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# SUSTAINABLE CONSUMPTION AND THE SIGNIFICANCE OF SOCIAL RELATIONS

FOUR ARTICLES ON SIMILARITIES AND DIFFERENCES IN CONSUMPTION PRACTICES

BY METTE HOVE JACOBSEN

**DISSERTATION SUBMITTED 2017** 



# SUSTAINABLE CONSUMPTION AND THE SIGNIFICANCE OF SOCIAL RELATIONS

# FOUR ARTICLES ON SIMILARITIES AND DIFFERENCES IN CONSUMPTION PRACTICES

by

Mette Hove Jacobsen



Dissertation submitted

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#### CV

Mette has a general interest in consumption as a way to study social relations and social structures, but also as a way to understand the possibilities for changed behaviour.

Mette holds a Master's degree in sociology (MSc in Sociology), specialised in methodology, from the University of Copenhagen. She is theoretically and methodologically well-founded, especially within theories of practice and quantitative sociological methods. She masters a variety of statistical and econometric methods and has experience with handling big data sets, including administrative registers and survey data. She has worked with evaluations and evaluation theory and has experience with and knowledge about the organisation and implementation of various types of evaluations of public programmes.

Her master's thesis consisted of a quantitative, sociological analysis of the effect of active labour market programmes. The thesis contributed with new knowledge about the effects of internship and has provided Mette with knowledge about the methodological ambition to assess causal effects of public social programmes.

Her PhD dissertation consists of a quantitative, sociological analysis of consumption patterns. This has provided her with a solid knowledge of the behaviour related to resource consumption, as well as how this behaviour is formed and changed within larger historical, social and technological developments.

#### **ENGLISH SUMMARY**

It is widely acknowledged that prospective transitions towards a low-carbon society will require significant changes in patterns of consumption and in the practices that comprise everyday life. This presents new challenges for social theory in order to understand processes of consumption and the phenomenon of habit. Taking my departure in "the practice turn" in the sociology of consumption, I examine the significance of social relations as a basis for understanding processes of consumption, and hence habits. The dissertation consists of four articles submitted to international, peer-reviewed journals, which serve empirically and theoretically to address different perspectives of relevance for both the sociology of consumption and for sustainable policy.

With Elizabeth Shove and co-authors as central protagonists, scholars of sustainable consumption practices have provided a counterpoint to the economic model of the consumer by emphasising the role of habits and routines, organised around shared understandings of good and appropriate conduct. Grounded in theories of practice and inspired by Science and Technology Studies (STS) and Actor Network Theory (ANT), studies of sustainable consumption practices have focused on the dynamics of material entities and infrastructures. However, although important theoretical arguments have emphasised the importance of dynamics of social relations as a key explanatory mechanism for consumption practices, to a large extent these have been overlooked within studies of sustainable consumption practices. The aim of the dissertation is to deliver a more systematic, theoretical and empirical grasp of the dynamics of social relations in the sociology of sustainable consumption and to shed light on the differentiation of social practices. Understanding how forms and levels of consumption are socially ordered is a necessary part of understanding habits. Such knowledge would help us to develop theories for sustainable transitions and formulate policies that can help steer consumer behaviour in more sustainable directions.

The dissertation is divided into two parts. In the first part of the dissertation (chapters 1-4) I situate the contribution of my dissertation within the practice turn of social sciences and the tradition of the sociology of consumption. I outline the history of the sociology of consumption and review the development of sociological approaches to consumption, in particular in relation to debates about sustainable consumption. The first part also detects social relations as important in order to understand habitual forms of action and introduces Bourdieu's theoretical framework as a way to grasp this. The first part ends by discussing the potential of the findings of the dissertation for research on sustainable consumption and to inform sustainable policy.

The second part of the dissertation constitutes four self-standing articles (chapters 5-8). Chapters 5, 6 and 7 constitute three empirical articles. In chapter 5, possession of household appliances in Denmark is used to address the role of social

groups in reproducing social norms of material consumption practices and to shed light on the role of social groups in reproducing common understandings. In chapter 6, washing machine use is taken as an example to depict, categorise and understand differences in energy-consuming activities. In chapter 7, heat consumption is used to study the extent to which inconspicuous consumption practices are reproduced from generation to generation through social interaction.

Chapter 8 constitutes the theoretical contribution of the dissertation. Here, Bourdieu's notion of embodied practical understandings is (re)introduced to the field of sociology of sustainable consumption. It is argued that a greater focus on practical understandings as embodied in humans can help achieve more nuanced answers to the fundamental sociological questions of why sustainable consumption practices are the way they are and how they reproduce and change.

### **DANSK RESUME**

Det er bredt anderkendt, at overgangen til et fossilfrit samfund vil kræve betydelige ændringer i vores forbrugsmønstre. Det giver socialvidenskaben nye udfordringer i forhold til at forstå vaner og mekanismerne bag forbrug. Denne afhandling tager sit udgangspunkt i praksisteori, som de senere år har vundet stor udbredelse inden for den internationale, sociologiske forskning i forbrug. Afhandlingen undersøger betydningen af sociale relationer som grundlag for at forstå forbrug og dermed vaner. Den består af fire artikler indsendt til internationale, peer reviewed tidsskrifter. Artiklerne har til formål empirisk og teoretisk at belyse forskellige perspektiver med relevans for forbrugssociologien og den politiske dagsorden på området.

Ved at fremhæve betydningen af vaner og rutiner har praksisteoretiske studier inden for bæredygtigt forbrug, hvor Elizabeth Shove og hendes medforfattere er centrale hovedpersoner, udgjort et modstykke til den dominerende økonomiske model af forbrugeren. Med udgangspunkt i teorier om praksis, inspireret af Science and Technology Studies (STS) og Actor Network Theory (ANT), har studier af bæredygtige forbrugspraksisser fokuseret på materialitet og infrastrukturer. Der er stærke teoretiske argumenter for, at sociale relationer udgør en central forklarende mekanisme for forbrugspraksisser. Dette forhold er imidlertid i vid udstrækning blevet overset. Formålet med afhandlingen er at levere en mere systematisk, empirisk og teoretisk forståelse af sociale relationer til feltet for bæredygtige forbrugspraksisser, herunder at kaste lys over den sociale differentiering af praksisser. Det er centralt at forstå de sociale strukturer af forbrug, hvis vi skal kunne forstå vaner og udvikle teorier om bæredygtige forandringsprocesser og formulere politik, som kan hjælpe med at ændre forbrugernes adfærd i en mere bæredygtig retning.

