrates, such a framing also contributes to better understanding the dynamics of (un)sustainable transformative change. Greater sustainability cannot be achieved by technological fixes or changes in individual behaviour alone but requires comprehensive interventions that address the interactions between practices, as these often co-evolve and co-locate, and changes need to be aligned between different practice fields. This has high relevance for understanding the development of public policy interventions that aim to increase the sustainability of everyday life. Our review shows a significant value of social practice research on the interconnectedness of different practice fields, although certain areas still appear to be somewhat neglected, such as the interconnectedness of work-related practices with other practices of everyday life. It furthermore points to the potential contribution of studies of interconnected practices to the literature on sustainability transitions, a perspective otherwise neglected in transition studies focusing on organisational actors and institutional dimensions of socio-technical change.

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1. Introduction

Approaches and policy interventions related to climate change mitigation and sustainable transformative change have long emphasised the supply-side, but the demand-side and social practices have gained importance (Creutzig et al., 2022). Existing approaches to policy interventions promoting sustainability in everyday life are often dominated by either giving “price signals” to influence demand or by influencing “individual environmental consciousness” (Foden et al., 2019). A different approach takes social practices as a central unit of analysis, which Shove et al. (2012) have conceived as configurations of meanings, skills, and material objects. The academic work on practices has roots in several fields and traditions. For example, in the 1990s and early 2000s, practice-based approaches were used to study how workers learn in “communities of practice” (e.g., Lave and Wenger, 1991; Brown and Duguid, 1991; Cook and Yanow, 1993; Orr, 1996; Gherardi, 2000). However, in this paper, we are interested in the implications of social practices for sustainable transformations.

Literature drawing on social practice theory (SPT) has significantly gained importance for understanding resource and carbon-intensive patterns of everyday life.¹ However, much less has been said about how a social practice perspective can contribute to analysing transformative change processes needed to meet societal challenges such as climate change (Geels et al., 2015; Schot and Steinmueller, 2018). A key point in this respect is the interconnectedness of different fields of practices which makes it difficult to change them in isolation. This paper takes stock of the emerging body of literature on this issue. It analyses how practices from different spheres of everyday life are linked and how these interconnections of practices hinder or enable pathways of transformative change. We review how this literature reflects the transformative potential but also highlight possible points of competition between different bundles of social practices related to sustainability.

Most SPT studies zoom in on the configurations of single social practices, while the purpose of our paper is to zoom out (Nicolini, 2009) to analyse the interconnections between social practices from different fields. Social practice theory understands social life as a web of temporarily and spatially interconnected activities which hang together to form practice “bundles”, “complexes”, “arrangements”, or “nexuses” (Schatzki, 2015; Shove et al., 2012; Hui et al., 2017). If we research how certain practices gain or lose importance, we must analyse not only how changing practice configurations may become more or less successful in attracting carriers but also how these practices are associated with other practices (Hui et al., 2017). How these conjunctions are formed typically depends on how the underlying practices are organised and relate to each other in space and time (Southerton, 2006). Everyday life unfolds in space and time. Social practices have certain time structures and sequences of events, which are more collective, such as fixed working times, weekends, mealtimes, or the news programmes on television. However, these collective time structures have become more flexible.

¹ While we are fully aware that there are diverse families of practice approaches, for reasons of simplicity we will use in the following the singular form of social practice theory.

Therefore, we have scrutinised the literature about the interconnectedness and spatio-temporal organization of five important fields of social practices: working, dwelling, mobility, eating and recreation practices. We ask how an SPT perspective can help in achieving sustainable transformations. Our two research questions are as follows:

- Which interconnections of different fields of social practices have been analysed in the research literature and which role do spatial and temporal dimensions play in structuring this interconnectedness?
- How does the interaction between different social practices influence transformational change, by either strengthening or weakening a sustainable transformation?

In the following Section 2, we first discuss how social practices and their interconnections have been conceptualised by different authors and develop a terminology suitable for our purpose. We then describe our approach for reviewing existing literature on the interconnectedness of practices in Section 3. In Section 4, the results section, we summarise the main insights gained from our review of interconnections of particular practice fields with high relevance for sustainable transformation. Finally, in Section 5, we discuss how our findings can inform policies for transformative sustainable change, and in Section 6, we draw conclusions.

2. Conceptualising interconnected practices

While early theoretical work on practices goes back to the 1990s and early 2000s (Reckwitz, 2002; Schatzki, 2002; Schatzki et al., 2001), empirical analyses have intensified substantially over the past decade. SPT has gained importance in understanding (un)sustainable consumption and possibilities of intervening in environmentally harmful practices (Röpke, 2009; Shove and Walker, 2010; Strengers and Maller, 2015). It has also proven useful in providing pragmatic recommendations for policymakers, local actors, and economic stakeholders (Sahakian and Wilhite, 2014). SPT suggests shifting the focus of inquiry in social sciences from the mental-cognitive structures of individuals to people’s everyday doings and sayings. Social practices have been defined as recognisable blocks or patterns of activity that practitioners enact, thereby reproducing, perpetuating and transforming the practices they carry (Schatzki, 2002; Shove and Walker, 2014).

Meanings refers to shared understandings and teleo-affective structures, that is: what guides a practice. *Skills* are forms of routinised, embodied know-how such as the coordinated movements involved in biking or internet research competences for online shopping. Finally, the *material dimension* highlights the importance of the physical surroundings, material objects and infrastructures, which can significantly shape the dynamics of practices and their ability to “recruit” individuals as carriers of these practices.

Social life is made of social practices, and most people carry out a large number of practices in their everyday lives (Warde, 2005). These practices do not operate in isolation but are connected (Schatzki, 2009). Many terms have been used to describe this interconnectedness of social practices, including complexes and bundles (Shove et al., 2012), systems (Watson, 2012), networks (Higginson et al., 2015), and nexus (Hui et al., 2017), summarised by Castelo et al. (2021). Our

purpose here is not to develop this language further but rather to adopt a pragmatic approach to reviewing the literature on interconnected practices and the implications for transformational change. It is nevertheless useful to highlight some of the key terms used to describe connectedness and their specific meanings to underline the different ways in which practices can be connected and interact.

Shove et al. (2012) distinguish bundles and complexes of practices. Bundles are conceived as “loose-knit patterns based on co-location” (p.81), while complexes of practices “represent stickier and more integrated combinations” (ibid.). Thus, bathrooms may be considered sites where practices such as bathing, showering, and brushing teeth form a bundle—without being strictly dependent on each other, but sharing certain elements such as sinks or conventions of cleanliness and beauty. In contrast, “getting ready for the work day” involves a complex of practices, which are closely linked and typically performed in sequences: showering, body care, dressing up, having breakfast, and packing the stuff for the day. Interestingly, also Schatzki uses the term “bundles”, although with a slightly different meaning. According to him, material entities are analytically distinct from practices, and he argues that “social life, or human co-existence, transpires as part of bundles of practices and material arrangements” (Schatzki, 2015, p. 15). In this perspective, offices with desks, sockets, screens, coffee machines, heating installations, etcetera and, last but not least, human bodies represent a material arrangement that bundles with holding meetings, trading, negotiating, reporting or researching. Several practice-arrangement-bundles, in turn, can form larger “constellations”, which are “larger nexuses of practices and arrangements” (ibid.: 16). For instance, office practice-arrangement bundles connect with manufacturing plants and logistics bundles to form business constellations.

Finally, when constellations form associations with each other, they constitute a “forum”, which is “an immense maze of interconnected practices and arrangements” (ibid.). In a co-edited book with Hui et al. (2017), Shove and Schatzki put forward the term “nexus”, which appears to be an umbrella term for all kinds of associations between practices, comprised of “wider complexes and constellations” (p. 1). Others (c.f. Castelo et al., 2021), in contrast, speak of “nexus of practices” when referring to a more specific kind of relationship, “practices-in-between”, that is, practices that are at the intersection of several others. Mobility practices are the most typical example of this, as they connect multiple activities of working, shopping, leisure time, or housing. To complete this list of concepts, one should also mention the notion of “systems of practices”, which has been suggested by Watson (2012) to make

practice-based approaches communicate with the multi-level perspective as introduced by Geels (2002).

Watson argues that

socio-technical systems, like those of automobility and velomobility, can usefully be recast as systems of practice. The concept of systems of practice aims to capture, simultaneously, how far practices are embedded in systemic relations constituted first by relations with other practices; and second also through the systemic elements—including infrastructures, technologies, rules, norms and meanings – which those practices constitute and sustain (p. 493).

Consequently, Watson claims that “[a]ny sociotechnical transition has to be a transition in practices.” (489)

Despite differences in detail, bundles, complexes, constellations, or nexus-practices share the basic idea that practice dynamics cannot be reduced to “internal” reconfigurations of single practices but that their associations with other practices need to be taken into account to understand their dynamics—and potential sustainability implications thereof. In this review article, we are not restricted to a certain type of association as described above, nor do we strive for their empirical operationalisation. Instead, these concepts inform us about the different shapes of interlinkages between practices and practice fields and help assess the collected literature. It is also important to remind that we are particularly interested in associations between different practice fields. Consequently, we search for bundles, complexes, or constellations that link two or more social spheres, while we disregard “interior” relationships to one field of practice, for instance recreation. In this article, we are interested in how the interaction of social practice fields can inform policy-makers on transforming social practices towards more sustainability (Watson et al., 2020). Spurling and McMeekin (2015) suggest three conceptual frames for policy interventions: “recrafting practices”, “substituting practices” and “changing how practices interlock” (2015, p. 78). For the purpose of this paper, we focus on changes in what they term interlocked practices.

3. Materials and methods

This article is based on a semi-systematic review of the literature on interactions of social practices and their importance for sustainability. The following Table 1 summarises the review process and characterises the different stages.

Table 1
The different stages of the review process.

Phase	Stages
Aim of the investigation	Understanding interactions of social practices and their importance for sustainability transitions
Search strategy	<ol style="list-style-type: none"> Defining search strings for article database Web of Science for identifying the different social practices: <ol style="list-style-type: none"> (TS = “social practice”) AND (TS = recreation OR TS = leisure*) (TS = “social practice”) AND (TS = work* OR TS = labor OR TS = labour) (TS = “social practice”) AND (TS = dwelling* OR housing*) (TS = “social practice”) AND (TS = food OR eating OR nutrition) (TS = “social practice”) AND (TS = mobility) <p>Including articles and review articles published from 2001 to 2020.</p> <ol style="list-style-type: none"> Combining search strings for the different interacting social practices (for results, see separate table), Identifying relevant review articles and articles by screening abstracts and downloading full texts, Adding books and/or book chapters by using reference lists of identified articles, Google Scholar, and other databases (“snowballing”) and keywords variations.
Reading the studies	Study team determined the distribution of work to closely read the selected articles and book chapters.
Quality assessment	Decision about inclusion or exclusion of articles following a critical quality appraisal of each paper based on: <ol style="list-style-type: none"> Relevance for the aim of the investigation with focus on importance for sustainability transition, Methodology and research design appropriately described, Theoretical sensitivity, and Clearly defined results.
Synthesising	Commonalities and differences were analysed and synthesised.
Summarising	Main results were discussed, scrutinised and aligned, and conclusions across the different interacting social practices were drawn.

Table 2
Number of references identified and cited in the article.

Number of references	Working	Dwelling	Food	Mobility	Recreation
Working	–	20/11/11	61/3/12	54/4/12	19/6/11
Dwelling	20/11/11	–	6/23/11	10/14/11	17/8/11
Food	61/3/12	6/23/11	–	15/9/13	12/5/8
Mobility	54/4/12	10/14/11	15/9/13	–	3/14/14
Recreation	19/6/11	17/8/11	12/5/8	3/14/14	–

Note: Numbers indicate number of Web of Science references, references retrieved in additional search, references cited in the final sub-section.

To identify the relevant literature body, we used the Web of Science (WoS) database as a starting point. WoS is among the most important databases; it covers the key academic journals, also in the field of social sciences, and it ensures both good retrieval and reproducible qualities. We carried out a systematic and semi-structured search (Snyder, 2019) in WoS in February and March 2021. A keyword approach was applied to identify articles published since 2001, including both empirical and theoretical approaches. We distinguish between the five fields of social practices of working, dwelling, mobility, eating, and recreation. These fields are highly relevant for policy and sustainability transition and structure most areas of people's everyday lives.

The combination of the above search strings in the full text of the papers resulted in 488 papers in total, which we collected in a literature database in EndNote. These papers were distributed among the authors of this paper according to combinations of practice fields that resulted in the single sub-sections (food and mobility, working and recreation, etcetera). The authors of the sub-sections screened the papers, carried out additional focused searches in other databases, and combined this with searching for papers through inward and outward citations. For the semi-systematic review we considered articles for the period 2001–2020, while for the years 2021 and 2022 we do not claim a comprehensive screening but included relevant articles that we identified in the additional searches.

Our selection of papers for an in-depth analysis followed four main inclusion criteria:

- Social practice is in the centre of the paper, if not in the title, then has a prominent role in the abstract;
- Review papers and conceptual papers have been included if available but also case studies;
- A meta-perspective on interacting social practices and their role in the sustainability transition has been of special interest.
- Relevance for the aim of investigation, as the most important criterion.

Table 2 shows for each practice the number of articles identified during the two main phases of the search strategy (WoS and additional references) and the number finally cited.

Our main objective was to analyse how fields of social practices hang together, addressing possible synergies or relationships of competition between different practices and how these change in time and space. To this end, we combined the samples for different bundles (see Fig. 1). This graphical presentation as a pentagram (Fig. 1) summarises our theoretical framework, with the five practice fields at the corners and the practices connecting between them, pointing out possible competitions or synergies to achieve sustainability.

Finally, we reviewed the literature regarding the links between particular practice fields and produced summaries thereof. These notes were jointly discussed, scrutinised, and aligned.

In the results section (4), we apply this framework, analysing those identified articles addressing each pair of interconnected practice fields and the impact of these interactions on sustainability transitions.

4. Results

In the following, we analyse the identified literature on the interconnection of different practice fields regarding spatial and temporal interconnectedness of practices and how this contributes to or hinders transformative change. Based on our analysis, we discuss possible interventions towards greater sustainability.

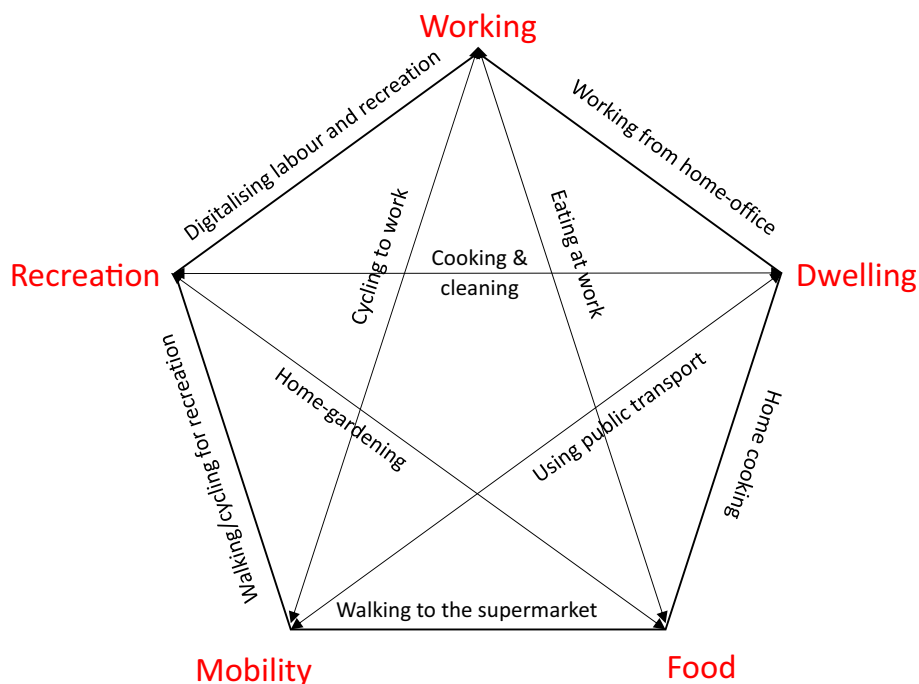


Fig. 1. The pentagram of social practice bundles. Topics for the bundles are just illustrative.

4.1. Working and dwelling

In half a century's time, it may well seem extraordinary that millions of people once trooped from one building (their home) to another (their office) each morning, only to reverse the procedure each evening... Commuting wastes time and building capacity. One building—the home—often stands empty all day; another—the office—usually stands empty all night. All this may strike our grandchildren as bizarre—Cairncross (1997) cited in Spurling and McMeekin (2015).

As this quotation illustrates, since the time of industrialisation home and working were two spheres of life that were spatially and temporarily separated for most of people, framed by opposed discourses of industrial and household production (Tietze and Musson, 2005). Cities used to be characterised by zones reserved for industrial production and others dedicated to living, and both fields of social practice were connected by the nexus practice of commuting (Doling and Arundel, 2020). These clear boundaries between the worlds of the home and the workplace had not existed before the times of industrialisation and, with the rising popularity of the practice of teleworking, have recently again been blurred (ibid.). This nexus practice has been spurred by information and communication technologies such as the PC, smart phones and, most recently, videoconferencing apps. Statistics on the growing popularity of home working are not unanimous, which is mainly due to diverging survey instruments defining whether a person is considered a homemaker (Doling and Arundel, 2020).

As a consequence, typical home activities and working activities increasingly intermingle, both spatially and temporarily, to form “home offices” or “working homes” (Nansen et al., 2010; Wapshott and Mallett, 2012). However, the advantages of teleworking do not come without new challenges: new spatial and temporary boundaries need to be negotiated with family members (Nansen et al., 2010; Tietze and Musson, 2005) to find acceptable arrangements between “contracted” (work), “committed” (family), “personal” and free time (Wiedenhofer et al., 2018). Those arrangements are never fixed, but constantly in flux: “this does not result in a balance or settled equilibrium, but oscillates between the poles of segregation/segmentation and synchronisation/integration, and remains an open and continual process, an unsettled nexus, of interaction and negotiation” (Nansen et al., 2010). The nexus practice of teleworking has hence created new synergies between the practice fields of working and home activities; however, this has also led to an increased competition between singular practices which now can be more flexibly allocated in people's activity sequences (Southerton, 2006) and anchored at the same physical environment, the home (Hui and Walker, 2018).

Overall, it can be expected that telework as an important nexus between the practice fields of working and the home will find more practitioners. A very intriguing question for researchers is what implications this tendency may have for sustainability transitions. In their systematic literature review, Hook et al. (2020) found that most studies support the hypothesis of energy savings through increased teleworking, which is mostly attributed to avoided commuting between home and workplace. However, the authors point out that the devil is in the detail. More encompassing studies, which go beyond avoided commuting and consider associated practice bundles such as increased home energy use and additional non-work-related travel, are “more ambiguous” (ibid. p. 27) regarding the potential environmental effects. Rebound effects may result from an increase of (energy-demanding) activities in working homes: “Processes of acceleration enabled by technological innovations result in more and more practices being squeezed into a given period of time which, in turn, can bring about rebound effects” (Sonnberger and Gross, 2018). In sum, Hook et al. (2020, p. 27) conclude that “these uncertainties and complexities suggest that, despite the positive evidence for energy savings that was found across the sample of studies, we should be cautious in drawing conclusions about the scale

and consistency of energy savings from teleworking.” In any case, more empirical work with a comprehensive network-of-practices perspective is needed to assess the environmental potential of home working.

