

MIMMI BISSMONT

REDUCING HOUSEHOLD WASTE

A social practice perspective on Swedish household waste prevention



MALMÖ
UNIVERSITY

REDUCING HOUSEHOLD WASTE

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**REDUCING HOUSEHOLD
WASTE**

A social practice perspective on Swedish
household waste prevention

Malmö University, 2020
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‘People without things are hopeless,
but things without people are meaningless.’
(Ulf Hård af Segerstad, 1957)

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Abstract

This thesis studies household waste prevention from a social science perspective. Swedish waste management is efficient in handling waste but has not succeeded in reducing its quantities, even though the issue of waste prevention is being raised at both international and national levels.

The aim of this thesis is to study and analyse the practice of household waste prevention. I seek to understand and explain how it may be possible for households in their everyday to reduce that waste. With understanding comes an aspiration to mitigate whatever impedes households from reducing their waste. A second aim is therefore to apply these new understandings and make policy suggestions as to how household waste prevention can be promoted and supported.

My research questions are:

- How is everyday household waste prevention as a practice narrated and discussed? And how can this practice and the activities in it be understood in connection with social structures?
- What obstacles and opportunities do households experience in connection with the practice of everyday waste prevention?
- What policy suggestions can be drawn from these findings?

Household waste prevention has in earlier research often been studied from a waste management perspective, juxtaposing it with recycling. These studies has identified a need to approach the area from a consumption perspective. Sustainable consumption has, however, in general failed to incorporate disposal as a practices in itself, in that disposal involves competence in knowing what to do with certain things, as well as relation between things and their meanings. This runs the risk of leaving waste and waste prevention as part of consumption scarcely researched. It is in this identified gap that I place my study.

In order to address my questions, two studies were carried out. The first is presented in Article I, 'Household practices of disposal – Swedish households' narratives for moving things along'. The data was gathered using in-depth interviews with Swedish households

not explicitly devoted to waste prevention. The study focused on everyday disposal activities. The second study, presented in Article II, is called 'The practice of household waste minimisation'. This study collected data from Swedish bloggers engaging in waste-minimisation practices, sometimes called 'zero-waste bloggers', focusing on how these forerunners describe practising waste minimisation in their everyday.

In both studies I used sociological theories of how humans as actors relate to the social structures and how humans act in their everyday. The theories applied were derived from the extensive work of Anthony Giddens on structuration and late-modernity. As I place household activities at the centre of my study, I have also applied theory of practice.

My analysis starts off with the claim that waste is an unintended consequence of keeping up shared practices: in other words, that household waste production is neither deliberate nor completely voluntary. For waste prevention practices to happen, the prevailing idea that recycling alone is good enough needs to be challenged. There need to be other opportunities to act, such as buying second-hand clothes, unpackaged groceries, repairable electronics etc. These opportunities need to be normalised, meaning that they need to be socially spread and accepted. They also need to be reasonably convenient, as in not demanding too much time and effort. The study of the minimising forerunners reveals that these households have to struggle in their everyday to minimise their waste. This implies that household waste prevention is not supported by the social structures in Sweden and, therefore, will not increase by itself.

I move on to suggest a new model for the understanding of sustainable consumption. This model takes the perspective of practice theory and presents four stages of consumption: need, obtain, use and dispose. All four stages should be recognised as possible situations for interventions. There is also a need for a holistic perspective on consumption, where none of the stages is studied in isolation from the rest.

I conclude the thesis by pinpointing the identified major obstacles to household waste prevention, and by suggesting necessary changes in order for household waste prevention to become a shared practice.

Sammanfattning

Den här avhandlingen studerar förebyggande av hushållsavfall ur ett samhällsvetenskapligt perspektiv. Svensk avfallshantering är effektiv i hanteringen av avfall men har inte lyckats minska avfallsmängden, även om detta har lyfts på både internationell och nationell nivå.

Syftet med avhandlingen är att studera och analysera hur hushållsavfall kan förebyggas i vardagen. Jag försöker förstå och förklara hur det kan vara möjligt för hushåll i vardagen att minska sitt avfall. Med förståelsen kommer en strävan att påverka vad som hindrar hushållen från att minska sitt avfallet. Ett andra mål är därför att tillämpa dessa nya förståelser och ge förslag på hur förebyggande av husavfall kan främjas och stöds.

Mina forskningsfrågor är:

- Hur pratar hushållen om sitt vardagliga avfallsförebyggande? Och hur kan dessa aktiviteter förstås i relation till sociala strukturer?
- Vilket hinder och möjligheter upplever hushållen i samband med avfallsförebyggande?
- Vilka policyförslag kan lämnas utifrån dessa resultat?

Avfallsförebyggande har i tidigare forskning huvudsakligen studerats ur ett avfallshanteringsperspektiv, där det har jämförts med återvinning. Dessa studier identifierade ett behov av att närma sig förebyggande ur ett konsumtionsperspektiv. Hållbar konsumtion har dock i allmänhet misslyckats med att inkorporera bortskaffande som en praktik i sig själv, i betydelsen att bortskaffande involverar kompetens för att vet vad som ska göras med olika saker, så väl som kopplingar mellan olika ting och dess mening. Detta riskerar att avfall och avfalls förebyggande bli marginaliserat inom konsumtionsforskningen. Det är i detta glapp som jag placerar min studie.

För att besvara mina forskningsfrågor har två studier genomförts. Den första studien presenteras i artikel I ”Household practices of disposal – Swedish households’ narratives for moving things along”. Data samlades in med hjälp av djupintervjuer med svenska hushåll som inte explicit har ägnat sig åt förebyggande av avfall. Denna studie fokuserade på vardagligt bortskaffande. Den andra studien, som presenteras i artikel II, har titeln ”The practice of household

waste minimisation”. Till denna studie samlade data in från svenska bloggare med fokus på avfallsminimering, ibland benämnda som zero waste-bloggare.

I båda studierna använde jag sociologiska teorier om hur människor som aktörer förhåller sig till de samhällsstrukturerna och hur de agerar i sin vardag. De tillämpade teorierna är hämtade från Anthony Giddens omfattande arbete om strukturering och senmodernitet. Eftersom jag placerar hushållsaktiviteter i centrum för min studie har jag också använt teorier om praktiker.

Min analys börjar från utgångspunkten att avfall är en oavsiktlig konsekvens av att upprätthålla delad praktiker. Detta innebär att hushållsavfall varken är avsiktligt eller helt frivilligt. För att förebyggande av avfall ska ske måste den rådande idén att återvinning är tillräckligt utmanas. Det måste även finnas handlingsutrymme, såsom begagnade kläder, oförpackade livsmedel, reparerbar elektronik etc. Dessa handlingsutrymmen måste normaliseras, dvs bli socialt spridda och accepterade. De måste också vara tämligen enkla, dvs inte kräva för mycket tid eller planering. Studien av de avfallsminimerarna visar att dessa hushåll måste kämpa i vardagen för att minimera sitt avfallet. Detta tyder på att förebyggande av hushållsavfall inte stöds av den svenska samhällsstrukturen och därför inte kommer att spridas av sig själv.

I nästa steg föreslår jag en ny modell för att förstå hållbar konsumtion. Modellen har utgångspunkt i praktikteori och föreslår att konsumtion består av fyra stadier: behov, förvärv, användning och bortskaffande. Alla dessa fyra stadier behöver betraktas som möjliga situationer för intervention. Det finns också behov av ett helhetsperspektiv på konsumtion, där inget av stadierna ses som isolerat från resten.

Jag avslutar avhandlingen med att identifiera de primära hindren för förebyggande av hushållsavfall samt med att föreslå nödvändiga förändringar för att förebygga av hushållsavfall ska kunna bli en delad praktik.

List of papers

Article I

Bissmont, Mimmi (submitted 2019). Household practices of disposal – Swedish households' narratives for moving things along. Pending review, *Journal of Consumer Culture*.

Article II

Bissmont, Mimmi (submitted 2020). The practice of household waste minimisation. Pending review, *Environmental Sociology*.

1. INTRODUCTION

This is a thesis about waste prevention in Swedish households. The choice of research topic may raise two questions.

Firstly, why would household waste in Sweden be an interesting focus? Only a small proportion of all waste produced in Sweden derives from households. Out of the 142 million tons of waste that was produced in Sweden in 2016, only 3% was from households, 19% came from businesses within the construction, manufacturing and service sectors together with forestry and agriculture, while almost 78% came from the mining industry (Swedish EPA, 2018b). A closer look at the 3% household waste shows that only 0.7% is sent to landfill. Almost half of household waste is recycled, thanks to a well-developed recycling infrastructure, while the other half is sent to energy recovery, which produces both electricity and district heating (Avfall Sverige, 2019b). Framed like this, Swedish waste hardly appears to be a problematic area that needs attention.

Secondly, why waste prevention as a subject? Waste prevention has been criticised for being framed within the wrong context. ‘Waste prevention is about effective production and thoughtful consumption – not about waste’ is the title of the final report from the research project ‘From waste management to waste prevention’, claiming that waste is primarily an outcome of production and consumption (Corvellec et al., 2018).

My interest in writing this thesis is not only in household waste per se, but also in what waste can tell us about society. Waste can be used as a barometer for the state of the environment. It can also be studied as a symptom of how society fails to preserve the value

of natural resources, as well as the labour and money put into the processing of these resources.

A Swedish study on household bulky waste (that is, building materials, furniture, household utensils, toys etc.) shows that more than 20% of what is thrown away is still in useful condition, most of it possibly commercially reusable (Avfall Sverige, 2018). This illustrates that even though the waste management system is efficient, Swedish society is not a great preserver of value.

The 20% figure also shows that waste reduction is, at least in part, an important issue regarding waste. If useful and commercially valuable objects are discarded to this extent, then waste reduction has an obvious role to play in connection with disposal as well as in the waste management system.

Lastly, studying households and their waste practices has wider significance than may first appear. Though household waste is only a small part of the country's total waste, the figures do not show the actual amounts of waste caused by household consumption. The statistical category of household waste shows only the amount of waste discarded via households. For example, when buying a smartphone, the phone itself weighs approximately 200 grams, and it comes in a box weighing also a couple of hundred grams. But during the production and transportation of one single phone 86 kg of waste is produced. These 86 kg are statistically categorised as mining waste and business waste, therefore not allocated to the household account (Avfall Sverige, 2015).

1.1 Outline of this thesis

This thesis is written to explain why and how I have conducted research on Swedish household waste prevention, and also to present the findings from this research. To do this I start off by presenting how waste prevention is framed within the EU package of a circular economy. I then move on to the Swedish waste context in which I place my study. I continue by narrowing the framing down to an urban setting and municipal waste management, using the city of Malmö as an example. At the end of the introduction I present my point of departure as a researcher and conclude by clarifying the aim of this thesis and the research questions I endeavour to resolve.

In the second section I frame my study in social science, giving an overview of earlier research on waste and consumption. The purpose here is also to present how waste and consumption are framed within environmental studies and, more narrowly, within environmental sociology. I close the section by identifying possible gaps in earlier research and how my study may contribute to this field.

The third section presents the theories – structuration theory and theory of practice – which I have chosen as my analytical tools. These theories have aided me in designing my studies and in analysing my material.

In the fourth section I describe and reflect upon the studies that were carried out. I account for the methods used and the empirical materials collected, as well as ethical considerations and methodological reflections.

The main body of the thesis is the section on results and analysis, where I focus on answering my research questions. I do this by summarising and extracting main findings from the two studies that were carried out. By placing the two studies together I aim at creating an emergent analysis, where the generated sum is greater than the two articles' parts.

I close the thesis with a concluding discussion on the implications my findings can have at a municipal and urban level. I also provide suggestions for further research into household waste prevention.

1.2 Waste prevention as an international objective

The goal to prevent waste is discussed at all levels of society. Waste prevention and reduction is part of the UN Sustainable Development Goals, expressed through Goal 12: Ensure Responsible Consumption and Production Patterns (United Nations, 2018). Here waste is framed together with the sustainable management of natural resources, production, consumption and lifestyle.

In the EU, waste prevention and waste management are framed within the vision of a circular economy, presented below.

1.2.1 Circular economy

In the EU, solid waste and waste prevention are situated within the package of a circular economy. A circular economy is defined as an economy...

...where the value of products, materials and resources is maintained in the economy for as long as possible, and the generation of waste minimised, is an essential contribution to the EU's efforts to develop a sustainable, low carbon, resource efficient and competitive economy. (European Commission, 2015: 2)

This vision is displayed in Figure 1 below.



Figure 1: Circular economy according to the European Commission (2015).

The focus here is not only on environmental sustainability, but there is the notion of waste being an economic failure. Minimising waste and keeping value is regarded as a path to economic as well as social and environmental sustainability.

Within the EU Waste Framework Directive waste prevention is defined as:

... measures taken before a substance, material or product has become waste, that reduce: (a) the quantity of waste, including through the re-use of products or the extension of the life span of products; (b) the adverse impacts of the generated waste on the environment and human health; or (c) the content of harmful substances in materials and products. (European Parliament, 2008: article 3)

According to the EU Waste Framework Directive each member country is obliged to have a national waste plan and a waste prevention program (European Parliament, 2008: articles 28, 30). In Sweden the Swedish Environmental Protection Agency (Swedish EPA) is responsible for producing these documents. The Swedish national waste plan and the waste prevention program state that even though the Swedish government and authorities have taken a series of measures to prevent waste, to create more efficient material recycling and to facilitate environmentally smart consumption, it is not enough. There is a need to speed up the transition away from unsustainable resource use. The idea is that resource consumption and emissions can be reduced through sustainable consumption and production and through measures for waste prevention and circular flows (Swedish EPA, 2018a).

In 2017 the Swedish government published an inquiry on circular economy with the purpose of analysing and proposing policy instruments to promote increased utilisation and reuse of products in order to prevent waste (Alterå et al., 2017). The inquiry states that of SEK 100 of household spending on purchases and repairs on consumer products only SEK 0.80 are spent on repairs. Major obstacles have to do with price and time, such as it being more expensive and time-consuming to repair than to buy new. The market for repair and second-hand is held back by regulations supporting waste management as well as by consumers' preference to buy new products and models.

The report recommends facilitating rent, repair and second-hand through tax reduction, which would lower the price obstacle described above. It also recommends an overview of regulations and standardisation regarding the second-hand market and sharing. The report further recommends giving the municipalities the mandatory responsibility of informing its inhabitants on what measures to take in order to reduce waste and also to provide a collection system for reusable products. The cost of waste preventive activities should be possible to retrieve from the municipal waste fee. The authors further recommend strengthening consumer rights regarding complaints of substandard products.

1.3 Framing waste in the Swedish context

An understanding of the Swedish context is important for this study. This section starts off with a brief history of how waste and waste management have evolved in Sweden, moving on to describe and problematise the waste management system of today.

At the start of the 20th century consumption was low, and waste consisted largely of kitchen waste and animal manure: this waste was seen as a resource and used as fertiliser. After the First World War consumption started to increase and functionalism, rationalism, the emergence of the modern city and an increased consumption made way for the idea of waste incineration. Waste incineration was introduced in parallel with the installation of rubbish chutes in apartment buildings, revealing that waste was now regarded as an aesthetic liability, no longer holding any value or worth:

Refuse would quickly, easily, and invisibly be removed from its source, and then destroyed in an equally efficient manner. (Sjöstrand, 2014: 262)

At the end of the 1930s packaged consumer goods had a breakthrough: self-service shops and supermarkets were introduced, and a multitude of new products were presented onto the market, leading to an increase in waste amounts (Sjöstrand, 2014). This breakthrough was in large part due to a newly awoken eagerness for cleanliness and convenience (Ross, 1995). What are considered to be normal standards for cleanliness and convenience have kept on rising (Shove, 2003), which has had a palpable effect on waste production.

Between the 1920s and 1960s Swedish waste amounts tripled. Parallel to the growth in waste was the development of waste incineration. However, the expansion of incineration capacity could not solve the whole waste problem. As more chemicals and complex substances were introduced onto the market, the problem turned from being mainly a matter of handling quantities to managing complex materials. Gas emissions and complex heavy metals had to be handled through technical development of the plants. In the 1960s and 1970s recycling of hazardous waste came into being. Recycling was also discussed in relation to other sorts of waste and in 1975 the Swedish government adopted recycling of paper and packaging as a goal (Sjöstrand, 2014).

This move towards recycling, and involving households in so-called ‘source separation’, happened along with change in environmental policy. The idea grew that an effective environmental policy required the participation and willingness of individuals to take their share of responsibility. Since then the importance of everyday life has gained an increasingly dominant role in Swedish environmental policy. Attention gradually shifted from the Western lifestyle as a structural problem requiring structural solutions; instead, environmentally friendly lifestyles and lifestyle policies as an individual choice have become more and more dominant (Soneryd and Ugglå, 2011).

Since the 1970s recycling and incineration have been dominating waste management in Sweden. A national legislation on producers’ responsibility for packaging made of glass, cardboard, metal, plastic and paper as well as newsprint was introduced in the mid-1990s. According to this legislation companies producing, importing and selling are obliged to ensure that packaging is collected and recycled. Also households are required to separate and recycle their waste (Sveriges Riksdag, 2018). In 2018 half of the collected household waste was incinerated and a third was recycled through material recovery. Since the turn of the millennium much effort has been put into the recycling of food waste. In 2016 40% of food waste was biologically recycled (Avfall Sverige, 2019d).

Simultaneously, the total amount of household waste generated annually from 1975 to 2017 has increased in both quantity, from 2.6 million tons to 4.8 million tons, as well as per capita, from 317 kg/capita to 473 kg/capita (Avfall Sverige, 2019a).

A Swedish study published in 2013 calculated the climate effect of waste management in relation to the waste hierarchy. The result is displayed in Figure 2 below, which provides a rough illustration. It should be noted that there are big differences between the various waste fractions, but the figure can provide a guideline for the majority of Swedish waste.

The numbers in Figure 2 correspond to the following steps in the waste hierarchy: (1) waste prevention, (2) reuse, (3) efficient material recycling (clean material, substituting virgin material), (4) efficient biological treatment (biogas generation for vehicle fuel), (5) efficient energy recovery, (6) inefficient material recovery/biological treatment, (7) inefficient energy recovery, (8) landfilling, (9) dumping.

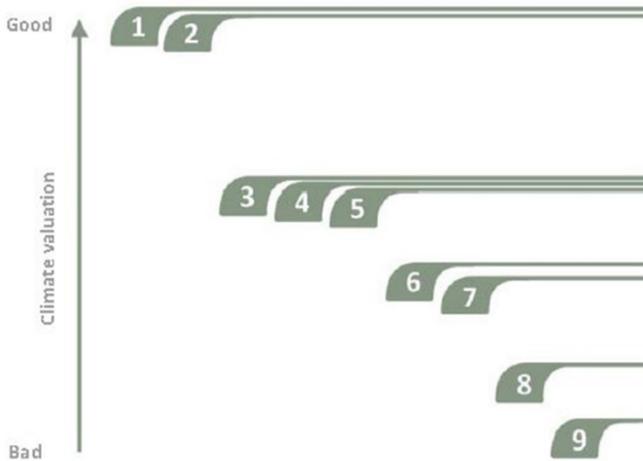


Figure 2. Climate effect in relation to the different steps of the waste hierarchy: (1) waste prevention, (2) reuse, (3) efficient material recycling (clean material, substituting virgin material), (4) efficient biological treatment (biogas generation for vehicle fuel), (5) efficient energy recovery, (6) inefficient material recovery/biological treatment, (7) inefficient energy recovery, (8) landfilling, (9) dumping.

Figure 2 shows that waste prevention and reuse are vital steps and that recycling of material, even if efficient, is not enough in itself in order to develop climate-friendly waste management (Profu, 2012).

The climate effect of Swedish waste management has been calculated further. Using a life-cycle assessment, 32 fractions of household waste were analysed. The report supports the results from the earlier study, showing that waste prevention is always more efficient than both recycling and incineration. The largest savings of CO₂ are made through preventing electronics and fabrics from entering the waste stream. Other fractions with high climate impact are hazardous waste, e.g. solvent-based paint, and bulky waste, due to the high content of fossil-based material (Avfall Sverige, 2019c).

The Swedish waste management system is characterised by the fact that waste is not regarded primarily as a problem but as a resource: packaging is recycled into new materials; food waste is anaerobically digested to produce biogas and incinerated waste provides energy

and heating. This has led to lock-in effects as the waste industry has built up its business based on the idea that waste is a resource to be managed in a profitable manner. These lock-in effects act as barriers to waste prevention (Svingstedt and Corvellec, 2018).

1.3.1 Waste as an urban issue

This section describes how waste is framed in an urban setting, using the city of Malmö as an example, from which my research takes its starting point.

In Swedish municipal organisations waste is organised almost exclusively under the technical authorities, along with e.g. traffic and water, as it is perceived to be an infrastructural issue. It is not, however, seen as an isolated entity:

World-class waste management is a prerequisite for sustainable urban development. (Bernstad Saraiva Schott et al., 2013: 1)

This has been the vision of waste management in the city of Malmö during the 21st century, placing waste management as a core area in urban planning. Malmö, like many other cities around the world, has experienced a strong urbanisation trend. The city is the fastest-growing in Sweden; since 1990 it has grown by 37%, and today has 339,000 inhabitants (Malmö stad, 2019).

The general plan for Malmö states that waste should firstly be prevented, and that this requires changes in consumption patterns. Places for reuse and sharing as well as for recycling and other waste management are required. There is also a need for places for sharing within residential areas. Spaces for reuse have the possibility of becoming natural meeting points and generating jobs. Providing visible spaces within the city is also a way to display that daily waste-disposal activities are meaningful and make a difference (Malmö stad, 2018).

Research from service management scholars Hervé Corvellec and Johan Hultman (2012) shows that the main narrative governing Swedish waste is changing from ‘less landfilling’ to ‘wasting less’. This implies that the municipal waste organisations need to change in order to adjust to this. And also, as claimed by Patrik Zapata and María José Zapata Campos (2018), waste management organisations

need to recognise that they are storytellers and that the narratives they display are in line with the growing social narrative of ‘wasting less’.