Afhandlingen består af to dele. I første del (kapitel 1-4) skrives afhandlingens bidrag ind i praksisteorien og den forbrugssociologiske forskningstradition. Her skitseres den forbrugssociologiske historie og udviklingen af sociologiske tilgange til forbrug, især i forhold til diskussioner om bæredygtigt forbrug. Denne del redegør desuden for sociale relationer som værende vigtige for at forstå vaner og introducerer herunder Bourdieus teoriapparat. Første del afsluttes med en diskussion af, hvordan afhandlingens resultater kan informere forskning i bæredygtigt forbrug og fremtidig politik på området.

Afhandlingens anden del udgøres af fire selvstændige artikler (kapitel 5-8). Kapitel 5, 6 og 7 udgøres af afhandlingens tre empiriske artikler. I kapitel 5 benyttes ejerskab af husholdningsapparater i Danmark til at undersøge den rolle, sociale grupper spiller i forhold til at reproducere sociale normer indenfor materielt forbrug og til at belyse den rolle, sociale grupper spiller i forhold til at reproducere fælles forståelser omkring det gode og efterstræbelsesværdige liv. I kapitel 6 benyttes brug af vaskemaskiner som et eksempel til at skildre, kategorisere og forstå forskelle i energiforbrugende aktiviteter. I kapitel 7 bruges varmeforbrug som udgangspunkt

for at undersøge, i hvilket omfang forbrugsmønstre overføres fra en generation til generation gennem social interaktion.

Kapitel 8 udgøres af afhandlingens teoretiske artikel. Her (gen)indføres Bourdieus begreb om kropsliggjorte forståelser i det sociologiske felt om bæredygtigt forbrug. Der argumenteres for, at et større fokus på forståelser indlejret i mennesker kan bidrage til at opnå mere nuancerede svar på grundlæggende sociologiske spørgsmål om, hvorfor forbrugspraksisser er, som de er, samt hvordan de reproduceres og forandres.

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Mette Hove Jacobsen Copenhagen, May 2017

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Literature

### LIST OF ARTICLES

Jacobsen M H (2016): Social bases of material consumption: The relationship between social groups and possession of household appliances in Denmark. *Journal of Consumer Culture* 0(0): 1-20.

Jacobsen M H: (In)appropriately laundered clothing: Social differences in the use of household appliances. *Invited to revise and resubmit in Energy Research & Social Science* 

Hansen, A. R. & Jacobsen: Reproduction of habits: Do adults share inconspicuous consumption practices with their parents?

Jacobsen, M. H. & Hansen: (Re)introducing embodied practical understandings to the sociology of sustainable consumption. *Under review in Journal of Consumer Culture* 

# PART I INTRODUCTION AND OVERVIEW

### **CHAPTER 1. INTRODUCTION**

Today, many Western economies have transformed into societies that to a large extent depend on private consumption. On the one side, the structure of modern capitalism and the pursuit of growth entail innovation of newer, better or cheaper goods and services. On the other side, a complex social logic drives forward increasing consumer demand for these goods and services (Jackson 2009). Especially since the Second World War, these factors in combination have led to a significant increase in the volume of goods and services consumed, and understanding the nature of both is essential in order to understand forms and levels of consumption.

The increase in consumption has led to rising levels of carbon dioxide emissions and a range of sustainability challenges (Munasinghe et al 2009). These challenges include melting ice and rising sea levels, which result in flooding and erosion as well as extreme weather events with consequential floods, impaired water quality and decreasing availability of water resources (European Commission 2017). Among the most affected are many developing countries but all regions around the globe are affected by climate change and many plants and animals will be at increased risk of extinction. Carbon dioxide emissions are estimated to be responsible for 64 per cent of global warming (European Commission 2017) and due to current mega trends, the level is rising more quickly than ever. Mega trends like population growth, economic development, urbanisation, single-person households and ageing induce rising levels of consumption and use of finite resources, and they exacerbate sustainability pressures. Furthermore, "developing countries" are starting to follow the same path of material consumption as Western societies (Munasinghe et al 2009).

The role of consumption has long been recognised as a key part of the sustainability challenge (e.g. World Commission on Environment and Development 1987) and it is widely acknowledged that prospective transitions towards a lowcarbon society will require significant changes in forms and levels of consumption. Such changes rely not only on technological improvements and efficiency gains (though efficiency gains have slowed down the growth in demand for finite resources). They also rely on changes in everyday behaviour and lifestyles. Facing these challenges, a great number of researchers across disciplines have turned their attention to consumption in the search for more sustainable consumption patterns. These disciplines have suggested very different mechanisms that drive or motivate people to consume in particular ways. For example, for economists the key assumption is that consumptions is a consequence of relatively autonomous individuals making economically rational choices to satisfy their preferences. While this relatively simple economic assumption of the consumer has been challenged by what has come to be known as behavioural economics, introducing concepts such as nudge (Thaler and Sunstein 2009), it is still this model of the consumer that underpins dominant accounts of consumption. To a large extent, psychologists share the view that consumers are sovereign and make individual choices but psychologists add attitudes and values to the assumption. In both accounts, the individual becomes the key unit of analysis and the sole source of change, without focusing on the consumer's personal and collective history.