4.2. Dwelling and food

When bundled with dwelling practices, social food practices include food planning, shopping, cooking, eating, food disposal and redistribution, as well as managing leftovers and assessing quality and edibility, for example, via date labels (Schanes et al., 2018). We collectively denote these activities as the ‘domestic food life cycle’, which take place in the domestic sphere of the home, household, and family and in collaborative consumption settings (Parker et al., 2019).

Food practices connect in bundles with non-food practices in a temporal and spatial dimension, forming looser practice bundles. In a dwelling context, they bundle with practices such as homemaking and childcare (Castelo et al., 2021, p. 5) and working from home. SPT studies clearly show how food and dwelling practices are interconnected in space and time and how this bundle of practices has changed over time (Cheng et al., 2007; Warde et al., 2007). This literature is more limited regarding how food and dwelling practices interact to strengthen or weaken a sustainable transformation. In this regard, we note that households can reduce the environmental impact of food consumption in three main ways: choose products with lower environmental impact, prevent waste of edible food, and increase recycling of inedible food.

Sirola et al. (2019) studied the everyday practices of food *planning and shopping* in Japan and found that “the ability to anticipate food consumption as well as the lifespan of food products help to reduce food waste” (Sirola et al., 2019, p. 7) and that frequent grocery shopping was associated with less food waste. Williams et al. (2012) confirmed the latter in Sweden, while in France, Plessz et al. (2016) found that “bulk shopping and cooking are popular in households with highly interlocked practices and where the households have other time-competing practices requiring their attention such as work, children, or social events” (cited by Breadsell and Morrison, 2020, p. 149).

In terms of *cooking and eating*, consuming sustainable and healthy food requires food preparation skills. Contrary to popular belief, Meah and Watson's (2011) study of kitchen practices found no evidence of deskilling between generations. Convenience food and new technologies helped especially women balance work and family life without this leading to deskilling (Meah and Watson, 2011, para. 4.18). Jackson and Viehoff (2016) also identified an increase in the use of convenience products and explain this trend by considering the bundles of social practices that compete for parents' time, notably caring and food preparation. A decline in the time spent eating at home has been observed in many countries (Warde et al., 2007), suggesting a weakening of the bundle of food and dwelling practices. This trend is related to more eating out and to the use of convenience products, with women's employment status being a key driver.

Regarding *food disposal and redistribution*, Schanes et al. (2018) analyse how each practice in the domestic food life cycle affects food waste, highlighting the complexity and interconnectedness of food practices. They found that consumers consider it improper and associated with feelings of guilt to throw away food and that such emotions are significant factors in food waste reduction. The economic value attached to food and the time spent on food preparation were strong motivations to reduce food waste, but ethical and social factors were also important (Schanes et al., 2018).

Finally, while food practices are often portrayed as routinised and static, recent research suggests more dynamic patterns. Plessz et al. (2016) found that age and household structure significantly affected food purchases and that biographical turning points, in particular family events, were ideal opportunities for individuals to adopt new food standards and practices. They conclude that “any specific food practice is

more likely to recruit (or lose) practitioners who have reached turning points in their lives, because these are occasions during which they reconsider resources, skills and standards” (Plessz et al., 2016, p. 118). However, opportunities for change may also arise due to changes in households’ social and physical contexts. Breadsell and Morrison (2020) found that the frequency of shopping increased after households moved to a low-carbon development residency, which was accompanied by an increase in the use of local stores and markets.

Our bundled food and dwelling practices review offers two main lessons for the green transformation potential. First, rather than adopting a “moralising approach” to unsustainable consumption (Jackson and Viehoff, 2016), policies should consider that food practices are interconnected with, and shaped by, other social practices of domestic life. Secondly, policies should pay special attention to households that undergo changes in life situations as these situations may offer greater opportunities for change.

4.3. Mobility and recreation

What connects mobility and recreation in the first place is the affective perspective on mobility practices, where mobility is a social phenomenon in its own right. There are also “non-rational” factors associated with mobility practices such as experiences, sports, thrill (Jones, 2012), and affectivity, identity, and meaning (Adey et al., 2012; Jensen, 2009; Löfgren, 2008; Sheller, 2004). A main reason for non-rational factors determining mobility practices is the integration of dispersed practices into mobility, like listening to music, monitoring own and others’ performance, using the “right” equipment, and active navigation. These meaning elements of driving (thrill, sports) have formed attractive practice configurations with other elements, which helped recruit many practitioners (Cass and Faulconbridge, 2017).

Digital technologies facilitate an intersection between mobility practices (especially walking, running, and cycling), recreation, and health. Mobility practices are “medicalised”, brought into the realm of public health by apps, gamification and quantification (quantified self, counting steps, analysing body functions etc.). An individual cyclist can be part of a community even by cycling on his/her own. This directly relates to the pandemic where such activities seem to increase or sustain, enabled through digital technology. Connected through apps in phases of social distancing, social relations, competition, self-reflection, doing something good and physical performativity coalesce. Digital technology thus can reframe mobility behaviours and create new patterns and practices (Carter et al., 2018).

The literature on mobility patterns refers to daily mobility practices (Cresswell, 2010) such as sport activities, excursions, weekend leisure activities, and tourism (Hiltunen and Rehunen, 2014; Hui, 2013), and long-range travels. Boyer (2018) has analysed transport practices on the example of recreational bicycling. The American context—a decades-long perspective of socialisation with car domination—is of particular importance in the analysis. Boyer emphasises the importance of infrastructure development, like access to bicycle lanes; however, he considers it insufficient. He argues that recreational cycling offers individuals a chance to acquire a threshold level of skills and materials necessary to form the basis for riding a bike for utility purposes as well (i.e., commuting, shopping).

In the relation between holidays and mobility, the focus is more on alternatives to short-haul flights to mass tourist destinations. An emerging concept here is “slow travel”, which is “an alternative to air and car travel where people travel to destinations more slowly overland and travel less distance” (Dickinson et al., 2010, p. 482; Rabbiosi, 2021). Hall and Holdsworth (2016) interpret family holidays as a constituent of family practices.

Mobility practices that are also connected to leisure are “transnational gentrifications” (Alexandri and Janoschka, 2020). This means leisure-oriented mobilities at the crossroads of tourism and housing or second homes. Prior to Covid-19, this has seen a long time of expansion

and concerns many corners of the world. Alexandri and Janoschka (2020) expect this to rise again after the pandemic, “leveraged by central banks with zero interest rates and accelerated by platform capitalism” (p. 3211).

4.4. Food and mobility

Literature addressing the interconnectedness of food and mobility practices is sparse but highlights three areas. The most obvious area is related to *grocery shopping*. The spatial dimension is particularly strong here, by means of where people live, including how far from work and supermarkets, and how they get there (by car, public transport, bicycle, foot, etc.). How people get around also influences what food products they buy, where they buy them, and decisions around eating out (Godin and Sahakian, 2018). For example, access to a store as part of a daily transit seemed to be the dominant time and space in which people acquired food items. Godin and Sahakian (2018) find that transit routes, especially between home and school or the workplace, combined with time, had a structuring effect on the choice of retailer, the consumption of processed foods and convenience foods. Access to food is another key issue, including attention to mobility or commuting in relation to food provisioning (Burgoine and Monsivais, 2013; Widener et al., 2013). Notions of mobility and access to food provisioning systems may offer a more dynamic account of how food practices play out (Godin and Sahakian, 2018) or how mobility “interlocks” with food consumption practices (Spurling and McMeekin, 2015; Spurling et al., 2013).

Further, the pandemic has increased the popularity of online grocery shopping. This may change the interconnectedness between food and mobility, and also create new future practices in this domain. Still, understanding the potential of online grocery shopping for a decrease in travel, calls for knowledge on how changes in people’s shopping practices influence other practice areas (Berg and Henriksson, 2020; Hiselius et al., 2015). For example, people may prefer to take their bicycle to work if there is no need to combine commuting with grocery shopping on their way home. Also, online grocery shopping may contribute to more invisible forms of mobility, where the sustainability effect will depend on the mode of transport used for delivery, and not least what mode of transport these services replace (i.e., if people otherwise would walk to the supermarket). This points to the importance of researching how mobility related to online grocery shopping cannot be detached from mobility connected to, for example, leisure or working.

The second area concerns *eating-out* practices triggered by mobility routines. A qualitative study of eating-out practices in Germany (Pfeiffer et al., 2017) demonstrates a strong temporal dimension insofar eating out is highly dependent on working and leisure-time activities, a perceived lack of time, and efforts to streamline schedules. For example, those who daily drive long distances stopped at gas stations, grocery stores, or fast-food joints to get a small snack on their way home, and the food consumption underway often happened on the way to other appointments—thus causing a comparatively small number of extra acts of driving (Pfeiffer et al., 2017). This did not guarantee more sustainable food practices but combining mobility and eating may still lead to savings on mobility—and the environmental costs of this (ibid.).

Third, food can also be a key element of the popularity of travel destinations, conceptualised in the term *culinary tourism* (e.g., Kim et al., 2009; Spilková and Fialová, 2013; Stewart et al., 2008). This has been followed by studies of sustainable culinary tourism (Alonso et al., 2018), and peer-to-peer social dining, though there seem to be little alignment between social dining and sustainable tourism goals (Davies et al., 2020).

To sum up, food and mobility can be understood primarily as a practice bundle (e.g., moving and eating). It is, however, an empirical question whether the interconnectedness of food-mobility is strengthening or weakening a sustainable transformation, as the outcome will differ with how this practice bundle is performed. For example, in culinary tourism, food experiences are made possible and encouraged by tourism and travel, and it is also founded on the consumption of food. Still,

the sustainability aspect will depend on what people eat and the length and means of transport. Also, grocery shopping will have different effects depending on travel length and means of transport, and – in cases of online shopping – the means of transport for food delivery. Whether this can spur sustainable *transformation* will again depend on what types of practices become interlinked with, for example. Culinary tourism or online grocery shopping, and how these practices spread.

4.5. Recreation and working

The literature on the interconnectedness of work and recreation/leisure practices, and sustainable transformative change is not extensive, but has recently expanded, especially after 2015. Some of the papers put more stress on the theoretical issues (Baranowski and Mroczkowska, 2021; Gandini, 2021; Hansen, 2015; Klein et al., 2021; Kurz et al., 2015) while the others are empirical and case studies-oriented (Boyer, 2018; Hui, 2012; Smetschka et al., 2019; Wiedenhofer et al., 2018).

Hansen (2015) refers to the distinction between “hedonic well-being” (HWPB), defined by material possessions, and “eudaemonic well-being” (EWPB), defined by the meaning in life, personal flourishing, and social relations. Referring to the research in the Scandinavian countries, Hansen argues that economic growth and increasing workloads primarily allow HWPB while increasing the amount of leisure time provides EWPB. The author concludes that social practices of leisure and ‘time affluence’ at the expense of work time and ‘material affluence’ provide a smaller carbon footprint.

The current experiences of the pandemic, when living space has become a workplace for many people, have shown the challenges posed by the blurring boundaries between free time/private life and working time/professional life (Jenkins and Smith, 2021). Under these circumstances it is difficult to preserve a fragmentary view of the individual practice dynamics (Shove and Spurling, 2013). The recent debate also deals with the problem of “digital labour” (Gandini, 2021). The essence of digital labour is the appropriation of leisure-oriented activities, which blurs the boundaries between work and leisure, not least as a result of the automation of leisure (Baranowski and Mroczkowska, 2021).

Smetschka et al. (2019) propose an analysis of an Austrian case with multi-regional input-output models (MRIO) and time-use perspective, according to which it is available time and other resources, for example, financial ones, that regulate the competition between work, leisure, and other practices. The authors argue that the lack of time can induce or force individuals or households to perform fewer sustainable practices. The main conclusions are that leisure activities are mostly low-carbon, while only a few of them (e.g., eating out) are high-cost and high-carbon activities. By far, the largest carbon footprint is generated by transport practices and mobility. Recommendations for future time policies include 1. reducing and/or redistributing working hours, also in gender-related terms, more equally among adults in the households and 2. possibly increasing time budgets for leisure activities. Klein et al. (2021) recently offered another time-use approach analysis of the Finnish and French cases. They argue that the composition of leisure activities differs between people with distinct work hours.

Wiedenhofer et al. (2018) have systematically reviewed the research on time-use and the potential of urban household social practices that may contribute to climate change mitigation. The authors recommend the following transformation of the existing labour and leisure practices: 1. less work but still sufficient for a decent living income, and proportionally limited overconsumption; 2. more time for well-being activities, community development, and family life, enabling communities and inclusive cities to develop; and 3. distribution of work among more people, potentially reducing unemployment.

4.6. Working and food

The literature on the interaction of social practices related to working and food is dominated by the literature addressing food practices.

Eating practices, such as “how we eat, where, when and with whom, is influenced by the social organization of work and family life, and the physical locality of private homes and workplaces, as well as the rhythm and organization of the workday” (Holm et al., 2016, p. 359). Holm et al. stress the importance of the “institutional and practical arrangements in society, such as the size and composition of households, the arrangements of public catering at workplaces and educational institutions and the accessibility of commercial venues for eating out” (ibid.).

Availability of food at the workplace is an important determinant of food practices (Bojorquez et al., 2018, p. 76). Work has become more stressful due to time scarcity, leading to unhealthy food practices, such as skipping meals and consuming unhealthy fast food and convenience food (see, e.g., Devine et al., 2003; Greene and Fahy, 2020; Jabs and Devine, 2006). According to Pfeiffer et al. (2017), workers have a range of options for lunch at work, such as work canteen or cafeteria, eating at a nearby restaurant, preparing a meal in the staff kitchen, eating a lunchbox brought from home, buying a snack from a supermarket, or eating nothing. What is chosen depends on the working conditions, for instance, the length of breaks, flexible time schedules (Devine et al., 2003), and the availability of facilities for eating or preparing food at work (canteen, kitchen, microwaves etc.).

Countries differ regarding the *meaning* of having lunch at work. For instance, having a lunch break in Sweden is connected to eating out and having a warm meal, while in other countries it can just be a lunchbox or the work canteen (Holm et al., 2016). The meaning of having lunch at work differs, but this changes as well due to migration.

The workers' food has become a market for commercial food providers, either delivering canteen food (Costa-Souza et al., 2018) or offering near work lunch restaurants or convenience food stores. The equipment with microwaves in office kitchens allows office workers to warm up food from home or ready-made food from the supermarket. The same applies to university students who often suffer from limited access to food at their universities. The installment of microwaves has been reported as an intervention that allows students to bring and warm up leftovers and avoid unhealthy food or not eating at all (Middha, 2020). Eating in work canteens allows healthier food diets and addresses food waste (Evans et al., 2012). However, this requires interaction with the kitchen personnel, the use of smart equipment, and competence building.

Lastly, there is also the possibility to use the workplace as a site of exposure to and learning new cooking practices and a site for learning (Bojorquez et al., 2018; Daly, 2020; Devine et al., 2003). *Shared meals* at work can help to transfer cooking competencies, such as Daly's (2020) example of colleagues from Vietnam demonstrating stir-fry cooking. This has generated new tastes and preferences for more diverse types of food. Therefore, it has been suggested that interventions should target eating in communities (Daly, 2020). However, with the pandemic shared meals have become more unusual and it remains to see how such practice re-emerges after the pandemic.

SPT argues for pro-environmental change through sustainable transformation of practices and not through persuading *individuals* to make different decisions (Hargreaves, 2011). Therefore, SPT does not focus on policy strategies directed at behavioural change of *individuals*, but instead suggests developing incentives for healthier eating at workplace cafeterias, better work conditions and providing well-paid job opportunities to allow for healthier food alternatives (Bojorquez et al., 2018; Meier et al., 2018). This confirms Devine et al. (2003), who argue that worksite interventions should also involve family members to be successful rather than interventions at the worksite alone. In the very different context of the Global South, this also means access to clean water, both at home and at work (Mguni et al., 2020). Moreover, the change of these practices has to consider the “links between seemingly unrelated practices, the surrounding material infrastructure, legal, social and power relations as central to such interventions” (Hargreaves, 2011, p. 95).

4.7. Mobility and working

A less obvious area where the interconnectedness of practices shows its analytical value is the relation of practices of work and mobility. Three ‘themes’ stand out in this respect. *Commuting* as the most salient work-related mobility practice is not only shaped by transport infrastructures and services but depends to a large extent on practices of work such as its timing, location, or mobility plans offered by the employer. A second theme is *mobility at work*, as many professions and jobs require various forms of work-related travel. A third topic is that work practices currently undergo substantial transformation, especially related to digitalisation and the possibility to be ‘*digitally mobile*’ without having to travel physically. A review of literature about interrelations of mobility and working practices makes clear that a transition towards sustainable work-related mobility cannot be achieved without a simultaneous transformation of work practices. At the same time, the aim of making work more (socially) sustainable is also inextricably linked to changing practices of work-related mobility.

The *practice of commuting* dominates large parts of many peoples’ lives and significantly impacts CO₂ emissions. The unsustainability of commuting practices can be understood along the three key elements of practices (Shove et al., 2012)–material, competencies, and meaning. The material dimension is exemplified by a lack of infrastructure for public transport (Kammerlander et al., 2020) and a spatial design of cities that separates work and dwelling. Such material structures not only turn commuters often into “captive car drivers” (ibid., p. 333), but they also create a need for longer-distance commuting in the first place. A lack of competencies and information, for example, about alternative modes of transport to work, often aggravates the problem. Finally, along the dimension of meaning, public transport is often still associated with costliness, lack of comfort, and low status. Cars, in turn, provide a ‘sensory experience’, linking people to the car emotionally and sustaining automobility for commuters despite inconveniences (Kent, 2015; Sheller, 2004).

A key issue for the coupling of work and travel is the timing of work practices (Wiedenhofer et al., 2018), where synchronised working hours cause peaks in commuting and congestion and have a major impact on sustainability and GHG emissions. The timing and synchronicity of work practices are closely interwoven with other practices such as shopping and other errands after work, or school opening times. Designing measures to change such practices requires a deep understanding of time-use patterns and flexibility in practices of different types of social groups (Julsrud and Hjorthol, 2021).

A very different type of work-related mobility is travelling during work. This kind of mobility is often underestimated, also in its environmental impact. Exemplary studies are the difficulties for professional urban drivers (e.g., craft and service workers) to switch to e-mobility (Julsrud and Denstadli, 2020), or the entrenchment of air travel in the professional life of academics (Higham et al., 2019). According to Shove et al. (2012), the transformation of such practices in organisations can be described in the three stages: stability, reconfiguration and realignment. Julsrud and Denstadli (2020) point to the role of change agents in organisations and the role of learning to facilitate such a change of practices in the reconfiguration phase. The question of attracting more employees into more environmentally friendly practices can be aligned with ongoing work practices in the setting of everyday performances of work routines, how pre-existing mobility practices can be adapted, or new meaning established. Electric vehicle use turns out to be more compatible with the existing transport regime, while the aim of mobility substitution (e.g., reducing travel demand) requires addressing an even broader set of interlinked practices (Whittle et al., 2019).

Finally, arrangements of work and mobility are reshaped by digitalisation processes, recently enhanced by the Corona-virus pandemic–see Kuzemko et al. (2020). Teleworking or shared workspaces may have a significant impact on commuting patterns (Green, 2002; Wiedenhofer et al., 2018), even though more specific

studies such as the one on academic air travel also show that only selected segments of work mobility are replaced by online meetings (Higham et al., 2019). However, the potential of digital technologies can also be used to develop new service platforms for mobility at work, as exemplified by a large company in Stockholm, that provides a package of company-internal bus services, car rental, bicycle pools, and more to its employees (Hesselgren et al., 2020).

