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Exploring routinisation and reflexivity in change and reproduction of consumption towards lower climate impact

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Abstract

A change to less carbon-intensive everyday practices is needed to address climate change. Based on existing literature, we discuss which relations between dynamics of routinisation and reflexivity that potentially constitute reproduction and change of practices related to food, mobility and housing. Looking across different consumption fields can help clarify more general insights on the importance of routinisation and reflexivity in reproduction and change of consumption. Our analysis is informed by practice theories, which emphasise how reproduction and change are intermingled in the performance of practices. We suggest three analytical themes for exploring the relations between routinisation and reflexivity in consumption: Variation in performances of practices, visibility of practice performances and resource use, and social interaction involved in performances of practices. We explore the usefulness of variation, visibility and social interaction by applying them in a systematic discussion of food, housing and mobility consumption in order to shed light upon the relations between routinisation and reflexivity and the implications for reproduction and change towards lower carbon intensity.

Key words: Routinisation; reflexivity; food; mobility; housing; practice theories; climate change.

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1. Introduction

Consumption plays an important part in creating climate problems, and there are three private consumption fields that stand out in particular regarding their climate footprint: Food, mobility and housing. Of the EU embodied climate footprint related to consumption, 30% of the total

carbon emissions relate to mobility, 22% to housing and 17% to food consumption (Ivanova et al., 2017; see also Akenji et al., 2021, for similar findings based on more recent statistics covering lower-middle to high income countries across the globe). Due to this, there is a significant public interest in lowering emissions in these fields. Denmark is a particularly interesting case to look at here, being an affluent, Nordic welfare state with relatively high carbon emissions due to consumption, while at the same time, the official climate policies of Denmark ascribe the country with an obligation as international role model for being proactive in cutting down emissions (Larsen et al., 2016).

But how can profound changes in consumption come about? Among societal actors as well as parts of research, there has been an assumption about change of consumption coming from information campaigns and other individualist models for consumer behaviour change. This has, however, been criticised especially from researchers working within a theory of practice perspective, who have emphasised the routinized aspects of consumer habits (Keller et al., 2016; Shove, 2010; Southerton and Evans, 2017). Where some researchers within theories of practice specifically warn against including the individual as a research object (Shove and Walker, 2010), others have argued for an approach of understanding the individual as a learning, reflexive and ethical agent, as well as a carrier of routinized practices (Evans, 2019; Gram-Hanssen, 2021; Halkier, 2020a). Following the latter approach, this paper has a specific interest in how reflexivity can be understood and researched in relation to the routinized aspect of consumption. Rather than seeing reflexivity as a purely individualistic process, we see change of consumption patterns as change of routines and to be a much more social process, embedded in everyday lives and dependent upon institutional and material conditions. This way, there is a more complicated relationship between routinized parts of consumption and reflections in relation to consumption in everyday life than some of the dominating consumption research strands tend to assume, either by neglecting reflectivity as a source of change or by focusing on individual and cognitive factors in isolation (Evans, 2019).

When analysing the potential for change into less climate-problematic consumption patterns, we argue it is necessary to pay attention to the relations between routines and reflexivity in mundane life where consumption is carried out. In this paper, we explore one way in which this can be done by developing three analytical themes for studying routinisation and reflexivity in consumption.

The paper begins by clarifying its practice theoretical perspective and defines the main categories of routinisation, reflexivity and change of practices. Three themes for understanding relations between routinisation and reflexivity are suggested. Secondly, food, mobility and housing consumption are analysed in relation to their varying relations between routinisation and reflexivity. Finally, the paper concludes with a discussion of the usefulness of the analytical themes developed and the potential implications of differences between the consumption fields.

2. Theoretical approach

The practice theoretical perspective has become influential in empirical studies of consumption (Evans, 2019) because of its focus on social processes and its understanding of consumption as a result of a multiplicity of overlapping practices in everyday lives (Shove et al., 2012; Warde, 2005). One debate in practice theoretical research on consumption is how reproduction and change of consumption patterns are shaped (Southerton, 2012; Warde, 2014), especially in relation to research on sustainable consumption (Watson, 2017). The main assumption here is that reproduction and small changes in consumption are intermingled (Warde, 2014) as innovations in practices relate to the recursive relationship between practices as entities and as performances: "practices configure performances, and practices are reproduced and stabilized, adapted and innovated through performances" (Southerton, 2012).