On the policy agenda too, consumer behaviour has become a way to accommodate the sustainability problem. In this case, the economic model of the consumer often underpins strategies for sustainable consumption (Southerton et al. 2004b). This model has been criticised for being the dominant paradigm of "ABC" (attitude, behaviour and choice) and for not focusing on the social and cultural context in which individual attitudes and choices are understood and framed (Shove 2010). Hence, the vast majority of behaviour change initiatives focus on the individual for behaviour change, and policy responses to the problem are often to influence individual consumers to make different choices by providing relevant information about products, providing economic incentives or reframing the attitudes of consumers by education (Southerton et al. 2011). However, despite attempts to change consumer behaviour, there is no evidence of any fundamental shifts and the impacts seem to be short-term (see e.g. Thøgersen og Møller 2008). Changes in the attitudes and values of the consumer do not necessarily translate to changes in consumption, and people that expose pro-environmental values do not necessarily act pro-environmentally (Blake 1999). This is often referred to as the "value-action gap" and suggests that the relationship between attitudes, values and behaviour is not straightforward.

In response to the assumption that consumption is driven by individual intentional actions and to the failure of policies aimed at changing consumer behaviour, a new line of consumption studies has emerged. This line of research has challenged and qualified the standard economic model of individual rationality and choice by emphasising the social, collective and conventional character of human conduct. The basic assumption is that "[...] consumption occurs as items are appropriated in the course of engaging in particular practices" (Warde 2005:131). Resources such as food, water and energy are in this sense not consumed for their own sake, but within and for the sake of socially organised practices. This has inspired empirical studies of consumption, especially within the research areas of eating and cooking (Holm 2013; Halkier 2009; Warde and Martens 2000) and sustainability (Gram-Hanssen 2010; Hansen 2016; Shove et al. 2014; Strengers 2012; Strengers and Maller 2011). Attributing little significance to individual consumer choices, this research - though to various extents - takes account of processes like cultural conventions associated with the everyday life, social, cultural and technological innovations and matters of social differentiation. When examining how such processes shape the organisation of everyday practices, these contributors provide critical insights necessary to understand the role of consumption and possibilities for change which individual approaches to consumption inspired by the psychology or economics often fail to see.

This new line of consumption research has been particularly inspired and informed by the work of Theodor Schatzki (1996, 2002) and what has come to be known as the "practice turn" in contemporary theory (Schatzki el al. 2001). In his work, Schatzki develops an ontological version of practice theory that places

practices at the core of social order and human conduct. He associates practice theory with theorists such as Pierre Bourdieu, Anthony Giddens, Jean-Francois Lyotard and Charles Taylor who, despite disagreements about the nature of understandings and intelligibility as well as the character of structure, share the idea that "[...] practices are the site where understanding is structured and intelligibility articulated" (Schatzki 1996:12). In this sense, practice theory provides an alternative to the permanent tension in social theory in general over the relationship between structure and agency. This alternative has inspired sociological accounts of consumption to try to understand and explain the normalisation of standards of cleanliness, convenience and taste and how they change (e.g. Shove 2003; Shove and Southerton 2000).

Schatzki argues for an analytical distinction between practice as entities and practice as performance (Schatzki 1996). The first notion is practice as a coordinated entity in the sense that practice constitutes a nexus of – to practitioners and non-practitioners – recognisable, identifiable and intelligible components. These components have been operationalised in various ways within practice theoretical accounts, but a combination of material objects and infrastructures, practical knowledge, common understandings, procedures (or rules) is often applied (see e.g. Warde 2005; Gram-Hanssen 2011; Shove et al. 2012). The second notion, practice as performance, refers to performing the nexus, which actualises and sustains the practice. Thus, there is a continual relationship between practice and performance, in the sense that reproduction of a practice requires regular performance. This is also central to Anthony Giddens in his theory of structuration (Giddens 1984). Since 2001, when Schatzki, Knorr Centina and von Savigny published the book The Practice Turn in Contemporary Theory and 2005 when Alan Warde published the article Consumption and Theories of Practice, theories of practice have been applied widely within the social sciences and studies of consumption, perhaps most importantly in debates about sustainable consumption (for a review see Warde 2015a).

The articles presented in chapters 5 to 8 in this dissertation are situated within this practice turn in sociological studies of consumption and they seek to contribute both empirically and theoretical to its development. Despite significant impact on the study of consumption, practice theoretical accounts on sustainable consumption practices have had little to say about the social patterning of consumption and the role of social groups in maintaining and reproducing common procedures (this is also pointed out by Warde (2014a)). Understanding the dynamics that occur between social groups is central to grasping reproduction and change of consumption patterns and hence a key process for transition towards sustainable development. Theoretically, Warde (2005) argues that practices are socially differentiated and social relations have an impact on processes of consumption, but further theoretical and empirical exploration is needed. In this light, the overall objective of the dissertation is to analyse the social order of consumption and the dynamics of social relations between social groups of relevance for understanding processes of resource consumption and for sustainability transitions.

#### 1.1. OVERVIEW OF THE DISSERTATION

The dissertation falls into two parts. In the first part of the dissertation (chapter 1 – chapter 4), I seek to place the contribution of my dissertation within the practice turn witnessed in the sociology of consumption over recent decades. In chapter 2, I review the development of sociological approaches to consumption and to consumer behaviour, in particular in relation to debates about sustainable consumption. The chapter identifies the significance of the cultural turn but also some limitations, and it discusses how these limitations relate to engagement with the new direction following the practice turn. The review leads to the suggestions that theories of practice and especially the approach to habits provide alternatives to the study of consumption and for understanding the possibilities for a sustainable transition. The chapter introduces two practice theoretical approaches to the analysis of habit and habituation that provide an alternative model of action; one that considers habits as a way of knowing internalised in humans, and another that considers habits as a way of knowing materialised in infrastructures and material entities. In chapter 3, I place the articles within the methodological debate about the role of quantitative research in sociology. I end the first part of the dissertation with a conclusion, and discuss the potential of the findings of the dissertation for research on sustainable consumption practices and to inform sustainable policy.