4.8. Dwelling and mobility

Drouilles et al. (2017) see the main connection of mobility and dwelling in all trips with the home as the final destination or point of departure. This includes all types of routine trips, grocery shopping, commuting to work, bringing children to school, etcetera. Hence, the relations between dwelling and mobility are often part of other interconnections of practices, like working, food and recreation.

Mobility practices show different spatial patterns in an urban versus a rural context and in different regions and countries. In an urban context, people observe their city moving through it, but they enact and perpetuate the city by practising mobility. “The meaning of places in the city is constituted by the movement as much as by their morphological properties” (Jensen, 2009: 140). In a rural context, mobility may show more of the functional perspective in connecting other practices.

It is one of the key propositions of SPT that carrying out sets of routine practices reproduces social structures (Barr and Prillwitz, 2014; Nettleton and Green, 2014). Bartiaux and Salmón (2014) and Berg and Henriksson (2020) investigate how differences in household size determine practices and the potential to change practices. With children involved in the household, practice changes only if “the entourage” shares the particular approach. They argue that life-course transitions encourage reflection on habits and invite moments of change because the unconscious shifts into consciousness. Such moments are moving to a new house, the arrival of the first child, change of job, etcetera. Focusing analysis on the patterns of mobility practices over people’s lifetimes can help shed light on the interlinkages between people’s lives and the development trajectory of a practice.

There is also a stream of literature that analyses how dwelling and surrounding infrastructure shape mobility practices. Here the discussion revolves significantly around materials, devices and technologies (e.g., electrical vehicles, Geels, 2012; Urry, 2004) and infrastructure (Shove et al., 2015). “The physical landscape (urban structures with a separation of work and home, roads) has been shaped around the car and stabilizes it” (Geels, 2012: 477). It corresponds to what Thaler and Sunstein (2008) and Barr (2015) call “choice architectures”: The practice of using a bike instead of the car may be promoted by additional components in the choice architecture like cycle racks, secure cycle storage or showers at the workplace. However, even with such elements in place, one must not underestimate the signals sent out by the existing built environment, often signals to use the car due to the sheer distance and the physical landscape.

Johansson et al. (2019) investigate how moving to a private-car-restricted and mobility-served neighbourhood impacts mobility practices. They find that “the process that shaped the new residents’ car ownership and travel patterns was, in part, quite slow and unspectacular compared with the intentions and expectations of the stakeholders involved” (p. 1).

4.9. Recreation and food

There is a strong interconnection between food, recreation, and well-being, regarding *nutritional and health aspects*. Fifita et al. (2020) investigate the link between organic food consumption and well-being by highlighting long-term well-being and healthy food diets. The authors provide evidence that organic food consumption is considered pivotal to their future well-being. The relation between organic

food and well-being is rooted in social interactions rather than being conveyed by traditional advertisement tools.

Food shows an interconnection with well-being by also enabling enjoyable activities, such as spending time with others and engaging in leisure activities. Cox (2013) and Cox and Blake (2011) investigate the concept of 'information in social practice' via considering concrete examples, such as food blogging. The latter is known as a rather flexible practice, aiming to celebrate good food and make sure that food consumption becomes an extraordinary event. Food bloggers are also willing to fit into a wider community, namely other bloggers or food journalists, thereby emphasising the social component.

Cooking as a recreational activity can generate well-being, as people find it relaxing or enjoy preparing dishes for others, thereby suggesting another example of interconnectedness. Cohen and Cribbs (2017) explore food practices of Lesbian, Gay, Bisexual, and Transgender (LGBT) seniors regarding cooking at home. They find evidence of at least four relevant meanings attributed to cooking at home: i) staying healthy as controlling own daily life, ii) being independent, iii) reinforcing or developing relations with other people, iv) reminiscence. The sense of pleasure and relaxation associated with cooking was emphasised. Grocery shopping is described as a major element of food practices. Having control over one's diet generates well-being, for example, by making people feel independent. This is also emphasised by Aasen et al. (2012), who explore how Norwegian end-stage elderly patients perceive their participation in a dialysis unit. Some patients expressed strong interest in their involvement in the decision-making process regarding their diet, among various activities. This also severely impacts their life quality.

Several problematic issues can be highlighted. *Poor eating habits* compete with well-being. They may have social causes, such as lack of eating spaces for students at universities, lack of canteen facilities at work, and patients not being able to control their diets, among other issues. With respect to students, Middha (2020) investigates the link between students' eating practices and the availability and features of eating spaces at a university campus in Australia. They find that specific material features (e.g., microwaves in eating spaces) positively affect eating patterns and, consequently, well-being. Eating spaces also improve students' habits in terms of less impulsive food purchases, in turn reducing food waste.

Another potentially problematic competing area is *collaborative consumption* (CC). Food-based CC denotes a social practice or situation when members of a group collectively participate in a pool of food, such as at restaurants or family events. Parker et al. (2019) argue that food-based CC often leads to over-purchasing, overconsuming, and wasting food, finding that when consumers are in CC group contexts, they purchase significantly more food per person, which leads to overconsumption and waste. Such a practice is due to generosity aspects and cognitive mistakes.

Finally, *food anxiety* is an important well-being aspect of food practices. The challenge of finding the correct balance between diet and health through food selection and consumption choices can give rise to significant anxiety and responsabilisation. Petersen et al. (2014) find that this is particularly true for mothers, whose main objective is to optimise families' health and well-being. The authors focus on how anxiety is related to social practice to explore the process whereby Australian mothers are made responsible for their families' dietary practices. Mothers' engagement with the issue of childhood obesity prevention can be complex and ambiguous, implying different degrees of self-responsibility with repercussions on children's weight and health status.

4.10. Recreation and dwelling

Three interconnected fields of social practice stand out with respect to recreation (leisure) and dwelling: domestic energy consumption, home activities and residential environment, and social context.

Dwellings can be strongly interconnected with human well-being, either by providing a comfortable and safe environment for living (domestic energy consumption) or by allowing people to practice relaxing and enjoyable activities at home (e.g., cooking, cleaning). This applies not only to dwellings, but also to the residential arrangement in which they are located.

Regarding domestic energy consumption, Smale et al. (2017) discuss two case studies related to smart grids in the Netherlands by analysing the changes that smart grids cause in households' energy consumption patterns. A predominance of households did not switch off the heat pumps 'smart' functionality, mainly motivating this as cost-saving without loss of comfort. Little flexibility was found related to time-shifting their energy consumption practice for leisure time and eating. Much higher flexibility was for the use of their laundry, tumble-drying and dishwashing machine. Taking a slightly different perspective, cleaning and well-being might provide good examples of interconnectedness of home activities, while considering specific appliances. Nicholls and Strengers (2019) focus on the robotic vacuum cleaner and show how its use substantially changes conventions of cleanliness in the home and leads to supplementary energy consumption. Using smart devices generates short-term feelings of wellbeing and decreases family stresses regarding the distribution of labour in the home, but "capping" excessive upward shifts in cleanliness expectations generates sustainable well-being benefits to families. Bisaga and Parikh (2018), Kuijer and Watson (2017), and Nicholls and Strengers (2019) investigate energy consumption at home from a SPT perspective.

Another example of interconnection concerns the residential environment and social context. Maller et al. (2016) explore the role of natural and built environments in everyday physical activity. The case study is a master-planned estate in Australia specifically designed to promote health and well-being. Neighbourhood features, such as parks and lights, trees, roads, footpaths, and other factors, such as weather and seasonal change, play a major role in shaping the propensity to perform physical practices. Oldrup (2009) stresses the importance of outdoor and leisure activities for residents living in suburban areas. Palmer et al. (2019) studies daily activities of elderly. In Scotland, older men and women with access to leisure activities tend to spend less time in sedentary behaviour. While declining physical function and health contribute to increasing time spent sitting, having the chance to do more things with/and for other people help to avoid sedentary behaviour. Results obtained via semi-structured interviews are supported by those retrieved via objective measures; sedentary behaviour is measured via an accelerometer worn by respondents for seven days.

Additional (and increasingly stronger) interlocking between dwellings and well-being can be identified, as people tend to spend more and more time in indoor environments. Kuijer and Watson (2017) argue that changes in social practices are associated with higher space heating demand by emphasising, for example, the need for larger houses to separate cooking spaces from eating spaces or children's play moved from outdoors to indoors. New technologies for domestic energy improve the quality of life in dwellings by reducing energy expenditure (which becomes particularly important for low-income households) and by creating a more comfortable living environment (Bisaga and Parikh, 2018). Householders purchase solar energy systems to have light for domestic activities, which allows them to shift part of their activities to evenings.

As per competing effects, dwellings in poor conditions or located in bad neighbourhoods can decrease well-being by causing anxiety and distress. This can generate negative chain effects, as the purchase of appliances compensates for such distress, leading to higher energy bills and further poverty issues for low-income households. Debnath et al. (2020) analyse components of cultural energy services, focusing on socio-cultural and socio-architectural drivers of demand for comfort, cleanliness, and convenience of dwellings. Higher demand for specific comfort and convenience appliances (e.g., air conditioners and water coolers) is a consequence of a lack of socio-architectural design

elements like open spaces, privacy, and walkability. Such demand for energy services might be interpreted as a response to social distress to compensate for low quality living environments.

5. Discussion

Our analysis of the growing literature on interconnected fields of practice confirms the increasing empirical richness and conceptual depth of this field of research. Moreover, the literature demonstrates the potential of social practice studies to open up new perspectives on green transformations and help design effective policy strategies. Of particular importance is how such practices are connected in different ways and how these interconnections hinder or enable pathways of transformative change. The reviewed practice fields revealed a variety of examples of connections between practices that provide unexpected opportunities for more sustainable socio-material configurations. At the same time, this perspective helps to understand why certain unsustainable practices are so resistant to change.

The need to change social practices is a crucial dimension in the transition of production and consumption systems towards greater sustainability. Change of social practices can happen in three different ways (Watson, 2012; Spurling and McMeekin, 2015; Shove et al., 2012). First, the elements constituting them can change. Second, the population of carriers of practices can change. Third—and this was the focus of this paper—the relation among practices can change, as practices are contingent on each other, for example, mobility practices can change in relation to working and shopping practices and vice versa. Many other authors in the field stress that a change in practices mainly occurs at particular junctions in life (birth of a child, change of job, moving, illness, etc.). Our literature review has given ample evidence that such a perspective on ‘change in social practices’ has been taken up in most of the analysed practice fields and is adopted especially in relation to the need for transformative change, such as the transition towards climate-neutrality (e.g., Cohen and Cribbs, 2017). Social practice research, and particularly research on the interconnection of practices, thus increasingly lives up to the challenge of developing a better understanding of sustainability transitions from an everyday-life perspective.

Our analysis also shows that understanding how practices are spatially and temporarily organised helps in understanding the strength of connections between them. The spatial setting can be the design of the home, the layout of cities, or transport connections in rural areas. Interestingly, most of the social practice literature focuses on the home and the social practices anchoring here. The co-location of practices allows avoiding time pressure and contributes to more blurred boundaries between social practices, such as the home as the place of eating, working, and recreation. Especially the reviewed time-use studies highlight that multiple temporalities of different practice fields co-evolve and intersect with the material elements of social practices. Understanding the co-location and co-evolution of social practices allows a better way to understand their interlinkages, how difficult it is to change the practices, and reveals ways to change them towards more sustainability.

We also found that mobility is an important nexus of practices that connects practices such as working, leisure, dwelling, and food. This is extremely relevant when it comes to sustainability transformations. Household work, taking care of family and friends, work, and leisure time are often connected to activities in different places. Uncovering this kind of nexus enhances our understanding of why car driving still “wins” over bike riding, for example.

Moreover, our review sheds light on social-practice research’s sensitivity and fast response time to potentially disruptive events. A growing number of articles has already taken up the Covid-19 pandemic, which has undoubtedly already contributed to many changes in social practices that remain to be understood and may lead to long-term

transformative change. To name just a few: Firstly, the changes induced through the extensive deployment of digital technologies in workplaces and their impact on other social practice fields, such as mobility, recreation, and dwelling, should be studied to identify sustainability potentials, both in environmental and social justice terms. Secondly, online grocery shopping and food delivery services have become very popular during the pandemic and may remain at this level. Therefore, further research on the food-mobility bundle could therefore concentrate on new practices in this area, particularly in cities, where food delivery services may compete for space, which is already a scarce resource. These practices could also be investigated in connection to increased teleworking. Thirdly, the pandemic may have altered the relationship between leisure and dwelling as it has forced people to spend more leisure time at home and in the local area.

Finally, the literature on the interconnections of social-practice fields is biased towards specific fields and aspects. Most of the reviewed studies focus on three social practice fields and their connections to other practices: food, mobility, and dwelling. Recreation practices tend to be neglected and have received only some coverage through the interaction with mobility and food practices, while links with dwelling and working are rarely addressed. Most studies on dwelling and recreation do not consider the effect of dwellings’ structural characteristics on well-being, but instead focus on energy-related aspects. Life cycle perspectives tend to be taken into account just in the context of food-related practices. The most important deficit is that the reviewed SPT literature does not systematically address interconnections with working practices. Such research would open up a great range of new opportunities for systematic studies of working practices and their connections and conflicts with other practices.

6. Conclusion

More sustainability cannot be achieved by either simple technological fixes or changes in individual behaviour. Governing change towards greater sustainability requires changing the focus of intervention from incentives for changing of individual behaviour to creating conditions conducive to the change of socially shared practices. As practices are contingent on each other, one practice can change as a result of a change in another, and vice versa; co-location and co-evolution of practices invite such changes. Understanding former and ongoing changes in social practices and their intersections is necessary to consider interventions towards more sustainability. Existing policy interventions often rely on behavioural theories, such as rational choice theory, behavioural economics, and theories of nudging, and only to a very limited degree on an understanding of social practices. This lowers the impact of policies for sustainable development. An important outcome of this paper is that interventions should address complexes, bundles, and nexuses of practices, as they often co-evolve and co-locate and because changes need to be aligned between different practices. A further contribution of this study is to collect evidence for the relevance of bundles of social practices of everyday life for sustainability transition studies—a perspective which is otherwise neglected in transition studies with their focus on organisational actors and institutional dimensions of socio-technical change.

Another important conclusion is that social-practice research may benefit from combinations of qualitative methods with surveys and other quantitative methods to gain a richer understanding of interconnected social practices. Most of the reviewed empirical papers apply only qualitative methods, ranging from document analysis and discourse analysis to different types of interviews, focus groups, participatory observations, photo diaries, walking video tours, case studies, and strong stakeholder involvement. Only a few articles use quantitative methods, such as time-use surveys or social network analysis, which would help increase the scope and generalisability of results. Broadening the methods toolbox of social practice studies thus may further contribute to their policy relevance.

The review also revealed some other shortcomings in current research. Different fields of social practices receive very different levels of attention. Particularly from our perspective on the interconnectedness of practices and the need for such an analysis for a better conceptualisation of larger-scale changes of practices, such neglected areas potentially limit the contribution this research can make to analysing the dynamics of sustainability transitions. This may be particularly true for the lack of studies of the connection of work-related social practices with other everyday life practices – a connection that is highly relevant for various types of transition to a more sustainable everyday life. When identifying 'grey areas', our analysis thus also defines fields for future research on (un)sustainable social practices in the complex manner. Comparative studies on the connection of social practices of mobility, dwelling, food and recreation with different working practices, differentiated by types of industries and working environments, may analyse diverse connections between fields of practice and how these connections contribute to transformative change.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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6. Discussion and conclusion

This thesis was guided by the framing research question: “Does everyday sharing, enabled by the settings of collaborative housing and developer-driven neighbourhood sharing, hold the potential of becoming an established pattern in housing?” and three more concrete questions that broke the framing question down for empirical research. In addressing these questions, the present PhD work made three key contributions: a theoretical one, an empirical one and a practical one. In the following, I will discuss these contributions, before reflecting on limitations of my study and ending with some routes for complementary research.

6.1 Three key contributions

First, in *theoretical terms*, I outlined and applied a practice-theoretical perspective. This approach highlights the practicalities of sharing, including collectively shared artefacts, infrastructures, architectural arrangements, competencies, sense-giving elements, and rules that are involved in meaningful, competitive practices. It also emphasises the necessity to “zoom out” (Nicolini, 2009) from singular practices and analyse their embeddedness in, and interconnectedness with, larger configurations of practices ordered across time and space. In addition, practice theory is attentive to practice careers and how they affect the normalisation of novel practices, both at the level of individuals as “unique crossing point[s]” (Reckwitz, 2002, p. 256) for a wide range of embodied practices and related experiences, and at the level of practices, which evolve over time and in connection with other practices.

Paper A sketches a practice-theoretical framework that draws on these central ideas to analyse the strongly diverging developments of diverse forms of collaborative consumption across different fields of daily life. By comparing two specific examples, P2P accommodation and cohousing, it shows the potential of practice-theoretical accounts for understanding the popularisation (or not) of novel social practices. Paper D complements this work by highlighting the interconnectedness of different spheres of social life, such as working, moving, dwelling, and recreation. In a research and policymaking landscape where individualistic conceptualisations of spurring “behavioural change” prevail (e.g., informing, incentivising, and awareness raising), these papers contribute to an alternative perspective on the transformation of social life, taking social practices and their collective nature as the central unit of analysis. In the field of sharing, practice-theoretical contributions are still particularly scarce and have only recently started to burgeon (Fraanje & Spaargaren, 2019; Mock, 2022; Mock & Wankat, 2024; Rau & Matern, 2024; Yates, 2018).

Second, in the introductory section, I pointed to the scarce empirical evidence on the lived experiences of neighbourhood sharing, which is of key importance for assessing its chances of becoming further mainstreamed. I deliberately focused on two recent developments in the housing sector, collaborative housing and developer-driven neighbourhood sharing, because both constellations assign a central role in planning, implementing, and maintaining shared facilities to professional housing market actors, who have the capacity to multiply neighbourhood sharing projects. I argued that only if sharing between neighbours 'works' in these novel neighbourhood constellations — as indicated by the frequent performance of diverse sharing practices and enactment by a significant portion of neighbours — are professional housing market actors likely to continue engaging with forms of neighbourhood sharing and potentially further expand it. The central ambition of this dissertation was therefore to *generate empirical evidence on the occupancy phase* of the selected cases, which represent both novel neighbourhood constellations.

Paper B compares the two German cases of developer-driven neighbourhood sharing and collaborative housing with regard to occurrences, regularities, durations and diversity of sharing

practices and explores possible explanations behind observed differences. Overall, results from the diary study indicate that neighbours in the collaborative housing case, Domagkpark, share more frequently, regularly, and extensively than their counterparts in Campus Gardens. They also engage in a wider range of sharing practices, including those that involve greater coordinative efforts and the co-presence of several people. Interview data suggests that these differences can be explained in two ways: first, a better fit of available practice elements, which has enabled the evolution of higher shares of meaningful practice configurations; and second, a better integration of sharing practices into residents' typical life patterns. This is due to a stronger propensity among Domagkpark residents — many of whom are families and retired people — to organise their daily life in geographical proximity to their neighbourhood. Moreover, Domagkpark residents seem to enjoy also an overall greater time autonomy, which potentially allows for more flexibility in arranging “simultaneous” sharing practices in coordination with others (Yates, 2018). Together, these findings indicate that the stronger involvement of residents in collaborative housing is more likely to create winning practice configurations and to support the integration of sharing practices into residents' typical life patterns. Overall, the collaborative housing type appears to be a more comprehensive and 'thick' form of neighbourhood sharing, while the developer-driven neighbourhood sharing case seems to work mainly for 'easy-to-perform', low-coordination-, and temporarily flexible practices.