Yet, the importance of the relations between the more routinized and the more reflexive parts of consumption seems to be understudied in practice theory inspired research. This may have to do with the resistance towards including reflexivity, because it remains somewhat linked with both more individualist and more discourse focused approaches to consumption (Evans, 2019; Welch et al., 2020). In this paper, we focus on the relations between routinisation and reflexivity, and their implications for change of consumption patterns.

Routinisation can be understood as the more tacit, embodied and repetitive ways of carrying out mundane practices. Hence, routinisation is a basic part of practicing anything. The definition draws on the concept of routines as sequencings of regularly accomplished procedures, based on a practical sense of how-to-do (Warde, 2016). Routines and habits are often used almost interchangeably to cover embodied, tacit and repetitive practicing (Southerton, 2012). We lean towards Warde, 2016, who argues that routines and routinisation cover the ways in which performances are accomplished, and habits cover dispositions for performing. *Reflexivity* on the other hand can be understood as a potentially explicit discursive part of carrying out practices in everyday life. This definition draws upon the ethnomethodological category of reflexivity as "knowing how to go on" and to be able to account for this (Garfinkel, 1987). Such an understanding of reflexivity is part of the practice theoretical understanding of how practices are collectively shared (Rouse, 2007), namely by being not only tacitly recognisable, but also discursively accountable, negotiable and available in social interaction. *Change of practices* can be understood as changes in how practices are organised as entities according to their different elements of doings, materials, conventions, procedures etc. The definition is inspired by the practice theoretical assumption about reproduction and change being thoroughly interrelated (Warde, 2014).

Based on these definitions, we suggest three themes for analysing the relations between routinisation and reflexivity in consumption and the potential implications for change of practices towards less carbon-intensive consumption: Variation, visibility and social interaction. Each of the three themes express a mixture of routinisation and reflexivity.

First, *variation* in performance of practices. Here, the point is to which extent the different consumption fields are characterised by a multiplicity of competing ways of performing and structural stories, or by few dominating ones. Ways of performing a practice is in itself often a

mix of tacit and explicit processes, whereas structural stories about practices are explicit micro discourses that serve as everyday arguments to explain the performing of practices in a way that is commonly agreed upon and thus often implicit (Freudendal-Pedersen, 2009). In this paper, we assume that high variation in both ways of performing and structural stories gives a bigger potential for change. When there is variation in ways of doing practices related to food, mobility and housing and in the structural stories used in everyday life, there will likely be both processes of reflexivity through problematising what is usually done and routinisation through normalisation of doing something differently from the usual.

Second, *visibility* of the performance of practices. Here, visibility relates to how explicit and recognisable the use of materials (such as energy resources) are in the performance of practices within our three fields (Hargreaves, 2018). The more tacit the use of materials is in practices, the less visible. We assume that a high degree of visibility gives better likelihood for change. When a practice and its consumption patterns are very visible, it is easier to link to reflexivity and to counter pure routine reproduction.

Third, *social interaction* involved in practice performances. Here, social interaction covers both tacit routinized social coordination of practicing as well as explicit reflexive negotiations in the social network on how to practice something (Halkier, 2020a). We assume that a high level of social interaction tends to support change of practices (Christensen and Røpke, 2010). When there is sufficient social interaction, both the routinized coordination and the reflexive negotiation can lead to more calibration, adaptation and innovation in everyday life.

In the next section, we will for each of the three consumption fields apply the three analytical themes. The analysis will be based on existing literature based on our own work during the last decades within each of the three fields of consumption.

3. Variation, visibility and social interaction within food, mobility and housing

3.1 Food

Less carbon-intensive alternatives in food consumption are to a large degree part of both public and food sector discussions in Denmark. The first noticeable sign of this was the start of the organic food labelling in the beginning of the 1990s, where collaboration between the public food agency, different food producer organizations and a big retail chain resulted in a public state-controlled organic label (Klint, 1995). Since then, the production, sales and consumption of organic foodstuff have grown and branched out from unprocessed food goods to also semi-produce, ready-meals, take-away and organic labels for restaurants, catering firms and public kitchens. Nowadays, organic food as a sustainable alternative has become normalized in both internal food sector discussions and public debate.