The second part of the dissertation is composed of four self-standing articles (chapter 5 – chapter 8). In chapter 5, an article published in *Journal of Consumer Culture*, possession of household appliances in Denmark is used to address the role of social groups in reproducing social norms of material consumption practices. Using latent class analysis, four distinct latent subgroups with similar patterns of material consumption are identified and analysed. On the basis of the possession of appliances, these groups are characterised and labelled *unlimited*, *outdated*, *limited* and *updated*. As identified in other domains of consumption, this article found that patterns of material consumption are socially structured. The empirical foundation of the analyses is a survey on possession of household appliances in Danish households, carried out in 2014 by Statistics Denmark as part of their annual omnibus survey. The survey is combined with a substantial amount of socioeconomic and demographic information from the administrative registers in Denmark.

In chapter 6, an article invited for revision and resubmission in *Energy Research & Social Science*, washing machine use is taken as an example to depict, categorise and understand differences in energy-consuming activities and to shed light on the role of social groups in reproducing common understandings. The analysis is based on a survey conducted in 2014 for the Danish energy model *Elmodel-Bolig*. The survey consisted of a questionnaire answered by 2,023 households, about the possession and use of electrical appliances at home. In addition to the questions on the use of a washing machine, socio-economic and demographic information is included.

In chapter 7, an article co-authored with Anders Rhiger Hansen, heat consumption is used to study the extent to which inconspicuous consumption practices are reproduced from generation to generation through social interaction. The analysis is based on extensive panel data from the Danish Building and Dwelling Register on heat consumption of adults and their parents living in single-family detached dwellings in Denmark. In the article, weather variations across years are used as the external variation in a fixed-effect model to isolate intergenerational correlations of heat-consuming behaviour.

In chapter 8, Bourdieu's notion of embodied practical understandings is (re)introduced to the field of sociology of sustainable consumption. It is argued that a greater focus on practical understandings as embodied in humans can help achieve more nuanced answers to fundamental sociological questions of why sustainable consumption practices are the way they are and how they reproduce and change. By showing interconnections between the perspective of practical understandings embodied in humans, represented by Bourdieu, and the perspective of practical understandings embedded in material entities, represented in the sociology of sustainable consumption, the article aims at providing a basis for applying both perspectives in order to better understand the complexity of sustainable consumption practices.

# CHAPTER 2. THEORETICAL BACKGROUND

Although consumption as a topic for systematic sociological investigation was identified only 25 years ago (Warde 2014a), sociologists have a long tradition for theorising over the role of consumption (e.g. Veblen (1994); Simmel (1957); Weber (1978)). The concept of consumption has been addressed in several and very different ways in the traditions of sociological theory, and like sociology, the sociology of consumption has not been unified in the sense of adopting a single shared paradigm on consumer culture. Instead it has emerged from the coming together of several distinct scholarly traditions, all of which contribute with descriptions and diagnoses of circumstances wherein consumption plays a defining role, and they all suggest different explanations for what drives or motivates people to consume in particular ways. These explanations reflect a general and continuing puzzle in social science over the relationship between the model of *homo sociologicus*, which explains social order by collective norms and values and the model of *homo economicus*, which explains social order by the intended or unintended product of individual purposes, intentions and interests.

In this section, I outline some of the sociological approaches to consumption and consumer behaviour. The objective is to review the emergence of sociological approaches to consumption and to look back on some of the concerns that have been downplayed by the current generation of practice theoretical formulations. No single approach will be exhaustively outlined in itself. Instead, I emphasise themes or dimensions insofar as they relate to larger trends of thought on consumer behaviour.

# 2.1. THE DEVELOPMENT OF A SOCIOLOGICAL THEORY OF CONSUMPTION

In his review of developments in the social sciences of consumption, Warde (2010) identifies three phases, each of which has a distinct focus: acquisition, appreciation and appropriation. In the first phase, attention was drawn towards consumption as processes of how goods and services are acquired. Consumption was explained in terms of production and cultural phenomena were products of the unequal access to goods and services. This view was initially associated with the Frankfurt School (Featherstone 1990), and was not very different from the model of economic theory. Although influenced by the producers through advertising, consumption was generally a process of personal deliberation (Warde 2014a).

Along with movements within the humanities and social sciences towards an understanding of the symbolic meaning of consumption in the 1970s and 1980s, the analytical attention of consumer studies shifted from a critique of economism to an appreciation of consumer culture. Consumption was emphasised as a process of

communication and presented as a code or language involving semiotic, literary and historical analysis (Warde 2010). This appraisal of the role of culture continued during the 1990s, where consumption was increasingly emphasised as a process of creating and communicating personal identity. Consumption was primarily considered a personal and individual matter, rather than as collectively and socially embedded practices (Warde 2010). Individuals were given a great range of choices and were increasingly able to form their own identities through patterns of consumption, independent of social relations and constraints (e.g. Giddens 1991; Beck 1992; Bauman 1988). Lifestyle was thus a consequence of deliberate consumer choices and not a function of social position. As Warde (2010) notes, such a view has parallels with the neo-classical economic model and the phase has been identified as the "cultural turn" within the sociology of consumption. While many of the most significant theoretical and empirical findings in the sociology of consumption emanate from the cultural turn, cultural analysis has gradually been subject for criticism, both for its focus of attention and for its general theory of action (e.g. Warde 2014a).

Arising partly as a critique of the second phase, since the 1990s the third phase has gained prominence within sociological studies of consumption. Mostly inspired by studies in anthropology and their research on material culture, it adopted the notion of appropriation (Warde 2010). With Daniel Miller (e.g. 1987; 1998; 2010) as one of the most productive exponents, the research emphasised use and performance, where the idea of appropriation refers to the use of goods for their practical purposes and their role in establishing and maintaining social relationships (Warde 2010). Also studies within Science and Technology Studies (STS) and Actor Network Theory (ANT) (Latour 2005) have offered theoretical alternatives to the reflexive individual dominant during the cultural turn by showing how material objects alter procedures and performances with respect to consumption (e.g. Shove and Southerton 2000). STS and ANT introduced objects as components and determinants of social arrangements and thereby tried to accommodate non-humans into social science.