Paper C delves further into this question of types of sharing practices and explores the contours of a potential “core” neighbourhood sharing model that transcends the two constellations of neighbourhood sharing. Evaluating aggregated data from all three cases, it identifies six sharing practices that are performed frequently or at least occasionally in all three neighbourhoods, and an additional five that are popular in two of the three. By assessing frequent meaning elements, clustering them into four groups of sense-making elements, and analysing their co-occurrence with the most popular sharing practices, three main families of sharing practices crystallised: a community-oriented family, held together by the idea of creating, maintaining, and experiencing social ties with neighbours; a convenience-oriented one, characterized by a desire to get day-to-day tasks done smoothly and efficiently; and a third one, termed “practices of joy and wellbeing”, which is guided by the emotional gratifications of leisure activities.. I conclude that the first two groups may represent the core of neighbourhood sharing, while the third group might complement them according to specific neighbourhood philosophies, for instance focused on families, young professionals or senior citizens. Together, these two papers provide important evidence about the form that neighbourhood sharing may take in future housing markets. This knowledge can give important guidance to housing companies, architects, urban planners, real estate developers, and other actors who influence the housing sector.

The third contribution of my work aligns with the basic principle of sustainability sciences to produce results that are potentially impactful solutions for addressing urgent environmental problems (Wiek & Lang, 2016). While my work was not designed as a truly transdisciplinary endeavour, it has always been motivated by the idea of *creating practically relevant knowledge* for professional housing actors — knowledge that is useful for those who strive to make housing more sufficient. Paper B indicates that neighbourhood sharing projects benefit from co-creative constellations with future or current tenants, or, in the case of developer-driven neighbourhood sharing, at least thorough upfront market research with potential future dwellers. This increases the chances that sharing practices develop, take hold in neighbourhoods and are carried by significant shares of tenants. Paper C engages more thoroughly with the material dimension of sharing practices and asks how infrastructures can be designed and arranged to best fit convenience-oriented and community-oriented practices, which have been identified as core groups of neighbourhood sharing. Responding to their central meaning orientations, a number of strategies were suggested to increase the chances for competitive practice formations and

frequent performances. Thus, infrastructures for convenience-oriented practices should be designed in a way that their availability is maximised, temporal stretches for practice performances are minimised, and the involved consumption work is reduced as much as possible. All of this helps to make convenience-oriented practices activities with little mental load, which can be flexibly integrated into people's life, without much planning. Community-oriented practices, in turn, can be spurred by creating places for unplanned encounters, ideally located in "transitional zones" (Buzwan-Morell et al., 2024, pp. 75–76; Horelli, 2013, p. 48) where people walk by frequently, and by choosing the most attractive spots in buildings for community spaces. Community spaces for shared meals, parties, or socialising activities should not be the "leftover rooms"¹⁰ (Buzwan-Morell et al., 2024, p. 74) that are thought of only after all attractive zones of buildings and their surroundings have been allocated for private use. Instead, they should be the highlight spots of neighbourhoods: spacious, flooded with light, centrally located and easily accessible (see for similar results Williams, 2005). A lot of attention should also be paid to creating welcoming spatial atmospheres, where people simply love to spend their time. Such atmospheres, which, in line with Böhme (2022), can be understood as affective qualities resulting from material entities and arrangements, on the one hand, and bodily attunement on the other, are not easy to grasp but are nevertheless a very relevant aspect of everyday experience. Overall, these results emphasise the importance for housing actors to carefully plan and design community spaces (ideally in close co-creation with residents). They also provide very concrete and novel transformative knowledge on how infrastructural measures can support the reproduction and thus the normalisation of sharing practices. Returning to my overarching research question: "***Does every-day-sharing enabled by the settings of collaborative housing and developer-driven neighbourhood sharing hold the potential of becoming an established pattern in housing?***" I can conclude that I see significant potential for sharing, particularly convenience-oriented and community-oriented sharing practices, to become normalised in housing, especially if housing actors proactively support it through suitable infrastructure.

6.2 Limitations of this dissertation project

This research has made relevant theoretical, empirical and practical contributions in the research field of neighbourhood sharing. Nevertheless, like most studies, it also has some limitations, which will be briefly outlined below. First of all, as practices are in constant remaking, research on them would ideally adopt a longitudinal approach to observe how practices, as entities, and the occurrences of their performance evolve over time. This would produce more robust data on the normalisation of certain sharing practices, but also on the progressive fading out of other practices, which were possibly popular in the initial, more experimental phase of housing projects, but then lost their appeal in the long run. For research-practical reasons, two or more data collection periods were not feasible within the scope of this dissertation work.

Second, my ambition has been to combine several methods in a way that their generated data complement each other and cover both, elements of discursive consciousness and the more tacit, unquestioned qualities of practices. In this endeavour, a wider use of visual material, produced by study participants to illustrate their daily activities as recorded in their diaries, would have been useful (see for example Mock & Wankat, 2024). Unfortunately, since only a few residents delivered such visual data, I did not proceed with this approach. Similarly, it would have been beneficial to spend more extended periods of time at the analysed neighbourhoods and do participatory observations. However, restrictions regarding time and available financial means obstructed this initial intention.

¹⁰ Translated from German.

Third, multiple case research designs should ideally comprise three to six cases per identified type to increase the reliability of findings (Yin, 2018, pp. 57–58). In the frame of a PhD project, such numbers can hardly be realised for temporal and financial resource restrictions. Moreover, as outlined in Section 3.1, it was not possible to gain access to an exemplary French neighbourhood representing developer-driven neighbourhood sharing. Consequently, the comparative findings discussed in Article C would benefit from more empirical evidence from other similar cases to put them on more solid ground.

6.3 Further research avenues

I close this dissertation study by outlining a number of potential research avenues that would complement my work. First, more empirical research on the two constellations of neighbourhood sharing is needed, covering different countries, different resident compositions, tenure forms and actor constellations, possibly also rural environments as opposed to the currently dominating urban locations of neighbourhood sharing. All of this would contribute to a better understanding of the chances and limitations of sharing to become an increasingly normal phenomenon in our ways of living.

Second, this dissertation project started with the observation that the current housing sector and its escalating hunger for space, energy and raw materials are not sufficient. Taking sufficiency seriously, the main priority should hence be re-organising the way we live in the *existing housing stock* and avoid as far as possible new constructions. And if our (Western) societies decide to still build new residential buildings, for instance, in rapidly growing cities with extreme housing scarcity, they should not reproduce the standard expansive housing model but instead experiment with alternative housing forms that are potentially less environmentally harmful. Following this idea, I chose to study projects of newly built neighbourhoods with a multitude of sharing opportunities. Nevertheless, it appears absolutely crucial to me to place more emphasis on existing, long-standing neighbourhoods and to explore how per-capita environmental and carbon footprints may be reduced there by sharing resources. This can range from small infrastructural measures such as give-away shelves, collective cargo bikes or shared fridges for left-over food to large-scale adaptations such as modular rooms that can flexibly change between households and their changing life situations, shared storage spaces or guest rooms. From my perspective, research on such experimentations would be extremely valuable for reshaping our housing model.

Third, this dissertation project has been based on the assumption that sharing between neighbours will increase sufficiency in the housing sector. There are quite good reasons for this assumption, in particular if sharing goes hand in hand with below-average private living spaces (Lage et al., 2024; Thomas et al., 2019), as it is the case for the three neighbourhoods analysed in the frame of this thesis. Yet, Juliet Schor's observation, made back in 2014, appears to still be largely true: *"The ecological benefits of sharing are often seen as obvious (...). However, despite the widespread belief that the sector helps to reduce carbon emissions, there are almost no comprehensive studies of its impact. At this point, they are long overdue"* (Schor, 2014, no page). Most of the existing studies on potential environmental effects are based on calculations of theoretical saving potentials (cf. Brohmann & Gsell, 2017; Schmitt et al., 2017; Thomas et al., 2019) and/or focus on very particular sharing practices (M. Martin et al., 2019). There remains a strong need for more comprehensive examinations of sharing, taking into account the interconnectedness and co-evolution of diverse practices and their environmental impacts. Such a perspective has the potential to discern also rebound effects (Sonnberger & Gross, 2018). In addition, biographic practice-theoretical studies (cf. Greene, 2018; Rau & Matern, 2024) could make strong contributions in this context, as they can reveal how daily practices change when households move from conventional housing constellations to neighbourhood sharing settings

and how changes of practice possibly translate into environmental effects. To my knowledge, the work by Leitner and Littig (2017) is the only one to combine a holistic everyday life perspective, a pre- and post-move-in comparison of residents' daily practices, and an associated environmental impact assessment (conducting Life Cycle Assessment calculations). More empirical studies of that kind would be of great help in putting sustainability claims about sharing on more solid grounds and therefore in asserting the degree to which neighbourhood sharing may indeed make housing more sufficient.

Finally, as discussed in the previous paragraph, my work has been mainly driven by concerns of ecological sustainability, largely ignoring the socioeconomic side of sustainability. Collaborative housing, at least the examples analysed in the frame of my work, appear rather positive in this regard, as they are socially quite diverse and display below-average rental levels (and in the case of Aux 4 Vents: also purchasing levels). However, developer-driven neighbourhood sharing looks potentially more problematic in terms of social sustainability. As of now, the large majority of projects I am aware of were conceived by profit-oriented enterprises, whose main objective is, after all, maximising their benefits. This is reflected in rental and real estate prices that can be unaffordable for less affluent groups of society. For instance, several student interviewees at Campus Gardens described their rents as being significantly higher than in conventional halls of residence, shared flats, or other typical student housing forms. Thus, developer-driven neighbourhood sharing may contribute to gentrification and the progressive exclusion of less wealthy societal groups from central districts. This, in turn, may contradict the basic idea of sufficiency, which aims to set not only upper limits on consumption, but also minimum standards of "enoughness" to ensure a decent life for everyone (Fuchs et al., 2021; Spengler, 2016). Complementary research should hence closely monitor such risks to prevent neighbourhood sharing from turning into another "nightmarish form of neoliberal capitalism" (C. J. Martin, 2016). Developments of co-living as very similar housing form have recently been strongly criticised for their hyper-capitalist approach (cf. Harris & Nowicki, 2020) and can serve as a warning example.

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[Note: this is the literature referenced in the framing paper. Literature referenced in the articles is listed there.]

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Annexe 1: interview guidelines

Interview-Leitfaden explorative Interviews – Deutschland

1. Einleitung (5 Min)

- Kurze Präsentation der Ziele meiner Dissertation
- Dauer des Interviews: 30-60 Minuten
- Garantie der Anonymität; Einverständnis für Tonaufnahme einholen

2. Der Bewohner: Wohnsituation und Wohnhistorie (15 Min)

- Darf ich Sie nach Ihrer **beruflichen Situation** fragen?
- **Wie viele Personen** leben in Ihrem Haushalt? Was ist ihr Appartementtyp?
- **Wie würden Sie Ihre Nachbarn/Innen beschreiben?** (Alt/jung, Beruf...)?
- Wieviel Kontakt pflegen Sie mit diesen?
- Erläutern Sie mir bitte, **wo sie zuvor** gelebt haben.
- **Wie kam es**, dass Sie begonnen haben sich für diese Wohnung und diese Nachbarschaft zu interessieren?
- Was sind die wichtigsten Unterschiede zwischen **Ihrer jetzigen Wohnsituation** und der vorherigen?
- Welche positiven wie negativen **Überraschungen** haben Sie erlebt seit Ihrem Einzug?

3. Gemeinschaftliche Konsumformen (30 min)

- **Welche gemeinschaftlichen Konsumformen praktizieren Sie selbst?**
- **Und welche beobachten Sie in ihrer Nachbarschaft ohne sie selbst zu praktizieren?**
[gezielt nachfragen zu den folgenden Kategorien]
 - o Teilen von Räumen
 - o Verkaufen, verschenken Wiederverwerten
 - o Ausleihen von Gebrauchsgegenständen
 - o Geteilte Mobilität
 - o Geteilte Dienstleistungsangebote wie ein Concierge-Service
 - o [Ermöglichende Aktivitäten]
- **Welche** dieser Konsumformen sind nach Ihrer Beobachtung **häufiger**, welche weniger?

4. Häufig praktiziert

- Können Sie bitte beschreiben wie die häufig praktizierten Konsumpraktiken konkret **ablaufen?**
- Wer oder was trägt zum **Gelingen** bei?
 - o Architektur, Gestaltung der Räume, und Gegenstände?
 - o Technologie: App, Facebook
 - o Dienstleistungen: welche Rolle spielt der Community Manager?
 - o Interaktion mit Nachbarn
 - o Fähigkeiten, Wissen
 - o persönliches Engagement (Koordination, Zeit, mentale Ressourcen)
 - o Regeln: Zugang, Reinhaltung, Instandhaltung, Bezahlung
- Was macht diese Nutzungsformen **attraktiv?**
- Gab es seit Beginn **irgendwelche Veränderungen** beim Ausüben dieser Aktivität und ggf. was steckt dahinter?

5. Weniger praktiziert

- Auf der anderen Seite, **weshalb** werden die weniger praktizierten gemeinschaftlichen Konsumform(en) Ihrer Meinung nach seltener realisiert?
- **Was erschwert** das Ausüben seltener Praktiken? Was macht sie unattraktiv im Vergleich zu konventionellen Praktiken?

6. Zeitraumstrukturen

- Inwiefern hat sich Ihr **Alltag** durch diese neuen gemeinschaftsbasierten Konsumformen **verändert**?
 - ➔ Neue Aktivitäten im Vergleich zu früher
 - ➔ Typische Abläufe früher und heute
 - ➔ Räumlich Ordnung von Aktivitäten
- Gab es seit dem Bestehen Ihres Viertels **Angleichungsprozesse**?
- Ganz konkret: Sind Sie von Ihren Nachbarn schon einmal „**angesteckt**“ **worden** oder haben Sie Ihrerseits Nachbarn zu gemeinschaftlichen Konsumformen angeregt?

7. Schluss (5 Min)

- Gibt es Aspekte, über die wir uns noch nicht unterhalten haben, die Ihnen aber ebenso wichtig erscheinen?
- Bitte um Tipps für **weitere potentielle Studienteilnehmer**
- Dank und Kommunikation der nächsten Schritte

Interview-Leitfaden explorative Interviews - Frankreich

1. Introduction (5 min)

- Brève présentation des **objectifs** de ma thèse de doctorat.
- **Durée** de l'entretien : 30 à 60 minutes.
- Garantie de l'anonymat ; obtenir le consentement pour l'enregistrement sonore.

2. L'habitant : situation de vie et parcours résidentiel (15 min)

- Si besoin : Quelle est votre situation professionnelle ?
- Si besoin : Combien de personnes vivent dans votre ménage ?
- Racontez-moi dans **quel type d'habitat** vous viviez avant, s'il vous plait.
- **Qu'est qui vous a amené à vous intéresser à cet appartement** et à ce quartier ?
- Quelles sont les **principales différences** entre votre résidence actuelle et la précédente ?
- Quelles sont **les surprises positives et négatives** que vous avez vécues depuis que vous avez emménagé ?
- Comment décririez-vous **vos voisins** (personnes âgés/jeunes, profession....) ?
- Avec quelle **fréquence** interagissez-vous avec vos voisins ?

3. Les pratiques de partage (30 min)

- **Quelles pratiques de partage** observez-vous dans votre résidence ?
- [Si besoin : demandez spécifiquement pour les **catégories suivantes**]
 - Partage des salles et espaces
 - Revendre, donner ou récupérer des objets déjà utilisés, faire du troc
 - Prêts de biens ménagers du quotidien entre voisins
 - Mobilité partagée: covoiturage, autopartage
 - Foodsharing, repas entre voisins
 - Jardins communs

- Services partagés comme un service de conciergerie, service de pressing,
- [Activités au service de la communauté]
- D'après vous, lesquelles de ces pratiques sont **fréquentes**, lesquelles sont **plus rares** ?

4. Pratiques fréquentes

- Qu'est-ce qui « fait marcher » ces pratiques ?
 - L'architecture, **l'aménagement de l'espace** et les objets ?
 - **Technologie** : App, Facebook
 - Services : quel est le **rôle du bailleur** ?
 - Interaction avec les voisins
 - **Compétences, savoirs faire**
 - **Engagement personnel** (coordination, temps, ressources mentales)
 - **Règles** : accès, ménage, entretien, maintenance, finances
 - **Insertion dans le cours d'activité**
- Qu'est-ce qui amène les résidents vers ces pratiques plutôt que vers **les alternatives conventionnelles** ?
- Y a-t-il eu des **adaptations dans la réalisation** de cette activité depuis le début ? Quelles en sont les raisons ?

5. Pratiques plus rares

- D'autre part, d'après vous, quelles sont les **raisons pourquoi** les formes de partage plus rares sont **moins souvent réalisées** ?
- Qu'est-ce qui amène les résidents vers les pratiques conventionnelles plutôt que vers **les pratiques de partage** ?
- Insertion dans le cours d'activité

6. Structures périodiques

- Dans quelle mesure votre vie quotidienne **a-t-elle changé à la suite de ces nouvelles possibilités de partage** ?
 - **Nouvelles activités** par rapport au passé
 - Est-ce que vos voisins vous ont déjà « tirés » vers une certaine pratique ?
 - **Routines et cours d'activités dans le passé et aujourd'hui** : journée typique dans le passé et aujourd'hui, illustrée par des exemples.
 - **Relocalisation des activités** entre les trois sphères de la vie : ménage – espace public - espace semi-public partagé : Quelle place a occupé la troisième sphère ?

7. Fin (5 min)

- **Qu'est-ce que vous changeriez** dans votre résidence pour la rendre encore plus attrayante à vivre ?
- Qu'est-ce qui pourrait vous faire **déménager** ?
- Y a-t-il des aspects dont nous n'avons pas encore discuté, mais qui vous semblent tout aussi importants ?
- **D'autres participants** potentiels à l'étude
- Remerciements et communication des prochaines étapes

Interviewleitfaden mit Tagebuchteilnehmern - Deutschland

1. Einleitung (5 Min)

- Kurze Präsentation der Ziele meiner Dissertation
- Dauer des Interviews: ca. 60 Minuten

- Garantie der Anonymität; Einverständnis für Tonaufnahme einholen

2. Der Bewohner: Wohnsituation, Wohnhistorie (10 Min)

- Appartementtyp, Anzahl der Bewohner in der Wohnung, Beruf, Alter
- Erläutern Sie mir bitte, **wie lange** Sie hier schon leben **und wo sie zuvor** gelebt haben.
- **Wie kam es**, dass Sie begonnen haben sich für diese Wohnung und diese Nachbarschaft zu interessieren?
- Welche positiven wie negativen **Überraschungen** haben Sie erlebt seit Ihrem Einzug?

3. Gemeinschaftsbasierte Konsumformen: Übersicht (15 min)

[Betrachtung der Ergebnisse des Befragten aufgeteilt nach den folgenden 5 Kategorien.]

- o Teilen von Räumen
 - o Verkaufen, verschenken Wiederverwerten
 - o Ausleihen von Gebrauchsgegenständen
 - o Geteilte Mobilität
 - o Geteilte Dienstleistungsangebote wie ein Concierge-Service
 - o [Ermöglichende Aktivitäten]
- Würden Sie sagen, dass das Ergebnis relativ **repräsentativ für Ihr aktuelles Leben** ist?
 - **Wie kommt es**, dass Sie eine **besonders hohe Anzahl** an berichteten Aktivitäten der Kategorie/n A und B haben?
 - **Auf der anderen Seite**, wie erklären Sie es, dass Sie in den Bereichen C und D eher weniger Aktivitäten notiert haben?