Other less resource-intensive alternatives in food consumption have become more debated, such as how to decrease food waste and eat less meat. The latest official Danish dietary advice from 2021 has an explicit climate component of eating much less meat and many more beans, peas and lentils (DVFA, 2021). The Danish Climate Council recommends that public kitchens should provide meals with a low climate impact (The Danish Council on Climate Change, 2021).

Furthermore, there are discussions among retail chains, interest organisations and NGOs about how to measure and label climate impact on food goods. However, despite these institutional initiatives, meat consumption in Denmark has not decreased significantly yet (Coop Analyse, 2018; Wendler and Halkier, 2023).

3.1.1 Variation in performance of practices

Food consumption is characterized by quite some variation. This comes, e.g., from which *culinary repertoires* food practitioners draw upon. Food practices tend to be performed as more hybridized between different repertoires than earlier, meaning that food practitioners mix both meals and elements from different food cultural repertoires such as traditional Danish, generalized American and generalized Asian (Ritzer, 2015; Warde et al., 1999). *Engagement in food* also varies quite a lot. To some food practitioners, food is fuel and a necessary household work, whereas for others it is a pleasurable activity (Halkier, 2009). This also pertains to the degree of eating meat, where a majority of the Danish population report to eat as omnivores, but a growing minority report to being in the process of reducing or having abandoned their meat consumption (Halkier and Lund, 2023). Furthermore, there seems to be quite some variation in *ways of providing for meals*, where some cook as much from scratch as possible (Short, 2006), whereas others combine cooking from scratch with semi-produce and convenience food (Carrigan and Szmigin, 2006). There is of course also the inevitable differences in food practicing related to gender (Holm et al., 2015) and social class (Halkier and Holm, 2021).

Finally, there is variation in the structural stories of food consumption with a relatively large number of *competing discourses*. Research has shown these variations in relation to, e.g., environment and climate (Halkier, 2010), health (Halkier, 2020b) and quality (Jackson et al., 2018). However, the discourse of individualization of the responsibility for collective food problems (Halkier, 2019), such as climate, environment and health etc., seems to be the same across all issues concerning food consumption.

3.1.2 Visibility of practices

Food consumption is both almost invisible and highly visible. Food consumption seems rather invisible when analysed as *routine household activities*. This is due to the character of routines as being activities that are taken for granted, based on tacit knowledge and endless repetition (Murcott, 2019; Warde, 2016). There is a saying in sociology of food that most people most of the time mostly eat the same kinds of food – this is also the case in Denmark (Gronow and Holm, 2019). When shopping, providing for meals and eating are routines, they are less likely to be highly visible, be noticed or be questioned.

However, two other characteristics about food consumption tend to make food practices visible. First, food is strongly linked to *social identification*. Research has shown that food practitioners identify themselves with how they eat, including belonging to a particular group (Ashley et al., 2004). Identification with a particular way of eating often includes distancing oneself from other ways of eating. “You are what you eat”. This is also the case in relation to, e.g., meat reduction among Danes (Randers et al., 2021). Images of food are among the most shared contents on social media (Leer and Krogager, 2021), which together with food being a

tangible resource contribute to the visibility of food activities. Second, food consumption is a kind of *contested consumption*, where food activities are being questioned, problematized and negotiated in everyday life on the basis of a number of public issues such as environment, climate, health and animal welfare (Evans, 2019; Halkier, 2010). Thus, questioning food routines in the media and negotiating them in households and social networks also tend to make food activities more visible.

3.1.3 Social interaction

Food consumption is usually considered an important part of socialising (Fischler, 2011), and thus of social interaction. Food consumption covers many daily kinds of interaction with members of networks such as sharing food work in households, family meals, lunch with colleagues, going to a restaurant with friends and coffee with the neighbour. All these kinds of interactions involve both routinized practical coordination but also different levels of reflexive negotiation about what, when, where and how to eat (Halkier, 2020a). A Danish study shows that reducing meat consumption depends upon navigating the social coordination around meals in the social network (Wendler and Halkier, 2023).

However, research also shows that a large share of all meals are eaten alone in Denmark, also when taking demographic developments into account. Almost one-fifth report that they have a propensity to eat two-thirds or more of their meals alone (Gronow and Holm, 2019). So, a significant proportion of Danish food consumers do not have much social interaction around their food.