Waste management in Malmö in collaboration with research is not new. In 2013 *Modern Solid Waste Management in Practice: The City of Malmö Experience* (Bernstad Saraiva Schott et al., 2013) was published, describing how the municipality has worked to increase sustainability in waste management through triple-helix collaboration with the private sector and academia. This work has focused on technical development and evaluation methods in recycling, and collection and treatment of household waste.

That earlier research on waste illustrates that waste is approached primarily as a technical problem. This is also exemplified in the two leading academic journals featuring waste research, *Waste Management & Research* and *Waste Management*. Both publish an overwhelming majority of technically oriented articles. While this is an area widely researched, little is written on household waste prevention, leaving municipal waste management groping in the dark regarding how to tackle prevention issues.

1.4 My point of departure

My entry into the research of waste was that of a practitioner’s. After more than ten years as a civil servant in waste management in the city of Malmö, developing better and more efficient recycling systems, I started asking myself if I was focusing on the right thing. Even though international, national and local objectives state that waste prevention is the most preferable way to handle waste, very little seemed to happen. Municipal waste management kept focusing primarily on recycling.

This study will therefore move waste away from the framing of technic and infrastructure and place it in social science. The urban setting is still in focus as the municipality is where I am placed as a practitioner and Urban Studies is my academic belonging. By framing waste in the social I hope to provide a new way of perceiving waste: not primarily as something that needs to be transported away and treated, but as a product of modern society and of human activities. I believe this framing will open the possibility to find ways of reducing waste.

1.4.1 Aim

The aim of this thesis is to study and analyse daily practices of household waste prevention from a social science perspective. In the practice of waste prevention, I include both activities that (unconsciously) lead to waste being prevented as well as activities that are undertaken with the purpose of preventing waste. I seek to understand and explain how it may be possible for households in their everyday to reduce that waste. I do this by using theories of how households interact with societal structures, and the understanding that households don't act separately from these structures. I also do this with the understanding that the everyday life in large part is routinised and that waste to a great extent is a part of this routinised, non-reflected everyday.

With the aim of understanding comes an aspiration to mitigate whatever impedes households from reducing their waste. A second aim is therefore to apply these new understandings and make policy suggestions as to how household waste prevention may be promoted and supported.

I acknowledge that these two aims present a dilemma in that the search to understand will not, indeed cannot, result in any simple answers. The social world is complex. Despite this my hope is to find patterns that may allow me to make suggestions for changes that could limit obstacles and increase opportunities for households to reduce their waste.

1.4.2 Research questions

My research questions are:

- How is everyday household waste prevention as a practice narrated and discussed? And how can this practice and the activities in it be understood in connection with social structures?
- What obstacles and opportunities do households experience in connection with the practice of everyday waste prevention?
- What policy suggestions can be drawn from these findings?

The research questions were broken down into two different studies presented in two articles:

Article I: The aim of the article was to study the everyday practice of household disposal from the perspective of waste prevention. Using structuration theory and theory of practice, it analyses how Swedish households talk about this practice. Through in-depth interviews with households not explicitly devoted to issues of waste prevention, the study describes how waste prevention can be acted out through everyday disposal practices.

Article II: The purpose of the article was, through studying a grass-roots waste-minimisation lifestyle, often referred to as a 'zero-waste' lifestyle, to gain a better understanding of waste prevention at a household level. Data was collected from Swedish blogs on waste minimisation. These blogs presented abundant descriptions of how waste minimisation is developed as a practice, maintained and challenged. The aim of the study was to expose the possibilities as well as the limitations of what it is possible to achieve within Swedish household waste prevention.

2. FRAMING THE STUDY IN EARLIER RESEARCH

While the previous section aimed at situating this study in the realm of practitioners involved with waste management and waste prevention, this section will frame the study in earlier scholarly research. First there is a section on how waste has been researched within social science, which helps me to define waste as a concept. The next piece narrows down to environmental sociology, the academic field in which I place my research. I then move on to how the topic of waste prevention has been researched and how household disposal has emerged as a topic at the interface between human geography and sociology, and how this frames my study. The section concludes by identifying possible gaps in earlier research and how my study can contribute.

2.1 Earlier social science on waste – a social definition of waste

Though waste prevention studies are relatively new, social science research on waste is not. In the preface of this thesis I display a quote that has travelled with me throughout my research on waste:

People without things are helpless, but things without people are meaningless.

This is from a book by journalist and design professor Ulf Hård af Segerstad, *The Things and Us* (1957). For me this quote captures the nature of waste very accurately. Waste is things without meaning, in

that meaning is both provided and removed by people. The quote also affirms the materialistic side to people and that waste cannot reasonably be done away with through the idea of simply not using things. For without things we would be helpless.

One of the most influential works in understanding waste is the book *Purity and Danger* by anthropologist Mary Douglas (1966), where waste is defined as ‘matter out of place’. She gives the example of how a pair of shoes that are placed on the kitchen table or in the bed are perceived as dirty, whereas when placed on the floor they are not. Douglas also claims that waste is pleasurable: that the habit of cleaning and expelling makes us feel momentarily whole. The boundary between ‘me’ and ‘not me’ becomes absolutely clear when things are categorised as waste. Douglas also claims that where there is a system, there is waste. Doing away with waste entirely will therefore not be possible.

In her work Douglas focuses on dirt; I cannot fully transfer this focus onto waste in contemporary society, as much of what becomes waste today is not dirty but both clean and useful. Philosopher Gay Hawkins, by building on the work by Douglas, has made an influential contribution to waste studies. In *The Ethics of Waste* (2006) she claims that the gesture of throwing away is the first and indispensable condition of being, for one is what one does not throw away. According to Hawkins, waste has a materiality which makes us act. It is both a provocation to act and a result of that action. When waste is regulated to its proper place, in the dump or the garbage truck, it often fails to provoke. It has been regulated and rendered passive and out of sight.

Hawkins also claims that when people classify something as waste, they are deciding that they no longer want to be connected with it. Sometimes it involves small decisions, like a paper coffee-cup, and sometimes it’s hard to decide, like a favourite chair handed down from grandparents. The conversion of objects into waste can be both intricate and difficult. There is a multiplicity of pathways to the endpoint at which all function and value are exhausted (Hawkins, 2006). Waste, according to Hawkins, is also an ambivalent category in that objects have the ability to be moved between ‘thingness’ and waste (Hawkins and Potter, 2006)

I find Hawkins' ideas, both on how things and waste make us act and also that waste is exhausted of value and function, to be important in understanding waste. The concept of value and how it is ascribed to things has been further developed by anthropologist Arjun Appadurai. Appadurai (1986) writes that things have a social life, and that this social life is connected to the value they are given. In this he refers to Georg Simmel's discussion on value. Simmel claims that value is never an inherent property of objects, but is a judgment made about them by subjects (*The Philosophy of Money*, 1907 in Appadurai, 1986).

Another influential book on waste in connection with value is Greg Kennedy's *An Ontology of Trash: The Disposable and its Problematic Nature* (2007). Kennedy uses the concept of 'reversed alchemy' when valued commodities become trash. In this waste has a subjective nature. Waste implies negligence or human failure and that a society concealing its waste must have something important to hide from itself, such as the failure to preserve the value first ascribed to it. Waste-making, according to Kennedy, also involves a certain passivity, a withdrawal of our participation with things.

The scholars above all narrate waste as a social concept, in that things become waste if they are perceived as such. In the description by Mary Douglas, waste can never be done away with as waste is created in boundaries of the self. The definition of waste that I will use in this thesis is narrower than that of Douglas's: I will focus on so-called 'hard waste', which excludes human faeces and other waste collected through the wastewater system. I will also move away from the assumption that waste always equals dirt. Additionally I will acknowledge that waste is an ambivalent category in that objects may be moved between thingness and waste (Hawkins and Potter, 2006) depending on how someone perceives them, and that this categorisation is connected to the value or meaning that people perceive in them.

2.2 Environmental sociology

I place my study within the field of environmental sociology. According to theories in the field, environmental problems are complex, based on the relation between society and nature. All major environmental problems have their roots in the ways that human

societies are organised: the production systems and consumption practices, the transport networks, the political institutions and so on. Also, the ways in which we understand and respond to environmental problems are social (Lockie, 2015).

Below I present some strands of thought within environmental sociology that have implications for my study. I start off by presenting the discourse of ecological modernisation, within which scholars claim that Sweden has developed during recent decades. I then move on to how responsibility for sustainability and, especially, sustainable consumption has come to be placed on the individual.

2.2.1 Ecological modernisation

To make sense of how environmental and sustainability policies are framed in Sweden I use concepts derived from ecological modernisation. Ecological modernisation is a discourse describing how sustainability issues have developed in Western society since the 1980s. It is also applied as an analytical approach and a policy strategy (Hajer, 1995). In contrast to Marxist theorists who call for an alternative economy (Foster, 2002; Longo and Clausen, 2014), ecological modernisation indicates the possibility of overcoming the environmental problems without leaving the path of modernisation or the capitalistic system (Spaargaren and Mol, 1992). Its advocates call for further industrialisation and modernisation, as science and technology have caused the environmental problems and therefore they must be the source of the solution. They also claim that market forces encourage more efficiency and that consumers will demand ecological products (Spaargaren, 2000).

According to sociologist Gert Spaargaren, who has made a substantial contribution to ecological modernisation, environmental concern no longer necessarily attracts social criticism, as solutions are to be found within the system. Focus is instead placed on promoting to households the need to make more sustainable consumer choices. This in turn removes the idea of reduced consumption from the ecological agenda (Spaargaren et al., 2000).

According to scholars, Sweden is a typical example of a country applying the policy strategies of ecological modernisation in its national environmental policies (Anshelm, 2002). This can be seen in several different developments, such as the Environmental Code

promoting efficiency of energy use, production and transportation; economic actors expected to contribute to environmental reform; and the state embracing market-based flexible solutions (Vail, 2014)

2.2.2 Individualisation of responsibility and sustainable consumption

In connection with ecological modernisation, scholars also claim a shift in how everyday life has gained an increasing role in Swedish environmental policy. According to sociologists Linda Soneryd and Ylva Uggla (2011), attention has gradually moved away from the Western lifestyle as a structural problem requiring structural solutions towards lifestyle as an individual choice. Policies are more frequently designed to help individuals take responsibility by informing, guiding, and providing products and tools facilitating individual choice. Government, prior to the turn to ecological modernisation, was related more strongly to obligations, duties, solidarity and citizenship. It is now increasingly related to responsible choices, consumption and lifestyle. And with this the population are not obliged, but rather invited or encouraged, to choose a sustainable lifestyle (Soneryd and Uggla, 2015).

Sociologist Mikael Klintman (2012) uses the concept of ‘citizen-consumer’ to describe how this individualisation of responsibility has developed. Before the shift towards individualisation, citizen and consumer were two different roles, where the citizen engaged in political issues for the common good and the consumer acted out of individual interest.

During the last two decades, this distinction has partly disappeared through analyses, policy practices, and campaigns as well as efforts by the general public shedding light on how consumption can be a way to reduce various ills in society, such as environmental harm [...]. The term citizen-consumer refers to the hybrid role we all have today. (Klintman, 2012: 18)

The individualised responsibility to make sustainable consumer choices is summarised in the concept of sustainable consumption. This concept was first introduced to environmental policy at the United Nations Conference on Environment and Development

(UNCED) in 1992 as part of Agenda 21 (United Nations, 1992). It is defined as:

the use of services and related products which respond to basic needs and bring a better quality of life while minimizing the use of natural resources and toxic materials as well as emissions of waste and pollutants over the life cycle of the service or product so as not to jeopardize the needs of future generations. (Norwegian Ministry of the Environment, 1994)

The concept, according to sustainable-consumption scholars Oksana Mont and Andrius Plepys (2008), is complex, as it lacks a clear definition. It is often used as an umbrella term for issues related to human needs, equity, quality of life, resource efficiency, waste minimisation, life-cycle thinking, consumer health and safety, consumer sovereignty, etc. Sustainability and marketing scholar Ken Peattie also claims it to be contradictory as sustainability implies the conservation of environmental resources, ‘while consumption generally involves their destruction’ (Peattie, 2010: 197).

According to Mont and Plepys (2008), sustainable consumption policies have primarily focused on changing consumption patterns, particularly purchases and purchase intentions, and less on reducing consumption. This may, according to Peattie (2010), reflect the difficulty of combining consumption reduction with established public policy goals and corporate strategies that focus on economic growth, as well as with consumer sovereignty.

According to Klintman and Boström (2017), there is a common claim in the scholarly debate that policymakers put unrealistic hopes in consumers resolving environmental problems through consumer choice. This critique has, for example, been aimed at the ABC model of Attitude – Behaviour – Choice. The idea is that if Attitudes change, so will Behaviour by Choice; that information, knowledge and awareness are key tools, and that people are free to make their own choices of how to behave (Shove, 2010). It contains the assumption that consumers, among others, are distanced from social influences (Boström and Klintman, 2017).

In adding to the complexities described above I also want to raise anthropologist Richard Wilk’s (2004) critique of how the concept

of consumption is used and understood. All too often it is explained using the metaphor of eating, which, he claims, gives a too narrow perspective. Things are not always exhausted once they have been used and the outcome is not always waste. He exemplifies this with a DVD that may be consumed several times without being worn out, and discarded things that may be cared for and even put into museums. I translate this critique into the fact that purchase not always equals waste, and that this perspective is often lacking in the sustainable-consumption discussion.

This section on environmental sociology has presented useful concepts on how Swedish sustainability policies are framed, and how sustainable consumption is studied. The ecological-modernisation discourse with its focus on individualised responsibility and consumer choice is useful for my understanding of how household waste prevention as part of sustainable consumption is framed in both policy and research.

2.3 Earlier research on household waste prevention

The waste prevention research undertaken during the last two decades has mainly been done within the fields of psychology and economic behaviour. It has focused on recycling and waste prevention as being two discrete phenomena, in that they represent different dimensions of waste management behaviour. As discrete phenomena they have been identified as requiring different strategies.

Recycling behaviour according to Barr et al. (2001b) is defined by relatively few factors and is fundamentally normative. Awareness and acceptance of others' behaviour are crucial in motivating recycling. They show that recycling behaviour is enhanced principally by perceptions of convenience, such as there being recycling facilities in the kitchen and kerbside bins, together with local knowledge of waste facilities.

Prevention behaviour and reuse behaviour, on the other hand, have been shown to be fundamentally underlain by environmental values. According to Barr et al. (2001b), only those who feel responsible for, concerned by, and threatened by waste will take part. Bortoletto et al. (2012) add to this people's perceived behavioural control. Those who attach little importance to obstacles to participating and those

who are more aware of the importance of their own individual contribution are more likely to participate in waste prevention.

Another important difference between recycling and waste prevention pinpointed in these studies is linked to visibility and social pressure. Recycling has the physical presence of bins and recycling facilities, which is a major factor in stimulating recycling as a normative activity. The visibility of the recycling activity provides visual evidence that one is being a 'good citizen' (Barr et al., 2001b). Prevention, on the other hand, is an invisible action, carried out at home or when shopping (Cox et al., 2010). Since it's carried out in private, Bortoleto et al. (2012) argue that it provides significantly less opportunity for the exertion of social pressure.

Discussions often tend to conceptualise waste prevention as one behaviour but, according to Tucker and Douglas (2007), household waste prevention can be divided into five categories of behaviour: private reuse, point-of-purchase decisions, minimising the purchase of new resources, valorisation of unwanted goods, and use of disposable and long-life products. Tackling this multifaceted phenomenon will therefore need several different measures (Cox et al., 2010).

Recommended measures, according to these studies, include incorporating waste prevention activities in campaigns that promote green consumerism and energy-saving rather than in recycling campaigns. This would encourage households to think more holistically about their lifestyles (Barr et al., 2005). Tonglet et al. (2004) instead suggest that convenience and knowledge have been the reason for the success of recycling and that these factors could be used to promote prevention behaviour. Cox et al. (2013) state that there is a big barrier towards prevention in that households are largely unaware of the link between consumption and environmental problems. One of their recommendations is to build on social norms around the wrongness of waste. Other research stresses that waste prevention cannot be left entirely to the households and that there is a need for organisations and policies to enable prevention activities (Barr et al., 2013; Cox et al., 2010; Williams et al., 2012).

These earlier studies on waste prevention have had a framing on how to move from recycling towards waste prevention. The framing has also been on individuals and their behaviour. My aim is partly to build on these earlier findings as they identify the need

for a framing other than that of recycling, such as a more holistic lifestyle perspective, and also that waste prevention cannot be left entirely to the households. I will therefore, in my understanding of household waste prevention, build on a strand of thought that lies at the interface between human geography and sociology aimed at problematising disposal behaviour.

During the 2000s Nicky Gregson, Alan Metcalfe and Louise Crewe (2007a, 2007b) started to question the common understandings of contemporary consumer culture, that of 'the throwaway society' (Barr, 2004; Cooper, 2005; Strasser, 1999). The concept of the throwaway society builds on the idea that people mindlessly throw things away as a direct result of consumption. Gregson et al.'s research was followed by other studies in the same field (Bulkeley and Gregson, 2009; Evans, 2011). These studies introduced new concepts for narrating household disposal, such as 'divestment', 'moving things along' and the use of different 'conduits'. The authors studied the act of getting rid of things as a cultural practice, claiming that it is not just a result of other practices, but also a practice in itself. Getting rid of things involves competence in knowing what to do with certain things, but also the relation between things and their meanings (Gregson et al., 2007b).

According to Gregson, Metcalf and Crewe (2007a), getting rid of things means engaging in simultaneous saving and wasting. The saving and wasting are connected to materialising both the self and important social relations. One of their studies, situated in the UK, focused on consumer objects, such as furniture, kitchen appliances and clothes. It showed that only 29% of discards were routed in the direction of the waste stream, whereas 60% were either given away to charity, friends and family or sold. The discarding of these goods is not carefree but connected to care, concern, guilt and anxiety.

In getting rid of things that are not routed towards the waste stream, households also engage in the divestment of objects. Divestment is done through different conduits, such as charity shops and family members. These acts of moving on are, according to Gregson, Metcalf and Crewe (2007b), connected to meanings, materials and competence, and as such they are specific practices.

Connecting to the concept that disposal is more dynamic than just throwing things away is the idea that waste reduction activities

are more rich and diverse than implied by the EU definition of waste prevention. Corvellec (2016) shows in a study on how waste prevention is performed that prevention happens also at times when it is not labelled as prevention. He gives the example of opening a shop of vintage bicycles for aesthetic reasons. He also shows that prevention activities are evolving and claims that conditions that make this dynamic evolution possible are needed.

2.4 Framing my study

Household waste prevention has been researched primarily from the perspective of waste management, juxtaposing it with recycling, as shown in the section above. These studies point out that waste prevention may be promoted by using the success factors identified in promoting recycling, such as convenience through infrastructure and information campaigns, or through green consumerism and lifestyle changes. The latter would point towards the research field of sustainable consumption, and the need for studies on how consumption may reduce household waste. Sustainable consumption has, however, in general failed to incorporate disposal as a practice in itself, in that disposal involves competence in knowing what to do with certain things, as well as relation between things and their meanings. This runs the risk of leaving waste and waste prevention as part of consumption scarcely researched. It is in this identified gap that I place my study.

Gregson et al.'s critique of 'the throwaway society' is from my perspective a good start which deserves greater attention and that can contribute greatly to the studies of both waste prevention and sustainable consumption. In line with their work I want to contribute to the social studies of waste and disposal, and also try to establish a link between what I identify as a gap between sustainable consumption studies and waste studies.

In moving beyond the traditional waste research, I also see the possibility to contribute to how household waste prevention can be understood within waste management.

3. THEORETICAL FRAMEWORK

In this section I present the theoretical framework that I use in my study. When making my choice of theory I started out with the preunderstanding that the non-academic discussion on household waste prevention most often centres around abstract concepts like ‘the system’ or ‘the larger structures’, and how these provided obstacles. These concepts seem to represent some unidentifiable and almost untouchable entity out there somewhere in society. The endeavour to understand what these structures are and how households are affected by them has led me to Giddens’ theories of structuration and late-modernity. As I will place household activities at the centre of my study I will also apply theory of practice. My belief is that this will allow me to dive deeper into the everyday activities of households and to be able to analyse specific activities connected to consumption and waste.

3.1 Structuration theory & late-modernity

According to sociologist Anthony Giddens and his structuration theory (1984), we are all actors within structures. Structures are a set of rules and resources embedded within society. The rules of the structure are about ‘how things ought to work in social life’ and the resources are what help the actor get things done.

Giddens stresses that actors and structures are not to be seen as two separate entities, but as a duality. Structures are both the medium in which practices take place, and also the outcome of these practices. This implies that structures can exist only if actors act according to them. In other words, structures and activities exist in constant feedback with each other.

The actors have, according to the definition above, the ability to act within the structures (to reproduce them) or to act in alternative ways (which may lead to the production of new structures). In this way the actors have power and agency to intervene in the world. However, individuals have differing capabilities to intervene and to make a difference.

Giddens (1990) also claims that there is no way of escaping the modern systems, but that we can choose to relate to them in different ways. Here he uses the example of tap water. We may choose to drink bottled mineral water instead of the fluoride tap water, but we cannot refrain from using tap water entirely. Connected to this is the concept of reflexivity. Reflexivity is an important property of competent social actors, which gives actors the ability to monitor their own behaviour, as well as the ongoing flow of social life. It is also the monitoring of others and the expectation that others monitor oneself (Giddens, 1991).