[Betrachtung der Ergebnisse zu den Rhythmen]

- Sind die Rhythmen und Wiederholungen typisch oder zufällig?
- Hat sich Ihr **Alltag** durch diese neuen gemeinschaftsbasierten Konsumformen **verändert**?
 - ➔ Neue Aktivitäten im Vergleich zu früher
 - ➔ Typische Abläufe früher und heute: typischer Tag früher und heute, mit Beispielen illustriert
 - ➔ Verlagerung von Aktivitäten zwischen den Sphären heim – extern – geteilter halböffentlicher Raum: Welchen Platz hat die dritte Sphäre eingenommen?

4. Betrachtung von zwei intensiven Praktiken im Detail (20 Min)

- Können Sie bitte beschreiben wie die von Ihnen am öftesten genannten Konsumpraktiken konkret **ablaufen, vom Anlass, über die Planung bis zur Umsetzung? [2 häufigste Beispiele]**
- Wieviel **persönliches Engagement** (Koordination, Zeit, mentale Ressourcen) erfordert diese Praxis von Ihnen?
- Wer oder was trägt noch zum **Gelingen** bei?
 - o Welche Rolle spielen Architektur, Gestaltung der Räume, sowie Gegenstände?
 - o Beiträge von und Interaktion mit Nachbarn, Dienstleistern, Partnern
- Auf der anderen Seite, **was erschwert** das Ausüben der Aktivität?
- **Wie erleben Sie** die Nutzungsform? (easy, aufwändig, stressig, Spaßig, praktisch...)
- Gab es seit Beginn **irgendwelche Veränderungen** beim Ausüben dieser Aktivität und ggf. was steckt dahinter? Mussten Sie zur Realisierung dieser Aktivität etwas **lernen, sich anpassen**?

5. Sie und Ihre Nachbarn (10 Min)

- Ggf.: Würde die Übersicht zu den gemeinschaftsbasierten Konsumformen bei Ihrem **Partner** ähnlich aussehen? Wenn nein, wie erklären Sie die Unterschiede?
- Sind die von Ihnen praktizierten gemeinschaftlichen Konsumformen nach Ihrer Wahrnehmung eher **typisch oder ungewöhnlich** für Ihre **unmittelbare** (im Gebäude) und **weitere** Nachbarschaft (im Viertel)?
- Ggf.: **Weshalb** praktizieren Ihre Nachbarn diese gemeinschaftliche Konsumform(en) Ihrer Meinung nach weniger?
- Praktizieren Ihre Nachbarn umgekehrt bestimmte gemeinschaftliche **Konsumformen, die für Sie nicht in Frage kommen?** Weshalb? Was könnte diese Konsumformen für Sie interessanter machen?
- Sind Sie von Ihren Nachbarn schon einmal „**angesteckt**“ worden oder haben Sie Ihrerseits Nachbarn zu gemeinschaftlichen Konsumformen angeregt?

6. Schluss (5 Min)

- Was würden Sie **an Ihrem Gebäude verändern**, um das Wohnen dort noch attraktiver zu machen?
- Könnten Sie sich vorstellen, dass ihr Gebäude auch für **andere Bevölkerungsgruppen** in Frage käme? Wie müsste man die Wohnform ggf. anpassen?
- Was könnte Sie zum **Auszug** aus der hiesigen Nachbarschaft bewegen?
- **Wie erleben Sie Ihr Viertel insgesamt?** Ästhetik, Architektur, Grünflächen?
- Gibt es Aspekte, über die wir uns noch nicht unterhalten haben, die Ihnen aber ebenso wichtig erscheinen?
- Bitte um Tipps für **Freunde, die für eine Fokusgruppe eingeladen werden könnten**
- Dank und Kommunikation der nächsten Schritte

Interviewleitfaden mit Tagebuchteilnehmern - Frankreich

1. Introduction (5 min)

- Brève présentation des **objectifs** de ma thèse de doctorat.
- **Durée** de l'entretien : 30 à 60 minutes.
- **Garantie de l'anonymat** ; obtenir le consentement pour l'enregistrement sonore.

2. L'habitant : situation de vie et parcours résidentiel (15 min)

- Surface de l'appartement
- Si besoin : Quelle est votre situation professionnelle ?
- Si besoin : Combien de personnes vivent dans votre ménage ?
- Racontez-moi dans **quel type d'habitat** vous viviez avant, s'il vous plait.
- **Qu'est qui vous a amené à vous intéresser à cet appartement** et à ce quartier ?
- Quelles sont **les surprises positives et négatives** que vous avez vécues depuis que vous avez emménagé ?

3. Les pratiques de partage (30 min)

- **[Montrer les résultats répartis dans les 5 catégories suivantes]**
 - o Partage de salles et espaces
 - o Revendre, donner ou récupérer des objets déjà utilisés, faire du troc
 - o Accès partagé à des biens ménagers du quotidien entre voisins
 - o Mobilité partagée : covoiturage, autopartage
 - o Foodsharing, repas entre voisins

- Jardins communs
- Services partagés comme un service de conciergerie, service de pressing,
- Activités au service de la communauté
- D'après vous, ce résultat est-il relativement **représentatif de votre vie actuelle** ?
- Comment expliquez-vous le fait que vous avez un **nombre élevé d'activités** dans les catégorie(s) A et B?
- D'autre part, quelles sont les raisons pourquoi vous avez indiqué **peu d'activités dans les catégories C et D** ?

4. Discussion détaillée de deux pratiques intensives (20 min)

- Eventuellement : Pourriez-vous me décrire le **déroulement typique et les moments typiques** de l'activité, s'il vous plait ?
- **Qu'est-ce qui « fait marcher »** ces pratiques fréquentes ? [Les 2 exemples les plus courants]
- D'autre part, **qu'est-ce qui complique la pratique** de l'activité ?
- A tenir en tête :
 - Quel **engagement personnel** (coordination, temps, ressources mentales) cette pratique exige-t-elle ?
 - Quel est le rôle de **l'architecture, de l'aménagement de l'espace** et des objets ?
 - La contribution et **l'interaction avec les voisins, les fournisseurs de services**
 - Quels sont les **adjectifs** qui décrivent le mieux votre **expérience** au moment de réaliser la pratique ? (Facile, fatiguant, stressant, amusant, pratique...)
 - **Règles du jeu** : accès, paiement, heures d'ouvertures, ménage, maintenance...
 - **Insertion dans le cours d'activité**
- Eventuellement : comparaison avec une **pratique conventionnelle**
- Y a-t-il eu des **changements** dans la réalisation de cette pratique depuis le début et, éventuellement, quelles en sont les raisons ? Avez-vous dû apprendre quelque chose ou vous adapter pour réaliser cette activité ?

5. Les temporalités du partage

[Présentation des résultats sur les rythmes]

- Les répétitions, intensités, et concentrations sont-elles **typiques ou spécifiques de cette période** ?
- → Effets de saison ?
- **Votre vie de tous les jours, a-t-elle changé** à la suite depuis votre emménagement ?
 - **Types d'activités** : Nouvelles activités par rapport au passé
 - **Cours d'activités** aujourd'hui et avant : journée typique, illustrée par des exemples.
 - **Intensités** des activités
 - **Spatial : Relocalisation des activités** entre les trois sphères de la vie : ménage – espace public - espace semi-public partagé : Quelle place a occupé la troisième sphère ?

6. Vous et vos voisins (10 min)

- Eventuellement : La représentation d'activités, serait-elle **similaire pour votre partenaire** ? Si non, comment expliquez-vous les différences ?
- Selon vous, les formes de partage que vous pratiquez souvent sont-elles aussi typiques ou plutôt rares pour votre **immeuble** (Abricoop), votre **résidence** et votre **quartier** plus large ?

- Eventuellement : Qu'est-ce qui amène les autres résidents vers **les alternatives conventionnelles/vers des pratiques de partage** ?
- Est-ce que vos voisins vous ont déjà **incité à pratiquer des formes de partage** ou est-ce qu'il vous est arrivé d'animer des voisins à tester une pratique de partage ?

7. Fin (5 min)

- **Qu'est-ce que vous changeriez** dans votre résidence pour la rendre encore plus attrayante à vivre ?
- Qu'est-ce qui pourrait vous faire **déménager** ?
- Y a-t-il des aspects dont nous n'avons pas encore discuté, mais qui vous semblent tout aussi importants ?
- Remerciements et communication des prochaines étapes

Annexe 2: diary tools

German diary tool

Name	Datum							
Kategorie der gemeinschaftlichen Konsumform	Beschreibung der gemeinschaftlichen Konsumform	Ungefäherer Beginn	Ungefähres Ende	Wo?	Ggf. mit wem? (Nachbarn, Freunde, Familie...)	Wofür? (Zweck, Absicht)	Was taten Sie zuvor? (Arbeiten, fernsehen, kochen, joggen, putzen...)	Was taten Sie danach? (Arbeiten, fernsehen, kochen, joggen, putzen...)

French diary tool

Nom	Date							
Catégorie de la pratique collaborative	Description de la pratique collaborative	Début approximatif	Fin approximative	Où?	Eventuellement avec qui (famille, voisins, amis...)	Pourquoi? (but)	Qu'est-ce que vous avez fait avant? (travailler, faire le ménage, lire un bouquin...)	Qu'est-ce que vous avez fait après? (travailler, faire le ménage, lire un bouquin...)

Annexe 3: code book

Name	Beschreibung
Bemerkenswerte Zitate	Hier werden besonders prägnante Zitate extra kodiert, um sie leichter zu finden.
Gemeinschaftsbasierte Konsumpraktiken	
Arbeiten und studieren in Gemeinschaftsräumen	
Beobachtungen hinsichtlich der Praktiken von Bewohnern des weiteren Viertels	Beobachtungen zu den Praktiken, die nicht den eigenen Wohnkomplex betreffen, sondern Nachbarn im weiteren Viertel. Wird normalerweise co-kodiert mit einer bestimmten Praxis.
Beobachtungen hinsichtlich der Praktiken von Familienmitgliedern	Familienmitglieder sind im Normalfall die Lebenspartner/Ehepartner, manchmal aber auch die Kinder. Wird normalerweise co-kodiert mit einer bestimmten Praxis
Beobachtungen hinsichtlich der Praktiken von Nachbarn	Beobachtungen zu den Praktiken der Nachbarn im engeren Sinn, also im Gebäudekomplex, in dem ein Befragter wohnt. Wird normalerweise co-kodiert mit einer bestimmten Praxis. In München bedeutet dies: Mitglieder der eigenen Genossenschaft, nicht Nachbarn anderer Genossenschaften.
Ermöglichende Aktivitäten	Dieser Code wird vergeben, wenn eine Person Zeit, Geld und eigene Fähigkeiten investiert, um das Ausüben von gemeinschaftsbasierten Praktiken zu ermöglichen. Beispiele: Teilnahme an Arbeitsgruppen; Buchhaltung; technische Betreuung und Instandhaltung von Gerätschaften.
Ernährung	
Gärtnern für den Eigenbedarf auf Gemeinschaftsflächen	Zu unterscheiden vom Gemeinsamen Gärtnern

Name	Beschreibung
Gemeinsames Gärtnern im Gemeinschaftsgarten	Zu unterscheiden von Gärtnern für den Eigenbedarf
Gemeinsames Kochen und Essen	Sonderfall halböffentliche Räume wie Domagkpark-Kasino mit Essensservice: hier liegt die Abgrenzung zum Restaurantbesuch darin, dass ein eigener Beitrag zur Herstellung des Essens gegeben sein muss oder das Essen im Rahmen eines nachbarschaftlichen Events stattfindet. Wenn lediglich dort auf Bestellung gegessen wird, handelt es sich um einen gewöhnlichen Restaurantbesuch.
Käufergemeinschaften	Typischerweise Community Supported Agriculture
Kochen und Essen alleine in einem Gemeinschaftsraum	Einzelnutzung eines Gemeinschaftsraums zum Essen/Kochen. Zu unterscheiden vom gemeinsamen Kochen und Essen
Verschenken oder annehmen von Nahrungsmitteln zum Einzelverzehr	Bsp. Nachbar geht in Urlaub und verschenkt Milch; Eier aus dem Hühnerstall; Foodsharing
Freizeit und Sport	
Entspannen auf gemeinschaftlichen Flächen	Aktivitäten, in denen das Vergessen des Alltags, das Abschalten und Nichtstun zur Erholung im Vordergrund stehen.
Gemeinsamer Medienkonsum oder Livekonzerte	Wenn der passive Konsum von Medien oder Livekonzerten im Vordergrund steht ohne eigene aktive Beteiligung wird hier kodiert. Sowohl im Privatraum als auch auf Gemeinschaftsflächen
Gruppensport oder -körperertüchtigung auf Gemeinschaftsflächen	Alle sportlichen Aktivitäten, für deren Ausübung es der Mitwirkung Anderer bedarf. Volleyball, Yoga-Kurs mit Lehrerin.
Heimwerken, Basteln und Kunst in gemeinschaftlichen Anlagen	

Name	Beschreibung
Individualsport auf gemeinschaftlichen Sportanlagen oder -geräten	Bsp.: Trainieren im Fitnessraum. Slacklinern im Garten.
Musizieren und Singen auf Gemeinschaftsflächen	
Spielen und Toben in Gemeinschaftsbereichen	Bsp.: Kinder spielen im Toberaum.
Haushaltsorganisation	
Aufbewahren in einem gemeinschaftlichen Stauraum	Zu unterscheiden von privaten Stauräumen, wie eigenen Kellerabteilen.
Circulation of stuff	Fusionscode aus Codes zum Verschenken und Verkaufen von Dingen oder Essen
Gästebeherbergung in gemeinschaftlichen Gästezimmern	Buchen eines Gästezimmers zur Unterbringung von Freunden und Familie.
Gemeinsamer Waschgang mit Wäsche von Nachbarn	Wenn jemand eine Maschine anwirft und ein paar Sachen des Nachbarn mitwäscht
Gemeinschaftlicher Strombezug	Bsp.: Mieterstrom
Inanspruchnahme von gemeinschaftlichen Serviceleistungen	Angeboten vom Community Manager oder der Domagkpark Genossenschaft
Paketannahme	

Name	Beschreibung
Putzservice	
Reparaturservice	
Wäscheservice	
Körperhygiene und Wellness in gemeinschaftlichen Anlagen	Betrifft nur den Domagkpark und die dort vorhandenen Gemeinschaftsbäder.
Leihweise Nutzung von Haushaltsgegenständen in Kollektivverwaltung oder im Besitz einer Organisation	Konsumgegenstände, die nicht von Einzelpersonen besessen werden, sondern von einer Organisation verwaltet werden (Business to Consumer) oder im Kollektivbesitz sind. Bsp.: Drucker des Coworking-Spaces der Conciergerie Muc.
Nutzung von geliehenen Haushaltsgeräten und -gegenständen oder eigener Verleih P2P	Code, der angewandt wird für das Leihen zwischen Nachbarn, also Peer to Peer, bei dem der Gegenstand im Individualbesitz verbleibt.
P2P accommodation	AirBnB, Couchsurfing und co.
Verkaufen oder Kaufen von gebrauchten Konsumgütern	Reminder: Co-kodieren mit den entsprechenden Kategorien von geteilten Ressourcen.
Verschenken, übernehmen oder tauschen von gebrauchten Konsumgütern	Reminder: Co-kodieren mit den entsprechenden Kategorien von geteilten Ressourcen.
Wäsche waschen mit gemeinschaftlichen Waschmaschinen	

Name	Beschreibung
Mobilität	
Ausleihen einer Mobilitätskarte für ÖPNV	
Ausleihen eines Autos zur Individualnutzung	
Ausleihen eines Fahrrads	
Ausleihen eines Scooters	
Ausleihen oder Verleih eines Fahrrads P2P	Wenn sich Nachbarn untereinander Fahrräder leihen.
Ausleihen oder Verleihen eines Autos P2P	Abgrenzung zum Carsharing durch einen Verein oder ein Unternehmen
Fahrgemeinschaften	
Parkplatzmiete oder -vermietung, kostenlose Überlassung	
Sequential sharing	Fusionscode, theoretischer Code: Praktiken, die üblicherweise alleine und in Abfolge erfolgen. Bsp.: Ausleihen eines Autos zur Individualnutzung, Verschenken von Nahrungsmitteln zum Einzelverzehr, Wäsche waschen mit gemeinschaftlichen Waschmaschinen, Nutzung von geliehenen Haushaltsgeräten und -gegenständen oder eigener Verleih P2P, Gästebeherbergung in gemeinschaftlichen Gästezimmern
simultaneous sharing	Fusionscode, theoretischer Code: Praktiken, die üblicherweise in Gemeinschaft erfolgen. Bsp.: Versammlungen und Arbeitstreffen, Parties, Events und Feiern auf Gemeinschaftsflächen, Verabredete Treffen mit Freunden oder guten

Name	Beschreibung
	Bekanntes auf Gemeinschaftsflächen, Gemeinsames Gärtnern im Gemeinschaftsgarten, Gemeinsames Kochen und Essen, Fahrgemeinschaften.
Sozialleben	
Lockerer Beisammensein in größeren, offenen Gruppen	Begegnungen in offenen, auch größeren Gruppen, in denen nicht zwangsläufig jeder jeden kennt. Socialising, tratschen, abhängen, Leute kennenlernen, flirten. Der ungezwungene Austausch steht im Vordergrund. Im Unterschied zu Parties und Events gibt es allerdings keine Tendenz zur Entgrenzung und zum Exzess, und keinen besonderen Anlass.
Parties, Events und Feiern auf Gemeinschaftsflächen	Events und Parties, an denen alle Bewohner oder sogar Nachbarn im weiteren Sinne teilnehmen können.
Private Parties auf Gemeinschaftsflächen	Geschlossene oder halb-öffentliche Feiern, die davon leben, dass nicht jeder kommen kann, also auf Einladung basieren. Typischerweise eine Geburtstagsfeier
Verabredete Treffen mit Freunden oder guten Bekannten auf Gemeinschaftsflächen	Wird immer kodiert, wenn nicht eine Aktivität an sich (etwa Volleyball, musizieren), sondern der nicht näher definierte Austausch zwischen zwei oder wenigen enger vertrauten Personen im Vordergrund steht. Soziale Schließung, verabredete Treffen.
Versammlungen und Arbeitstreffen	Wenn sich Arbeitsgruppen treffen, bei Vollversammlungen oder ähnlichem, die organisierenden Charakter haben (nicht Parties oder Events) und auf Gemeinschaftsflächen stattfinden, wird unter Versammlungen und Arbeitstreffen kodiert. Zu unterscheiden von ermöglichenden Aktivitäten: hier wird kodiert, wenn ohne räumlichen Bezug von Mitarbeit in Arbeitsgruppen oder Beiträgen Einzelner zur Ermöglichung von Praktiken die Rede ist.
Geschichte, Akteure und Organisationsformen der Wohnprojekte	
Beschreibungen der Geschichte und Aufgaben von Akteuren	Sammelkategorie zur Geschichte und zur Mission von bestimmten Akteuren

Name	Beschreibung
Abricoop	
Association aux 4 Vents	
Conciergerie Domagkpark	
Domagkpark Verein	
Domagkpark-Genossenschaft	
Faire Ville	
Frauenwohnen	
Habicoop - accompagnatrice	
I-live	
Les Chalets	
Stadt München	
Wagnis	
Wogeno	
Bewohnerorganisation	Code für die Interaktion der Bewohner in Kommissionen und ähnlichen Gruppen
Entstehungsgeschichte der Projekte	Beschreibungen der Anbahnung der Projekte. Bsp.: Planungstreffen, Verhandlungen mit der Stadt über das Grundstück, Bewohnerauswahl.