3.2 Mobility

Less carbon-intensive mobility alternatives have for long been part of public discussion and policy-making in Denmark, but without any significant changes. Especially cycling has been the focus for some of the larger municipalities in Denmark and in national campaigns (Freudendal-Pedersen, 2015a, 2015b, 2018). This has also been followed up by institutional frameworks resulting in more bike paths, “cycle highways” and green cycling routes. For public transport, an increased focus is seen on “Mobility-as-a-Service” (MaaS) as a way to handle the last mile problems, i.e. the problem of getting to/from train stations etc. (Freudendal-Pedersen and Kesselring, 2018). This has been supported by initiatives of the Danish Ministry of Transport to make the national Danish journey planner (www.rejseplanen.dk) to also include shared bikes, cars and scooters, as well as the implementation of a national payment card, “the travel card”, usable for all public transportation. Most recently, the concept of the human or liveable city has in the largest cities in Denmark meant an increased focus on urban spaces dedicated walking and cycling (Freudendal-Pedersen, 2022). However, despite these public initiatives, the Danish mobility patterns continue showing an overall trend towards more car driving and reduced use of public transport and bikes (DTU, 2021).

3.2.1 Variation in performance of practices

Since the car entered many people’s everyday lives in the early 1960s, it has been central in policy-making and public debate as a driver of economic growth. The car today plays a key role in mobility practices, especially outside the largest cities in Denmark. Despite increased focus on promoting alternative and less energy-intensive modes of transport, mainly in bigger cities,

the car ownership has continued growing, including in the largest cities. This said, commuting by bike and public transport is still widespread in the biggest Danish cities (DTU, 2021). This shows an important *geographical component* to variation in mobility practices.

Car access is a key determinant for mobility patterns of individual households (Lagrell and Gil Solá, 2021), and even if it is not always the dominant everyday mode for many households, it is still often narrated as such. What is often ignored in public debate is the substantial share of Danish households (38% in 2020) without access to a car, while at the same time, an increasing number of high-income families are acquiring two or even three cars (Statistics Denmark, 2021). This represents a substantial variation in performance of mobility related to differences in *income*, *age* and *social class* (see also, e.g., Camarero and Olivia, 2008; Kaufmann et al., 2004). *Gender* is another key demographic variable with women generally more involved in "mobilities of care" than men, i.e. daily travel related to care activities such as escorting children or relatives to activities (Jirón et al., 2020). Women travel shorter distances, and in families with only one car women use it less frequently compared to men (DTU, 2021).

Despite these variations in the performance of mobility practices, they are, in Denmark, converging towards automobility, which is seen in a long-term trend of growing car ownership (Statistics Denmark, 2021). Also, the narrative about the car as the cornerstone in everyday mobility is a dominating discourse and structural story in Denmark (Freudendal-Pedersen, 2009), as in other countries (McLaren and Conley, 2009; Sheller, 2004). The car is still associated with flexibility and freedom, and even if cyclists have similar narrations and experiences, the car stands as the major freedom provider in a pressured everyday life.

3.2.2 Visibility of practices

Mobility is very visible when it connects everyday functions and occupies urban and rural space. At the same time, it is a highly routinised practice that is normalised in the everyday life and as such not noticed. Alternatives to car-based mobility are typically viewed as less attractive in terms of comfort, convenience or efficiency by car drivers (Sheller, 2004). Compared to food, mobility is not contested to the same extent as a consumption field in daily life. Even though the link between climate change and car use is often established in media and public debate, the use of cars is seldomly put into question. Instead, environmental transport policies mainly focus on decarbonizing car transport through technological solutions such as electric cars or through increasing car emission performance standards (Haas and Sander, 2020). Thus, the vision of technological solutions to the climate problem of mobility appears to disarm the (environmental) critique of everyday car use, reducing it to a question of technology regulation and choice of car type (Freudendal-Pedersen, 2022).

3.2.3 Social interaction

Mobility is an important practice in relation to socializing, as co-present interaction is facilitated by people moving between places. More generally, corporeal travel has become essential for reproducing geographically distributed family lives and family and friendship relations (Urry, 2020). However, the act of moving is often not directly involving face-to-face social interaction, especially in relation to car-based commuting (often men). Most car trips are done by the driver alone without the co-presence of significant others (DTU, 2015). Still, in certain situations the

car is experienced as a space of intimate co-presence, such as when parents (often women) pick up children from activities as part of mobilities of care (Freudendal-Pedersen, 2009; Murray, 2008). All over, the trend of increased automobility suggests a further lowering in the social interaction related to the performance of mobility.