Reflexivity also enables the constant continuity of practice. Human activity occurs as a continuous flow, which is a significant feature of everyday action. For this to be possible, reflexivity acts only partly at the discursive level, that is, at a mindful level where knowledge is verbally expressed. Giddens makes a distinction between discursive consciousness and practical consciousness. To be able to go about the continuous flow of everyday action, not all activities can be discursively conscious; instead, most of these activities take place at a practically conscious level. Practical consciousness is not subconscious but rather an un-mindfulness that lets the actor move effortlessly through routinised daily activities (Giddens, 1984).

So, to return to households' waste activities, it would be convenient to be able to say that people act only within the structures of society when producing waste in day-to-day life, and that people really don't have the power to do otherwise. However, according to Giddens, this is not the case since all actors reproduce these structures of consumption and waste each time they are used. There is the ability to act otherwise, there are possibilities, at least according to the structuration theory, to produce new structures.

I identify Giddens' structuration theory as a useful way of understanding how actors function in the social system. There is an interesting tension between the actor and the structure that Giddens

points to, which I will use in my analysis. These theories provide the possibility to analyse opportunities and constraints that households perceive in their everyday activities. However, a complementary and more detailed contribution to ways of studying households' everyday activities can be found in theory of practice, which will be presented below.

3.2 Theory of practice

Practice theory works in accordance with Giddens' structuration theory as practice theory puts neither actor nor structures in centre position but focuses on the practices that occur at the crossing point between the two (Schatzki et al., 2001).

A practice, according to Andreas Reckwitz, is defined as:

... a routinized type of behaviour which consists of several elements, interconnected to one other: forms of bodily activities, forms of mental activities, 'things' and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge. (2002: 249)

Examples of practices may be going to work, making dinner or cleaning the house. These practices are shared in the sense that most people do them repeatedly, in a constant flow. They are not to be seen as equal to activities; rather, they are blocks of activities. Though the practices are shared, the activities that the practices comprise can be done in several different ways (Reckwitz, 2002). This means that actors don't participate in practices in identical ways. Alan Warde (2005) uses the example of driving. One driver doesn't act identically to another. The performance of driving depends on several factors, such as past experience, technical knowledge and opportunities.

Elizabeth Shove, Mika Pantzar and Matt Watson (2012) have developed Reckwitz's definition of practice. In their definition, a practice is made up of the elements of meaning (ideas, aspirations and symbolic meanings), competence (shared know-how and practical intelligibility) and material (physical stuff, objects and infrastructure); see Figure 3 below.

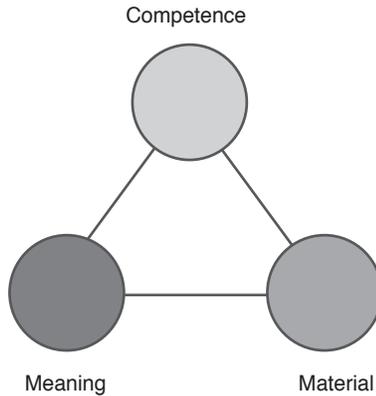


Figure 3. The elements of practice and their links (Shove et al., 2012: 25).

As Giddens' theories focus primarily on the social, material and things are limited features within structuration theory (Shove and Pantzar, 2005). However, as this study focuses on waste, the material aspect of society is a fundamental dimension. Material in Figure 3 is not limited only to things, but include infrastructure and the body. Meaning as defined by Shove et al. (2012) does not have to do with personal values, but rather shared understandings, social expectations and conventions. In other words, meanings are about making sense of the activities (Røpke, 2009)(Røpke, 2009)(Røpke, 2009)(Røpke, 2009)(Røpke, 2009). It should also be noted that the elements do not have clear boundaries in relation to each other (Røpke, 2009).

Practices emerge as the three elements link together and disappear as the links are broken. Further, different practices are interconnected to each other, in that one practice may restrict, enable or condition another practice (Shove et al., 2012). Also, practices compete with each other over limited resources such as time and space. For the individual, daily life has path dependency, meaning that when engaging in practices throughout life, traces are left in both the mind and body. This facilitates participation in some practices while obstructing others (Røpke, 2009).

3.2.1 Practice theory and consumption

Theory of practice has been identified by a number of theorists as a useful theory for the study of consumption (Røpke, 2009; Warde, 2005). Within practice theory, consumption may be studied as a practice consisting of competence, material and meaning. But it is also displayed as an activity within other practices. According to Shove (Shove, 2017a)(2017a), practices are shared, in the sense that they are something that we all do and are expected to do. Shove gives the example of cooking dinner. To cook we need both energy and material. From this perspective consumption becomes primarily an outcome of the practice of cooking dinner. Or rather, *'people are practitioners who indirectly, through the performance of various practices, draw on resources'* (Røpke, 2009: 2490).

The prevailing assumption, according to Shove (2017a), is that people use energy and material and that consumption is an outcome of individual behaviour. From this follows that to reduce demand people need to change attitude, behave differently and make better choices. This is the ABC model: if Attitudes change, so will Behaviour by Choice. By adopting practice theory, the assumption becomes extended. People do not use energy or material per se; rather, they perform practices that require energy and materials. Social theories of practice may from this perspective have an important part to play in sustainable development research (Shove, 2017a).

Another important contribution to consumption is presented by Shove in her book *Comfort, Cleanliness and Convenience* (2003), where she claims that individual activities are dependent on so-called normal practices and collective conventions. These collective conventions are culturally constructed and therefore change over time. Shove claims that environmental policy lacks a discussion on these collective conventions and the routinised needs and wants they entail.

In my studies I have applied the understanding of practice theory presented by Shove et al. above. I have also chosen to study consumption both as a practice in itself as well as an outcome of other practices. With the inspiration of Halkier (2009), I believe that one perspective does not need to exclude the other.

4. METHODS AND MATERIAL

This section provides a description of how my research was carried out. I outline the methods used and the material that was collected, concluding with a discussion on ethical considerations and methodological reflections.

In the aspiration to understand everyday practices of waste and waste prevention I chose to engage in qualitative studies. My theoretical perspective starts with phenomenology, or interpretivism. That is trying to understand social phenomena from the actor's own perspective, examining how they experience the world. It is also about seeking to understand motives and beliefs at a personal level. Within the phenomenological tradition social truth can be studied only through people's interpretation of it. What is of interest to study is therefore how people, or actors, understand and perceive the world that they live in (Taylor et al., 2015). This ontological position of 'subtle realism' acknowledges that this will provide a multifaceted picture of the world, as each interpretation may differ from another. This may seem problematic, but it also has the ability to display how complex the world really is (Ritchie et al., 2013). As different people have different relations, emotions, motives etc., it is not possible to find a single shared truth about people's relation to waste and disposal, but it is possible to use inductive reasoning and to find patterns in what people do and say about disposal.

My research uses the theoretical lens of practice theory, for which, according to Shove (2017b), there is no specific method as the method is always dependent on the specific research question.

I also draw on structuration theory, in which Giddens claims that social studies have a transformative impact on the studies' subjects,

a so-called ‘double hermeneutics’ (Giddens, 1984). This implies that people’s participation in societal studies should not be reduced to being mere subjects. People are knowledgeable and reflexive of sociological research. Sociological research has the ability to be a part of the process of forming society. These double hermeneutics shows that research has the possibility not only to study society, but also to partake in societal discussions. This in turn means that there can be no constant truth in sociological research, as society is constantly changing (Giddens, 1990).

In order to understand everyday practices of waste and waste prevention, I chose to carry out two separate studies, using two different qualitative methods.

4.1 Study 1: semi-structured in-depth interviews on household disposal

In the first study, presented in Article I, I wanted to understand how households reason about and make sense of the practice of everyday disposal and how it connects to waste being prevented. The aim was to analyse how Swedish households, not explicitly devoted to waste prevention, talk about this practice, in order to generate nuanced narratives of it. I chose to do in-depth semi-structured interviews where the informants narrated their own consumption and disposal practices. The idea was to let the informants tell a story about a few specific objects. The questions did not centre on obtaining and disposal activities per se but around a few specific objects and how they had been obtained and disposed of. An interview would normally start with the question, ‘What was the last thing you obtained?’ and then move on to asking what reasons there were for obtaining it, if there had been any thought of buying an object like that second-hand and how long they were planning to keep it.

Figure 4 below displays the mind map that was used during the interviews, starting off with obtaining, and moving through second-hand, repair and disposal. This first part of the interview came to focus mainly on objects like clothes, furniture and other durable goods. Therefore, a box for everyday waste was added to Figure 4 so as not to miss out on disposable products and recycling.

As a last part of the interview there was a question on whether (and, if so, how) the informant believed they could reduce their

waste. There was also a question on how much waste they perceived they produced. These discussions connected back to obtaining, thus closing the circle in the mind map.

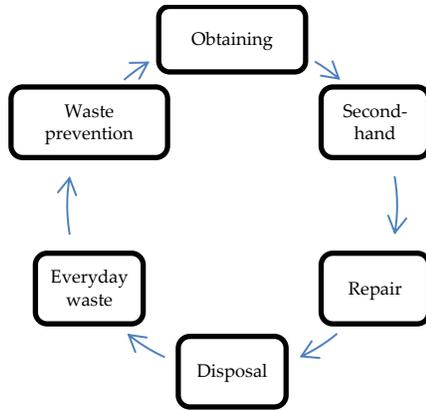


Figure 4. Mind map used in semi-structured interviews in Article 1.

According to the notion of double hermeneutics (Giddens, 1990), the researcher has the possibility not only to study society but also to partake in societal discussions. This was an idea that followed me in the design of the study. I wanted the interview situation to be an opportunity for me to collect data but also an opportunity for the informants to start reflecting on their everyday practices of consumption and disposal.

The aim behind this first study, after realising that the areas of household waste prevention and household disposal activities were scarcely researched, was to gain a basic understanding of how ‘ordinary’ households (that is, households not devoted to waste prevention) practise waste prevention and disposal, and to start mapping activities involved in disposal.

For this reason, the informants in Article I were chosen with only a few specifications. The first was ‘non-devoted’ households. The second specification was a diverse representation, in gender, age, family constellation and occupation. The third specification was that I wanted to talk to people who were neither complete strangers nor close friends: the idea being that I wanted to talk to people who would feel enough confidence in me to talk openly about their everyday

activities, but who didn't know too much about my research. I did not want the informants to know at the start of the interviews that my specific interest was in waste reduction, as this might have tilted the discussion. There is always the possibility of people wanting to say the 'right' things and give the 'correct' answers, something that must be acknowledged in all interview situations (Taylor et al., 2015). This must, of course, be set against the fact that interviewees have a right to know the purpose of the interview (European Commission, 2018).

Informants were recruited through friends and colleagues; some were my own acquaintances. It turned out to be quite hard to recruit men. If an invitation was put to a family, the woman of the household would reply. This may reflect that women are more likely to express concern for the environment and to support environmental protection, and also that household work is delegated more to women (Kennedy and Dzialo, 2015). Another obstacle to finding informants was their idea of having nothing important to contribute. There seemed to be a notion that in talking to a researcher one should contribute something of importance, which mundane waste activities are not considered to be. Table 1 below displays the result of the sampling and its diversity in relation to age, gender, household constellation and occupation.

Table 1. Sampling for study in Article I.

Age	Gender	Household	Occupation
24	Woman	2 adults	Student
31	Woman	2 adults with children	Employed
42	Woman	2 adults with children	Employed
43	Woman	1 adult with children	Unemployed
45	Woman	2 adults	Employed
75	Woman	1 adult	Retired
28	Man	1 adult	Employed
51	Man	2 adults	Employed
62	Man	1 adult with children	Employed

Nine interviews in total were conducted. Despite the diverse sampling, some practices and narratives emerged as general, and themes started to repeat themselves. At this stage it was assessed that saturation of data had been reached for the purpose of this study (Saunders et al., 2018).

4.2 Study 2: archival netnography on waste-minimising blogs

The purpose of the second study, presented in Article II, was, through the study of forerunners in household waste minimisation, to gain a better understanding of waste prevention at a household level. In contrast to the first study, where the informants were not devoted to waste prevention and therefore shared a more common relation to consumption and disposal, I now aimed at exposing the possibilities and the limitations of waste prevention in devoted households.

Having worked in waste management for several years and followed the development of the zero-waste movement in social media, I soon realised that this was both an under-researched area and possibly also provided rich empirical material. In contrast to a tacit practice of ‘ordinary’ everyday disposal, the zero-waste lifestyle is well described and discussed in online communities and blogs.

I also started out with the idea that waste may be reduced to a great extent if one chooses a very alternative lifestyle, such as moving to the countryside and becoming self-sufficient. That was, however, not the focus of this study. Instead my interest was in households that remain within late-modern society and keep up shared everyday practices.

The method of the second article was netnography. Netnography is doing ethnographic research on the internet (Kozinets, 2015). Netnography is not one but a range of methods used to research social phenomena in online settings. It can help the researcher to understand the internet as an artefact, tool and space for interaction, as well as social life (Berg, 2015). Data from the internet provides not only words but is often rich in images and videos (Kozinets, 2015).

I applied a so-called ‘archival’ method (Kozinets, 2015), in which I studied blogs where households had written about their waste-minimisation practices. I did not engage in any form of discussion

or co-creation of empirical material, as already-published material, with its detailed descriptions, was deemed to provide sufficient data.

The specifications for choosing and limiting the material were that I wanted to study blogs by individuals and households describing their everyday activities. The focus for the blogs should be on waste-minimisation forerunners and the households had to live in Sweden.

I started out with the idea of focusing on zero-waste blogs. This concept narrowed down to too few, so the search was expanded to all households endeavouring to minimise their waste. The empirical data came to include four blogs and a one-year waste-minimisation competition:

A1–A3: three Swedish blogs by writers conceptualising themselves as zero-waste bloggers. Their blogs feature households trying to make a long-term change to everyday living. Their focus seems to be on spreading knowledge and awareness to others, as well as on providing practical know-how.

B1: an experiment where the blogger goes all out to produce no waste at all for one month. In doing this the purpose is to challenge and display what is possible as well as what is difficult or even impossible to do to reduce waste while keeping up everyday practices. The blogger is employed by a municipal waste organisation and the blog is a part of a municipal sustainability event.

C1–C59: 59 households that took part in a waste-minimisation competition initiated by a governmental institution. The households competed to reduce their waste amounts for one year. They blogged about their experiences and also shared tips and inspiration on Facebook and Instagram. These blogs were written mainly as part of an internal discussion within the competition. In this they provided detailed empirical material that focused on the personal, everyday experiences of establishing new routines.

In order not to miss out on anything vital in reading the blogs, I also conducted three in-depth interviews. Interviews were done with the blogger behind the one-month challenge, the project leader behind the minimisation competition and with one of the competitors in the competition.

4.3 Analysis of the collected material

In both studies the empirical material was analysed according to the analysis method framework of Ritchie et al. (2013). The in-depth interviews were transcribed verbatim and material from the blogs was transformed into Word files, thus providing material that could be managed manually. The data was coded with the help of both predetermined and emerging themes.

The next step was to sort the data according to these themes. I chose to do this manually using Excel matrices. The material could now be summarised and synthesised, providing the opportunity to create both descriptive and explanatory accounts. Ritchie et al. call this the ‘analytic hierarchy’, where findings are built from original data. The process is iterative as it moves up and down the hierarchy as needed.

This turned out to be a very time-consuming process, and also a process demanding much creativity and an open mind. I kept moving back and forth between the transcribed material and the code-sorted Excel matrix, as new themes kept emerging all the way through the analytic process. I started by coding, using predetermined themes, as I had some ideas of what I was looking for. During this process other themes emerged as the material connected in new ways. Even though I carried the theoretical lens with me during the analysis, I concluded the search for new themes by applying theoretical concepts to the material. This allowed for a further abstraction to be made.

4.4 Ethical considerations

In doing research on people and their everyday lives there are ethical considerations to bear in mind. According to Swedish law (Ethics Review Act 13-22 §§), research on people may normally take place only if the participants give ‘informed consent’ to participate in the study.

This was undertaken with each interview that was conducted in my first study. These informants were also anonymised. The second study was done using archival methods, which is studying already-published material, on the internet. In this case it was not possible to obtain informed consent from all bloggers. On the other hand, their blogs may be considered as published material, in the public domain for all to see.

According to recommendations from the AoIR (Association of Internet Researchers) Ethics Working Committee (Markham and Buchanan, 2012), there is no clear demarcation between public and private on the internet. ‘Expectations of privacy are ambiguous, contested, and changing’ (ibid: 6). For example, blogs may be written for a specific, intended public, not intended for scrutiny by researchers. So, when lacking explicit consent, integrity should be prioritised. For this reason, I have chosen to keep the studied bloggers unnamed. I do, however, acknowledge that Swedish waste-minimisation bloggers are few and that there is the possibility of some being recognised. But I deem the potential harm to be small. Also, I hope I have read and analysed the published material with justice and respect.

4.5 Methodological reflections

In both studies my aim was to understand households’ daily practices of disposal and waste prevention. And for both studies I chose methods that were based on how the informants narrate themselves and their own practices. This was a deliberate choice as practices are not only embodied activities; they also carry meanings, knowledge and mental activity. The idea behind my choice of methods is that language is powerful in illuminating this:

[T]he expressive power of language provides the most important resource for accounts. A crucial feature of language is its capacity to present descriptions, explanations, and evaluations of almost infinite variety about any aspect of the world, including itself. (Hammersley and Atkinson, 1995: 126)

In my studies I wanted to understand how households talk about and make sense of household waste. Even though my background is in waste management, I identified a need to examine the wider concept of consumption, as earlier research had identified waste prevention to be more dynamic than the EU definition might imply (Corvellec, 2016). It was therefore important not to discuss waste as a separate entity but to talk about it in conjunction with consumption.

As an interviewer I was diligent to keep an open mind and not let my background in waste management cause me to be judgmental when, for example, informants talked of being careless with their

recycling. Instead I wanted to apply an understanding and curious approach as to why this was. I believe that this approach made the informants feel comfortable in talking about their everyday obstacles and what at times they might feel to be shortcomings.

In the second study my initial idea was to focus on zero-waste blogs but, as these turned out to be very few, I also included other online material on household waste prevention, such as the one-month challenge and the waste-minimisation competition. This turned out to be something of a lucky strike, because the latter two provided additional empirical material as they focused more on their personal, everyday experiences of establishing new routines; material that proved to be a goldmine when trying to understand how prevention practices are established. The challenge of this material was its volume. One of the zero-waste bloggers had been active for two years and had a vast number of posts. This material had to be sorted into groups related to its topics before being analysed. This was also the case for the minimisation competition, which had 59 competing households and an extensive blog.

I deem the material to be sufficient for answering the research questions, at least to a certain degree. Household waste prevention is still a scarcely researched area which may be approached from several other angles.

5.RESULTS AND ANALYSIS

Below I will answer my research questions through the findings of the two studies that were carried out. In what may seem to be an illogical order I will start the different sections by presenting the results from Article II and then move on to those from Article I. This is because I have chosen to present the practices carried out by the 'minimisation forerunners first, then juxtapose them with the non-devoted households' and their everyday disposal activities.

5.1 Everyday household waste prevention as a practice

The waste minimising bloggers narrate their waste minimising activities as a practice, as their narrations of what they're doing include both meanings, material and competence. The non-devoted household also display how their doings to reduce waste incorporate meanings, material and competence, although they do not talk of waste minimisation as a practice in itself. In the following I chose to analyse the activities of both groups as part of waste prevention practice.

The study presented in Article II has focused on forerunners in waste minimisation, sometimes called 'zero-waste followers'. The challenge that these households meet is that in order to live within late-modern society there is a need to keep up shared practices, such as going to work and shopping for groceries. These shared practices entail consumption, and consumption entails waste. This is described very clearly in one of the studied blogs presented in Article II.

Even though B1 sets out on the endeavour not to produce any waste, she makes it clear that she wants to keep up her usual lifestyle. Throughout the month she encounters situations that put her lifestyle in conflict with that endeavour. To give a few examples: she realises that there is no time to churn her own butter, so she will have to buy it in a packet; her glasses get in the way when she goes dancing, so she uses lenses instead; wine is nice with the fish soup, but there are no wine-producers in Sweden with facilities to fill customers' own supplied bottles, so it has to come in a single-use bottle; she wants to keep looking pretty, so there is no opting-out on the makeup or hygiene products; and she certainly doesn't want to refrain from using toilet paper. (Article II, p. 9)

According to Giddens (1984), the social structures of late-modern society both enable and constrain actors in their daily activities. The description above shows how social rules of hygiene and beauty, lack of time and market regulations makes this blogger draw a line under what she is willing and/or able to do to reduce her waste production. The description above also illustrates that waste production is not an intended act, but rather an unintended consequence (Giddens, 1984) of maintaining shared practices (Shove, 2017a).

The study of waste minimisers does, however, also show that it is possible to reduce household waste considerably even when remaining within society. This is shown both in the extreme one-month challenge and the one-year competition. Both projects set out from the start to continually weigh their waste.

The waste-minimising forerunners practise waste prevention through several different activities. Perhaps the most important of these is through reflecting on consumption. Consumption is questioned and criticised from two different perspectives. One is at a general level. This is a common approach to consumption in social media when discussing topics regarding environment or sustainability. The second perspective, distinctive of the waste minimisers, is that they also question their own practices of consumption, of how they consume and why. In doing this the bloggers lift their own daily routines from what primarily takes place at a practically conscious level to a discursively conscious level (Giddens, 1984).

Reflecting on their own consumption is commonly done through a non-shopping period. During this period the waste minimisers start to question what they need, as opposed to what they desire. As they reflect, obstructing and enabling structures become visible. It also enables these households to perceive opportunities to reduce waste, opportunities not always obvious to others who are not devoted to waste minimisation.

Two areas of focus in the studied blogs are the reduction of disposable items and the avoidance of chemicals. These are two areas that strongly symbolise the wastefulness of the late-modern society, which may be a salient reason for their gaining so much focus. This focus also displays that, for these bloggers, minimising waste is both about reducing the quantity of waste and its harmfulness. Other reasons for focusing on these topics may be that they perceive agency to act within these areas. Electronics is a group of products that is shown to have a severe effect on the climate (Avfall Sverige, 2019c). Though the consumption of electronics is discussed at a general level in the blogs, it is to a much lesser extent discussed in conjunction with personal consumption. This may be due to the fact that, although the bloggers perceive the problem, they do not perceive agency to act.