Presumably, the influence of the cultural turn has begun to fade out (Warde 2014a; Warde 2015a; Warde 2017). Warde (2017) argues, that this is a consequence of an overemphasis on some aspects of consumption to the neglect of others. First, the cultural turn has been accused of neglecting the ordinary and inconspicuous acts of consumption in favour of the conspicuous and expressive. As Gronow and Warde (2001) argue, such activities may require different concepts and approaches. This perspective becomes particularly relevant in issues about the sustainability of contemporary patterns of consumption. Second, investigating class became increasing uncommon during the cultural turn, whereas understanding class was the primary concern for earlier accounts of conspicuous consumption. As Warde (2017) argues, this was a consequence of pronouncements about the end of class and a view that social structural divisions were losing their hold. Less attention was paid to the social structuring of consumption, and thus, distinctive characteristics of the social world, of status and class and of social interaction have been de-emphasised as a

consequence of the (over)emphasis on culture (Warde 2015b). Third, the role of material objects and technologies was down-played during the cultural turn. No independent explanatory power was ascribed to the material entities and, as Reckwitz (2002a:202) argues, "[t]he material world exists only insofar as it becomes an object of interpretation within collective meaning structures". Reckwitz introduces the work of Bruno Latour in order to conceptualise the material and thereby provide a way to grasp the material as artefacts that comprise necessary components of certain social practices (Reckwitz 2002a). Latour thereby challenges traditional perspectives of the social as only including social relations. Further, Reckwitz argues that the perspective of Bruno Latour is closely connected with, and can be embedded in, the broader theoretical frame of theory of practice as developed by Theodore Schatzki.

Beside the focus of attention, the cultural turn has received criticism for its general theory of actions (e.g. Warde 1997; Warde 2017). It has been accused of obscuring the importance of embodied procedures and habits by emphasising individual agency and reflexivity and hence being only little different from the model of the sovereign consumer of neo-classical economics. This framing of action and the figure of the sovereign consumer has come to be known as the "portfolio model of the actor" (e.g. Warde and Southerton 2012; Southerton 2012; Warde 2014b). This term is defined by Whitford (2002:325) as a model in which "[...] individuals carry a relatively stable and pre-existing set of beliefs and desires from context to context. Given the situation, they select from this portfolio 'those elements that seem relevant and [use] them to decide on a course of action". The portfolio model of the actor has been contested on many grounds (see e.g. Southerton et al. 2004a, b; Shove 2010). The model has particularly been challenged in sociology for its failure to accommodate that most human conduct is habitual. Understanding the phenomenon of habit is important in relation to sustainable consumption and requires a different set of analytical tools and concepts than provided by the cultural turn.

# 2.2. HABITUATION AND THE ENGAGEMENT WITH THEORIES OF PRACTICE

Within debates about sustainable consumption, the failure of policies aiming at changing behaviour and the gap between values and action has turned attention towards the concept of habituation (Shove 2010; Warde and Southerton 2012). When faced with the value-action gap, habits often become the concept used to explain why individuals do not make effective decisions: "Individuals [...] behave habitually and in response to social customs and expectations. This leads to 'path dependency', which limits their responses to policies designed to raise efficiency [...]" (Stern 2006:381). In this perspective, habits are treated as an individual property (see e.g. Turner 1994) and a driver of behaviour. Consequently, habit is not treated as behaviour itself but as an external causal variable and reduced to automated responses to external conditions (Southerton 2012:337). Among the

critiques of this approach is that it fails to unravel the social and institutional context in which attitudes and preferences are understood and framed.

Although important theoretical arguments emphasise habit as the most common form of action (Weber 1978; Giddens 1991; Bourdieu 1990), social scientists have been reluctant to use the term and to acknowledge "habit" as a socially significant form of human action (Warde Southerton 2012; Swarts 2002). This does, however, not mean that the concept does not have its merits. Warde and Southerton (2012:7) note that one reason for the general reluctance to employ the concept of habit within the social sciences is that scholars do not agree on the definition of the term. They suggest the definition provided by Charles Camic to orient and guide sociological discussions. In his article, Camic (1986:1044) defines the term habit as a "[...] more or less self-actuating disposition or tendency to engage in a previously adopted or acquired form of action". Drawing on Bourdieu's work, Swartz (2002) outlines key characteristics of habits as: the predictability and regularity of behaviour, a unifying force of various forms of human activity, collective (family class, status group, gender) rather than individual, and a conservative force that provides continuity between the past and the present.

A growing sociological interested in the inconspicuous and ordinary aspects of consumption and general theoretical developments in understandings of human action has gradually turned attention to habits (Warde and Southerton 2012; Warde 2015a). This has resulted in sociological engagement with theories of practice, which has thrown a different light on the dynamic mechanisms of consumption. In studying consumption, the engagement with "the practice turn" (Schatzki et al. 2001) have provided an alternative to the model of the sovereign consumer making economically rational choices. Attention has been drawn towards the mundane, ordinary and inconspicuous forms of consumption, which have normally been concealed in cultural analysis (Gronow and Warde 2001). By emphasising habits and routines organised by conventions, these relatively recent developments within the sociology of consumption have offered a different set of tools for understanding consumption processes and how they vary. Such tools provide critical insights for understanding potential shifts to sustainable patterns of consumption. The engagement with theories of practice within consumption studies has influenced recommendations for intervening in consumption practices in order to facilitate a sustainable transition. These studies suggest practices as the site of intervention for sustainability (Strengers and Maller 2015).

Theories of practice emphasise habits and routines based upon shared understandings of appropriate conduct (Schatzki 1996) and are usually associated with prominent figures such as Pierre Bourdieu and Anthony Giddens (Ortner 1984). More recent practice theoretical approaches have especially drawn on ethnomethodology (Garfinkel 1967) as well as the work of Judith Butler (1990) and science and technology studies (e.g. the work of Callon and Latour, (1992), Pickering (1995) and Latour (2005)). Whereas Bourdieu and Giddens, as the first generations of practice theorists, were concerned with the opposition between structure and agency, later generations have been more concerned about studying

performances. Although diverse (Schatzki 1996; Nicolini 2012), theories of practice are united by an interest in the everyday and by a shared location of the social. Theories of practice are a subtype of cultural theory in the sense that the place of the social and explanations for human action and social order are connected to shared symbolic structures of knowledge which also become the unit of analysis (Reckwitz 2002b). This is opposed to the classical models of both homo sociologicus and homo economics. Further, the collective symbolic structures, and hence the social, are located in practices, and this distinguishes theories of practice from other cultural theories which place the social in human minds, for example (e.g. structuralism represented by Lévi Strauss and phenomenology represented by Alfred Schütz), or in languages and sign systems (e.g. post-structuralism represented by Foucault and constructivism represented by Luhmann).