Name	Beschreibung
Finanzierungsmodelle	Hier wird alles kodiert, was sich um die Finanzierung der Projekte insgesamt, aber auch die Finanzierung der Gemeinschaftsräume und Nebenkosten für Gemeinschaftsräume bezieht.
Unterstützungsleistungen von außen	Wenn eine Nachbarschaft von externen Organisationen Hilfe erhält - materieller, professioneller oder anderer Art - wird hier kodiert. Z.B.: Finanzielle Zuwendungen zum Kauf geteilter Gerätschaften, Mediation im Konfliktfall. Zu Unterscheiden vom Code "Service und Instandhaltung", der sich um die Pflege bestehender materieller Güter dreht.
Zum gemeinschaftlichen Wohnen allgemein, projektübergreifend	Hier kommen Statements zur Geschichte des gemeinschaftlichen Wohnens rein, die über einzelne Projekte hinausreichen.
Geteilte Ressourcen	
Außenbereiche	
(Innen)hof, Terrasse, gemeinsame Gartenanlagen	
Dachterrasse und Laubengang	
Nutzgarten inkl. Hühnerstall und Gewächshaus	
Sportanlage	
Gegenstände	
Kleidung	
Möbel	

Name	Beschreibung
Spiele, Bücher und Medien	
Werkzeug, Haushaltsgeräte oder -gegenstände	
Innenräume	
Co-working und Lernraum	
Eingangsbereich	
Fitnessraum	
Gästezimmer oder -appartement	
Gemeinschaftliches Esszimmer, Gemeinschaftsküche oder Partyraum	Code für Räume, deren vordefinierter Hauptzweck die Essenszubereitung und der -verzehr, sowie Feiern sind. Wichtigstes Beispiel: die Event-Kitchen in I-Live.
Gemeinschaftsbadezimmer und -sauna	
Geteilte Wohnflächen innerhalb einer Clusterfläche	Zumeist Gemeinschaftsküche oder Wohnzimmer
Hang out Raum	Code der spezifisch für den großen Gemeinschaftsraum bei I-live eingeführt wurde. Hat Ähnlichkeit zu "multifunktionalen Gemeinschaftsräumen" in dem Sinn, dass Nutzungen nicht vordefiniert sind, allerdings legt das Design und die Einrichtung des Raums eine bestimmte Nutzung nahe (ungezwungener Zeitvertreib) und lässt nur schwerlich eine ähnlich starke Anpassung (veränderte Bestuhlung, Abtrennung von Bereichen etc.) und Nutzungsvielfalt zu wie die multifunktionalen Gemeinschaftsräume.
Kinderspielzimmer	Zimmer, das spezifisch für Kinder gedacht ist.

Name	Beschreibung
Kreativraum	Malen und Kunst finden hier statt.
Multifunktionaler Gemeinschaftsraum	Räume, die bereits von ihren Designern für eine multifunktionalen Nutzung vorgesehen waren, werden hier kodiert. Oft heißen sie schlicht "Gemeinschaftsraum", im Gegensatz zu einem Waschraum oder einem Musikraum, bei dem die Hauptnutzungsform vorgegeben ist.
Musikraum	Raum, der zum Musizieren gedacht und entsprechend ausgerüstet ist.
Parkplatz	
Stauraum	Raum zum Lagern selten gebrauchter Gegenstände.
Toberaum	Raum, in dem üblicherweise nicht ruhig gespielt wird, sondern körperlich anstrengenden Tätigkeiten nachgegangen wird wie Trampolin springen oder klettern.
Versammlungs- und Veranstaltungsraum	Raum, dessen vordefinierter Hauptzweck das Abhalten von organisierten Versammlungen wie Arbeitsgruppentreffen oder Vollversammlungen sowie von Veranstaltungen wie Konzerten ist.
Verschenk- und Tauschregal oder -tisch	Regal oder Tisch, der in einem öffentlichen Bereich eines Gebäude steht und wo Bewohner nicht mehr benötigte Gegenstände oder Kleidung hinterlegen können.
Waschraum oder -cafe	Hinweis: Wenn im Waschraum nichts anderes getan wird als Wäsche zu waschen wird nicht zusätzlich "Gegenstand" kodiert für die Waschmaschine.
Werk- Näh- und Bastelraum sowie Atelier	Jede Art von Kreativräumen mit materieller Gestaltung
Mobilitätsträger und -services	
Auto	

Name	Beschreibung
Räder	
Scooter	
Nahrungsmittel	
Service provider	
Bauernmarkt	
Community Management	
Quartiersgenossenschaft inkl. Conciergerie	
Unternehmen	
Vereine	
Nachbarschaftsbeziehungen und Viertel	
(fehlende) wechselseitige Hilfe und Unterstützung	Aussagen zur Fürsorge unter den Nachbarn. Etwa Kinderbeaufsichtigung, Einkäufe erledigen für die kranke Nachbarin etc.
Bezug zum weiteren Viertel und seinen Bewohnern	Sammelcode, in dem aktuell sowohl Aussagen zu den Bewohnern als auch zur Architektur und Atmosphäre des weiteren Viertels kodiert werden. Bei Bedarf könnte der Code weiter ausdifferenziert werden.
Charakterisierung der Sozialkontakte	Sozialkontakte sind solche Austauschmomente mit Nachbarn, die über das Grüßen hinausgehen, d.h. längeres Gespräch, gemeinsame Aktivität, oder anlassbezogene Interaktion wie Ausleihen eines Gegenstandes

Name	Beschreibung
gering	Geringe Sozialkontakte werden kodiert, wenn jemand weitgehend zurückgezogen lebt und nur vereinzelt Austausch mit Nachbarn hat.
Intensiv	Intensiv werden die Sozialkontakte eines Befragten bezeichnet, der berichtet sehr regelmäßig Begegnungen mit zahlreichen Nachbarn zu haben, die über das Grüßen hinausgehen: längere Gespräche oder gemeinsame Aktivitäten.
mittel	Gelegentliche, aber nicht tägliche Kontakte; Kontakte auf eine kleinere Anzahl an Leuten beschränkt.
Konflikte und Spannungen	Code, der jegliche zwischenmenschliche Schwierigkeiten zwischen Nachbarn zusammenfasst, solche in Bezug auf gemeinschaftsbasierte Konsumpraktiken, aber auch darüber hinaus.
neue Bekanntschaften durch die Nachbarschaft	Code wird angewandt, wenn Befragte berichten nach ihrem Einzug in ihre aktuelle Wohnung neue Bekanntschaften gemacht zu haben.
Praxisbündel und - Beziehungen	
Konkurrenz zwischen Praktiken	
Konkurrenz unter Teilpraktiken	Wenn etwa die Bohrmaschine sowohl P2P unter Nachbarn verliehen wird als auch in einem B2C-Modell mit einem Anbieter wie der Viertelgenossenschaft, wird hier kodiert.
Konkurrenz zwischen Teilpraktiken und konventionellen Praktiken	Wenn zwei ähnliche Praktiken sich im Wettstreit befinden: Bsp. Privatauto-Nutzung oder Carsharing.
Gewinner nicht bestimmbar	Wenn aus einer Aussage nicht zweifelsfrei hervorgeht, welche Praktik attraktiver erscheint.
konventionell im Vorteil	Wenn ein Befragter eine konventionelle Praktik (etwa Mobilität mit dem Privatauto) gegenüber den sharing-Alternativen (etwa Carsharing) attraktiver bewertet, wird hier kodiert.

Name	Beschreibung
Teilpraktik im Vorteil	Wenn eine Sharing-Praktik als attraktiver bewertet wird als eine konventionelle Praktik (etwa Carsharing im Vergleich zu Mobilität mit dem Privatauto), wird hier kodiert.
Lebensalltagsmuster	
Alltagsverdichtung und Fremdbestimmung	Wenn von wenig Freiraum, Abhängigkeiten, wenig Zeit und knappen Zeitfenstern berichtet wird, wird hier kodiert
Asynchrone Muster mit anderen Praktikern	Wenn sich Praktiker in ihren zeitlichen Mustern schwer angleichen lassen, wird hier kodiert.
Kurzfristorientierung	Wenn Befragte berichten, dass sich ihre Lebensumstände kurzfristig geändert haben/ändern könnten, wird hier kodiert.
Langfristorientierung	Wenn Befragte in langen Zeitspannen ihr Leben planen und festgelegt sehen, wird hier kodiert. Etwa wenn gesagt wird, dass man sich nichts vorstellen könne, was zu einem Auszug führen könnte.
raum-zeitliche Ausdehnung	Tendenz von Praxismustern, die über den eigenen Wohnort hinaus regional oder überregional ausgreifen. Z. B. viele Dienstreisen, Arbeitsort weiter entfernt, am Wochenende stets unterwegs, etc. oder aber auch bei Freizeitaktivitäten solche, die über das eigene Viertel hinausgreifen
raum-zeitliche Konzentration	Praxisbündel, die zentriert sind auf den eigenen Wohnkomplex und das Viertel, wo also viele Aktivitäten (Arbeit, Freizeit, Haushaltsorganisation) in räumlicher Nähe stattfinden.
Synchronisation mit anderen Praktikern	Wenn Praktiker sich in ihren Zeitstrukturen sehr ähnlich sind und somit eine zeitliche Überschneidung beim Ausüben von Praktiken stattfindet, wird hier kodiert.
Zeitsouveränität	Relativ unabhängige, freie Gestaltung der Tagesabläufe.
Synergien zwischen (Teil)Praktiken	Wenn Praktiken zusammenkleben und sich gegenseitig verfestigen, wird hier kodiert.

Name	Beschreibung
Praxiselemente	
Fähigkeiten	
Anpassung und Improvisation	Dieser Code wird verwendet, wenn reagiert werden muss auf unerwartete Umstände, wenn Toleranz und spontane Reaktion gefragt sind, um eine Praktik durchführen zu können. Typischstes Beispiel: Anpassung an die Verfügbarkeiten der geteilten Waschmaschinen.
Koordinierung und Abstimmung mit Anderen	Code wird verwendet, wenn Interaktion mit anderen Nachbarn nötig ist (Unterschied zum Code Anpassung und Improvisation), um gemeinschaftsbasierte Praktiken zu realisieren. Zu unterscheiden vom Code Selbstorganisation und Zeitmanagement, der das Austarieren unterschiedlicher Aktivitäten einer einzelnen Person betrifft.
körperliche Fähigkeiten und Fertigkeiten	Dieser Code wird verwendet, wenn das körperliche Können thematisiert wird: Beispiele: Körperkoordination beim Radfahren, Fitnesszustand für das Trainieren im gemeinschaftlichen Fitnessraum, Kochkünste, handwerkliche Stärken
Selbstorganisation und Zeitmanagement	Dieser Code wird für das Austarieren unterschiedlicher Aktivitäten und deren zeitlichen Strukturen bei einer einzelnen Person verwendet, nicht für die Koordinierung mit anderen Bewohnern.
Social skills	Klugheit und Empathie im Umgang mit anderen
Fehlende Verfügbarkeit eines Praxiselements	Hier wird codiert, wenn ein Element zur Integration einer Praxis in Performanz fehlt. Etwa die Waschmaschine zum Waschen oder die Fähigkeiten zum Radfahren. Auch wird hier codiert, wenn ein materielles Element durch fehlende Instandhaltung/Reinigung in seiner Nutzung so eingeschränkt ist, dass Bewohner von seiner Nutzung absehen.
Material	

Name	Beschreibung
Ambiente und Ausstattung	Im Sinne von Schatzkis "prefigurations": Das materielle Arrangement aus verschiedenen Objekten und die Pflege/Instandhaltung von materiellen Elementen macht Praktiken leichter/schwerer, schöner/weniger schön etc. Fokus auf der Gesamtheit der materiellen Elemente, um Gegensatz zum Code "Rolle eines einzelnen Elements"
Digitale Austausch und Buchungsplattformen	Digitale Austauschplattformen mit einer "device"-Funktion im Sinne von E. Shove. Erleichtern oder ermöglichen eine Praxis, ohne elementarer Bestandteil der Praxis selbst zu sein.
Raumgröße	Hier wird kodiert, wenn die Größe eines Raumes ausschlaggebend für das Erleben einer Praktik ist: zu klein (Bsp.: der eigene Balkon im Vergleich zur Dachterrasse), zu groß (etwa die Eventküche für ein Essen mit 4-5 Freunden).
Räumliche Anordnung, Nähe und Zugänglichkeit	Code, der die räumliche Positionierung eines Raumes/einer anderen Ressource (etwa ein Regal) und seine Zugänglichkeit beschreibt. Liegt ein Raum an einem attraktiven, zentralen Ort im Gebäude oder im hintersten Winkel, wo man nie vorbeikommt? Grenzt der an andere attraktive Bereiche wie eine Terrasse an? Ist er barrierefrei zugänglich? Ebenfalls "Greifbarkeit" von anderen Ressourcen, Bsp.: Verkaufen v. Gegenständen an Nachbarn in unmittelbarer Nähe im Viertel.
Rolle eines einzelnen materiellen Elements	Hier wird codiert, wenn die Rolle einzelner materieller Elemente für eine Praxis beschrieben wird: der Buchungskalender zum Mieten eines Raumes, der Billardtisch als Treffpunkt, das Münzsystem an der gemeinschaftlichen Waschmaschine etc.
Meanings	
Ausgelassenheit und Entgrenzung	Wenn bewusst nach einem Vergessen und hinter-sich-Lassen des Alltags gesucht wird, beim "Vorglühen", bei Parties ohne Ende mit Lärm, etc.
Entdecken, Experimentieren und Lernen	Wenn die Freude am „Neuen“, das Ausprobieren, das Lernen von Anderen usw. zum Ausdruck kommt.
Extended home	Platz sparen daheim Platzverweiterung durch die Möglichkeiten der Nachbarschaft, die zu einem Gefühl der anlassbezogenen Erweiterung der eigenen Wohnfläche/Ressourcen führen

Name	Beschreibung
Freundschaft und Beziehungspflege	Dieser Code wird verwendet, wenn bei einer Praxis das Aufbau oder die Pflege von bestehenden menschlichen Beziehungen im Vordergrund steht, im Gegensatz zum diffuseren Code des Gemeinschaftsgefühls.
Geld sparen	Wenn ökonomische Vorteile eine Praktik betont werden. Beispiel: Kleidertausch, um nicht für viel Geld neu kaufen zu müssen.
Gemeinschaftsgefühl und Geselligkeit	Wenn das Erleben der Gemeinschaft im Gegensatz zur Anonymität und zum Alleinsein im Vordergrund steht, egal ob eine enge oder flüchtig wahrgenommene Gemeinschaft, wird hier codiert.
Gemütlichkeit, Komfort und Ästhetik	Wenn das ästhetische Empfinden oder die Gemütlichkeit wichtiger Bestandteil einer Praktik sind, wird hier codiert.
Gesundheit	Hier werden Textstellen codiert, bei denen es um die Gesundheit des Sprechers geht. Bsp.: bei Gemeinschaftsessen wird moniert, dass andere Familien nicht genug Gemüse kochen.
Hygiene	Beschreibungen von Schmutz, vermuteten Krankheitserregern usw. Beispiel: Misstrauen, ob gemeinschaftliche Waschmaschinen „Bakterienschleudern“ sein könnten.
Innere Befriedigung	Wenn jemand bei einer Praktik innerlich berührt wird, in einer Tätigkeit aufgeht, Spaß und Freude empfindet, wird hier codiert.
Intimität, Privatheit, Datenschutz	Wenn der Schutz der Privatsphäre als wichtiges Element durchscheint. Beispiel: Aufhängen von Unterwäsche in geteilten Trockenräumen wird als unangenehm empfunden.
Leute kennenlernen	Wenn das Knüpfen neuer Kontakte als wichtiges Ziel einer Praktik genannt wird, wird hier codiert.
Nachhaltigkeit und Suffizienz	Wenn es um die Reduktion des Ressourcenverbrauchs oder schädlicher Emissionen geht, wird hier codiert. Inkludiert werden hier auch Textstellen zur Langlebigkeit und Qualität von Produkten.
Practicability	Wenn es darauf ankommt, dass eine Praktik möglichst einfach, unkompliziert, zeitsparend, effizient durchführbar ist. Ermöglicht z. B. durch eine breite Palette an verfügbaren Fahrzeugen in der Nähe (Carsharing), eine gut

Name	Beschreibung
	aufgeräumte und sachdienliche Küche oder Werkraum, räumliche Nähe und Erreichbarkeit eines Verschenkgregals o.ä.
Ruhe und Konzentration	Wenn Befragte berichten, dass sie bei einer Praktik v.a. ungestört sein wollen, wird hier kodiert.
Selbstbestimmtheit	Wenn die eigene Kontrolle und das eigene Gestalten betont wird, wird hier kodiert. Bsp.: meinen Saustall selber putzen, Wäsche will ich selber erledigen etc.
Sicherheit und körperliche Unversehrtheit	Hier wird kodiert, wenn es das Sicherheitsgefühl der Menschen geht oder Gefahren für das eigene Wohlbefinden. Bsp.: Angst vor Diebstahl bei teilöffentlichen Räumen. Oder: gefahrenloses Spielen der Kinder im Hof statt gefährlicher Weg zum Spielplatz.
Solidarität, Hilfe und Gemeinwohl	Im Gegensatz zum Code Gemeinschaftsgefühl geht es bei diesem Code eher um konkrete Implikationen von Gemeinschaft: gegenseitige Unterstützung, sei es materiell, mit Wissen oder emotional.
Sonstiges	
Spontanität und Ungezwungenheit	Zu kodieren, wenn Spontanität, unreguliertes, plötzliches oder unerwartetes Erleben als Wert an sich erlebt und hervorgehoben werden. Zu unterscheiden von Flexibilität bei der Einordnung im Tagesablauf.
Zerstreuung und Abschalten	Dieser Code ist anzuwenden, wenn der Kopf eine Pause kriegen soll, etwa beim Chillen auf der Dachterrasse oder beim gemeinsamen Ansehen von Fernsehshows. Auch wenn das seelische Wohlbefinden betont wird, wird hier codiert.
Meta meaning codes	Meta-Meaning codes entstanden für die Typenbildung von Praktiken
Community	Fusionscode aus den Codes Freundschaft und Beziehungspflege, Leute kennenlernen, Solidarität, Hilfe und Gemeinwohl, Gemeinschaftsgefühl und Geselligkeit.
Convenience	Fusionscode aus den Codes Practicability, Spontanität und Ungezwungenheit und Extended home.

Name	Beschreibung
Joy and Wellbeing	Fusionscode aus Innere Befriedigung, Ausgelassenheit und Entgrenzung, Zerstreuung und Abschalten, Gemütlichkeit, Komfort und Ästhetik.
Controlling	Fusionscode aus den Codes Sicherheit und körperliche Unversehrtheit, Intimität, Privatheit und Datenschutz sowie Selbstbestimmtheit.
Regeln	Informelle oder formelle Handlungserwartungen
Ordnungs-, Sicherheits- und Hygieneregeln	Regeln darüber, wie eine Ressource zu nutzen ist im Sinne ihrer Erhaltung, darüber, wie sie hinterlassen werden soll zur Nachnutzung; darüber, dass niemand gefährdet wird.
Pflichten für die Gemeinschaft	Regeln des Engagements zur Ermöglichung gemeinschaftlicher Konsumformen. Bsp.: jeder ist mal dran mit Kochen; Teilnahme an Arbeitstreffen wird erwartet, wenn man eine Ressource nutzen will usw.
Regeln der Rücksichtnahme	Im Sinne von: die eigene Freiheit nicht zum Schaden der Freiheit anderer ausdehnen. Bsp.: Wäsche nicht in der Maschine liegen lassen; beim Klettern einen Blick auf Leute unter einem haben etc.
Regeln von Öffentlichkeit und Privatheit	Regeln die das Austarieren zwischen privater Lebenssphäre und öffentlichem Leben betreffen. Bsp.: Ist es ok den Gemeinschaftsraum für private Feiern zu nutzen mit „externen“ Freunden. Ist es ok beim Nachbarn zu klopfen und ihn zu stören um zwei Eier fürs Kochen auszuleihen?
Zahlungsverpflichtungen	hier werden typischerweise Diskussionen von zu teuer, preiswert etc. kodiert
Zugangsregeln	Zeitliche Beschränkungen für eine Praxis; Beschränkungen aufgrund einer Mitgliedschaft; Notwendigkeit einer Buchung oder Kautions; etc.
Service und Instandhaltung	Code der zur Aufrechterhaltung der Verfügbarkeit von materiellen Elementen benutzt wird, also v.a. Reparatur- und Reinigungsdienstleistungen. Zu unterscheiden von eigener Consumption work, also ermöglichenden Aktivitäten.