Another recurring topic in the waste-minimiser blogs is that of clothes. Clothes is a group of products that, like electronics, has a palpable climate effect. But in contrast to electronics, clothes have an established second-hand market in Sweden. In 2016 the sale of new clothes in Sweden fell for the first time in many years, while all other sales increased, including of second-hand clothes (Holmberg and Ulver, 2017). The buying of second-hand clothes is in one of the blogs termed the ‘circular wardrobe’ and narrated as free of anxiety. A concept applied in connection with the circular wardrobe is ‘maxi-minimising’, which means not to miss out on anything but to leave as little as possible behind. The concept of maxi-minimising captures very well what these forerunners are trying to achieve. They are not opting out of anything, nor are they less materialistic than others.

The practice of waste minimisation emerges when the waste minimisers, through their knowledge and awareness, can perceive opportunities to act. For the practice to happen the households must create new routines, such as bringing their own lunchbox when buying takeaway lunch. These routines need to be established,

primarily within the households, but the routines also move beyond the household as they include, for example, the staff at the lunch bar and colleagues joining them for lunch. Through this extension of household routines waste prevention becomes a social act, performed in the public. This implies that it is not performed only within the privacy of the home as stated in earlier research (Barr et al., 2001a; Bortoleto et al., 2012).

Waste minimisation is performed in the social in several different ways. Most distinctively it is performed in social media, where the bloggers strive to spread the practice of waste prevention through awareness and knowledge. The purpose of social media is also to maintain practices by creating a collective frame that inspires and motivates (Oldensjö, 2018; Pedersen, 2017). Performance is also done through ‘conspicuous consumption’ (Veblen, 1899), when using and displaying the non-plastic ‘bring-your-own’ lunchboxes, water bottles and coffee cups.

For the waste-minimiser forerunners, the practice of preventing waste is a very mindful activity. It may, however, also occur in other ways. As shown in the study of household disposal in Article I, waste prevention is not always a deliberate activity, but rather an outcome of other practices. The households in this study describe how valued things are kept away from the waste stream. These activities are not, however, narrated as environmental activities or ways to reduce waste. Rather, they are narrated as keeping valued things alive. Value in this sense is not only monetary but is also talked about in terms of usefulness and emotion.

Depending on their perceived value, objects are moved on using different conduits (Gregson et al., 2007b). What the households seem to be doing in choosing a specific conduit is trying to find an appropriate recipient. The underlying assumption is always that objects are valuable only if someone perceives them to be. So, an appropriate recipient would be someone who perceives value in the specific object. Figure 5 below displays how specific conduits connect to specific recipients.

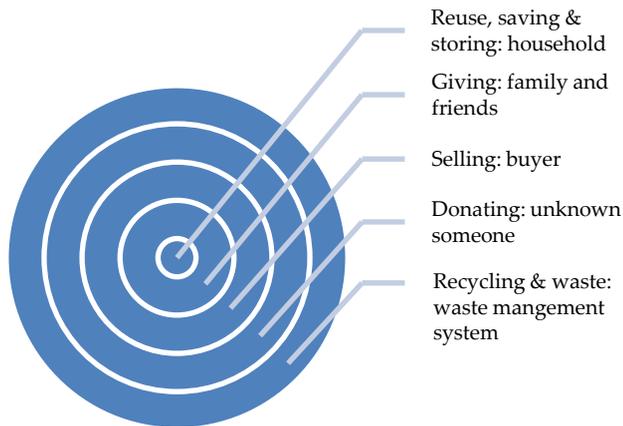


Figure 5. How disposal conduits connect to recipients.

Starting at the centre of the figure I have placed the household as recipient. Objects that no longer have an obvious place within the household are firstly displaced within the realms of the household. It may be the old sofa placed in the basement as the informant is not yet prepared to part with it. There is also the mental displacement of things, as in the case of the informant who has grown tired of the black bookshelf and is planning to dispose of it. These objects are in an interim placement, neither really in the household nor properly disposed of. This interim placement contains a possibility for things to be moved back in again. There might be a place for the old sofa, and the bookshelf might still be suitable if painted white. These semi-discarded objects might, in other words, loop back into the household again. This looping back is usually connected with some sort of effort, such as remaking or repairing. Though Figure 5 may show that this is done within the household, remake and repair commonly require the assistance of others, such as the mother mending clothes or a workshop repairing the cell-phone. The activity of turning undesirable objects back to being desirable is also termed ‘qualification’: that is, providing the objects with adequate qualities (Corvellec and Stål, 2019). The efforts required for qualification are often motivated by economy or emotion, and by the normative wrongness of ‘wear and tear’.

Objects are disposed of, and moved along, if it is not possible or desirable to keep them. The closest recipients outside the household are family and friends. In earlier research, giving to family and friends has been narrated as materialising key social relations (Gregson et al., 2007a). In this study it also seems to be about providing a good home for special objects, a reuse outside the household. To ensure that the special objects are reused it is required that there are close social relations who will value the items given. It therefore involves a competence to identify a specific recipient.

Selling is a way of moving useful and monetarily valuable things along. Selling is not narrated in emotional terms in the same way as reuse, saving and storing or giving to family and friends. Passing on is done to a more anonymous someone, but the idea is that the objects are kept alive because a buyer is willing to pay money for them.

Some things are not considered relevant to either give or sell, as they are not perceived to have enough value. Still they are not considered useless, and so they are not relegated to the waste stream. These objects are commonly donated to charity with the possibility for them to be sold on at the thrift store or come to be used in other ways. These are items on the brink of being waste (Gregson et al., 2013). The idea behind donating is that the charity organisations will be able to find appropriate recipients. One of the informants describes donating a broken vacuum cleaner and hoping that there will be someone out there who knows how to fix it. In this she hopes for a recipient who not only sees value in the object, but who is able to add value to it. Donating, in comparison to the other ways of moving along, is described as convenient as the charity takes on the role of finding appropriate recipients.

The waste stream is the ultimate conduit for things perceived as not having enough value to be divested (Gregson et al., 2007a). The waste stream, in contrast to the other conduits, is not narrated in terms of having any recipient. There is no notion of a thing being kept alive when becoming waste. On the contrary, this is a conduit for dead things. Things like used packaging and food waste are not in a mental interim placement once put in the recycling bin in the kitchen; rather, they are firmly classified as waste.

In this light, the practice to reduce waste, in the sense of keeping objects away from the waste stream, is dependent on other actors.

The social perspective of waste prevention therefore needs to be highlighted here. It is important both in shared meanings, such as the acceptance of exchanging used goods, and in competence, as in the skill of identifying appropriate recipients.

5.1.1 Waste prevention practices need opportunities

Waste is an unintended consequence of keeping up shared practices. This means that to alter waste production, the shared practices that lead to waste and the routines they bring must be altered. The waste minimisers display how they change some of their activities to be able to produce less waste but still keep up shared practices.

Household waste prevention in the two studies occurs both as a narrated practice, as in the case of the mindful forerunners, as it entails habit, routine and competence, as well as specific meanings and doings; and also as a consequence of other practices, as shown in the study of non-devoted households' disposal practices. The waste prevention activities in the study on the non-devoted households are narrated as keeping valued things alive.

The minimisers are more reflexive about their waste. They have become more discursively conscious of their waste production, which in turn has made them discursively conscious about their consumption, and more motivated to change their everyday routines. By and large they do not change their practices, such as cooking, working or dressing well. Focus is instead put on altering various activities within the different practices.

For waste prevention activities (intended or unintended) to happen, opportunities need to be provided, as with second-hand clothes. When practices happen, meaning, material and competence are connected. These opportunities are in both studies perceived for clothing, but not for electronics. The second-hand market for electronics is not as established, as these items more often become outdated in their performance or break as a result of poor quality. This would imply that the practice of reusing electronics will not happen due to deficiencies both in the material and competence dimensions.

In both studies there is a narration around not wasting valuable things. In Article I, this is fully discussed. In the study on waste minimisers, value can be seen in how the informants write of not

letting resources and material go to waste, connecting not only to anthropocentric values of usefulness, money and emotions, but also to value of the environment. The non-devoted households do not talk of used packaging as having any form of value and therefore show little interest in it being kept out of the waste stream. On the contrary, these items are rapidly categorised as waste. The minimisers have turned this thinking around and replaced the non-valuable, disposable items with valuable, reusable ones, thereby reducing the amount of valueless objects.

The waste minimisers relate to social structures in different ways. The zero-waste bloggers and the extreme one-month challenge blogger apply a tone of communicating to a wide audience, and discuss both the personal challenges they meet in their everyday, but at times they also lift these challenges to discussions about the structures. One of these bloggers applies a more political tone in discussing how the social structures of, for example, the economic system, the textile industry and the manufacture of electronics affect what is possible to do within contemporary society. There is also the discussion on the difficulty for the individual to affect these structures directly, but instead to increase the possibility of people coming together to start requesting alternatives from, for example, their local stores.

The participants of the one-year competition display in their blog a tone of communicating primarily within the community. There is less discussion about the social structures; focus is put on how to solve everyday problems within existing structures; not making any form of political impact but focusing on the individual lifestyle. This blog has a clear tone of individualisation of responsibility and the individual lifestyle, while perspectives of the zero-waste blogs are more general and also discuss the collective Swedish and Western lifestyle (Soneryd and Uggla, 2011).

The zero-waste lifestyle has met critique for being too introspective, focusing on individual puritanism instead of on the structures. Critique from the political sphere has raised the dangers of this, undermining the political momentum (Lidström, 2017). The fact that some of these forerunners do not have a focus on affecting the social structures may be a signal that these people perceive their agency to act primarily within their own household and as consumers, and that the larger structures connected to politics and economics are

too abstract and disembodied to be possible to affect. But as Zapata Campos and Zapata (2017) have claimed: a change in everyday activities can be powerful as it provides an alternative, imagined future which has the ability to achieve socio-environmental change.

5.2 Obstacles and opportunities in connection to everyday waste prevention

Below I will start by presenting the identified obstacles in both studies and then move on to opportunities.

5.2.1 Obstacles

To start practising waste minimisation is described by some of the bloggers as choosing an alternative lifestyle or even ‘to dare to take the leap’. This is an interesting metaphor as they do not make a choice to completely overthrow their lifestyles or to become activists. The following quote may reveal why this choice could be described as a leap:

How can you minimise waste when you are already recycling, you might wonder? If you had asked us as a family a year ago, we would undoubtedly have been able to pat ourselves on the back and claim that we are already sorting our waste and are quite good at recycling. But how is it possible to minimise your waste if you already believe you are doing everything right?

The quote was written by one of the contestants of the one-year waste-minimisation competition as they were coming to the end of their year. It displays something important: the idea of doing everything right when recycling. Swedish waste management has been successful in promoting recycling, and Swedes like to think that they excel at it. The problem here lies in its being perceived not only as good, but good enough. And with good enough there is no point in moving beyond, in this case towards minimising waste. According to earlier research municipal waste organisations have the possibility to narrate waste in different ways. In order for waste prevention to be happen, municipal waste organisations need to adopt in changing from ‘less landfilling’ to ‘wasting less’ (Corvellec and Hultman, 2012; Zapata and Zapata Campos, 2018).

Another obstacle in connection with social norms is that of consumption. Questioning and reducing consumption are, for these bloggers, about moving against firmly established ideas. This is displayed in how they describe that the non-shopping period ‘should be easy as pie’, but that it’s not and there is ‘the urge to shop that keeps popping up’. The studied bloggers use the concept of ‘want-need’ in describing how there is a difficulty in separating what you want, or desire, from what you need, and that the two seem to flow into each other, making it difficult to buy only that which you actually need.

Several bloggers describe difficulties in connection with gifts and presents. There is a social expectation of gifts being given at several occasions, such as moving into a new home, birthdays, Christmas or as a token of love and appreciation. This was possible for the bloggers to solve when they were the givers, as presents could be experiences, second-hand or homemade. But when the bloggers stood as recipients of gifts it was much more difficult to address.

Other obstacles have to do with what the retail market supplies, e.g. not being able to buy groceries in bulk in order to replace disposable packaging with reusable. As a reduction in consumption of food is not an option for these households, reduction of waste is primarily done through replacement of disposable packaging with reusable that they supply themselves. It is also about weaving the everyday, which may not allow time for grocery shopping in several different stores to find groceries in bulk.

The fact that most of the daily practices are placed in a social setting means that most waste prevention activities will involve other people. This may cause friction as the forerunners establish new routines. This is seen when households struggle to find day-care facilities for their children that accept washable diapers, or when gifts from grandparents collide with the endeavour to reduce the inflow of things.

Keeping up shared practices entails not only shopping for groceries. In present-day Sweden it also involves buying fashionable clothes, having a smartphone and several other electronic gadgets. Both fabrics and electronics are identified as products containing undesirable chemicals. Avoiding these chemicals is hard and sometimes even impossible for the bloggers to manage. These are products that cannot be forgone, as they are needed in daily practices.

The products also come without information of what chemicals they contain. This means that the perceived agency connected to chemicals in fabrics and electronics is very limited.

Clothes have an established second-hand market but, apart from this, clothes are also a difficult group. A second-hand market requires clothes of high quality, which is not always the case as prices get squeezed and quality compromised. While the second-hand market offers agency, the clothes industry is narrated as disembedded and hard to affect. In discussing the clothing industry one blogger expresses frustration at the imbalance between what the blogger is trying to do and what the clothing industry seems to fail to do, that is, to provide possibilities for sustainable consumption.

The study of disposal practices presented in Article I shows that the households, in their efforts to keep valued things out of the waste stream, encounter several obstacles, such as materials that are not repairable or reusable; examples commonly discussed were shoes and clothes. Connected to this is the market offering cheap and convenient alternatives, making it preferable to buy new. This is exemplified by an informant who had dropped her cell-phone. She sees the possibility of having it fixed, but on the other hand the contract that she has offers to replace her phone once a year. Though she describes this contract as 'a bit wear and tear', it offers her convenience, making her ambivalent about what choice to make.

Repair and remake are constrained by the extra effort entailed but also by the competences required. Competences connected to repair are not only about being able to do the repairs yourself but also about being able to determine whether it is worth paying a professional to do them for you. In order to do their own repair and remake, informants talk of both lack of skills and lack of self-confidence. The risk of failure has been shown in earlier research to be an important obstacle to looping things back in again (Gregson et al., 2009). Giving and selling are constrained by the fact that there is not always someone who is willing to receive. This may also be an obstacle in donating to charity. If the charity organisations do not perceive objects to be possible to pass on, they may refuse to accept the donation.

An elderly lady also talks about the lack of infrastructure, as in there being nowhere in the residential area to put her used batteries or

the big flowerpot that broke, so instead she puts them in the waste-bin, contrary to what she believes is right. The lack of infrastructure also shows how disposal practices need to be woven into the everyday rhythm. If this is not possible, activities are obstructed. The elderly lady explains that she knows that she ought to recycle her food waste. But she doesn't use the intended paper-bags as she is sensitive to smell and is not able to take the food waste-bag to the recycling room often enough.

Disposal practices are also about space: making space for interim placement in the house, for recycling bins in the kitchen and larger objects that are to be moved on. It is also about overcoming spaces, such as the elderly informant adopting the routine of using a shopping-bag on wheels to transport her waste and recyclables to the recycling room that is situated outside her house.

5.2.2 Opportunities

The forerunners in household waste minimisation are knowledgeable about the negative effects that consumption has, and also that recycling will not solve the whole problem. Through this awareness they are able to perceive opportunities to reduce their waste.

Opportunities are found in the routinised everyday activities: in eschewing household products that contain unwanted chemicals, in replacing disposable products with reusable ones and in reusing clothes by buying second-hand.

Some opportunities are normalised and easy to identify, such as the second-hand market for clothes. Others are not normalised and therefore not immediately visible, but through the lens of waste reduction these forerunners are able to perceive them: for example, it is possible, even though unusual, to bring your own takeaway container to the sushi restaurant. There is no formal hindrance to doing so, but if the established way of buying takeaway sushi is to use the disposable boxes that the restaurants provide, then it may not be the obvious thing to bring your own.

There are also cases where opportunities need to be created. This is exemplified by the blogger who wanted day-care facilities for her children that would accept washable diapers. Opportunity was in this case made through her willingness to argue for what she believed in.

For the households in Article I, waste prevention is primarily made possible through their social network. Here they can find help in mending and repairing, such as the mother for mending clothes, the grandfather for repairing the coffee machine, but also as in assessing whether something is worthwhile to repair. The social network is also important for passing on valued objects to keep them out of the waste stream.

These opportunities are available as there is a norm not to waste valuable objects. With this norm follows an acceptance to receive used goods from people in your surroundings. This is of importance as things can be kept alive only if someone sees them as valuable.

There are opportunities to reduce waste in choosing the material that the households buy. One informant talks about this when he describes how he sold on his new Golf biodiesel due to it being too expensive to keep. The expenses came partly from his not being able to repair it himself. Instead he bought an older car. This is a car that he is able to repair, and in this way he feels that he has control over the material, and the plan is to keep the car ‘...until I die!’ Being able to control the material is also talked about in buying shoes. More expensive shoes may be better-made, last longer and are often mendable, and also the fact that much money is invested into them imbues them with higher value and therefore gives stronger motivation for putting effort into keeping them.

For some it is a routinised activity to circulate objects, as with children’s clothes and vintage furniture. When something new is bought, the old is sold off. The selling of things has in earlier research primarily been described as retrieving money (Gregson et al., 2013). In this study, however, it does also seem to be about upholding or raising other forms of value, such as novel and aesthetic value of vintage furniture and usefulness of children’s clothes.

5.2.3 Opportunities to act need to be normalised

Both studied groups use normalised opportunities to avoid waste, such as the second-hand market for children’s clothes. The forerunners, however, also use opportunities not normalised, such as the bring-your-own lunchbox. They also create opportunities, as in the example of demanding child day-care that accepts washable diapers.

The normalised opportunities to act are recreated in the social structures as they are performed, and for them to be maintained they need continued performance. The non-normalised activities are examples of practices that fit into the existing structures but are not fully in practice, often due to lack of shared meaning. The created opportunities, on the other hand, do not entirely fit into existing structures, which is why they meet obstacles. In this they are examples of activities that have the ability to alter structures.

The non-devoted households seem to keep to the normalised opportunities. And, as recycling along with keeping valued things alive are the prevailing norm, the non-devoted households don't see the need to look for other opportunities for waste prevention, such as minimising disposable products. When motives remain only as shared meanings or norms, as is the case with the non-devoted households, waste prevention is not an expressed motive. This is an important finding as it would imply that a shared waste prevention practice will not happen by itself.

According to Shove et al. (2012), practices happen as the three elements of meaning, material and competence connect. In the example of the normalised opportunities, such as the second-hand market for children's clothes, all three elements connect. There is an established infrastructure for the second-hand market, and the buying and selling of used clothes is well-accepted, which facilitates the activity and thereby requires less specific competence.

In the example of the bring-your-own lunchbox there is no hindrance to the material dimension as one brings one's own box. However, the norm is not established and it will therefore require another form of motivation than those of shared meanings, and it may also require cognitive competence as in having to explain the purpose of the action. These examples show that if practices are to happen, opportunity to act must be perceived and also be socially accepted. Otherwise they will be performed only by those specifically motivated.

The weaving of the everyday is dependent on convenient solutions. Convenience saves time and energy. Even though there is the opportunity to shop for unpackaged groceries in bulk if one is prepared to visit several different stores, this requires time as well

as the overcoming of space. In the weaving of the everyday time is limited and different practices compete for this limited resource.

Time and space are not considered as elements of practice, according to Shove et al. (2012), and therefore run the risk of not being given suitable attention. They are taken into account in discussing how different practices compete with each other over limited resources. In this discussion timing and scheduling of the day are delineated, as different practices may support or counteract each other (Røpke, 2009). For example, if the specialist store that provides groceries in bulk lies on the way to work, then the practice of going to work will enhance the practices of package-free grocery shopping.

For practices to happen, there need to be opportunities to act. But practices do not necessarily happen when opportunities occur, as there is the competition between different practices. Limited resources such as time and space must be allocated to the specific practice.

Another aspect of convenience, apart from time and space, is exemplified by one informant with the broken cell-phone. The informant had the options to repair it or exchange for a new one. The deal with the phone company allows her to exchange it for a new one once a year. In this she is struggling between what she considers to be the negative aspect of 'wear and tear' and the positive aspect of convenience. In the end she just wants a working phone. There are two structural aspects in conflict here: the need to keep weaving the shared everyday practices which demand the use of updated technology and where the market offers convenient solutions, versus the normative aspect of not being wasteful. In this the informant seems to be caught in a paradox of individual responsibility: how does one make the responsible choice if the primary focus is to have a working phone?

To start reflecting on your routines, something needs to happen that transforms practical consciousness to discursive consciousness. It may be the possibility to enter a competition to reduce waste or that a colleague starts buying their lunch with a bring-your-own food container. To begin reflecting on your routines may lead to changes of those routines. But change requires time and energy, which is inconvenient.

Further, many of the changes that the waste minimisers made are connected to forgoing some of the convenience that contemporary

society has to offer, such as bringing your own lunchbox back and forth to work, having to clean it, etc., instead of being supplied by one at the sushi place that is conveniently disposed of when lunch break is over. And as Shove (2003) states, the collective convention steers the wants and needs as well as the requirements for comfort, cleanliness and convenience.

5.3 Summary of results and analysis

My analysis starts off with the claim that waste is an unintended consequence of keeping up shared practices. This means that household waste production is neither deliberate nor completely voluntary. However, both studied groups narrate activities that lead to objects not becoming waste. These activities seem to be connected to the value of things and resources. I believe that the perception of value is important to build on in promoting further waste prevention activities.