3.3 Housing

Residential energy consumption has been on the agenda since the energy crises of the 1970s, with its public campaigns to save energy. Following the UN report *Our Common Future* (World Commission on Environment and Development, 1987) and Local Agenda 21 campaigns, questions of lifestyle emerged. However, from 2000 and ahead Danish energy policy, following EU regulations, got a strong focus on technical efficiency of buildings and appliances (Gram-Hanssen et al., 2018). Public campaigns and policy on residential energy consumption have since then mainly focused on promoting efficient appliances and homes. From political side, there has since the turn of the century been an outspoken reluctance to question people's lifestyles and a strong belief in technological solutions. Residential energy consumption during the last three decades has neither decreased nor increased, which can be explained by efficiency gains being exchanged for more and bigger appliances and homes, as well as homes heated to higher degrees (Gram-Hanssen et al., 2018).

3.3.1 Variation in performance of practices

The *size and age of dwellings* are decisive for energy consumption related to heating. The bigger and the older the dwelling, the higher consumption, though studies also show that heating the same dwelling can vary with several 100% depending on how it is used (Gram-Hanssen, 2010). Variation in energy consumption for heating, besides what can be attributed to the type of housing, does not show strong relation to *social class or status*, and this may also relate to that energy consumption is largely invisible (see next). Though, it has been shown that women and older occupants tend to consider homely comfort to be more important compared to others (Hansen et al., 2019), thus indicating higher levels of energy consumed for heating. Further, it has been shown that practices of adjusting heating are partly related to what one (unconsciously) has learned and brought along from childhood (Hansen, 2018).

Variation in electricity for appliance use is less studied, though measurements show variations among households. The *size of households* is important, with smaller households consuming less energy per household unit, but consuming more energy per person, as many types of consumption are shared when living more people together (Gram-Hanssen, 2014). Variations related to *socioeconomics* confirm that more affluent households have higher residential energy consumption compared to others (Jack and Ivanova, 2021).

In terms of structural stories, the large, single-family home in the suburb is viewed as the preferred housing type, especially when having children (Gram-Hanssen and Bech-Danielsen, 2004). However, with new urban developments with high-rise buildings in previous industrial areas, other ideas of ideal homes have been introduced, especially for empty nesters leaving the suburbs after their children have moved from home, but also among some families with

children (Mechlenborg and Hauxner, 2021). In general, larger homes seem to be a trend in both types of housing (Gram-Hanssen, 2022). Cohousing and tiny houses or micro-living are other tendencies, which gain some public attention but are rather marginal in the overall picture of housing.

3.3.2 Visibility of practices

The energy consumption related to the performance of practices within the home is highly invisible, both to the residents themselves and to others. Following this, much energy policy focuses on how energy can be made visible to consumers through feedback, apps and in-home displays. It is assumed that better knowledge about how energy is spent will encourage energy saving. This rationality and the actual effect of consumption feedback have however been questioned (Darby, 2018; Hargreaves et al., 2013). Research shows that energy feedback to residents yields only small reductions; only if feedback is given together with information on what similar households use, including competitions, slightly higher reductions may be achieved (Darby et al., 2015). However, studies also show that people lose interest in getting this feedback over time (Hargreaves et al., 2013).

Another way in which visibility of energy can be affected is in cases of prosumption, meaning that households produce energy themselves, e.g. via rooftop photovoltaic panels. This can make energy more tangible and visible to householders, who also to some extent adjust the timing of their energy consumption to that of their production (Gram-Hanssen et al., 2020).

3.3.3 Social interaction

The residential energy consumption is connected to the performance of a multiplicity of practices within households (cleaning, cooking, heating, entertainment, etc.), but as already mentioned, the use of energy is highly invisible. Therefore, even if the housing consumption relates to practices involving social interaction, the energy consumed – as a material resource – is rarely something people relate to.

When it comes to the degree and type of social interaction in homes, this depends on the size and organization of the household, as well as on the degree of people visiting each other. Co-housing is an example of a more social housing form, though it is not widespread (Tummers, 2016), and the notion of privacy is a strong discourse within housing (Gram-Hanssen and Bech-Danielsen, 2004). The nuclear family, on the other hand, is in decline, and the most widespread household size in most European countries today is one-person households. In Denmark, almost 40% of all households consist of only one person (Eurostat, 2018), and this has a huge influence on energy consumption since it is more resource efficient to live more people together (Jack and Ivanova, 2021). Despite the growth in single-person housing, the dominating discourse is still that of a family or couple living together.