Name	Beschreibung
Stimmige oder attraktive Konfiguration	Wenn verschiedene Element sich im Erleben von Befragten zu einer sinnhaften Konstellation vereinigen lassen, wird hier codiert.
Unstimmige oder unattraktive Konfiguration	Wenn verschiedene Element sich im Erleben von Befragten nicht zu einer sinnhaften Konstellation vereinigen lassen, wird hier codiert.
Recruitment and defection	Aussagen dazu wie Bewohner begannen oder aufhörten eine Praktik „aufzuführen“
Charaktereigenschaften	Wenn die Attraktivität einer Praktik für eine Person mit Persönlichkeitsmerkmalen wie introvertiert/extrovertiert oder zurückgezogen und häuslich erklärt werden, wird hier kodiert.
Embodiment, Erfahren, Erleben	Erzählungen, die das konkrete Kennenlernen und das Etablieren einer Praktik beschreiben.
Früher und heute im Vergleich	Vergleiche von Praktiken vor und nach dem Einzug ins neue Viertel, aber auch im weiteren Sinn der Lebensorganisation (mehr im Viertel, mehr Alltagsflexibilität etc.)
Gender	Beschreibungen geschlechtsspezifischer Unterschiede bei der Rekrutierung in einer Praktik.
Neu-Rekrutierung in einer Praktik	Wenn eine Praktik erst in der neuen Umgebung begonnen wurde, zuvor nicht Teil des Lebens eines Befragten war.
Rekrutierungsgrad unter den Bewohnern	Dies bezieht sich auf gemeinschaftsbasierte Praktiken insgesamt, nicht einzelne.
Hoch	Wenn ein Befragter den Eindruck erweckt, dass seine Nachbarn in der Mehrzahl in gemeinschaftsbasierten Praktiken engagiert sind, wird hier kodiert.
Mittel	Wenn nach Aussage von Befragten weniger als die Hälfte, aber dennoch ein beträchtlicher Teil (>20%) sich in gemeinschaftsbasierten Konsumpraktiken engagieren, wird hier kodiert. Hier wird auch das "Drittel-Modell" im Domagkpark (1/3 sehr Engagierte, 1/3 Gelegenheitsnutzer, 1/3 Zurückgezogene) kodiert.
nicht eindeutig interpretierbar	Wenn der Rekrutierungsgrad unklar bleibt.

Name	Beschreibung
Niedrig	Wenn der Eindruck vermittelt wird, dass nur ein sehr kleiner Teil (<20%; "immer dieselben", "nur 10 Leute") in gemeinschaftsbasierten Praktiken engagiert ist, wird hier kodiert
Vorerfahrung mit gemeinschaftlichen Konsumpraktiken	Wenn eine Aktivität schon vor dem Einzug in das neue Viertel praktiziert wurde, wird hier kodiert.
Sonstige relevante Aspekte	
Engagement und Eigenverantwortung	Einordnungen zum aktiven Mitwirken der Bewohner zum gelungenen gemeinschaftlichen Wohnen. Zu trennen von ermöglichenden Aktivitäten, die unmittelbar im Zusammenhang mit Praktiken zu sehen sind. Typische Beispiele: großer Einsatz in Arbeitsgruppen zur Vorbereitung von Räumen; Eigeninitiative zum Lösen von Problemen etc.
hoch	Die Einordnung bezieht sich auf die subjektive Einschätzung der Befragten.
mittel	Die Einordnung bezieht sich auf die subjektive Einschätzung der Befragten.
niedrig	Die Einordnung bezieht sich auf die subjektive Einschätzung der Befragten.
persönliches Lernen	Hier geht es um die Entwicklung der eigenen Persönlichkeit durch das Leben in der Nachbarschaft.
Vandalismus, Gewalt und asoziales Verhalten	Mutwillige Zerstörung, kleinkriminelle Handlungen, rücksichtsloses Verhalten etc. Dazu gehört das Zurücklassen von Gemeinschaftsflächen in verwerflichem Zustand, mangelhafte Reinigung von genutzten Waschmaschinen oder auch Diebstahl
Wohnkarriere und Wohnsituation	
Auszugsumstände oder -erwägungen	Wenn Befragte bereits ausgezogen sind und über die Beweggründe des Auszugs berichten oder aber wenn Befragte darüber sinnieren, weshalb sie in der Zukunft einmal ausziehen könnten aus ihrer aktuellen Wohnung, wird dieser Code angewandt.

Name	Beschreibung
Beschreibungen der Wohnung	Beschreibungen der Qualitäten der Wohnung (Architektur, Raumaufteilung, Ausrichtung, Miete etc.) im Gegensatz zu Beschreibungen des Gebäudes/des Gebäudekomplexes
Frühere Wohnsituation im Vergleich	Erzählungen zur vorherigen Wohnsituation und Vergleiche zur heutigen. Beschreibungen auf der Ebene des allgemeinen Rahmens (Mehrfamilienhaus mit 6 Parteien etc.), nicht spezifisch hinsichtlich gemeinschaftlicher Konsumpraktiken, die unter "Vorerfahrungen mit gemeinschaftsbasierten Konsumpraktiken" kodiert werden.
Wohnanlage und -konzept	
Bewertungen durch Angehörige und Freunde	Beobachtungen und Rückmeldungen von Verwandtschaft, Familie und Freunden zur eigenen Wohnsituation. Ziel: Hinweise auf potentielle Verbreitungschancen der Wohnform sammeln.
Charakterisierungen der Nachbarn in der Anlage	Sozioökonomische, soziokulturelle und demographische Informationen zu den Nachbarn, NICHT zu ihren Praktiken
Charakterisierungen der Wohnanlage und des Konzepts	Beschreibungen des Erlebens der Wohnanlage und des Konzepts dahinter, also Architektur, Atmosphäre, Zielgruppen etc. NICHT Bewertungen der eigenen Wohnung. Auch NICHT Beschreibungen zur internen Organisation der Bewohner oder Finanzierungsmodelle. Für diese gibt es eigene Codes unter "Geschichte, Akteure und Organisationsformen."
Potentielle Zielgruppen	
Ältere und Rentner	
Familien	
Junge Berufstätige	
Migranten	
Paare ohne Kinder	

Name	Beschreibung
Verbesserungsideen	Ideen wie die Nachbarschaft verbessert werden könnte, nicht nur in Bezug auf gemeinschaftliche Konsumpraktiken.
Zeitpunkt und Begleitumstände des Einzugs	Code zu Beschreibungen der Lebenssituation der Befragten vor dem Einzug und der Erwägungen und Erwartungen an die neue Nachbarschaft.
Zeitliche Muster einer Praktik	
Abweichung vom Tagebuch	Wenn im Gespräch eine Praktik erwähnt wird, die im Tagebuch gar nicht festgehalten wurde oder wenn die Häufigkeit einer Praktik als anders eingeschätzt wird als dies das Tagebuch nahelegt, wird hier kodiert.
Häufigkeit	
Beabsichtigte zukünftige Nutzung	Wenn Befragte angeben eine Praktik zukünftig ausprobieren zu wollen
Häufig	Wenn Befragte angeben eine Tätigkeit als oft, öfters, häufig, täglich, mehrmals die Woche auszuüben, wird der Text hier korrigiert
Häufig oder manchmal	Fusionscode aus häufig und manchmal
Manchmal	spricht jemand von "ab und zu", "gelegentlich", "manchmal", "von Zeit zu Zeit", "dann und wann", "ein paar Mal" wird hier kodiert.
nicht eindeutig interpretierbar	Wenn die Häufigkeit unklar ist
Nie	
Selten	Wenn berichtet wird: "nur ein oder zweimal", "nicht so oft", "lange nicht mehr gemacht", "kaum" oder "wenige Male", wird hier kodiert. Nötig ist auch eine relative Einschätzung: Geburtstagsfeiern kann man nur einmal feiern pro Jahr, wer dies in zwei Jahren einmal geschafft hat, ist dann eher als manchmal denn als selten einzustufen.

Name	Beschreibung
Selten oder nie	Fusionscode aus selten und nie
Wandel einer Praktik seit Einzug	Wenn sich Elemente einer Praxis verändert haben, wird das hier kodiert. Ebenso, wenn berichtet wird, dass die Intensität, die Häufigkeit oder die zeitliche Anordnung sich verändert haben.
Zeitliche Anordnung	
abends	
flexibel	Wenn eine Praktik zu sehr unterschiedlichen Tagen und Uhrzeiten stattfindet wird hier kodiert.
Geburtstage - Sondertage	Sondertage sind z.B.: Silvester, Halloween, Thanksgiving
saisonal	Nur zu bestimmten Jahreszeiten, etwa Dachterrasse nicht im Winter
Starker Wiederholungscharakter	Wenn eine bestimmte Tätigkeit vorhersagbar immer um eine bestimmte Uhrzeit, an einem bestimmten Wochentag oder etwa in einem bestimmten Rhythmus (1x/Monat) wiederkehrt, wird hier kodiert.
tagsüber	
Wochenende	Sonderfall I-Live: wenn die Party schon am Donnerstag Abend das Wochenende einläutet, wird hier kodiert.
wochentags	

Annexe 4 : study participants

Germany

Case study	Pseudonym	Age	Gender	Household composition	Employment status	Study phase	
Domagk-park	Becker	40-60	male	couple with children	working	diaries	
	Fichtner	60 +	female	single household	retired	expl. interviews	
	Gruschel	40-60	female	couple with children	working	diaries	
	Hashemian	60 +	female	couple without children	retired	diaries	
	Kehrer	40-60	male	couple with children	working	expl. interviews	
	Kotting-Uhl	30-40	male	couple with children	working	diaries	
	Müller	60 +	male	single household	retired	diaries	
	Ruffer	60 +	female	single household	retired	diaries	
	Schuster	40-60	female	single household	working	expl. interviews	
	Sommer	30-40	female	couple with children	working	diaries	
	Stamm	30-40	male	couple with children	working	expl. interviews	
	Campus Gardens	Alexa	20-30	female	single household	studying	expl. interviews
		Altmeier	20-30	female	single household	other	expl. interviews
Bauer		20-30	male	father with child	studying	diaries	
Bommer		20-30	female	single household	studying	diaries	
do Santos		30-40	male	couple without children	working	diaries	
Eichel		20-30	female	single household	working	diaries	
Gärtner		20-30	male	single household	working	diaries	
Hakimi		20-30	female	single household	working	diaries	
Klotz		20-30	male	single household	studying	diaries	
Kohler		20-30	male	single household	other	diaries	
Rosenkohl		20-30	male	single household	working	expl. interviews	
Yildirim		20-30	female	single household	studying	diaries	
France							
Aux 4 Vents	Ambroso	40-60	female	single household	working	expl. interviews	
	Bartiaux	40-60	female	single household	working	expl. interviews	
	Berthonnet	30-40	female	single household	working	expl. interviews	
	Boulangère	60+	female	single household	retired	diaries	
	Chevalier	40-60	female	single household with children	working	diaries	
	Drôle	60+	female	single household	retired	diaries	
	Dupont	60+	female	single household	retired	diaries	
	Etzeberria	40-60	female	couple with children	working	diaries	

Fort	40-60	male	couple without children	missing	expl. interviews
F. Merlot-Thellier	30-40	female	couple with children	studying	diaries
G. Merlot-Thellier	30-40	male	couple with children	working	diaries
Heureuse	40-60	female	single household with children	other	diaries
Jeanne	60+	female	single household	retired	expl. interviews
Kriek	40-60	male	single household	working	diaries
Lucienne	30-40	female	couple with children	working	diaries
Martin	40-60	male	couple with children	working	expl. interviews
Martini	40-60	female	couple with children	working	diaries
Sautieff	30-40	female	single household with children	other	diaries

Annexe 5: conference paper “recent dynamics of everyday sharing among neighbours in France and Germany”

Paper presented at the 2nd International workshop on the Sharing Economy, Paris, 28-29 January 2016



RECENT DYNAMICS OF EVERY DAY SHARING BETWEEN NEIGHBOURS IN FRANCE AND GERMANY

2nd International workshop on the Sharing Economy, Paris, 28-29 January 2016

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KEYWORDS

Every-day sharing, neighbours, France, Germany, cohousing

ABSTRACT

This paper summarises major results from research on the every-day sharing of goods and services between neighbours. Based on a total of 31 interviews with housing companies and associations, real estate developers, cities and city networks, cohousing activist associations, architectural companies, NGOs, think tanks and research institutions in France and in Germany, it discusses three trends in both countries: 1) a growing institutionalisation of classical cohousing communities 2) service-oriented “top-down” offers for sharing without previous participation of residents 3) collaborations between neighbourhood groups and actors from the housing market, namely housing companies, real estate developers and investors. I will end the paper by some tentative reflections on how these developments might be interpreted in the lenses of the Multi-Level-Perspective and its conceptualisation of change as an outcome of interactions between dominant socio-technical regime structures, emerging alternative niche practices and large scale “landscape” developments.

Very first draft. Please do not cite and spread without prior author agreement!

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1 Introduction

Most of the debates around Collaborative Consumption (CC) deal with the strong dynamics of peer-to-peer online platforms such as Airbnb, Zilok and Blablacar. Mobile technology and social internet are regarded as the main elements which have enabled the sharing of products (c.f. Botsman and Rogers, 2011; Martin, 2016; Pick, 2012; Zervas et al., 2015), which used to be under-utilised goods in private households, such as cars, tools and guest rooms. While some of these platforms have been heavily criticised for the commercialisation of previously free goods (such as hospitality) and the “sharing washing” of conventional services (e.g. guest room services and taxi rides) as well as the potential “uberisation” of work force, (c.f. Cagle, 2014; Jacquin, 2015; Lobo, 2014), this strong emphasis on ICT technologies has also led to a remarkable ignorance of other, small-scale, mostly offline every-day sharing forms.

Responding to this shortcoming, I want to highlight in this paper recent dynamics of sharing in and around the home in France and Germany, comprising practices such as community gardens, shared guestrooms, kitchens, party rooms, laundry rooms, craft rooms, and shared mobility. Building on ongoing research, I present first results on three recent trends in both countries: 1) an increasing institutionalisation of self-organised cohousing groups, despite clear limitations of this living form; 2) service-based sharing experiments offered by real estate developers or housing companies without prior participation of future residents and 3) a growing number of sharing forms arising from collaborations between groups of neighbours and traditional actors in the housing markets, notably real estate developers and housing companies. I will end the paper by some tentative reflections on how these developments might be interpreted in the lenses of the Multi-Level-Perspective and its conceptualisation of change as an outcome of interactions between dominant socio-technical regime structures, emerging alternative niche practices and large scale

“landscape” developments. Before elaborating on the aforementioned dynamics I will first shortly present the applied methodology.

2 Methodology

In methodological terms, this study draws on findings from a documentary analysis on the one hand, and a total of 31 semi-structured interviews with stakeholders from the housing sector in both countries on the other hand. The interviewees were selected for their overarching perspective on “the home” and/or the influence their organisations exert on the residential sector. They represent housing companies and associations, real estate developers, cities and city networks, cohousing activist associations, architectural companies, NGOs, think tanks and research institutions (see table next page). I aimed to conduct similar numbers of interviews and chose comparable organisations in both countries. However, the reluctance/unavailability of some potentially insightful interviewees led me to adapt my panel in some cases. Furthermore, I also had to account for the particular situations on the housing markets of the two countries. For instance, there is no German network of cities for the support of cohousing and I hence interviewed a representative from one of the most prominent cities for cohousing in Germany, Tübingen.

The interviews lasted between 30 and 140 minutes and took place from June 2015 to January 2016. I followed an identical interview guideline in the two countries. However, according to the interviewee and his/her organisation, special emphasis was given to some aspects, while others were given comparably less attention.

France		Germany	
Name of the organisation	Type of organisation	Name of the organisation	Type of organisation
Nexity	Real estate developer	LBBW Immobilien Capital GmbH	Real estate developer
EIFFAGE	Real estate developer	CG Group	Real estate developer
EcoHabitat groupé	Cohousing association	GSW/Deutsche Wohnen AG	Housing company
Coodin'action des Associations de l'Habitat Participatif	Cohousing association	Forum Gemeinschaftliches Wohnen	Cohousing association
Union Social pour l'Habitat (USH)	Social housing association	Bundesverband deutscher Wohnungs- und Immobilienunternehmen (GDW)	Housing companies association
Association des responsables de copropriété (ARC)	Condominium association;	Verband privater Bauherren	Homeowners association
L'Association des Maires de Grandes Villes	City association	Deutscher Städtetag	City association
Réseau national des collectivités pour l'Habitat Participatif/ Ville de Strasbourg, Direction de l'urbanisme, de l'aménagement et de l'habitat	City network to support cohousing/City of Strasbourg	Stadt Tübingen	City
Plan Urbanisme Construction Architecture (PUCA)	Research Agency	Bundesinstitut für Bau-, Stadt- und Raumforschung (BBSR), Bundesamt für Bauwesen und Raumordnung	Federal research institute on spatial and urban affairs
Ministère de l'Environnement et Développement Durable - Direction de l'habitat, de l'urbanisme et des paysages	Ministry	Bundesministerium für Umwelt, Naturschutz, Bau und Reaktorsicherheit (BMUB)	Ministry
Conseil d'Architecture, d'Urbanisme et de l'Environnement du Bas-Rhin (CAUE 67)	Public consultancy body	Wohnbund e. V./WOGENO	Association for new living forms/Cooperative Housing Company
CLCV	Consumer association	Deutscher Mieterbund / Berliner Mieterverein	Tenants Association
Ouishare France	Non-Governmental Organisation	OuiShare Germany	Non-Governmental Organisation
Futurable	Think Tank	BauWohnberatung Karlsruhe	Architectural company
		werk.um	Architectural company
		Montag Stiftung	Foundation for urban transformation

3 Self-organised cohousing groups

Cohousing consists of groups of households which have autonomous housing units with own bathrooms and kitchen, but share some spaces, products or services, most typically large kitchen and dining rooms, but also guest rooms, gardens, craft rooms, cars, or even saunas (Vestbro and Horelli, 2012). It has its origins in the early 20th century in Sweden, Denmark and the Netherlands and then spread to other European countries such as Germany and France (Meltzer, 2005). Many early cohousing projects in both countries have been implemented in more or less explicit opposition to standard housing as well as the traditional actors of the housing market and were conceived of as alternatives forms of living. Self-management and non-hierarchical participatory decision-making are hence often considered as guiding principles of cohousing communities (McCamant and Durrett, 1994; Meltzer, 2005; Iorio, 2013: 131-132)

Typically, such self-organised groups jointly plan their future homes, need to find agreements on an appropriate juridical form (e.g. cooperative or individual ownership), on the financial contributions of each party, as well as on the rules regarding the moving in or out of households; they have to find banks lending them money for purchasing land or real estate; and of course they need to get organised the daily community life with shared rules and commitments (Jarvis, 2011; Ruiu, 2015). All of this is characterised by many interviewees as “time-consuming”, “constraining”, “complicated” and as “tiresome”, which leads one French interviewee to conclude that “cohousing is not for everyone. You really need to want it.” Several experts expect it hence to remain “a niche phenomenon” or “marginal”.