I claim in my analysis that for waste prevention practices to happen there need to be opportunities to act; these opportunities need to be normalised; and they also need to be reasonably convenient in not demanding too much time or consideration.

For waste prevention practices to evolve and spread beyond forerunners such as the waste minimisers in this study, the idea that recycling is good enough needs to be challenged. The waste minimisers display creativity and courage in how they both create and find non-normalised opportunities to prevent their everyday waste. If the norm of recycling is challenged, there is a strong chance that more creative ideas on how to prevent waste will start to rise and spread, which in turn will move the minimising of waste closer to normalisation.

The study of the forerunners displays that these people have to struggle with daily routines of consumption, as they need to be constantly discursively conscious in these routines in order to make the right choices. This would imply that household waste prevention is not supported by the social structures in Sweden and, therefore, will not happen by itself. So, for household waste prevention to happen in Sweden the activities they require need to be transformed from 'daring leaps' to normalised opportunities to act.

5.4 What policy suggestions can be drawn from these findings?

Before discussing policy suggestions, I want to present a new perspective on household waste prevention and sustainable consumption which I believe will be useful in the policy discussion.

5.4.1 A new perspective on household waste prevention and sustainable consumption

Sustainable consumption is often studied with a focus on household acquisition, narrated as political or ethical consumption. I argue that this runs the risk of missing out on the full picture of consumption. When studying the entire consumption practices that households are involved with, there is a need to also consider usage, or need, which becomes a focus when applying a practice theory lens. But households' disposal activities still risk not being fully incorporated. This is problematic since waste prevention has so far been studied primarily from a waste management perspective. This leaves waste prevention studies in a gap.

I want to suggest a model that will incorporate sustainable consumption with waste prevention, making a match that could be fruitful for both disciplines.

One way of displaying consumption which is commonly done within urban studies is by using the bodily metaphor of metabolism: obtain, use and dispose. This is usually perceived as a linear progression, moving from the left to the right.

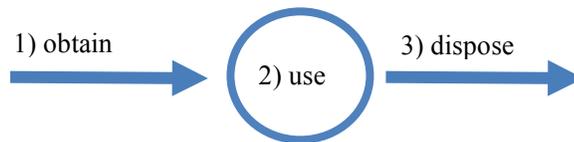


Figure 6. Consumption as metabolism.

When studying household consumption as linear metabolism the implication may be that disposal becomes primarily a consequence of obtaining. But if the idea of metabolism is combined with theory of practice, the figure above gets a different interpretation.

The starting point of the figure instead becomes the centre circle, as in Figure 7 below. Practices require obtaining of objects, as well as disposal of product. This happens as a consequence of the activities that take place within the household. The arrow no longer shows only how objects are transferred but how objects are utilised in practices.

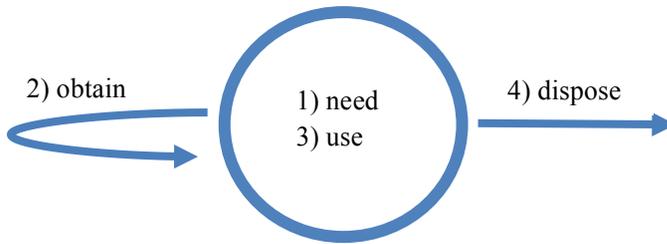


Figure 7. Combining household metabolism with practice theory.

The purpose of Figure 7 is to provide a useful model for how household waste prevention may be approached. Applying practice theory and the perspective that consumption is primarily an outcome of shared, everyday practices provides the notion that, in order to understand how waste is to be reduced, the need stage of consumption must be the starting point. The purpose is also to point out that measures to prevent waste can be taken in all stages of consumption. This is in line with the study by Corvellec (2016) that shows that waste prevention is more dynamic and rich than the EU definition implies and that these dynamic and evolving activities need to be given favourable conditions.

When studying the *need* stage – or, rather, the everyday practice of the household – it will be clear that some waste is hard to reduce due to the need to keep up practices. There may instead be opportunities when obtaining, using or disposing.

The study of household disposal, presented in Article I, showed that disposal practices are more than just about waste. In order to avoid valuable things from becoming waste, appropriate recipients are needed. See Figure 8 below.

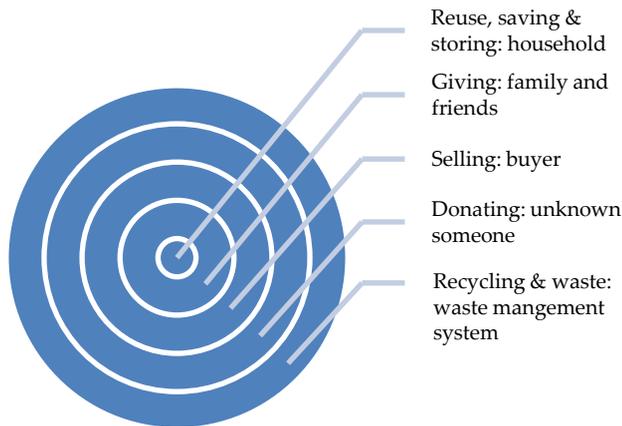


Figure 8. Disposal is about finding appropriate recipients.

This idea of using the social network for disposing may also be transferred into how things are obtained. We obtain things not only when buying new goods at the store, but also through buying second-hand, being presented with gifts from family and friends, and at times we retrieve things from the attic or cellar or other interim places.

In Figure 9 below, the idea of using the social network for obtaining and disposing is combined with the notion of metabolism from a practice perspective. The concept of Figure 9 is that waste prevention practices may happen in obtaining as well as disposing when using the social network.

At the outer rim of the circle is the obtaining of virgin, non-circulated material as well as end-of-pipe waste management such as landfill and incineration. If things can be obtained and disposed of inside the circle, then waste prevention happens.

The figure also displays something else: that as consumers we are situated within social structures, such as the market, governmental regulations and expectations from other people. These structures surround us and constitute the settings within which we act.

This way of studying waste prevention fits in well with the vision of a circular economy where products, material and resources are to circulate and stay within the economy for as long as possible. The EU package of circular economy aims at promoting business opportunities for rent, repair and second-hand, which would lower

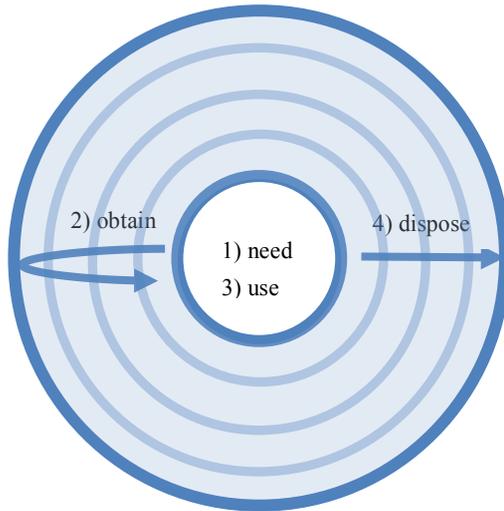


Figure 9. Waste prevention studied as household metabolism, connected to the social network.

the obstacle to sustainable consumption. This is also a prerequisite if households are to find wider opportunities for waste prevention, as they are actors in the social structures.

As stated earlier, Figure 9 illustrates that some waste is hard to reduce due to the need to keep up practices, the stage 1) need. Being difficult makes it perhaps even more important to pinpoint. This connects back to Shove's (2003) discussions on collective conventions and their cultural construction. It also relates back to the empirical material and the so-called 'want-needs'.

I believe that this new perspective on household waste prevention has the advantage of displaying the difficult concept of sustainable consumption in a clearer way. It provides an understanding of sustainable consumption that focuses on reducing the use of resources. Through this, sustainable consumption will not focus primarily on reducing consumption, but on being able to keep up practices, and thus find ways to consume more sustainably.

5.4.2 Suggestions

According to Shove (2010), the majority of sustainability policies today are derived from the ABC model: that if Attitudes are changed,

so will Behaviour by Choice. This posits that information, knowledge and awareness will do the trick, and that once this is done people will be free to make their own choices of how to behave. I argue that this will not do the trick, though I do believe that attitude is of great importance. I contend that attitude needs to be accompanied by opportunities to act in order for people to make behavioural changes.

In my studies I have been able to identify three forms of opportunity: normalised, non-normalised and created. The non-devoted households in Article I seem to act primarily on the normalised opportunities, while the devoted minimisers manage to both discover opportunities not yet normalised as well as create new opportunities.

Opportunities to act may be promoted through legislation, as recommended by Alterå et al. (2017) in their report on facilitating a circular economy and preventing waste. This could be done through facilitating rent, repair and second-hand through tax reduction, standardisation of the second-hand market and sharing, as well as strengthening consumer rights regarding complaints of substandard products. An example of how legislation can provide normalised opportunities to act is that of the plastic bag. Since 2017 there has been a Swedish regulation that all stores and restaurants must inform their customers about the environmental impact of plastic bags and also contribute to reducing their use. This resulted in actively asking, 'Do you need a bag?', as opposed to the routinised hand-out of plastic bags, and a decrease in the use of plastic bags during 2018 (Swedish EPA, 2019). This is an example of how opportunities can be normalised through legislation.

However, there is also a need to move beyond these more or less accepted activities and provide opportunities to, for example, reduce consumption of disposable items, unwanted chemicals and electronic waste, which are areas repeatedly discussed by the waste minimisers.

To provide and normalise opportunities in order for waste prevention practices to be established is not a simple task, nor is it a task for any single organisation. Waste is a universal concept, including all kinds of disposed products and objects. Therefore, reducing waste from disposable products will, for example, need different interventions to reducing waste from electronics.

According to Shove et al. (2012), practices in everyday life and how different practices connect to each other are very complex.

It follows that there is no reliable way of governing transitions in practices. What, on the other hand, is possible to do is to apply the practice perspective in policymaking. One way of approaching this complexity may therefore be to make use of the new perspective on household sustainable consumption as presented in Figure 9 above.

As defined in the figure, consumption is comprised of four stages: 1) need, 2) obtain, 3) use and 4) dispose. Opportunities to be mindful of resources and thereby reduce waste can be created in all these four stages. This thesis has focused primarily on opportunities for waste prevention in connection with stage 4) disposal, and to some degree also with stage 2) consumption. The 'need' has been briefly discussed in conjunction with what informants call 'want-needs' and what Shove calls 'the collective conventions of comfort, cleanliness and convenience' (Shove, 2003). Meanwhile, 'use' has hardly been touched upon at all here. An example of use may be how we care for and wash our clothes, and how this may lead to a shorter service life and the use of excessive amounts of detergents and water. All four stages should be discussed if the need for non-renewable resources and greenhouse gas emissions connected to consumption are to decline.

6. CONCLUDING DISCUSSION

The aim of this thesis has been to study and analyse daily practices of household waste prevention and to understand and explain how it may be possible for households in their everyday to reduce their waste.

I have done this by applying a sociological framework where I have analysed disposal practices by which households not devoted to waste prevention narrate their disposal, and how prevention practices are narrated in blogs devoted to reducing waste.

One of my strongest claims is that household waste is neither deliberate nor completely voluntary. Swedish society is based on the presumption that the majority of its citizens are not self-sufficient as far as producing their own food and clothes is concerned. Most of us cook with purchased, packaged groceries; rely on our cell-phones and computers for keeping in touch with others as well as for buying train tickets or relaxing with a movie; buy clothes to be able to dress fashionably or at least according to weather conditions. These things are hard to say no to if we want to be competent social actors in Swedish society.

This does not, however, necessarily mean that we are locked into a wear-and-tear culture – although, looking at the amounts of waste, it may certainly seem so. But reality is more dynamic than that. This is shown both in the studies by Gregson et al. (2007a, 2007b) and in my study on disposal practices. There are a lot of objects that don't pass mindlessly into the waste stream just because households decide they don't want them anymore.

One important finding in my study is that the value concept can be used to enhance prevention behaviours that are already in

practice. The households I interviewed in my first study narrated how they see the waste stream as the ultimate place for once-valuable objects. Value in these cases is not only about money, but also about emotional value and usefulness. The concept could be expanded to move beyond these interpretations. Natural resources, energy input and human labour also provide value in objects. Swedish society is apparently, due to its waste amounts, a bad preserver of these values.

The main obstacles to household waste prevention that I have identified are connected to social norms and to material and market aspects. There is a strong norm around recycling and also an assumption that recycling is good enough. I argue that this, in combination with an almost non-existent debate on personal consumption, prevents Swedes from both reflecting on and acting to reduce their waste. The studied minimising forerunners have at times narrated the choice of a waste prevention lifestyle as ‘daring to take the leap’. This illustrates quite vividly that the social norms do not support this lifestyle. The other main obstacle, connected to materials and market, can be seen by the difficulties of keeping things out of the waste stream. The households in my study encounter numerous obstacles, such as products having a short lifespan and not being repairable, and that it is cheaper and easier to buy new.

The problem here lies partly in individualised responsibility. The government wants to see a reduced amount of waste and a change in consumer behaviour. It expects the citizens to make the right consumer choices, but simultaneously there is a frustrating lack of opportunities to do so.

In order for household waste prevention to become a shared practice in Sweden, I argue that the following are needed:

A wide debate around consumption. There is a need to discuss and problematise both individuals’ consumption and the structures that drive unsustainable consumption.

A nuanced relation to recycling. Recycling is good, but it is not good enough. This is very much a task for the municipal waste organisations, who have done good work in promoting recycling but now also need to be permitted, and obligated, to promote prevention.

Simplifying and reinforcing existing prevention practices. The report on circular economy from Alterå et al. (2017) provides good suggestions that need to be realised.

Normalising the opportunities to act that the forerunners already use. For example, make it easier to buy groceries in bulk. There are a few specialised stores that provide for this, but to normalise it the large grocery stores need to start offering it too. As one of my informants said: ‘If it works for candy, it will work for other products!’ But it may also be about giving menstrual cups to all schoolgirls, instead of disposable menstrual products. Let the reusable cup be the default choice, not the waste-making alternative.

Creating new opportunities to act that don’t easily fit into existing structures. For example, I would like not to have to exchange my cell-phone or laptop every third or fourth year. I would prefer to keep it for much longer. But there are few opportunities for that today, even though electronics is the product category that could save most carbon emissions if prevented from becoming waste (Avfall Sverige, 2019c). This is just one identified lack of opportunity. These missing opportunities to act need to be identified, created and normalised.

My final claim is that there is a gap between sustainable consumption and waste prevention that needs to be bridged. There is a need for a holistic view on consumption where measures to reduce waste are taken in all four identified stages of household consumption: (1) need, (2) obtaining, (3) use and (4) disposal.

6.1 Future research

There is a need for a deeper understanding of how disposal is practised. Disposal is a multifaceted area, just like the obtaining side of consumption that has gained much attention. To tackle sustainability issues, an equally deep understanding of disposal is needed.

The study presented in Article I suggests that consumption behaviour is dynamic over a person’s lifetime. Needs and opportunities are not the same for a young person who is nest-building as those for an elderly person. This shows a need to study what sustainable consumption may be in different phases of life.

I have studied waste prevention as one practice. It must, however, be acknowledged that waste is a consistent factor in many different products, and that all need different interventions for it to be reduced. Deeper studies into practices to circumvent, even prevent, specific products is therefore needed.

In this thesis I have very briefly discussed possible policy implications by studying waste prevention from a practice perspective. This is a research area that I believe needs to be further developed. The complexity involved in turning practice theory into policy suggestions should not be underestimated, and further research in the area is much needed.

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ARTICLES

I

Household practices of disposal – Swedish households' narratives for moving things along

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Abstract

This article studies the everyday practices of household disposal from the perspective of waste prevention. It analyzes how Swedish households talk about these practices, with the purpose of generating nuanced narratives of how disposal is performed. The starting point of the study is the paradox developed within the context of ecological modernization, where very little household waste is sent to landfill, much is recycled, but still waste amounts keep increasing. Data was collected using semi-structured, in-depth interviews. The conceptual framework is drawn from Giddens' structuration theory and theory of practice. The aim was to identify opportunities for and constraints on waste prevention that householders perceive in their everyday disposal practices. The results show that households adopt a mindful approach towards disposal and that there is an obvious gap between attitude and behavior. A gap that needs to be tackled through societal structures. Disposal is a social practice, as objects have value only as long as they are perceived to. With regard to moving waste along in a social context, it is clear that disposal needs to be viewed as a precursor to consumption, not just as a successor.

Keywords:

waste prevention, ecological modernization, structuration theory, theory of practice, conduits, appropriate recipient.

1. Introduction

The aim to reduce waste pervades policies from the international level, such as the United Nations Global Goals for Sustainable Development (United Nations, 2018) and the EU Waste Framework Directive (Parliament, 2008), to the national and local level, like the Swedish National Waste Plan (Swedish EPA, 2012) and the municipal waste plan for the city of Malmö (VA SYD, 2015).

Sweden is a country with well-developed source-sorting and little disposal in landfill. In 2017 49% of household waste was recycled and 50% was incinerated; less than 1% was sent to landfill. On the other hand, the total amounts of household waste generated annually from 1975 to 2017 have increased in both quantity, from 2.6 million tons to 4.8 million tons, as well as per capita, increasing from 317 kg/capita to 473 kg/capita (Avfall Sverige, 2019). The country is an example of a consumer-orientated, capitalist society that has set high goals in being a sustainable society. In this way, Sweden is a good example of a nation that over the last few decades has developed within the context of ecological modernization, reckoning that further industrialization and modernization will result in ecological improvements (Vail, 2014). The Swedish waste management system is characterized by the fact that waste is not primarily regarded as a problem but as a resource: packaging is recycled into new materials; food waste is digested to produce biogas and incinerated waste provides energy and heating. In this context, since the 1990s the Swedish government has attempted to promote waste prevention, but without success (Corvellec et al, 2018). A recent Swedish study on household bulky waste (that is, building materials, furniture, household utensils, toys etc.) shows that more than 20% of what is thrown away is in useful condition, most of it possibly commercially reusable (Avfall Sverige, 2018). How much of the used building materials, furniture, household utensils, toys etc. that are not put into the waste stream but instead are reused is unknown, since items may be put through any of several different conduits, such as private reuse, donated, sold or stored.

The purpose of this article is to study the everyday practices of household disposal from the perspective of waste prevention. My aim is to analyze how Swedish households talk about these practices and to generate nuanced narratives of how they practice disposal. As research within this area is still scarce, the aim is to start mapping different household practices connected to disposal.

The growing interest in the subject within European countries can be linked to EU waste policies. The EU Waste Framework Directive from 2008 (Parliament, 2008) stipulates that all member countries must have a waste prevention program, which has created a need for research in the field (Zacho and Mosgaard, 2016).

Waste prevention is defined by the EU Waste Framework Directive as:

... measures taken before a substance, material or product has become waste, that reduce: (a) the quantity of waste, including through the re-use of products or the extension of the life span of products; (b) the adverse impacts of the generated waste on the environment and human health; or (c) the content of harmful substances in materials and products. (Parliament, 2008)

2. Earlier research and theoretical framework

In 2003 the UK Department for Environment, Food & Rural Affairs (Defra) launched the Waste and Resources Evidence Programme (WREP) (Defra, 2010), which prompted the UK government to initiate a large amount of research specifically on household waste prevention. One conclusion from these studies is that household waste prevention comprises not one but many behaviors including donating, reusing and changes in consumption habits and that most households in the UK undertake at least some of these activities occasionally (Cox et al., 2010).

UK research has focused on studying household waste prevention from the perspective of changing behavior (Barr, Gilg and Ford, 2001, 2005; Tonglet, Phillips and Bates, 2004). The focus on changing households' behavior derives from the ABC model of Attitude – Behavior – Choice. This model has, however, been criticized for externalizing context and need (Shove, 2010): that is, not embracing the fact that households act within social systems and that choices and behavior are affected by these social systems.

Turning to studies on waste prevention within Sweden, the project 'From waste management to waste prevention' had the aim of identifying and clarifying the difficulties in realizing the goals of waste prevention policy. Swedish politicians have since the 1990s attempted to promote waste prevention, without success. One of the conclusions from the project is that waste prevention happens through interconnected actions. These could include social movements for creating repair shops and alternative libraries for clothes and tools, consumers putting up "No advertising, thanks" signs on their letterboxes, and retailers installing collection boxes for used clothes and textiles in their stores. These kinds of initiatives all offer a possibility for actors to change their behavior (Corvellec et al., 2018).

Ekström (2014) deems that to understand waste there is a need to understand the whole process of consumption. The concept of sustainable consumption has become a major focal point in both research and society in how to deal with the problem of ever-increasing consumption leading to waste in the industrialized world. Yet consumption is still defined mostly as acquiring and using objects and often simplifying disposal as being merely waste (Hetherington, 2004). The practice of disposal as a means for waste prevention has so far received marginal attention in research.

However, in the first decade of the 2000s Gregson, Metcalfe and Crewe (2007a, b) started to question the concept of 'the throwaway society', the idea that people mindlessly throw things away as a direct result of consumption. This was followed by other studies in the same field (Bulkeley and Gregson, 2009; Evans, 2011). These studies introduced new concepts for narrating household disposal, such as 'divestment', 'moving things along' and the use of different 'conduits' (Gregson, Metcalfe and Crewe, 2007b). It is within this framework that I place my study.

Social studies have been carried out on specific aspects of household disposal: disposing of special possessions (Price, Arnould and Folkman Curasi, 2000), clothing exchanges (Albinsson and Yasanthi Perera, 2009), selling on eBay (Denegri-Knott and Molesworth, 2009), through auction (Cheetham, 2009) and car boot sales (Gregson et al., 2013), repairing (Gregson, Metcalfe and Crewe, 2009; Cox et al., 2013) and also on why things are not moved along (Maycroft, 2009). Social research has also been done on household recycling (Skill, 2008; Åkesson, Ewert and Henriksson, 2009; Schouten, Martin and

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Tillotson, 2014). However, not much has been done to study household disposal as a whole spectrum of practices, including recycling and waste.