In addition to the growing number of one-person households, some types of consumption are becoming more individualized, even within multi-person households. Most remarkable is the use of digital media, which has become highly individualized with individual residents using

their own devices, and often socializing with people not present in the home (Livingstone, 2002).

4. Discussion

In this section, we will discuss our consumption fields according to the three analytical themes on processes of routinisation and reflexivity with the main aim of assessing the usefulness of our framework for analysing potential changes towards less carbon-intensive consumption.

When it comes to *variation in the performance of practices*, all three consumption fields demonstrate variation related to socioeconomic variables such as income and social class. However, differences between the fields emerge when zooming in. One important difference relates to the level of heterogeneity of the structural stories. Thus, especially food appears to be a "battlefield" of competing discourses on health and environmental issues. There is also a strong individualization of climate-related problems, placing the individual as the key driver of a sustainable transition of food consumption. In comparison, mobility and housing are to a higher extent governed by discourses emphasizing technological innovation (e.g. energy retrofitting and electric vehicles) as the solution to climate problems. Interestingly, the "space of reflexivity" seems to be related to the dynamic relationship between the degree of performance variation and the level of heterogeneity of discourses. Mobility is on the one hand characterized by variety in practice performance, but this is not reflected in the way people talk and think about mobility practices, which is heavily influenced by the structural story of the car as the epitome of individual freedom and convenience. As a result, the car is generally positioned as the optimal way of performing mobility, while alternative modes of transport are backgrounded, and the result is a limited space for reflexivity when it comes to how daily mobility is performed. When it comes to housing, new discourses of urban life supplement the ideals of the single-family home in the suburb, however, these discourses share the dream of large living areas, and only few and weak discourses problematize this in an environmental context. To sum up, the variation within food, mobility and housing seems to suggest that dynamics of practice performance variation and discourse heterogeneity support both normalization of change of practices (e.g. towards increased car use) as well as negotiations and reflections about change of practices (e.g. towards eating less meat). Here, we do not understand reflexivity as first and foremost a cognitive and conscious-deliberate process, but rather as something that relates to the accountability of our daily doings. Reflexivity is conditioned by to what extent this accountability, and the daily reproduction of practices, is challenged, disturbed or unsettled through exposures to other ways of doing, new meanings from other discourses, etc. Such situations of disturbances can create a space for reflexivity that might – or might not – result in changes in practices.

Regarding *visibility*, the fields of mobility and housing seem to differ somewhat from food. Consumption has a low visibility within both fields, e.g. most of the consumption involved in housing appropriation is invisible energy consumption. In many ways, this also goes for food acquisition, appropriation and appreciation, which mostly work as routines and are thus fairly invisible when it is taken for granted. However, in other respects food consumption can be very visible due to its materiality, and especially if either related to social identification or to competing food discourses – or both, such as in the case with vegetarianism. To sum up, our

analysis suggests that the consumption in practice performances within food, mobility and housing is for the most part not sufficiently visible to counter pure routine reproduction.

Regarding *interaction*, the three fields are different from each other, despite one obvious commonality. Statistics from all fields indicate increased individualization, and thus less interaction: More people live alone, more people eat more meals alone and more people get around alone, whatever the means of transportation. On the other hand, when looking more closely at the three fields, mobility seems to have a modest level of interaction and negotiation, because much of the interaction in this type of consumption consists in coordination rather than engaged interaction. In comparison, housing might seem to have a high degree of interaction and negotiation, as the home is site of many social practices and engaged interaction. Yet, it can be argued that the energy consumption related to housing is almost invisible to the residents and therefore rarely becomes a subject of negotiation. Food involves considerable coordination and engaged interaction with network members. To sum up, the comparison points towards a compound picture regarding the potential for change: Less social interaction can lead to fewer incidences of questioning existing consumption patterns, but at the same time, the likeliness and character of such incidences of negotiation are also dependent on the nature of the social interaction.

The discussion provides some interesting insights into what conditions the relations between routinization and reflexivity. First of all, the level of heterogeneity of structural stories seems decisive for how likely changes in consumption will happen. Thus, in cases with one or few dominating discourses (like in mobility), the space for reflexivity related to the performance of practices appears narrow and the potential for change and alternative ways of doing seems to be backgrounded. Conversely, heterogeneity in structural stories can nurture, and make visible, the plurality in practice performances, showing how different ways of doing can be normalised and thus create more space for incremental change through routinisation.