Nevertheless there is a growing number of planned or implemented cohousing projects in both countries, which is related to an increased institutionalisation of cohousing as a living form. It is fair to say that the institutionalisation of cohousing in Germany is somewhat further developed than in France. The German network of community-based living, Forum gemeinschaftliches

Wohnen, was already founded back in 1992 and counts on regional representatives in all regions (Länder) who are familiar with the regional situation and hence can provide targeted support to cohousing groups. A similar French structure, the Coordin'Action was created only in 2010, and is still almost entirely based on voluntary work by its members (except for one part time employee). Similarly, networks of architects specialised in cohousing groups (RAHP) and of process consultants (“accompagnateurs”) were initialised only very recently, while German cohousing groups have been drawing on such professional support for many years. One interviewed German architect reports that he knows numerous colleagues who are experienced in working with cohousing groups. His own architectural office counts currently around 40% of all projects which are in the field of cohousing and looks back on around 20 years of experience with cohousing projects. This experience has made processes in the collaboration with cohousing groups smoother and more efficient, for instance by paying high attention from the very beginning to inner-group organisation and potential pitfalls. Also in contractual terms, the collaborations were somehow more standardised, for example by fixing in advance a maximum amount of hours per household for individual wishes. Turning to finance, one German bank, GLS bank, is nowadays well-known for providing credits to German cohousing groups, whereas French cohousing groups still need to struggle very hard to get funding.

Having said that, France has seen very strong institutionalisation dynamics over the last couple of years, which culminated in the dedication of a whole section in the Alur Act (2014) to the French cohousing form, “habitat participative”. While many legal specifications (“décrets”) still need to be adopted, all interviewed experts agree that this act may considerably facilitate the successful creation of cohousing communities and their persistence. The act gives cohousing groups a legal status and defines two organisational forms of cohousing, cooperatives d’habitants and sociétés

d'attribution et d'autopromotion. (While the first one leads to collective property in the form of a cooperative, the second one aims for individual ownership of the generated homes.) Interviewees claim that the new legal status will enhance the recognition of cohousing among actors of the housing markets – in the words of one interviewee: “we are no more considered as agitators” – and will provide more security of action to all involved parties. On the one hand, banks, assurances, notaries and municipalities will be able to base their actions and services on clearly defined procedures; on the other hand, the cohousing communities themselves might benefit from the act for their internal stability as the law sets also a frame for the rules of opting in and out.

Overall, one can expect that this growing institutionalisation of cohousing will further push this form of living, which has seen a steady growth since the 2000er years (Euvrard, 2011; Pätzold et al., 2014). The professionalization, accumulated experience and rule setting may reduce the burdens and uncertainties for cohousing participants, thus attracting more people to this living form. Yet, in both countries just a few 100 cases were counted (Euvrard, 2011; Fedrowitz, 2011).

4 Service-based forms of sharing without prior resident participation

Many representatives from the cohousing movement claim that neighbours will only adopt sharing practices if they have participated from the very beginning in the design of sharing facilities and spaces and thus develop a feeling of responsibility and co-ownership. Otherwise, they contend, the sharing infrastructure (such as guest or dining rooms) will remain unused or even worse, suffer from vandalism or monopolisation by a few neighbours, while all other neighbours need to pay for it through their charges.

In contrast to these scepticisms, some pioneering real estate developer and housing companies have started experimenting with sharing offers in multi-storey buildings without prior intensive

direct participation of future residents. In France, Nexity (Villanova project¹, flats to buy) and Eiffage are among the first movers, while in Germany CG Group and LBBW Immobilien Capital GmbH have received much attention with their projects “Vertical Village”² (flats for rent) and “Friends”³ (flats to buy). Despite the lack of direct interaction with future residents, most of them have pursued detailed upfront market research to identify possible target groups and develop corresponding sharing concepts. Thus, both German companies developed their concepts for urban, well-educated, tech-affine, highly mobile segments of society with above average incomes, but little time. Corresponding to this profile, the central idea of these real estate concepts is to offer services and facilities that make life as easy and comfortable as possible, that improve the quality of life. In this perspective, sharing offers must enable a better life than individual homes, otherwise the target groups would not rent/purchase the flats. As the representative from one of the two German companies put it: “If it doesn’t work, it’s not the fault of the people, it simply shows that the provided services are not good enough.” This is why his company will keep ownership of the flats during five years to optimise the services and only then the flats will be sold to institutional investors.

Following this service philosophy, the companies will offer in their buildings (in different combinations and in collaboration with external service providers) rentable guest rooms, spacious dining rooms with high-end kitchens (“kitchen lounges”) to welcome friends, shared laundry rooms and laundry services, gyms, co-working spaces, roof terraces with barbecues, and even cinema rooms. In contrast, the individual apartments will have comparatively small surfaces

¹ <http://www.nexity.fr/immobilier/particuliers/acheter/definir-son-projet/villanova-residences-au-service-des-franciliens>

² <http://www.vertical-village.de/>

³ <http://www.bauwerk.de/de/objekt/friends>

(mostly 45-55 square meters) and are highly flexible and adaptable to its residents and changing life circumstances.

While none of the buildings is already fully completed, both German interviewees report a strong interest in the project from both professionals and individuals. More than half a year before the finalisation of building works, the Munich-based LBBW Immobilien GmbH has already sold more than 70% of the flats in the future Friends tower. To the surprise of the company interviewee, also numerous households that do not fit into the pre-defined target group will move in, for instance families. This points to a high interest of such service-based sharing concepts for wider parts of society. Both German company representatives can imagine expanding their sharing project activities, for instance to building blocks instead of high-rise buildings. They see only two limitations: first, in order to make sharing facilities profitable, there needs to be a critical mass of apartment units; and second, the time is not yet ripe for sharing in rural areas where they still see a strong attachment to private property. There are also a number of regulations which might obstruct service-based sharing. For instance, car sharing is sometimes hindered by local obligations to provide a certain share of parking slots per apartment units, which reinforces individual car ownership. Taxation can also be an issue when services are offered by external service providers. These are subject to commercial taxation which differs from renting/selling apartments and this can increase the complexity of service-based forms of shared living.

Yet, such service-based sharing forms may meet strong societal demand. However, there are still only a few companies experimenting with such concepts. The overwhelming majority of interviewees in both countries describe the real estate companies as very conservative and little dynamic. According to most interviewees this is due to the low pressure on companies to change

their business model. In most cities there is a shortage of housing and hence there is no need for adaptation. As one observer puts it: “You can earn your money very easily.”

5 Collaborations between neighbourhood groups and actors from the housing markets

A third development trend indicates that the clear-cut borders between self-organised residents groups (see above) and “old” industries producing standardised homes in large numbers are about to blur. There is an increasing number of collaborations between neighbourhood groups (not necessarily organised as cohousing communities) on the one hand and actors from the housing market, namely investors and housing companies as well as municipalities on the other hand which aim to co-design and implement sharing practices in neighbourhoods.

In France, most of such collaborations seem to go on between social housing companies and external groups of habitat participatif or internally mobilised groups of interested residents. The interviewed representative from the French social housing association USH counts around 50 such projects in France, with half of them being run by cooperative housing companies (Coopératives HLM) and the rest by the other forms of social housing companies (OPHs and ESHs). Typically, these housing companies form collaborations with residents groups to respond to call for tenders launched by municipalities. A part of the newly built flats – mostly the bigger share – is then reserved to the social housing company and attributed in the classical way according to the national entitlement rules for social housing. The other part is made available for the cohousing group and developed in close cooperation with the latter to address their wishes for their future homes.

Similar constellations have also spread in Germany, however the types of collaborations have already diversified. Housing companies (most often cooperatives) may search groups of neighbours among their tenants to get engaged in a joint project. In addition, cohousing groups

might team up with private investors, who might rent out some of the flats in a building block on the free market, while others are reserved to a cohousing group in the frame of a Generalmietvertrag (Joint rental contract) with the whole community. The cohousing community is then responsible for allocating flats to applicants, but, being tenants, does not have to bear the financial risks of real estate investments. Municipalities can also play an important role in supporting cohousing groups, most importantly by withdrawing considerable parts of their sold land from the free market and reserving it to cohousing groups. Tübingen is probably the most advanced German city in this respect, which strategically uses Baugruppen (in French: groupes d'autopromotion) as urban development policy. According to the interviewed member of the City council, the city reserves today 75% (!) of all available lands in its property to Baugruppen. Not all Baugruppen plan shared spaces and facilities, but those who do have clear advantages against others to win competitions. Finally, according to one interviewee of an architectural company, there is also a very new trend of municipalities forming alliances with district associations, foundations, other citizen groups and investors to rededicate empty service buildings to residential areas with multiple sharing facilities.

Such collaborations appear to be win-win-situations for all involved stakeholders. Cohousing groups have recognised the great advantages of cooperation with housing companies in terms of juridical, technical and financial expertise as well as sheer manpower, which can help to overcome some of the main obstacles of self-organised cohousing initiatives. While the early cohousing groups from the 70ies and 80ies are repeatedly characterised by interviewees as ideologically driven communities in explicit opposition to and wished isolation from conventional housing, many of today's young cohousing practitioners seem to be more pragmatic and search the interaction with surrounding neighbourhoods and their municipalities. In this sense, a French

spokesman of the cohousing community wants his movement to be protagonist and not antagonist because it would profit from the collaboration with cities and professions: “The cohousing movement needs to open itself!”

Housing companies also may benefit in several ways: Most importantly, several interviewees argue that working with cohousing groups or other groups of neighbours will decrease the costs of maintenance as there is a stronger sense of appropriation and identification of neighbours with their surroundings. Residents will take care of the shared facilities and vandalism will occur less frequently. Housing companies also expect less turnover of their flats because residents feel more attached to their neighbourhood. One German interviewee reports that by implementing shared spaces and services together with residents, housing companies can improve the quality of life in a neighbourhood so tremendously, that previously deprived building blocks with many vacancies turn into very attractive neighbourhoods with long waiting lists for available flats. Other housing companies also get involved in projects with cohousing groups in order to respond to demands from the municipalities, so their commitment can be interpreted as a strategic action to maintain good relationships with local governments.

Finally, representatives from municipalities highlight the values of social mixture, social coherence and revitalised neighbourhoods. This is why the two interviewees of the forerunner cities Strasburg and Tübingen are fully convinced of partnering with citizen groups for shared living. For the Tübingen representative, collaborations with Baugruppen are “the ideal instrument of city development”, for the spokesman of the city of Strasburg it is even “the only good way”.

Overall, such innovative collaborations between neighbourhood groups may in the long run contribute to the normalisation of every-day sharing among neighbours, although there are still clear limitations for their spread. Cooperations with residents groups are very time-intensive and

many housing companies see themselves unable to engage so heavily with a small number of households. The ratio between invested time and achieved outcomes simply appears economically not reasonable to them. In social housing there is also a big unsolved problem regarding the allocation of flats: while the idea of *habitat participatif* is that the future residents of the flats intervene from the very beginning in the conceptualisation of their future neighbourhood, the attribution of social housing flats normally works according to eligibility and waiting time. Thus, there is a considerable risk that a group of tenants participate closely in the planning of a cohousing neighbourhood, but that the flats are given in the end to households which have no interest in shared living forms. Finally, community spaces in social housing buildings are usually not subsidised by the state, which means that housing companies have to finance them (or find creative alternative solutions) on their own. They will then need to transpose these costs on the future residents through increased extra charges, which may be problematic at least in some markets.

6 Discussion

I want to conclude this paper by some tentative reflections on these trends through the lense of the Multi-Level-Perspective (MLP) approach as suggested by Geels (2002; 2004). The MLP conceives sociotechnical change as an interplay between three analytical levels, regime structures, niche developments and landscape elements. Regimes are predominating socio-technical constellations, which are stabilised by interwoven elements of technology and infrastructures, policies and regulations, industry and production systems, market structures, norms, values and belief sets, as well as user practices and preferences. They are reproduced by knowledgeable actors with bounded rationality. In business as usual times, regimes tend to generate only incremental innovations, which complement established practices rather than replacing them. Radical innovations in turn develop in sociotechnical niches, which need “protected spaces” where they

are not exposed to the selection environment of regime activities to flourish. To become ripe alternatives to the regime, niche actors need to undergo multiple learning processes, build up networks with multiple supportive actors and articulate mutual expectations and visions (Schot and Geels, 2008). Finally, the landscape presents the wider environment, beyond the direct control of regime and niche actors but yet of crucial importance to them. It comprises aspects such as resource markets, demographic changes, the built environment or natural phenomena. According to the MLP, fundamental change arises from landscape pressures on the regime, which de-stabilize established rules and practices, for instance economic crises, natural disasters, or trends as ageing populations. This opens a window of opportunity for ripe niches to become part of the regime (Geels, 2004). Geels and Schot (2007) identified four transition pathways of such interactions between regime structures and niches: transformation, reconfiguration, technological substitution, and de-alignment and re-alignment.

Following criticisms that the “protected spaces” concept was under-theorised and that MLP tends to neglect regime destabilisation as well as power and politics (Markard et al., 2012; Meadowcroft, 2009; Shove and Walker, 2007; Smith et al., 2010), more recent contributions have helped to refine the MLP. Fuenfschilling and Truffer (2016) suggested Lawrence and Suddaby’s ideas of “institutional work” to describe regime and niche actors’ activities to create, maintain or disrupt institutions. Geels (2014) identified four different forms of power and resistance that regime actors may exert to protect the predominating socio-technical constellation, and, together with Turnheim (Turnheim and Geels, 2013), processes of regime destabilisation. Smith and Raven (2012) broke down the concept of protective spaces into the properties of shielding, nurturing and empowerment.

Neighbourhoods that practice sharing in and around the home would be interpreted in a MLP-framing as one amongst other niches (think for instance also of the “tiny-house-minimise-it” movement) competing with dominant regime structures. The main regime this niche encounters is the housing regime, even though it occasionally may also experience frictions with the food regime (community gardening vs. supermarket mass supply), the mobility regime (car/bike sharing vs. individualised car mobility), or the consumer-goods regime (sharing of tools and appliances vs. the accumulation of stuff). This housing regime is – with many variations in terms of the rental/ownership split, building types, and the share of social housing – in both countries organised around an expansive model of fully autonomous, individual and increasingly multi-functional apartments with increasing average square meters per person (for Germany recent data shows an increase from 41,2 m² in 2005 to 46,3m² per person in 2013; (Umweltbundesamt, 2015))⁴. This has also implied an increasing privatisation of life, as one French interviewee pointed out. Many activities which used to be realised exclusively or partially in public spaces – children playing on the streets or in parks, to some extent also meeting friends (bars/restaurants), relaxing and reading (cafes), or even watching movies (cinemas) – have been gradually “domesticated”. The recent trend of smart home technology (Strengers, 2013), which allows to control the home even remotely, might further reinforce the centrality of the home as “my castle”. The dominant real estate and housing companies largely reproduce this model, with the exceptions presented in the section on trend 2.

According to the MLP, major changes in the regime would only occur if strong landscape pressures increase internal tensions and thus open a window of opportunity for alternative practices. However, today’s regime appears overall pretty stable. In particular in the healthy, densely

⁴ However, this is a general picture. Some highly dense cities like Paris may be decoupled from this expansive trend.

populated regions and cities of both countries (Paris, Nice, Lyon, Bordeaux, Munich, Hamburg, Frankfurt), there is a scarcity of housing and rents and prices for real estate have been steadily rising - with Paris being the most extreme case (Moatti and Domergue, 2013). In this environment, there is no significant pressure on the housing industry to adapt their business model, because it is highly profitable. As a consequence, most interviewees describe the housing companies and real estate developers as quite conservative – those who gave a figure estimated the share of innovative companies at less than 10%.

Beyond this general picture, there are however some “landscape” developments, which already today exert pressure at least on some of the companies and might do so increasingly in the future. First, companies owning real estate in shrinking cities or in deprived areas often face significant vacancies and hence need to rethink their business concepts – which is why many social housing companies in France, but also in Germany have started collaborations with cohousing groups or have upgraded building blocks by converting former flats into attractive community spaces with services (trend 3). In addition, interviewees reported that some public/social housing companies also need to respond to demands from their municipalities, which are worried about the loss of social cohesion and social mixture in their area and hence try to make strategic use of the housing companies. Participative housing and every-day interaction of residents for sharing is seen as an excellent opportunity to counterbalance negative market effects such as ghettoization, vandalism and isolation and hence some municipalities require housing companies to develop offers for such living forms. Finally, several interviewees pointed out that many French and Germans already today would like to live differently, but the supply side does not respond sufficiently to this demand. This concerns, for instance, the segment of elderly people, which is in seek of communitarian living forms between sheltered housing and private homes, but also young

families. As an illustration, the LBBW representative reported that, much to his surprise, also many families purchased flats in the Friends tower, although the pre-defined target groups were rather singles and couples and the flats sizes designed for these. This indicates that as soon as the scarcity on the housing markets will be alleviated, some companies might run into serious problems, when these (today subtle) landscape pressures may become stronger.

MLP scholars will argue that in this moment of increased pressures it is crucial that niche developments are ripe, which depends on well-established “protective spaces”. Smith and Raven (Smith and Raven, 2012) argue that shielding – holding “at bay certain selection pressures from mainstream selection environments” (ibid.: 1027) – nurturing – elements of multiple learning processes, articulation of expectations, and network building as suggested by Schot and Geel (2008) – as well as empowerment are crucial properties of such protected spaces. It is fair to claim that the cohousing movement in both countries is about to build up such a protective space, in particular by nurturing strategies. As elaborated above, internal networks and advisory bodies were created, but also “external” networks with professionals (architects, consultants etc.) as well as with powerful actors such as municipalities, ministries and housing companies have evolved recently. Learning processes, for instance with regard to resolving conflicts, financing or process organisation, have facilitated the implementation of cohousing projects, and expectations have been articulated, for instance by framing different cohousing streams in France under the shared definition of “habitat participatif”. Shielding happens increasingly in municipalities where cohousing groups successfully have lobbied for specific calls for tenders protecting them from price competition with powerful real estate investors. Finally, more recently the French cohousing movement has done important “institutional work” (Fuenfschilling and Truffer, 2016) by “stretching and transforming” (Smith and Raven, 2012) regime rules: it achieved a legal status for

“habitat participatif” in the Alur Act and co-designed its provisions, which, according to all French interviewees, is likely to facilitate considerably the implementation of cohousing projects. To conclude, adopting a MLP perspective, there is good reason to claim that the protective space for cohousing has consolidated and allows this niche to flourish, and, in due time, be “ripe” as alternative practice in case the regime gets destabilised.

Thus, while trends 1 and 3 fit pretty well into the MLP framework, (the very embryonic) trend 2 points to shortcomings in this explanatory model, which assumes that radical innovations emerge only in niches. However, the described service-based sharing offers, which rightfully can be characterised as strong deviation from conventional business, were developed by very powerful regime players, one of them being even among the market leaders (Nexity). Moreover, none of the company representatives reported that these path-breaking concepts were developed under strong market pressure, nor by absorbing niche experiences. Rather it appears that these resulted from strategic long-term thinking, as one interviewee explains: “We want to be ready for times when the housing markets will be tighter.”

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