In order to examine the social practices of disposal and the structures that they are performed within, I turn to Giddens' structuration theory (Giddens, 2013) and theory of practice (Reckwitz, 2002; Shove, Pantzar and Watson, 2012). According to Giddens and his structuration theory (Giddens, 2013), we are all actors within structures. Structures are embedded in society. They are dependent on human activities for their existence but are decoupled from human activity in that they are not set in time and space.

Giddens stresses that actors and structures are not to be seen as two separate entities, but as a duality. The structural properties of a social system act as a medium whereby activities take place. But the structures are also the outcome of the activities that take place in the social system. This implies that structures can exist only if we act according to them. In other words, structures and activities exist in constant feedback with each other. This feedback is what Giddens calls structuration.

The actor has, according to the definition above, the ability to act within the structures (to reproduce them) or to act in alternative ways (which may lead to the production of new structures). In this way the actors have power or agency to intervene in the world.

However, individuals have different capabilities and therefore different kinds of agency. Giddens stresses two important properties of what he calls "competent social actors": reflexivity and knowledgeability. Reflexivity, according to Giddens, is the ability to monitor one's own behavior, as well as monitoring the ongoing flow of social life. It is also the monitoring of others and the expectation that others monitor you. Reflexivity enables the constant continuity of practice. Cognition, as well as human activity, occurs as a continuous flow, and is a continual feature of everyday action. For this to be possible reflexivity only partly acts on the discursive level. Giddens makes a distinction between discursive consciousness and practical consciousness. To be able to go on with the continuous flow of everyday action, not all activities can be discursively conscious; instead most of these activities are practically conscious. In this way, according to Giddens, all social actors are knowledgeable. They know what they do and why they do it. All competent actors in society are vastly skilled in the activities of social life. They are knowledgeable about social conventions, of oneself and of other human beings (Giddens, 1991).

Giddens' structuration theory presents a useful way of understanding how actors function in the social system. It provides the possibility to analyze opportunities and constraints that households perceive in their everyday activities. The theory is useful in analyzing households' knowledge of and reflections on their behavior and to analyze how they justify their activities. However, a complementary and more detailed contribution as to how to study these aspects can be found in theory of practice.

Within theory of practice, a practice is different from Giddens' concept of activity. A practice is defined as "... a routinized type of behaviour which consists of several elements, interconnected to one other: forms of bodily activities, forms of mental activities, 'things' and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge" (p. 249) (Reckwitz, 2002). What practice theory adds is placing a bigger focus on 'things', bringing the material world and the actors' intervention with it into focus. Practice theory also provides a

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different approach to reflexivity and practical consciousness from that of Giddens. Daily practices are regarded as being more subconscious and impulsive (Klintman, 2012). According to Reckwitz (2002), a practice is a block of activities, where the single activities may vary. For example, we all perform the practice of cooking, but we do it in different ways. In my analysis I will use the perspective of Shove, Pantzar and Watson (2012) that practices consist of three interdependent elements: 'meaning' (ideas, aspirations, value and symbolic meanings), 'competence' (shared know-how and practical intelligibility) and 'material' (physical stuff, objects and infrastructure). My purpose in using theories of structuration and practice is to be able to identify opportunities for and constraints on waste prevention that householders perceive in their everyday disposal practices, by applying the analytic concepts from structuration theory alongside the concepts of 'meaning', 'competence' and 'material'.

3. Materials and Methods

In this study, semi-structured, in-depth interviews were conducted with nine people in Sweden. The purpose of using interviews was to allow the informants to present their own narratives of their everyday activities (Ward, 2013). The interviews contained open questions with a focus on obtaining (new and second-hand), repairing, disposal, everyday waste behavior and, lastly, how to prevent waste. It needs to be pointed out that the English concept of 'disposal' may not fully cover the Swedish concept of 'bortskaffande' that was used in the interviews. 'Bortskaffande' translates verbatim as 'to do away with' but is also used formally as a concept for waste disposal.

The topics were discussed in the order displayed in the mind map shown in Figure 1 with the purpose of following the lifetime of possessed things. The mind map was created with an object life cycle in mind: obtaining, use and disposal (Cox et al., 2013). I designed the questions with the purpose of following one or more specific goods, chosen by the informant. The interviews would therefore start with the question, "Can you give me an example of something that you have obtained lately?" and thereafter connect questions back to specific objects mentioned by the informant. The purpose of discussing around specific objects rather than things in general was to allow the telling of a story of one or a few specific objects.

The obtaining and disposal discussions came to focus mainly on objects like clothes, furniture and electronics. Therefore, everyday waste activities, including recycling habits, were made a separate point of discussion. Waste prevention connects back to obtaining, hence the closed loop.

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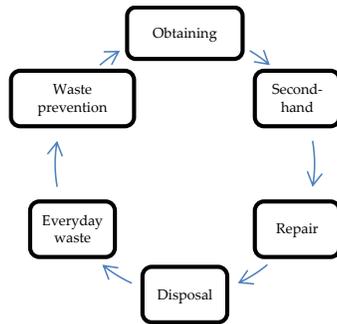


Figure 1. Mind map covering the lifetime of possessed things, used in interviews.

The area of household disposal practices is still under-researched, particularly within the Swedish context. Because of this the purpose was to choose a diverse set of informants. The informants were selected with the requirement that they had no specific interest in waste or waste prevention. They all lived in urban areas with access to curbside recycling of food waste. Dry recyclables are either collected at the curbside or from drop-off points usually within 400 meters from the house. The informants in this study were three men and six women. The imbalance in numbers was because men turned out to be harder to recruit than women: this may be due to the fact that women show more interest in environmental issues and also that women still do more of the housework. The women's ages varied between 24 and 75 years and the men's between 28 and 62. They resided in different types of housing – five in apartments and four in single-family homes – and in diverse family structures – single households, couples, couples with children and single parents with children. They had different educational backgrounds and occupations, and different levels of income.

The purpose of the diverse sampling was to try to capture and start mapping a wide range of different disposal practices. Despite the diverse sampling, some practices and narratives emerged as general and themes started to repeat themselves. At this stage it was assessed that saturation of data had been reached for the purpose of this study (Saunders et al., 2018). The interviews were recorded and transcribed verbatim. The analysis of the material was made according to the analysis method framework of Ritchie et al. (Ritchie et al., 2010).

4. Disposal is more complex than just throwing things away

Narrated all through this study is the complexity of disposal. Disposal is not described by the informants as a simple or mindless act of throwing things away. Let me illustrate this with a quote from informant Joanna.

"Well, we usually take it to the dump if it's something that doesn't work, if it's something that isn't at all possible to sell. Firstly, we usually check if someone near, like family or friends, needs it, if it is in useful condition. Put it in the flea market box or, ultimately,

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take it to the dump. Also, [if] it's one of those things that may be put as an ad on Facebook."

Joanna is married with two young children. When she and her husband moved in together they found themselves with equipment for two households, for example two almost-new TV sets. So, when asking Joanna what they do with electronic equipment when it's time to dispose of it, she makes a connection not only to broken things that need to be put into the waste stream, but functional things that may be useful to others. Useful things don't need to be thrown away. She sees taking it to the dump as the 'ultimate' option, listing a number of possible alternatives to try out before it's thrown away.

In the following analysis I will apply the useful concept from Gregson et al. (Gregson, Metcalfe and Crewe, 2007b) of 'moving things along' in describing and analyzing the informants' disposal practices. The concept is useful in that it doesn't focus on waste, as the concept of 'discard' (Liboiron, 2014) might do, neither does it exclude waste, which may be the case with 'divestment' (Gregson, Metcalfe and Crewe, 2007b).

The different ways of moving things along found within this study are reuse (including repair and makeover), saving and storing, giving to family and friends, selling, donating to charity and, finally, recycling and waste. The different conduits are presented in a specific order, based on how the informants value the objects being moved on: starting with objects of higher value, which are preferably kept within the household, and ending up with low-value objects that are moved on to recycling and waste.

4.1. Reuse – repair and makeover

Some things within a household are situated in a space between being kept and being moved along. This is a space where things are being viewed as no longer having an obvious place within the household, but on the other hand they don't seem to be quite ready to leave either. Margret, a single mother, gives an example of this when talking about her black bookshelf.

"I did want the bookshelf. Now I had rather not, but I'll have to keep it until I can afford something else ... I would like to make a change, or I'll simply have to paint it white."

Something has changed in her relation to the bookshelf, making her put the bookshelf in the space between keeping and moving on. In painting the bookshelf white she would give it a new possibility to stay within the household; it would fit in again. As Margret continues to plan for a makeover of some pieces of her furniture as an alternative to disposing of them and buying new, she comes across difficulties that stop her in these plans.

"Well, I'm not very good at those things. It's just that I get inspired by others. But at the same time, I get scared: what if I fail? I'm like: 'Help!' I would really like to do more than what I dare and believe I can."

Drawing on concepts from practice theory (Shove, Pantzar and Watson, 2012), Margret's reuse is limited by a lack of competence on one hand and by material on the other. On closer inspection, Margret's lack of competence has to do with more than just painting skill; it is also connected to believing in herself and her abilities. Risking failure is important here. Gregson, Metcalfe and Crewe (2009) have shown that failure of object maintenance has profound consequences on keeping or disposing of the object in question.

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Lack of competence is also mentioned by other informants as a limitation to reuse, like mending clothes or repairing electronic equipment. But the competence required need not be one's own. Informants mention asking their mother about mending clothes, their brother about the computer, grandfather about the coffee machine or the odd-jobber in the village about the TV set. These contacts matter not only for the actual mending but also for deciding whether it's worth paying a professional to repair. Competence is, in other words, required, not only for the actual repair, but also in judging whether or not it is at all possible or even worthwhile to repair.

Material is the other limitation to the practice of reuse that is mentioned by informants. It limits in that some things are not made to be mended or repaired. Informants mention clothes that don't have adequate quality and shoes that don't have replaceable soles.

Thomas, a single father with a grown-up daughter, talks about choosing a car that can be repaired. He sold off his Golf biodiesel and bought an older car instead. Having the Golf was too expensive, not only when purchasing it, but also in having to leave it at the garage for repair, even if it was just for changing a light bulb.

Thomas: *"I bought this old Volvo, from 2000. Runs on petrol, not diesel, so it doesn't release any particles. And it has lower NOx-values, much lower NOx-values. I repair it myself." ... "I buy spare parts from the scrapyards."*

Interviewer: *"For how long do you think you can keep the Volvo?"*

Thomas: *"Until I die!"*

Thomas' quote shows the importance of having agency to control a specific item and its maintenance, which was one of the reasons for Thomas to replace the car. He also sees this as increasing the possibility for keeping the car for a longer time.

Even though repairing skills and repairable goods may limit the practice of reuse, the informants still try to hold on to things they care for. Sofie gives an example of this.

"Last autumn I did a financial audit. Before that I had planned to buy a new pair of boots. I really like my boots, but I felt they were a bit like I needed to get a new pair, so I wouldn't have to go without. But then I decided to take care of them and realized that they were quite nice once I had gone over them."

Sofie refers to two different meanings that led her to taking care of her boots: economy and emotions. The financial audit had her thinking about how she spent her money, and, since she really liked her boots, it was well worth the effort to care for the ones she had. Things that are valued, both economically and emotionally, more often seem to be worth the effort of taking care of instead of throwing them away and buying new.

However, agency to repair and reuse does not always appear to be the main obstacle.

Laura, a mother of two, gives an example of something she has the agency to repair, but where an alternative appeals to her as it offers her convenience:

"Right now, I have this cell phone that I dropped. I haven't fixed it. You must think about how you use your guarantee. It's like this: if you use it now, then you've used it for this year. [...] So, I thought, 'Wait a minute, maybe I can replace the phone.' 'Cause I have the right to replace it. And that's interesting, considering what we are talking about here. If I want to, I can replace my phone. I have never bought a cell phone like this before; I've fixed it differently earlier. But, well, it's a bit 'wear and tear'. But then I'm like, I can give it to the kids instead. I don't really know how to relate to this. [...] I just need a functional phone!"

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Laura seems to be torn between what is convenient, which would be to replace her phone for a new one, which she is entitled to do, and what would be less 'wear and tear'. She uses the expression 'wear and tear' in a normative way, to show what she does not consider to be 'right'. The main point for Laura is that she just wants a functional phone. Structures in economy and the market are recurrent obstacles for reuse, as in the examples of clothes and shoes not being made to be mended or repaired and the telephone contract that prevents repair. Informants also mention electronics being cheaper to buy new than to repair. These are market structures that influence the households in their choice of disposal practices.

To reuse things even though they are on the edge of being discarded appears to be closely connected to agency to control material. This form of agency has to do with being able to repair (the car) and makeover (the bookshelf). However, Margret's holding on to the bookshelf seems to be due more to a lack of agency. She would like to replace it, but her lack of money, and therefore lack of agency to replace one object with another, keeps her from realizing the idea of moving it on. However, this does make her ponder what she might have agency to do, which may be painting it white.

Having agency to control material as well as having knowledge and competence, either one's own or with the help of someone else, appears to be fundamental for repair and reuse. By putting effort into one's things, they are given new life and therefore a chance to stay on for a while longer. What seems to happen in the practice of reuse is that things are perceived as though it is time to move them along, because they no longer fit in, or because they are worn out or broken. But the interim placing in which they are put suggests the possibility of moving them back into the household again. However, this possibility requires some sort of effort, whether it be repair or makeover. The effort may be motivated by economy or emotions, but also by the normative wrongness in 'wear and tear'. The effort may, on the other hand, be prevented by the structures of the market that offers cheap and convenient solutions.

4.2. Saving and storing

Another form of placing things in the in-between is the holding on to, the keeping-in-case-of and the storing of things that are 'on their way'. The typical physical places for this are the basement, the attic and the shed.

Sofie is married and the children have left home. She and her husband still live in the same house as when the children lived at home.

"Well, it's like this: in the basement there are two coffee tables. One old, inherited and one that we bought when we moved in here. We bought it second-hand; it's a table from the Sixties. They are there but they are not... Next to the sofa that is standing there and... [Sofie laughs]. It's a room for nostalgia."

The room in the basement is a space for things that they want to keep but don't really use. There are inherited furniture and former favorites. Sofie uses the word 'nostalgia', referring to memories connected to the different objects. Memories connected to things also apply for the children who have grown up and left home.

"Yes, it might be that it's harder to dispose of inherited things. And especially since we have disposed of large amounts already, it feels like what we have left might be more than we actually need. Just in case. It's the same as with the kids' stuff. You just don't want to dispose of their things."

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Sofie talks of an emotional effort in disposing of these things. They are moved on in the sense that they are placed somewhere else within the household, but not moved on out of the house.

Harry, also married and with children who have recently left home, has another approach to the things stored in the attic.

"I guess it's more convenience, or laziness, that makes me save things. I put things in the attic instead of taking them to the recycling centre. It's more like that. It's troublesome when you know you must go to the recycling centre. And since I work too much, the weekends are time for doing stuff. And then there is a queue, for like half an hour. And then you can't take it."

In this quote Harry expresses no nostalgia in saving things. Instead there is a lack of time, or rather a problematic scheduling (Shove, Pantzar and Watson, 2012) which means he visits the recycling centre when it is at its busiest. This in combination with having extra space makes him store things. Harry's attic, in contrast to Sofie's basement, becomes a space for unwanted things. Things that are just waiting to be moved on out of the house. When asking Harry if he stores things for other reasons, he replies:

"Well, that would be things that may be useful for coming generations. Whatever that might be. Children's things and stuff that might come in handy."

This kind of storing is connected to that of reuse above, the difference being that it is placed in an interim time as well as interim space. It is planned to be moved back in again in the future, as there is the idea that it will come in handy further on and for someone else.

What Sofie's basement and Harry's attic have in common is that they are both extra space. Space that is not an active part of their everyday activities, but where things are placed because it's too much effort to move them on, either for emotional or practical reasons, or because objects are perceived to be useful in the future.

Reuse as well as saving and storing are both ways of moving things along, but that don't go all the way out. Saving and storing involve a displacement within the home, but not a final disposal process of moving things out of the household.

4.3. Giving to family and friends

The conduits described above allow for objects to stay within the household. This may not always be possible or desirable, and so things are moved on out of the house. One such conduit is that of giving to family and friends. Anna, a student in her twenties, gives an example of what she did with some of her surplus (Bulkeley and Gregson, 2009) things when moving in with her boyfriend.

"Well, it's when you're moving and fitting everything in. Like now we are two people with almost as much closet space as I had on my own. And then it's like this: 'Oh, now I really need to sort out my clothes!' I think I cleared out half my wardrobe. But it's also very hard, because somewhere you picked out that sweater in the store and got a little attached. I like to kind of give it to someone so that it still feels like it's going to come in use. And then it's easier to clear it out. So now I have given different bags to my sister and mother and my boyfriend's little sister."

Anna talks about lack of space making her dispose of things. She also talks of being attached to things and wanting to make sure that things come in use. For this she sorts her clothes and bags to be received by different people. She picks the person based on who

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will most likely take care of it. Anna's activities are about the welfare of the things that she has gotten attached to. But as Sofie points out, it's not always care free to give.

"Sometimes I give things to friends and ask if it might be something they would enjoy. Because I feel more and more that everyone has their own taste, so it doesn't work as it used to. It's not like you can just... that someone else would enjoy it."

Sofie is implying that there are rules to giving, and it requires competence to understand these rules. There is no taking for granted that someone may find the things one gives as desirable or useful. As Sofie points out, everyone has their own taste.

John, who is single and in his late twenties, has come to an agreement with his father in exchanging clothes.

"What has happened is that Dad gets a lot of my clothes and I get his. There is sort of a swap. Something's happened to me [points to his belly] and something different happened to him. We are going in opposite directions. So, it's great fun that he can have my stuff and I can have his."

In this arrangement there doesn't seem to be the obstacle of having different taste. Instead the swapping of clothes between father and son is labeled as great fun. It's something that is agreed between them. The two of them have clothes that are no longer useful for them, in that they are no longer the right size, but still in adequate condition. In having someone to swap with it seems more reasonable to reuse each other's clothes than to dispose of them in other ways. The giving to friends and family has, in research by Gregson, Metcalfe and Crewe (2007a), been found to play an important part in materializing key social relations. In all likelihood this is the case between John and his father, as it is described as great fun.

Giving to people is simultaneously both a way to ensure a good home for special objects and a way to maintain key social relations. This kind of giving requires a close social context, like family and friends, where one can identify possible recipients; it also requires a competence in understanding who might enjoy what.

The practice of giving seems to be related to the practice of reuse, but a reuse that happens outside the household. It also seems related to the practice of saving as they are both, at least in part, narrated by an emotional attachment to things.

4.4. Selling

Another way to move things along is to sell them. Selling, in contrast to the conduits described above, seems to be primarily about releasing money to buy new. Laura talks about selling children's clothes.

"For example, when I buy clothes from POMPdeLUX [an online brand for children's clothes], I know that the clothes have a high second-hand value. You can get almost the same money. They have great second-hand value, so I buy from them partly because I know that when I buy a winter jacket I can forward it. And that feels alright. You don't have to take the larger size. And when he has used it I can buy a new one for the same money."

This is narrated by Laura as a routine; the practice of selling is interconnected to the practice of buying. Laura talks about there being a need to replace a no-longer-functioning jacket with a new one. This becomes a circular movement, where she in cooperation with other sellers and buyers exchange one thing for another. This means that it requires others to reproduce the practices of buying and selling as well.

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For John, who has an interest in vintage design furniture, replacement works the other way around. He has a need to do away with the old to make place for the new. John is on constant look-out for specific items that are of interest to him. When he buys something new he must deal with the old one at home, as in the quote below where he talks about the kitchen table that had to be disposed of.

"Well, it's got to be sixty years old at least. So, I thought, 'What the heck, I'm not taking this to the recycling centre.' I renovated it and made it look really nice. So, I put an ad on Blocket [a very popular online second-hand market], and I was flooded with calls within the hour. So, it lives on."

For John, the table is kept alive (Appadurai, 1986) when received by someone else, as opposed to putting the table into the waste stream. John, as well as Laura, seems to have established specific practices for selling things on, practices that start even at the moment of acquisition. In their cases, when buying slightly more expensive items, there seems to be a plan, or at least a possibility, for selling the things on.

Both John and Laura show a competence in discerning which outlets are appropriate and what the specific goods are worth. This has been shown in earlier research to be important in selling things on (Gregson and Crewe, 2003; Gregson, Metcalfe and Crewe, 2007b). In contrast to giving to family and friends, the key competence does not seem to be to identify a specific recipient but to find a specific outlet, and through the outlet find a recipient for the object.

The practice of selling is talked about as a way of making money, or perhaps about retrieving money once spent when the specific item was bought. Selling also opens the possibility of buying new when the other is sold. Things that are sold seem to be regarded as useful in a general sense, not in the same emotional way as with things that are saved or given to family and friends. They are no longer useful for the specific household but possess a usefulness in that they may be worth something to someone else who is prepared to pay money for them.

4.5. Donating to charity

There is an alternative form of giving, which does not include the close social connections of friends and family, and which is also an alternative when selling is not perceived as a reasonable option: donating to charity.

Sofie states that she does not sell; instead, she prefers to donate to charity.

"Well, I don't sell anything. I've thought about it but it's too much work, too much around it. I prefer to donate things to the Red Cross. And then you want it to be nice things you donate. So, you look through it and weed out some of the things."

For Sofie it is less work to donate things to charity than to sell them. Donating doesn't require competence in discerning which outlets are appropriate and what the specific goods are worth.

Sofie's narrative suggests that there are rules, in that you can't donate just anything to charity. That is why she weeds out some of the things, which instead are put into the waste stream. Anna, who also donates to charity, gives an example of what these rules are. She recently moved in with her boyfriend and merging two households into one meant surplus objects needed to be disposed of.