## 2.2.1. UNDERSTANDING CONSUMPTION PRACTICES: HABITUS OR INFRASTRUCTURES<sup>1</sup>

Most practice theoretical accounts agree that habitualised activities come down to the level of practical understandings in the sense of knowing how to do something, knowing what things to desire and what to avoid. These understandings are collective, which entails recognisable and socially shared patterns of activities. This is variously referred to as practical consciousness (Giddens 1984), practical sense (Bourdieu 1977, 1984), and practical understandings (Schatzki 1996). More recently it has been referred to as understandings (Warde 2005) and competences (Shove et al. 2012). How culture – as a set of practical skills, habits and understandings of how to act – is shared and transmitted across individuals is an important theme for most practice theoretical accounts. However, in chapter 8, together with Anders Rhiger Hansen I argue that the location of such understandings varies across scholars and that two divergent practice theoretical positions exist: one that locates practical understandings in humans and another that locates practical understandings in material entities. Table 1 below summaries different theorists, their respective concepts for practical understandings and the location of practical understandings.

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<sup>&</sup>lt;sup>1</sup> This section and subsections draw on the literature review used in chapter 5, chapter 6, chapter 7 and chapter 8.

Table 1 Concept for and location of practical understandings

	Concept	Location
Bourdieu	Practical sense	Internalised in humans as systems of dispositions
Giddens	Practical consciousness	Internalised in humans
STS/ANT	-	Materialised in artefacts <sup>2</sup>
Schatzki	Practical understandings	Internalised in humans
Reckwitz	Practical understandings	Internalised in humans and materialised in objects
Warde	Understandings	Internalised in humans
Shove et al.	Competences	Materialised in systems of material objects

While practical understandings are typically understood as embodied in humans, this perspective has gradually received less attention within the sociology of sustainable consumption. Most accounts of sustainable consumption practices have focused on how infrastructures and material entities co-evolve with different understandings, standards and norms. Reproduction and change of practices are analysed as properties of the material layout over which people have limited control. In this perspective, which has been given much attention within the sociology of sustainable consumption (e.g. Shove 2003; Shove et al. 2015), practical understandings are embedded in material entities which enable and constrain the characteristic of a practice. In such accounts, material objects become an integral part of social practices and the locus of practical understandings (see Reckwitz 2002a for a more comprehensive theoretical articulation this). However, practical understandings embodied in humans and structured through social relations have received much less attention within practice theoretical accounts and especially within the sociology of sustainable consumption (a similar argument is made by Warde (2014a)). Chapter 8 states two reasons to why practice theoretical approaches to consumption have only to a limited degree integrated the relevance of embodied knowledge and social relations. First, the engagement with the cultural turn, and second, the engagement with science and technology studies.

In the wake of the cultural turn, practice theoretical approaches dealing with sustainable consumption have generally focused on rethinking the role of the material when understanding habituated conduct and how practices reproduce and change. Consequently, thematising dispositions internalised in humans and structured through social relations have disappeared by the almost exclusive focus

<sup>&</sup>lt;sup>2</sup> The interpretation of Reckwitz (2002a)

on the role of material entities. The next section briefly unfolds this argument by outlining the contribution of Bourdieu and Shove (with co-authors).

#### Habitus and the role of social relations

Bourdieu uses the term habitus rather than habit to capture the regularities in human conduct. His definition of habitus is:

The conditionings associated with a particular class of conditions of existence produce *habitus*, systems of durable, transposable dispositions, structured structures predisposed to function as structuring structures, that is, as principles which generate and organize practices and representations that can be objectively adapted to their outcomes without presupposing a conscious aiming at ends or an express mastery of the operations necessary in order to attain them. Objectively 'regulated' and 'regular' without being in any way the product of obedience to rules, they can be collectively orchestrated without being the product of the organizing action of a conductor. (Bourdieu 1990:53)

In Bourdieu's version of a theory of practice, it is habitus that underpins human activity. Habitus becomes a routinized way of knowing inscribed in bodies, where durable and transposable dispositions – practical knowledge – based on past experiences and specific social trajectories become embodied in the individual. This constitutes a stock of resources, which provide the individual with the capability to decipher "cultural codes" and behave accordingly. Further, the experiences and social trajectories, and hence the dispositions that underpin activity, are socially shared and hence not solely individually stored. People acquire the dispositions and knowledge to act informally through social interaction that makes practices identifiable to agents that have been socialised under similar conditions. In this way, habitus creates homogeneity across social groups, where (consumption) practices become signs of group affiliation united by people with similar social trajectories.

To Bourdieu, social constraints exist by which social groups, primarily social classes, maintain and reproduce social norms of conduct. This also means that the relationships between social groups are dynamic mechanisms for reproduction and change of practices. Hence, changing practices require changes in the social organisation of practices, and the dynamics between social groups become important in order to understand the possibilities for change. Empirical research within the sociology of consumption in general has specified social constrains and found social differences in the interpretation of consumption practices (e.g. Holt 1997; Katz-Gerro 2002; Savage 2016). Theoretically, Warde (2005) argues that the performances and engagement in practices are reflected by the personal history of the practitioners, and in order to make sociological analysis of the habitual character of behaviour, Lizardo (e.g. 2004) suggests Bourdieu's conceptualisation of habitus.

In contrast to this position, practice theoretical accounts of sustainable consumption practices have increasingly emphasised the external affordance and constraints of material arrangements. Focus has primarily been on the history and knowledge embedded in material arrangements rather than the history and knowledge embodied in humans and structured through social relations.