A general point seems to be that higher variation in practice performances within a consumption field shifts the relation between routinisation and reflexivity towards the latter, but that this is at the same time conditioned by the level of heterogeneity of structural stories associated with this field. Obviously, the direction of change that is supported by increased reflexivity does not necessarily go towards less carbon-intensive consumption, as the direction of change depends on many aspects. However, one might argue that the likeliness of changes supporting a transition towards lower climate impact increases with the number of sustainable alternatives within a consumption field.

Another general observation is that strong discourses on technologies solving the environmental problems related to consumption also seem to narrow the space for reflexivity and potential changes. Such technology-oriented understandings delegate the responsibility for tackling climate change to the realm of technology development. This goes especially for housing and mobility.

Our ambition has not been to develop an analytical framework that covers all relevant dynamics related to the change and reproduction of practices. However, our ambition has been to complement existing practice theoretical perspectives on reproduction and change (such as

Southerton, 2012; Warde, 2014; Watson, 2017) by specifically zooming in on the relations between routinisation and reflexivity in the performance of practices. Some of our findings connect to other researchers' findings, such as Hui, 2016, who develops a vocabulary for understanding how practices vary, distinguishing between variations within individual practices and between complexes of practices. Hui suggests that the shared meanings of practices, e.g. categories used to name variations in performances, are defining what 'is understood to be the limits of tolerable variation' of these practices (p. 56). Our previous observation of how the level of heterogeneity of structural stories within a consumption field conditions the likeliness of practice variations being translated into wider practice changes through routinisation and reflexivity confirms Hui's theoretical observation. Further, it points to the link between the meaning element of practices and the shared discourses.

More generally, we have not explored the role of complexes of interrelated and intersecting practices. Nor have we delved into the role of institutions and infrastructures for practice changes, as discussed in for instance technological transition theories such as the multi-level perspective (Geels, 2002), as we have deliberately focused on dynamics of routinisation and reflexivity related to the performances of practices, and as we, like Shove and Walker, 2007, find that such transition theories often ignore the role of dynamics related to the performance of practices.

5. Conclusion

There is a complicated relationship between routinisation and reflexivity in relation to reproduction and change of consumption. In this paper, we illustrate some of the details in the relations between routinisation and reflexivity and the potential implications for change towards less carbon-intensive consumption.

So, to what extent is the analytical framework developed in this paper useful for analysing relations between routinisation and reflexivity in consumption and changes in practices? Most interesting is probably the observations of the mutually constructive relationship between variation in practice performances and heterogeneity in structural stories. This co-dependency is of strategic importance for climate policies, as it indicates that to promote decarbonisation, it is not enough to ensure a variety in practice performances or in discourses, respectively. As in the case of mobility, where there exists variety in practice performances, but where the dominance of the automobility discourse renders such variations almost invisible and supports routinisation towards increased use of cars.

Our analysis also indicates that visibility of practices, including the consumption of material resources, supports a higher potential of change. However, it also shows that even for consumption fields with material resources being a highly tangible element of performing practices, like in eating, this is not guaranteeing processes of reflexivity and routinisation towards less resource-intensive practices. This is further complicated by the fact that a considerable part of the resource use related to practice performances comes as embodied resource consumption from the manufacturing of products.

When applying our third analytical theme, social interaction, on the three fields, we find that it is important to distinguish between social interaction within one's social networks or with non-

significant others. Our analysis indicates that the level of negotiation involved in practice performances, and thereby the space for practice reflexivity, might be lower for interaction outside social networks.

The employment of our analytical framework in a comparative analysis of consumption fields does not necessarily provide unambiguous answers regarding which fields have more potential for change of consumption than others. Instead, we propose that our framework can be seen as a heuristic and analytical tool for future empirical analysis to better make visible some of the dynamics that are central to understanding reproduction and change of practices. We are not suggesting that our framework covers all relevant dynamics or aspect. Nor are we applying the term reflexivity in the individual-cognitive sense of the word. Instead, we think of reflexivity as a space of partly cognitive, but also non-cognitive, negotiation of practices and their performances. The size of this space depends on characteristics related to the practices and their performances, including the dynamics that we have explored in this paper.

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