"I think there was only a mattress that we couldn't give to the charity shop, because they can't sell them if there are any stains. No one buys them and instead they must pay 9 SEK

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per kilo, or per ton [for waste management], I don't remember what they said. They don't want things they can't sell."

Even though Anna tried to keep the mattress from going to waste, it was not possible to do so. Donating to charity is narrated by the other informants as well, as a last try to stop things from entering the waste stream. The rules of donating to charity are, as with other conduits described above, that there needs to be a perceived recipient of the donated object. Disposal practices such as giving, selling or donating all require recipients. Some things, like a stained mattress, will likely never find one and so are moved into the waste stream. What Sofie regards as the onerous work involved in selling compared to donating is undertaken by the charity organizations who provide the service of finding recipients. According to the informants' stories, there is a constant negotiation around what may be the right conduit for moving things along. Laura has been negotiating about what to do with her vacuum cleaner.

"And we did not fix... I got so tired of our handheld vacuum cleaner. [...] It was like 'It does not work anymore!' And then you know that it costs 1100 [SEK] or so. And fixing it, I cannot see that it would cost much less to fix it. I don't know. There wasn't any power in it anymore. Then I think like this: 'It will work better with someone else.' And then I gave it away. [...] Well, I gave it to charity. I thought that somebody may give it a try. Because it worked, but it didn't have the power I wanted anymore."

Laura's quote reveals that she has given careful thought to the different alternatives. She has the idea that it might be too expensive to repair. But as donating seems to be an activity that doesn't require much effort and opens for the possibility of it not going to waste, it seems to be a fair enough deal. In comparison to the practice of repairing described above, Laura doesn't express any particular value connected to the vacuum cleaner; on the contrary, it is reasonably cheap to buy a new one. Therefore she is not prepared to put time and money into repairing it. In comparison to how she talks about the cell phone that she dropped, and which was negotiated between repair and replace, the moving on of the vacuum cleaner is not regarded as 'wear and tear'. This is likely to be because she perceives a possible recipient when moving it on to charity, which she may not perceive in moving the phone back to the phone company.

The practice of donating to charity is not defined by the same meanings as the practice of giving to friends and family. Donating is an act of moving something along that no longer has any great value for the owner, emotionally or economically, but where there is perceived to be someone else who might find it useful and, in Laura's case, even someone who might add value to it. On the subject of donating, Laura talks of an unidentified 'somebody', as opposed to giving and selling where the recipient is a specific person. The charity organization takes the role of finding a recipient for the donated things, and therefore simplifying the act of moving things along. Donating therefore seems to be a less complex practice than giving and selling in that it doesn't need to identify a specific recipient.

4.6. Recycling and waste

There are many objects in a household that are highly likely never to find recipients and are therefore never thought of as being possible to divest (Gregson, Metcalfe and Crewe, 2007b), that is to give, sell or donate. Therefore, items like packages and food waste are

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directly focused towards the waste stream. Everyday waste and recyclables are frequent and therefore require a specific structuring in both space and time.

Gerda is 75 years old and lives by herself in an apartment on the second floor. Outside there is a recycling room equipped with all kinds of bins for recycling. Gerda has created her own routines and structures.

"As it is you're supposed to put your food waste in small paper bags. I've never done that. I put it with the usual waste, with kitchen towels and such. When it's full... And then I have a shopping bag on wheels where I collect cartons and paper. And then when I feel, like last night, that it has to be taken out, because I hate smells, then I bring everything down and sort it in the recycling room. Paper goes to that bin, cartons to that, brown glass, white glass, plastic bottles and so on. So, I'm good at sorting. Except for the food. I can't imagine having food lying around in one of those paper bags that might start smelling after one day. Because I don't go down there every day."

Gerda is knowledgeable about the rules on recycling; she knows what goes in which bin and where the recycling room is. But the recycling of food waste does not fit in with her daily rhythm. She doesn't go to the recycling room every day, and so the food waste may start to smell.

The informants talk about recycling as something one ought to do as a good citizen. But not all of them recycle as much as they feel that they should. Harry reluctantly describes the recycling routines in his household.

"Well, we recycle. We sort out the food waste. That we do. Yes. And the everyday waste in one. If it's not bigger things like cardboard boxes or plastic and things that we take to the recycling station. So, I mean... If we bring a salad home, I guess it goes in the waste, those kind of packages. Milk cartons, when the son is at home, they probably go in the waste as well."

When asking Harry what could make them recycle more, he says that it would help to have more bins at home, or if the recycling station where he drops off his recyclables were more accessible. In other words, there is a connection to physical structures. Norms and physical structures have also been found in other research to be important for promoting recycling (Barr, Gilg and Ford, 2001; Cox et al., 2010). Harry also mentions that since the children left home they don't have that much waste. John, too, talks about how small amounts of waste may be a reason for not recycling.

"The only thing I don't recycle at home is food waste. In a single household there is not much, I think. I feel like I must take it out when it starts to smell and becomes gooey, and then I bring out a bag with just something gooey at the bottom. So, I feel like, no, I don't do that. If it's not something special, like when you have guests and it adds up to a full bag. Then I'll do it. But not as an everyday thing."

Space needs to be organized to make room in the kitchen. But there is also a need to manage the space between the kitchen and the recycling bins. Gerda copes with the help of a shopping bag on wheels; other informants drive their cars to the recycling center. There is also a need to organize time. It is organized as a routine in terms of when it is time for the next round to the recycling room, but also in terms of perception of future possibilities. Anna is 24 years old and Gerda is 75. They have both established routines for handling batteries. Neither of them has a car and neither is supposed to dispose of dead batteries in the recycling rooms where they live. Anna keeps a routine of collecting

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her batteries in a jar, her plan being to drive them to the recycling center the next time she rents a car. For Gerda it is different.

"Well, sometimes I think about [it], and this is where I cheat: batteries. I bring it all down whether I'm allowed to or not."

Gerda uses the facilities that are provided in her recycling room to dispose of her dead batteries. She knows that is not the right thing to do but, lacking feasible options, she does the best she can. The contrast here is that Anna sees the future possibility of moving it along to the recycling center. Gerda doesn't see this future opportunity and therefore does not create an interim placing for it. Instead it will have to go to the best place possible.

Even though there is a will to do what is considered right, there is a limit to the efforts the informants are willing to make. Anna talks of practical reasons, time and energy.

"I guess it's when you move, and you have those batteries or leftover packages and you've already been to there [the recycling center], and then you just 'Never mind!', for practical reasons. You just don't have the energy."

In contrast to the other ways of moving things along, recycling seems to be defined by norms: it's something you do as a good citizen. Recycling also seems to be connected to physical structures, like bins for recyclables and paper bags for food waste. As the daily waste is a more frequent material as well as a material immediately defined as waste, it requires that the households structure very specific routines in space and time to handle it. Domestic routines are negotiated to fit recycling into everyday practices. If recycling requires too much of the household, it is not done, and material becomes waste. In contrast to the other ways of disposal, there is no mention of any recipient. The stories end at the bins. This would imply that there is a trust in the waste management system to handle the waste in an effective way.

5. Discussion

This study has taken its starting point in household waste prevention by using Sweden as a case of a consumer-oriented, capitalist society. By studying households' practices of disposal through Giddens' structuration theory (Giddens, 2013) and theory of practice (Reckwitz, 2002; Shove, Pantzar and Watson, 2012), the aim was to start mapping the different disposal practices and the opportunities for and constraints on not wasting objects.

Although the sampling is quite diverse, there are some common features in the narratives presented. As shown above, household disposal is made up of several different practices, each of which is defined by a separate meaning and requires different competences and different materials (Shove, Pantzar and Watson, 2012). One of my main findings is that keeping objects out of the waste stream seems to be something the households strive for as long as an object is perceived as having some sort of value (Thompson, 2017). The households talk about ascribing objects with different forms of value: emotional, economic or useful. It seems that, depending on the value, objects are moved on in specific ways, through specific conduits. What the households are doing in choosing a specific conduit is actually looking for an appropriate recipient. The objects need to be moved on to someone who will take care of them, be it the sister who will enjoy the

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clothes that no longer have room in the owner’s wardrobe, or the waste management system that will handle the recycling of packages. This could be interpreted as their trying to put each thing in its right place, meaning that disposal practices are not careless but a mindful activity.

I presented the different conduits for disposal above in an order based on how the informants value the objects they moved on. Let us view the different practices for moving on from the perspective of finding appropriate recipients; see Figure 2 below. Reuse as well as storage are practices that are enacted primarily within the household, although not uncommonly with the collaboration of others to loop things back in again. Things are displaced within the home but not finally disposed of. The looping back means that the households themselves act as recipients. Giving, which is done with things of emotional value, is a face-to-face activity (Giddens, 1990) that involves and requires close relations, the recipients being family and friends. Selling seems to happen when economic value overrides the emotional value. Thus, it no longer requires a recipient within the closest social context, so a recipient is sought further away. Selling involves a market relation to a buyer, whether a face-to-face connection or faceless through the internet. When donating to charity, the recipient is an unknown someone, facilitated by a charity organization, an unknown someone who might find value in the donated things. Recycling and waste are also faceless connections, the recipient being society’s expert systems (Giddens, 2013), in this case waste management.

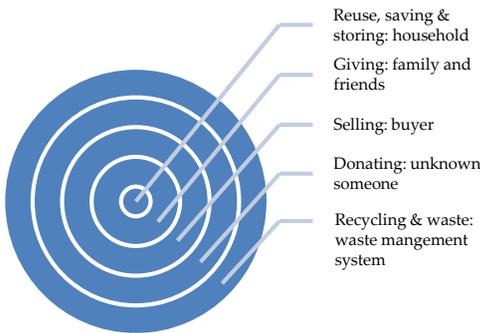


Figure 2. Showing how the disposal conduits connect to recipients.

Viewed in this manner, disposal is putting things not only in the right place, or through the right conduit, but in a specific social context. The higher the value an object has, the closer the social context it is placed in. This may be connected to the effort of keeping valued things alive. By placing them in a close social context may provide the possibility of ensuring the object is received by someone who will value and care for it. The further away it is placed, the less possibility there is of ensuring that. Disposing of things without depriving them of value must therefore always imply a recipient. Putting it in the words of Hård af Segerstad:

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“People without things are hopeless, but things without people are meaningless.” (Hård af Segerstad, 1957)

What is perceived as the appropriate conduit for an object is, according to this study, negotiated within everyday life. As the households act out their everyday practices they are governed and facilitated by social structures, and each of the disposal practices are affected by specific structures. As I have shown above, materials are constrained by not being repairable or reusable. The market constrains through offering cheap and convenient alternatives. Selling and reusing is constrained by the extra effort entailed and by the skills and the self-confidence needed to repair and makeover. Giving, selling and donating to charity are each constrained by the fact that there is no one who is willing to receive.

Even though structures may be constraining, I have also shown that they offer opportunities, such as using established channels for selling and donating. Also, households are reflexive and knowledgeable and manage to produce structures within their everyday lives that enable them to stop things from entering the waste stream: for example, turning to people in their surroundings for giving and for help in repairing. The effort expended in creating their own structures seems to be connected to what value an object has. If an object is seen as valuable emotionally, economically or as being useful, then the households make an effort. Even though they act within the social institutions of fast fashion, disposable products and an effective waste management system, they still have agency to choose their actions within them. It seems that when valuing an object, the households want to make sure it is being ‘kept alive’ (Appadurai, 1986).

Looking more closely at the specific meanings involved in keeping things from the waste stream, there is very little reference to environmental concerns. Environmental concerns are mentioned only in terms of wasting resources, like the normative expression of ‘wear and tear’. Recycling is talked about as something one ought to do as a good citizen, donating to charity as though it is a shame to waste useful things, selling is primarily connected to retrieving money, giving is dominated by caring for loved things and loved ones, and reuse and repair about caring for objects for emotional and/or economic reasons.

Time and energy are narrated by the households as limiting resources. The different practices compete for these resources. But as Shove, Pantzar and Watson (2012) point out, the perceived limitation does not only have to do with the number of hours, but also with timing practices correctly. Sequencing and scheduling are parts of weaving practices into the rhythm of everyday life. As Reckwitz (2002) highlights, every agent carries out a multitude of different practices, meaning that each individual is a unique crossing point of practices. The disposal practices are just some of these many everyday practices. Another recurring theme in this study is that of space. Space in the home is needed when storing and saving, but also in structuring the home to fit in recycling. Shove (2017) claims that there is not always a clear boundary between the infrastructure in the public and in the private. The recycling bins in the kitchen are an extension of the bins and containers in the recycling room and of the pick-up trucks. In viewing the home as the extension of the infrastructure, it becomes clear that the home needs space not only for recycling (Ekström, 2014), but also for interim placing (Evans, 2012) of objects intended for the other disposal conduits.

6. Conclusions

The purpose of this study was to look at waste prevention through disposal activities. Its aim was to describe Swedish households' narratives of disposal activities and to analyze the opportunities and constraints they perceive in these everyday practices. The starting point of the study is the paradox developed within the context of ecological modernization, where waste management has focused on evolving its efficiency. Sweden is used as a case, being a country that in the last decades has put very little household waste in landfill, much is recycled, but still waste amounts keep increasing.

Using structuration theory and theory of practice has enabled me to show that households, in their disposal practices, are affected by social structures such as products not being repairable or reusable and the market offering cheap and convenient solutions that counteract repair and reuse. On the other hand, the structures make it possible to sell and donate, as such conduits are established for several groups of products. Following this I argue that the commonly used ABC-model (Attitude – Behavior – Choice) is too narrow in its approach to make real impact on the waste prevention objects. Waste prevention is more than just a matter of people's attitudes and choices.

The study also shows that the households adopt a mindful approach towards disposal. The households in this study move things along in several different ways, and claim that sending to waste is seen as the ultimate, undesirable conduit for things that possess value. I argue that the primary problem here is not to do with attitude. The fact that 20% of Swedish bulky waste comprises things in useful condition shows that there is an obvious gap between attitude and behavior. A gap that I strongly argue needs to be tackled through societal structures.

Disposal is very much a social practice, as objects have value only as long as they are perceived to. In this perspective the act of disposal may be regarded as an act of finding a proper recipient. This way of looking at disposal has effects on consumption. Disposal should not be seen as the last part of the linear sequence of production – consumption – disposal. Reuse is a form of reproduction and donating to charity enables someone else's consumption. With regard to moving waste along in a social context, it becomes clear that disposal needs to be viewed as a precursor to consumption, not just as a successor. The aim of this study was to start mapping the different disposal practices using structuration theory and theory of practice. It is my belief that the method of using these theories provides a fruitful viewpoint into households' daily activities of disposal, displaying the complexity that households encounter. The study also identifies the need for further research within the area of household disposal practices. For example, to study how disposal is carried out during different phases of life, such as young people moving into their first home, starting and raising a family, divorce, old age and so on, and within different group categories, such as age, level of income, urban or rural living.

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III

The practice of household waste minimisation

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Note to reader: This article has been submitted to the journal Environmental Sociology. Just before this dissertation was sent to print, comments from reviewers were received. These comments have been taken into account in this version of the article. It has however not been through language review, why I ask you to be patient with any language errors.

The practice of household waste minimisation

This article presents a study of Swedish waste minimisation bloggers, often called zero waste bloggers. Through the lens of practice theory, the study shows that household waste is an unintended consequence of maintaining shared practices. The studied bloggers choose to maintain shared practices such as dressing well and buying takeaway lunch, but still manage to reduce their household waste. Waste reduction is achieved as some of the activities, of which shared practices are made up by, are altered. For example, applying the idea of the circular wardrobe and bringing one's own food containers. This becomes possible as the households reflect on their own consumption practices and thereby perceive opportunities to reduce their waste. Apart from lacking opportunities, waste minimisation is challenged by firmly established norms, such as shopping and the perception that recycling is good enough. Activities may also be challenged by other actors who inevitably get involved as activities change. This study suggests that if waste prevention is to become a shared practice more opportunities for waste prevention need to be normalised.

Keywords: waste prevention, practice theory, zero waste, five Rs, normalised opportunities

Introduction

This article presents a study of some forerunners of the waste minimisation lifestyle, also known as zero waste. It examines blogs on zero waste and waste minimisation from an everyday perspective. By applying practice theory, the aim of the study is to expose the possibilities and the limitations of what it is possible to achieve within household waste prevention. It also aims at understanding how waste minimisation may spread beyond these studied forerunners and become a wider shared practice.

The study is placed within a Swedish setting. The purpose is to contribute to the understanding of why Sweden, a country which is well developed within ecological modernisation (Vail 2014), which has well-developed waste management and recycling

programs (Corvellec et al. 2018), and which has consumers that are concerned about sustainability (Isenhour 2010), doesn't manage to reduce its amounts of waste. Household waste in Sweden has increased annually from 1975 to 2017 in both total quantities, from 2.6 million tons to 4.8 million tons, as well as per capita, increasing from 317 kg/capita to 473 kg/capita (Avfall Sverige 2019). Earlier research claims that this may be due to lock-in problems, such as the Swedish waste management's primary objective is to handle and obscure waste (Svingstedt and Corvellec 2018).

The principles behind zero waste living are, by the followers of the zero waste-movement, formulated as the five Rs: Refuse, Reduce, Reuse, Recycle, Rot – in that order. Refuse what you do not need. Reduce what you do need. Reuse by using reusables. Recycle what you cannot refuse, reduce, or reuse. Rot (compost) the rest. The goal is to send no waste to landfill or incineration (e.g. Johnson 2019; Kellogg 2020). The movement is growing rapidly. In May 2017 there were 376,669 posts under the #zerowaste hashtag on Instagram (Pedersen 2017). In November 2019 the same search resulted in 4,106,993 posts.¹

The zero waste movement is spreading mainly through social media, such as blogs, YouTube and Instagram. When searching for Swedish zero waste and other waste minimisation blogs, very few are found, at least in comparison to those in other countries. A search on Google for zero waste blogs² presented a vast number of results in USA, Canada, UK, France and Australia, just to mention a few, while this study found only three Swedish blogs focusing specifically on zero waste.

¹ Instagram #zerowaste 2019-11-16.

² Search done on Google 2019-09-11 for zero waste blogs.

Household waste minimisation has earlier been studied as a part of voluntary simplicity (a way of life practiced by individuals whose ideology calls for minimizing consumption and maximizing reduction (Cherrier 2009; Zamwel, Sasson-Levy, and Ben-Porat 2014), dumpstering (Barnard 2011) and freeganism (the belief in minimising impact on the environment by consuming food that has literally been thrown away) (Edwards and Mercer 2007; Barnard 2011) . These studies show that the chosen lifestyles are narrated as political activism and they all highlight the importance of finding a collective identity with other activists.

Citizen-driven initiatives for waste prevention have been studied by María José Zapata Campos and Patrik Zapata (2017). Their study shows that these initiatives challenge prevailing norms through people's practices, instead of through open political confrontation. Zapata Campos and Zapata claim that a change in everyday activities can be powerful as it provides an alternative, imagined future which has the ability to achieve socio-environmental change.

Studies on zero waste households, still very scarce, have not shown any clear narration of political activism. Mette Pedersen (2017) claims that the zero waste community is a loosely connected group of people practising 'mundane climate activism'. Both Pedersen and a study by Emelie Oldensjö (2018) focus on how zero waste is acted out in social media, such as on YouTube, Facebook and Instagram. Social media is according to these studies used for spreading awareness to others, for interaction and learning but also for creating a collective frame that inspires and motivates followers to continue to do their part with small acts in everyday life.

Though these studies of forerunners in waste minimisation are scares, they are an interesting group to study, as earlier research has identified that grassroots, rather

than waste organisations, lead the way for waste prevention (Zapata Campos and Zapata 2017).

Everyday activities to reduce household waste are discussed using several different concepts. Although the phrase 'zero waste' is commonly used, I will in this paper use the wider term of 'waste minimisation' in order not to exclude those not classifying themselves as zero waste households.

Theory of practice

Theory of practice has been identified by a number of theorists as a useful for the study of consumption (Røpke 2009; Warde 2005). According to Andreas Reckwitz a practice is defines as '*a routinized type of behaviour which consists of several elements, interconnected to one other: forms of bodily activities, forms of mental activities, 'things' and their use, a background knowledge in the form of understanding, know-how, states of emotion and motivational knowledge*' (2002, 249).

Example of practices may be going to work, making dinner or cleaning the house. These practices are shared in the sense that most people do them repeatedly, in a constant flow. These practices are not to be seen as equal to activities, rather they are blocks of activities. Though the practices are shared, the activities that the practices are made up by can be done in several different ways (Reckwitz 2002). This means that actors don't participate in practices in identical ways. Alan Warde (2005) uses the example of driving. One driver doesn't act identical to another. The performance of driving depends on several factors, like past experience, technical knowledge and opportunities.

Elizabeth Shove, Mika Pantzar and Matt Watson (2012) have developed Reckwitz's definition of practice. In their definition, a practice is made up of the elements of meaning (ideas, aspirations and symbolic meanings), competence (shared

know-how and practical intelligibility) and materials (physicals stuff, objects and infrastructure). As this study focuses on waste the material aspect of society is a vital dimension. Material in this sense is however not only limited to things, but also include infrastructure and the body. Meaning in the definition by Shove et al does not have to do with personal values, but rather shared understandings, social expectations and conventions. In other words, meanings are about making sense of activities (Røpke, 2009). It should be noticed that these elements do not have clear boundaries in relation to each other (Røpke, 2009).

Practices emerge as the three elements link together and disappear as the links are broken. Further, different practices are inter-connected to each other, in that one practice may restrict, enable or condition another practice (Shove et al., 2012). Also, practices compete with each other over limited resources such as time and space (Røpke, 2009).