#### Infrastructures and the role of material objects

Bourdieu found little place for objects, technologies and infrastructures. However, practice theoretical approaches to consumption, especially within the field of sustainability and energy demand, have increasingly turned towards the material world and how objects and devices play a role in reproducing and transforming patterns of consumption. In this position, it is generally agreed that material objects constitute an integral part and necessary component of practice (Reckwitz 2002b).

With Elizabeth Shove and her co-authors as central protagonists (e.g. Shove 2003; Shove et al. 2012; Shove et al. 2014; Shove and Walker 2014; Shove et al. 2015), this perspective has inspired many authors within the field of sustainable consumption and energy demand to explore the impact of material entities in shaping practices. For example, in relation to heating and cooling practices (Gram-Hanssen 2010, 2011; Jalas and Rinkinen 2013; Rinkinen and Jalas 2016; Strengers and Maller 2011), energy consumption feedback (Strengers 2011), dynamic pricing (Nicholls and Strengers 2015; Strengers 2008), use of technologies (Røpke et al. 2010) and laundry routines (Jack 2013a, 2013b). Generalising from these studies, they have definitely acknowledged the neglect of material factors during the cultural turn and argue that, in order to understand inconspicuous forms of consumption, a closer interaction between STS and the sociology of consumption is necessary. For example, Shove (2003) studies how practices are structured by interdependent systems of material objects in which specific moral, social and symbolic meanings of appropriate conduct are materialised. Against this backdrop, Shove et al. (2012) argue how practices are constituted by three elements, where material entities are considered an integral element in holding practices together, along with forms of competences and relevant meanings. In order to understand how common procedures and shared understandings evolve, Shove et al. (2015) offer a conceptualisation of infrastructures. They ascribe different qualities infrastructures, which become systems of material entities that both structure and are structured by the routine reproduction of practices. This means that infrastructures get a different role than the technologies or material objects that are more directly mobilised in the conduct of a practice where the interaction between infrastructures and the practices to which they relate are central in order to understand shared understandings and habituated conduct (Shove et al. 2015).

In these accounts, practical understandings are often considered to be disembodied and placed outside the agent(s). Consequently, embodied practical understandings transmitted and sustained within social relations have been missed to a large extent within this stream of literature, and consumption processes structured through social relations are put in the background. By downplaying the role of social

relations in structuring practical understandings, important insights on why agents act differently within the same practices and why agents engage in different practices are lost. Hence, these accounts on sustainable consumption practice and energy demand do not take advantage of the possibilities offered by theories of practice.

# CHAPTER 3. QUANTITATIVE SOCIOLOGY

Quantitative methods seem to have difficult conditions within the sociology of sustainable consumption, and within mainstream sociology in general, quantitative methods have attracted criticism for being reductionist and for not being able to capture latent sociological phenomena such as social structures or processes. Since I use quantitative methods in all my empirical articles, I find it relevant to discuss this critique and explain my methodological position. Hence, the ambition of this section is not to give a statistical introduction to the methods used in the articles, rather, it is to argue for the applicability of quantitative methods to study sociological phenomena. A more detailed description of the methods can be found in chapter 5, chapter 6 and chapter 7, respectively.

#### 3.1. THE RELATIONSHIP BETWEEN NUMBERS AND THEORY

With the development of cultural theories, it is not controversial to say that sociological phenomena occur in interplay between micro and macro levels (though emphasis on either the micro or the macro level can vary). Traditionally, quantitative methods have been associated with the positivistic ambition to make predictions based on universal causal laws. An alternative to the positivistic model of explanation is to explain the mechanisms behind the statistical regularities. However, since the statistical analysis does not in itself hold information on the social mechanisms behind the statistical correlations and regularities, it entails a strong integration between method and theory (Benjaminsen 2006). An essential job for the sociological analysis is, hence, to explain the processes and mechanisms behind the observed patterns and regularities, and thus to explain the mechanisms that connect the micro-level and the macro-level. Pierre Bourdieu's notions of field, habitus and capital are examples of concepts and theories that try to bridge between the micro-level and the macro-level and hence to overcome the dualism of the two classical figures: that of homo economicus and homo sociologicus. Anthony Giddens' structuration theory is also worth mentioning for its attempt to bridge between the actor and the structure. Within the sociology of sustainable consumption, I would argue that Elisabeth Shove et al.'s (2015) concept of infrastructures as systems of material arrangements that both structure and are structured by the routine reproduction of practices can be used as such a bridgebuilding concept in order to study the interplay between social structures and individual actions (or performances). In general, these theories emphasise the procedural character of social phenomena that take place in the interplay between social structures and individual action. It is these processes, the quantitative methods can help identify, for example Pierre Bourdieu emphasises the advantages of using quantitative analysis as a way to understand the structure and dynamics of the social fields (Bourdieu 1984:107).

Sociology is characterized by concepts and phenomena that are latent and thereby only can be observed indirectly. What people consider as being appropriate conduct in social settings is an example of such a latent sociological phenomenon. Quantitative methods have been criticized for not being able to capture latent or indirectly observed phenomena. However, the methodology has undergone a considerable evolution and methods have been developed to highlight underlying structures and latent phenomena that are not directly observable (for a discussion see Jæger 2006). In chapter 5 and chapter 6, I use latent class analysis, a method that is capable of capturing just such latent sociological phenomena. Further, by combining the model with a regression model, it is possible to capture the impact latent phenomena have on human actions, which in my case is reflected in possession and use of appliances.

Another stated critique is that quantitative methods are reductionist and cannot capture the complexity of human action. However, the emergences of longitudinal data material and panel data models has made it possible to model the actions of individuals across time as a function of complex individual and contextual characteristics (Jæger 2006). In chapter 7, I use a fixed-effect panel model that exploits the panel structure of the data by estimating the correlation of consumption patterns over time between adults and their parents. Furthermore, this model takes into account unobserved factors that could influence individual behaviour and it allows for as much dynamic and heterogeneity as is known from qualitative methods (Jæger 2006). I am well aware that by using quantitative, sociological methods I preclude myself from some of the nuances that can be achieved through a qualitative approach. Therefore, combining the quantitative models with sound qualitative description could be relevant for future research.

#### 3.2. CAUSALITY AND DETERMINISM

Philosophically, sociology can be said to be placed in the tension field between the humanities and natural sciences in the sense that the objective is to both *understand* and *explain* social phenomena. One example of this is Max Weber's attempt to integrate the interpretative approach from the humanities (Verstehen) with causal explanations (Erklären) (Weber 1978). For Weber, the objective of sociology is to understand the meaning behind a social action through interpretation, and thereby clarify its reasons (Gilje and Grimen 2002:113). Another example is Bourdieu, who emphasises that representing social phenomena is not enough; they need to be explained. By integrating elements from the objective explanatory approach with the subjective interpretative approach, the causal knowledge of the sociology becomes different from the causal knowledge of the natural sciences (Ritzer and Goodman 2003). This means that, although quantitative methods search for *correlations* between social phenomena, rather than talking about universal laws, causality in quantitative sociology becomes more about making probabilistic statements about

observed correlations. However, this does not mean total consensus on the weight of explanatory and interpretative approaches and the history of sociology contains many controversies.

To my knowledge, only a few quantitative approaches focus on the shared and collective aspect of sustainable consumption practices, and in general, practice theoretical approaches to sustainable consumption tend to be descriptive rather than explanatory. The objective in this dissertation is to explain underlying mechanisms and processes of the statistical correlations. An underlying assumption of the dissertation is that correlations are observable, and not least that it is possible that we as researchers can obtain this knowledge. From this point of view, the reality poses an objective reality that exists independently of our perception of it. This is in contrast to constructivism that considers the social reality as being dependent and influenced by our perception of it. The consequence of this underlying assumption is not to consider social phenomena as eternal and unchangeable. Instead, I think of social phenomena as emerging and changing through historical and social processes. Social structures are in this way changeable, but are at the same time conservative by nature and have objective subsistence.

### **CHAPTER 4. CONCLUSION**

In this dissertation I argue that the sociology of sustainable consumption has made important contributions to the study of sustainable consumption practices especially because of its awareness of the mundane, ordinary and inconspicuous forms of consumption and the emphasis on habituation which has questioned the previous emphasis on culture and individual choice. However, most of the progress has been with respect to the analysis of material entities, encouraging the view that sustainable consumption practices are primarily driven by technologies and infrastructures. This dissertation empirically examines the role of social relations in sustainable consumption practices and in determining forms and level of consumption. No doubt infrastructures and technologies play an important role in reproducing practices, but I argue that the role has been exaggerated and has obscured the significance of social relations, social class and social structures. Understanding the dynamics that occur between social groups is central to grasping reproduction and change of consumption patterns and hence a key process for developing theories for sustainable transitions and to formulate policies that can help steer consumer behaviour towards more sustainable consumption patterns. In the first part of the dissertation, I have sought to place the contribution within the practice turn witnessed in the sociology of consumption recent decades, and this chapter will summarise the findings of the dissertation.

Unlike most practice theoretical approaches to consumption practices, chapter 5 and chapter 6 address the social differentiation of consumption patterns and shed light on the role of social groups in maintaining and reproducing norms and standards of appropriate conduct. These chapters show that patterns of consumption are quite simply, yet strongly patterned, which indicates that possession and use of appliances are determined by conventionally shared understandings of consumption practices. Furthermore, the chapters show that different understandings of consumption practices vary across social groups and consequently play an important role in consumption processes, where shared understandings towards consumption are structured through social relations. In continuation hereof, understanding how practical knowledge is transmitted from individual to individual becomes important in order to facilitate a sustainable transition. Chapter 7 contributes to this by studying the intergenerational correlation of inconspicuous consumption patterns between adults and their parents, and this shows that consumption patterns are strongly correlated between parents and their grown-up children. On the basis of these chapters it can be concluded that practical understandings and dispositions to act when appropriate circumstances arise are embodied, shared and structured through social relations. These results are important in order to fully understand the complexity of consumption practices and the possibilities for sustainable development.

In chapter 8, Bourdieu's concept of habitus is introduced to the sociology of sustainable consumption as a conceptual tool to grasp the differentiation in sustainable consumption practices and embodied practical understandings. The

interconnection between the perspective of practical understandings embodied in humans and practical understandings embedded in material entities is illuminated. Hereby, the dissertation contributes with a theoretical perspective on how a focus on social relations and materiality can be combined in future studies of sustainable consumption practices.

These results lead to questions about the implications for policy if we are to change consumption patterns in a more sustainable direction. As noted in the introduction, policy interventions such as economic initiatives or green labelling have made the individual central to the problem of sustainability and the sole route to change. While such policies have had some success, this dissertation points at the limitations of intervening at the level of individual consumers. Practice theoretical approaches to consumption have offered important insight for policy interventions by offering accounts that emphasise the collective aspects of habits and routines. The dissertation argues that habits and habituation play a large role in everyday practices and that these habits are organised by shared understandings of appropriate conduct. This sets the stage for interventions that put more emphasis on changing the social organisations and material arrangements of practices. The dissertation opens for a focus on how the social organisation of practices is involved in legitimatising certain patterns of consumption on an equal footing with technologies and infrastructure. Obviously, infrastructures and provision have a role in forming people's habits and their design is therefore an important tool in mitigating unwanted behaviour. However, the regularity in consumer behaviour is steered by both material and social constraints, in the sense that consumption patterns are also carried out in order to maintain and reproduce social relations. Hence, rather than appreciating the individual bases of decision-making, strategies for changed behaviour would require an appreciation of the social and the material, and policies targeted the problem of sustainability should include the cultural conventions and norms associated with everyday life. Because most choices are socially (and materially) formed and constrained, altering these socially grounded preferences becomes important for successful interventions and reforms. Such changes will partly require political willingness to regulate at an institutional level and to encourage and influence powerful agents to take concrete steps in a more sustainable direction. This would be much more powerful than change through individual consumers.