Within practice theory, consumption may be studied as a practice consisting of competence, material and meaning. But it is also displayed as an activity within other practices. Practices are shared, in that they are something that we all do, and are expected to do. According to Inge Røpke '*people are practitioners who indirectly, through the performance of various practices, draw on resources*' (Røpke 2009, 2490), such as energy and material. From this perspective consumption primarily becomes an outcome of other practices, such as cooking and showering. The prevailing assumption, according to Shove (2017) is that people use energy and material and that consumption is an outcome of individual behaviour. From this follows that to reduce demand people need to change attitude, behave differently and make better choices. This is the so-called ABC-model, if Attitudes change, so will Behaviour by Choice. By adopting

practice theory, the assumption becomes another. People do not use energy or material per se, rather they perform practices that require energy and material.

In my studies I have applied the understanding of practice theory presented above. I have also chosen to study consumption both as a practice in itself as well as an outcome of other practices. With the inspiration of Bente Halkier (2009) I believe that one perspective does not need to exclude the other.

Method and material

The method applied in this study is inspired by archival netnography. Netnography is online ethnography, that is the study of the cultural and the social on the internet (Kozinets 2015). The empirical data in the study comes from Swedish social media specifically discussing households' waste minimisation. The social media that was examined contains mainly blogs, and to a lesser extent also Instagram and Facebook posts. Blogs offer a very rich material in the narration of practices as the bloggers describe their daily activities, often in detail, accompanied by pictures and occasionally videos.

The study was limited to Swedish households as this would provide the opportunity to study households specifically within Swedish structures. Studies of social media were complemented by three in-depth interviews, two with bloggers and one with the project leader of the minimisation competition.

This study has focused on four blogs and a competition where households blogged about their journeys to become waste-minimisers:

A1–A3: three Swedish blogs conceptualising themselves as zero waste blogs. These blogs display households trying to make a long-term change to everyday living. Focus is on spreading knowledge and awareness to others, as well as providing practical

know-how.

B1: an experiment where the blogger goes all out to produce no waste at all for one month. In doing this the purpose is to challenge and display what is possible as well as what is difficult or even impossible to do to reduce waste while keeping up everyday practices. The blogger is employed by a municipal waste organisation and the blog is a part of a municipal sustainability event.

C1–C59: 59 households that took part in a waste minimisation competition initiated by a governmental institution. The households competed to reduce their waste amounts for one year. During this period, they also blogged about their experiences. These blogs were written primarily as part of an internal discussion within the competition. In this they provided detailed descriptions on experiences of struggling with waste prevention in the everyday.

Studying everyday activities through blogs has limitations. I did not engage in any form of discussions or cocreation of empirical material, as already published material provided detailed descriptions. In doing so there is a need to be aware that posted texts display a specific representation of the self, which may not give access to the full practices. The chosen blogs do however both represent an outward communication which provides rich discussions on meaning and opportunities, as well as internal discussions which display challenges of changing mundane activities.

The data was processed by applying a coding based on the framework by Ritchie et al. (2013). Coding was done using a combination of predetermined and emerging codes.

There are ethical considerations to take into account when using netnography. The ethical guidelines followed in this study were established by the Association of Internet Researchers (Markham and Buchanan 2012). Material published on the internet

is not self-evidently meant to be used by other parties. Since it was not viable to gain approval from all the blogging households to use their published material, I decided to omit all their names. I acknowledge the possibility that they may be traced through a search on the internet; the harm of this is, however, deemed to be small.

Keeping up shared practices

The households in the studied blogs do not strive to change their lives in any overwhelming ways. The only exception to this is one of the zero waste bloggers who is searching for a simple life.³ The rest of the bloggers focus on keeping up their daily practices of living in comfortable houses, shopping for groceries and going to work. In other words, practices by and large do not change. Nor do any of the bloggers write about being active in party politics or other forms of activism, or in other ways struggle to make changes to the larger structures.

Blogger B1 set out on a one-month challenge to produce no waste at all. Her first blog post is entitled: '*Waste challenge goes extreme – living for one month without one piece of waste*'. In describing her challenge, she asks:

Is it at all possible to create a world without waste? Is it possible to live completely waste-free, except for some unavoidable food waste, like banana peel, coffee grind and eggshell...?

Already in this first post she answers the question by claiming that some waste is unavoidable. For as Mary Douglas famously stated: where there is a system, there is waste (Douglas 1966).

³ A simple life includes working fewer hours, while enjoying a lower cost of living, etc.

Even though B1 sets out on the endeavour not to produce any waste, she makes it clear that she wants to keep up her usual lifestyle. Throughout the month she encounters situations that put her lifestyle in conflict with that endeavour. To give a few examples: she realises that there is no time to churn her own butter, so she will have to buy it in a packet; her glasses get in the way when she goes dancing, so she uses lenses instead; wine is nice with the fish soup, but there are no wine-producers in Sweden with facilities to fill customers' own supplied bottles, so it has to come in a single-use bottle; she wants to keep looking pretty, so there is no opting-out on the makeup or hygiene products; and she certainly doesn't want to refrain from using toilet paper. These examples show that the challenge of a waste-free month can indeed be hard. Living within the late-modern society and keeping up daily practices will inevitably result in some waste.

The description above displays that waste production is not an intended act, but rather an unintended consequence (Giddens 1984) of maintaining shared practices (Shove 2017).

Finding opportunities to reduce waste

Even though B1 doesn't manage to live her month completely waste-free, she writes that she reduces her monthly waste production from 15–20 kg to 5 kg, or 67–75%. In this B1 is putting her full focus on avoiding all waste. The rest of the bloggers have a focus of living their ordinary lives, and within that manage to minimise their waste. The contestants of the minimisation competition had reduced their waste by 35% on average, halfway into the competition (Beckman 2015). This would imply that, even though various practices continue, it can be possible to reduce household waste considerably.

A common way to reduce waste, described in the blogs, is through replacement of objects. For example, when replacing disposable objects with reusable ones. The act of replacement is seen in the BYO (bring-your-own) movement. This is one of the most salient activities in the waste minimisation lifestyle, and especially in the zero waste-blogging. The idea is to replace single-use, disposable, often plastic items with one's own reusable ones: for example, fabric shopping bags and napkins; metal or glass bottles for water, food canteens, coffee mugs and straws, etc. The use of reusable objects is also seen in the home, where paper towels and disposable diapers are replaced with washable fabric cloths, tampons are replaced with a menstrual cup, and plastic food containers are replaced with glass or metal containers or beeswax wraps.

Blogger B1 with the 'extreme waste challenge' summarises her waste-free month by pointing out that the easiest waste to avoid is the replacement of disposables as described above. Fruit, vegetables and bread are frequently found at the supermarket without packaging. Groceries like fish, coffee and tea may fairly frequently be purchased unpackaged, and she claims that there is no problem in bringing her own containers. Other groceries are harder to find in bulk. However, often different stores sell different items, making her visit several stores, some not in the close neighbourhood.

Another form of activity that allows for waste reduction while keeping up practices is second hand clothes. Blogger A1 describes how she manages to dress well without spending too much money. She calls it '*the circular wardrobe – sustainable consumption for people who want to keep shopping*'. The concept includes buying second-hand and frequently clearing out garments that you no longer use.

Personally, it wasn't that long ago that I did a clearing out of my wardrobe, but on the other hand, I buy quite a lot of clothes (though almost exclusively second-hand), so the wardrobe is stuffed again. Thankfully I don't feel any anxiety about

clearing out. The great thing about having embraced the second-hand market and the zero waste principles is that I no longer feel sentimental towards dead things. I look at my wardrobe as a kind of loan wardrobe: I use some garments for a while and then they move on to become part of other people's adventures, party nights and slow autumn walks. (A1)

There is no limitation to the consumption of clothes in the idea of 'the circular wardrobe'. On the contrary, the idea is to keep the clothes in circulation so that more people can make use of the same garments. It is also interesting how the blogger writes about being thankful for not feeling anxiety. Anxiety has frequently been discussed in the media in conjunction with climate anxiety, that is knowing things are wrong but not knowing what to do. The circular wardrobe seems to provide an opportunity not only to keep up the joyful practices of clothes, but not having a guilty conscience because of unnecessarily using up resources.

One of the contestants (C9) in the minimising competition captures this idea in the concept of 'maxi-minimising': that is, to not miss out on anything but to leave as little as possible behind, or to get the most out of as little as possible. The idea is based on circulating clothes of high quality which can be passed on and of there being appropriate recipients (Author 2019). Philosopher Gay Hawkins (2011) calls this 'the art of transience': to circulate things in ways that do not involve destruction.

To reflect on and criticise consumption is not uncommon in social media discussing environmental issues. Specific to these waste minimisation practitioners however, is that they reflect on their own consumption practices. This is most commonly done through a non-shopping period. Blogger A3 explains this as a period of time when you do not consume anything, with the exception of food. There may also be exceptions for some consumables, such as gifts and services. The non-shopping period allows the bloggers to become mindful of their own consumption. Through this mindful

monitoring of their own consumption opportunities for waste minimisation become visible. These studied bloggers show that there are opportunities to reduce waste, such as replacing disposable items and engaging in the second hand-market. The bloggers however also show that the opportunities to reduce waste must be perceived in order to be taken.

New activities move beyond the household

Through mindful monitoring the studies bloggers describe how they are able to find opportunities for waste reduction that are not always obvious to others. These opportunities allow for new activities to be tried out. However, new activities do not only engage the household. This is displayed in this quote that tells of bringing your own container to the lunch bar instead of using the disposable ones.

Bringing your lunch sushi in your own glass container turned out to be the big topic of conversation around the lunch table at work. Several people said they wanted to try it themselves! So, it will be exciting to see how much we can affect the lunch bars in the neighbourhood. It's obvious that the lunch bars aren't used to the question of bringing your own container, but there haven't been any obstacles so far. Also, at home we've got a special sushi container, larger-size, for buying sushi. It was no problem at the local sushi place, but they were not used to a question like that either. (C29)

What seems to be important for this blogger is the fact that even though the lunch bars are not used to the question, there have been no obstacles. Once again displaying a tacit opportunity. The quote above also shows how the activity involves people in the surroundings, like colleagues at work and the staff at the sushi lunch bar. For new routines to be established, they need to be set within the household, but also with other actors.

Another example of how activities and routines are established beyond the household is given by blogger C18, who at the junction between the household and children's day-care saw a possibility to make an impact on how childcare institutions relate to washable diapers:

I met some resistance when we were looking for childcare. I asked specifically, I really don't know why, because of course they must accept a child even if it has washable diapers. I probably did a little to test the different places, how they would react. There were some people who said, 'No, we would rather not have that.'
(C18)

She goes on to say that the childcare that she finally found is very positive towards washable diapers, since the diapers can just be put in a bag and sent home with the child, instead of having the waste-bin filled with smelly diapers. The difficulty in this situation was that in order to maintain a routine with washable diapers the blogger had to be prepared to argue for her beliefs.

Some of the bloggers in the competition write about possible conflicts when their reduction in consumption collides with expectations from their surroundings, particularly if it breaks with traditions. One such tradition is gifts. Gifts are important at birthdays, weddings, Christmas, moving into a new house, and as an expression of love. Several of the participants in the competition had these gift occasions during their non-shopping month. As alternatives to buying new things to give away, they chose to give experiences, edible things, things bought at the thrift store, or something homemade. This was a fairly easy solution when the competing families were the givers. When the situation was the opposite and the families were the recipients, it became more complicated.

Sara's grandmother likes to buy presents and clothes for Sara. We think this is a little difficult because we try to reduce our waste and our consumption. But now it feels like she has found a way that we can accept. (C1)

The quote illustrates that acquisition is not always connected to one's own choice of buying goods. Things may enter the household in other ways, as in this case with the caring grandmother. This family needed to establish new routines within the family, but also extend those routines outside the household.

Establishing new waste-reducing routines is not just a matter for the household, since many practices are acted in a social setting: such as childcare, buying takeaways, or buying and receiving presents. Practices of waste minimisation have in earlier research been described as acted out in the privacy of one's own home (Bortoleto, Kurisu, and Hanaki 2012). Studied from a perspective of practice theory, this is not the case as consumption practices involve other actors.

Lacking opportunities

The studied bloggers frequently discuss possibilities to reduce waste, as when it is possible to replace disposable items and buy second hand clothes. But there are areas where opportunities are not always available, even though a problem is identified, as with avoiding chemicals. The discussion on chemicals display that the waste minimisers engage in reducing both quantity and harmfulness of waste, which is in line with the EU definition of waste prevention (European Parliament 2008).

While replacement is a common solution in minimising disposable items, it is not always possible when trying to avoid chemicals. This is shown in this quote when discussing electronics and textiles.

The technology gadgets and the cars we own are certainly not chemical-free. Unfortunately, furniture and textiles for the home are still very expensive if you are

to buy completely non-toxic. And then, second-hand won't work because old things usually contain more dangerous substances than the new ones. (C18)

There are three difficulties presented here: no options are available in the market; options are not affordable; and the second-hand market is not a solution. Another difficulty connected to chemicals is that they are an area that requires extensive knowledge, as seen in this quote about sorting out chemicals kept in the bathroom cabinet:

These are the ones that contain any of the substances that SSNC⁴ recommend you avoid: limonene, cinnamyl alcohol, benzyl benzoate, cinnamal, linalool, methylisothiazolinone... it goes on forever. Worst of them was a facial soap containing eight of the substances on the list. The sorting out raises further questions. One eco-labelled brand contains linalool and limonene but says that they are naturally included in the vegetable oils used. Does this make it all right then or should they be avoided too? It sure isn't easy, we will have to keep investigating... (C29)

In this case an NGO has provided a list of recommendations of substances to avoid, facilitating consumers to make sound choices. The fact that the NGO has produced this form of consumer aid indicates both the difficulty of being a mindful consumer but also that governmental regulations on chemicals are regarded as insufficient. Even though the households are mindful in their consumption of chemicals, there are still perceived problems that are hard to have agency over:

I have become better at choosing eco-labelled makeup and hygiene items, but that is mostly due to the increase in supply. The chemicals our households worry about are those that come with products without a table of contents. Furniture, clothing, shoes, plastic products... And the worries do not apply to the substances we know to be harmful and/or those regulated by legislation, but all the others. The hundreds

⁴ Swedish Society for Nature Conservation.

of thousands of chemical substances that we (yet) do not know anything about may be new so they have not proved harmful. Indirectly harmful, harmful together with other substances, or harmful only in a couple of generations. (C13)

The quote displays that more opportunities are opening up as there is an increase in supply of eco-labelled products. But at the same time there is an uncertainty of all that is not known about chemicals, displaying difficulties in being a sustainable consumer even if one tries to be.

Another difficulty in connection to fabric and clothes is that even though the minimisers see the possibility of circulating and caring for clothes there is also the connection to the textile industry not always providing circular and mendable clothes. The minimisation competition had textiles as one of their themes. The competitors were provided with examples of sustainable activities, but for this competitor it also led to some frustration:

What disappointed me the most was that there are so few alternatives! If you want to make the right choices, what do you do? Where do you start? There is no real good answer to that. Buying second-hand, mending, patching, washing carefully or venting was the advice. Absolutely! Obviously, we should use what we have instead of buying new ones. But if the clothes wear out in no time? If the shortcomings are also in an industry where prices are squeezed, and quality is compromised? How can I possibly affect that? (C13)

The expressions of disappointment and frustration in this quote seem to come from a perceived imbalance between the efforts this competitor is willing to make and the efforts that the industry is perceived to make. The blogger is willing to act sustainably if the opportunity is given, but opportunities are here restricted by the industry. The clothing industry is narrated in this quote as something abstract and faceless, being very hard to affect.

The examples above, of chemicals, electronics and textile display that even though the bloggers struggle to reduce both the quantity and harmfulness of their waste, this is not always possible. The examples show that opportunities to act sustainably are not always available. Also, there may be perceived opportunities, but they are not possible to grasp due to being too expensive or requiring too much knowledge.

Breaking established norms

The families in the waste minimisation competition were given the challenge at the start of their year to try out a non-shopping month, the purpose being to make the contestants reflect on their consumption practices. One of the families writes on the blog during the month about the difficulty of not buying:

Actually, it should be easy as pie: We own a lot more clothes and gadgets than we need and would probably manage on what we have for half an eternity. We have the opportunity to make environmentally sound choices when we need to consume. We know that happiness cannot be bought with money (unless it takes the form of chocolate, of course). (C37)

The writer goes on to recount how difficult it actually is when the ‘urge to shop keeps popping up’. What is interesting in the quote is the idea that it ought to be easy. This next competitor has also reflected on ‘the urge to shop’. The concept of ‘want-need’⁵ was put forward to describe this urge.

Yet, in the family, we find that a non-shopping month is a challenge, not because there is anything we need... but because we discover things that we ‘want-need’. That word ‘want-need’ shows up most often and clearly describes the feeling when the shopping desire strikes. It's about the gadgets we want even though they aren't

⁵ In Swedish, ‘villhöver’.

necessary at all in our lives: that stylish sweater that would be no. 24 in the wardrobe, a blanket in a new colour for the autumn or an exciting kitchen utensil to use once every two years... It is so easy to be tempted to buy!! (C36)

In using the concept of 'want-need' the blogger tries to convey the feeling of the shopping desire, the temptation to buy. The 'want-need' concept illustrates two sides to the difficulty of not shopping. There is the urge to shop, the want. And then there is the fact that everyday practices create needs. But interesting here is that there seems to be a difficulty in separating the wants from the needs.

The shopping desire seems to be covered neither by the theory that consumption is a result of everyday practices, that is inconspicuous consumption (Warde 2005; Shove 2003), nor by what Thorstein Veblen described as conspicuous consumption (Veblen 1899), that is showing off status and identity. An urge to shop for a kitchen utensil that is neither related to being a competent practitioner or a show-off seems to be more about excitement in the moment of acquisition rather than about the purpose of possessing it. Shopping has in earlier research been identified as a practice of interest to study from an environmental perspective, as it can be regarded as a leisure activity which contributes to the increasing material-intensity of other practices (Røpke 2009).

To start practising waste minimisation is described by some of the bloggers as choosing an alternative lifestyle or, even, 'to dare to take the leap' (A1, C18). This is an interesting metaphor as they do not make a choice to completely overthrow their lives and leave modern society, or to become activists. The following quote may reveal why this choice may be described as a leap:

How can you minimise waste when you are already recycling, you might wonder? If you had asked us as a family a year ago, we would undoubtedly have been able to pat ourselves on the back and claim that we are already sorting our waste and are quite good at recycling. But how is it possible to minimise your waste if you already believe you are doing everything right? (C36)

The fact that they thought that they were already doing everything right is important here. In Sweden recycling is well-developed, and there is the belief that Swedes excel at it. The idea of already doing everything right thus transforms into an obstacle to taking any further steps to reduce waste. Another piece of the puzzle can be found in a quote by A2 when she explains on her blog what a zero waste lifestyle means:

Actually, it is exactly what it sounds like, that is, a lifestyle where you basically do not produce any waste at all. I know, it sounds completely crazy – or, above all, impossible. (A2)

To produce no waste at all is an impossible task: this is something B1 clearly showed in her experiment. But we don't really need to make such an experiment to realise that this is a crazy and impossible task. And the very idea that this is crazy and impossible is a hindrance in itself. So, the 'leap' that these people are talking about would be not just to start questioning the norms of recycling and shopping, but to embark on a journey that by many is deemed as very difficult or even impossible.

Discussion

Waste prevention for the studied bloggers is a specific practice. It is narrated as such as it entails habit, routine and competence, as well as specific meanings and doings (Gregson, Metcalfe, and Crewe 2007)(Gregson, Metcalfe, and Crewe 2007). In studying waste prevention activities as part of a practice the idea is to understand how these activities may spread beyond these studied forerunners and become a wider shared practice.

When applying practice theory in the study of household waste minimisation it follows that household waste production is not a deliberate activity but an unintended consequence of maintaining shared practices. Still, this study shows that it is possible to

reduce household waste while keeping up shared practices within modern Swedish society. The studied bloggers apply the idea of ‘maxi-minimising’: to not miss out on anything but to leave as little as possible behind. This is possible as practices are blocks of activities (Reckwitz 2002) and that actors do not participate in practices in identical ways (Warde 2005). While shared practices are maintained, waste reduction is acted out by altering some of its activities, for example replacing the disposable container with one’s own reusable when buying takeaway.

For these waste minimising activities to happen the three elements of meaning, material and competence need to link together. This happens when the bloggers are able to replace disposable objects, circulate clothes and refuse chemicals. But when the links between the elements are broken, as when too much knowledge in order to avoid chemicals is required or quality of clothes is too low to be circulated, then waste prevention activities do not happen.

Disposable products and second-hand clothes, and to some extent the avoidance of chemicals are areas commonly discussed in relation to minimising waste while keeping up shared practices. These are areas where the bloggers see opportunities to reduce both the quantities and harmfulness of their waste. Electronics, on the other hand, is a group of products that is frequently discussed as a waste problem, but to a much lesser extent in connection to their personal consumption. The reason for this may be that the bloggers do not perceive any opportunities to reduce this waste, as such opportunities are not provided. In earlier research, the difficulty of keeping electronics out of the waste stream is connected to lack of competence in repairing as well as in deciding whether it is worth paying a professional to repair and also to the idea that it is cheaper to buy new (Author 2019). In connection to electronics the elements do not link together, so opportunities to minimise waste while keeping up shared practices are not

found. Rather the households need to make the choice either to keep the practices that require the electronic object or to reduce waste by not acquiring and using the object.

The waste minimisers are strongly motivated to reduce their waste. Still, the element of meaning is discussed in connection to social norms. Some norms, such as shopping as leisure activity and the perception that recycling is good enough do not support a waste minimising life style. Moving against these norms is by some of the bloggers narrated as 'daring to take the leap', displaying that it is not a small and easy thing to move against them. The strong norm of recycling may be connected to Swedish waste management's primary objective to handle and obscure waste (Svingstedt and Corvellec 2018). Hawkins (2006) claims that when waste is regulated to its proper place, in the dump or the garbage truck, it has been regulated and rendered passive and out of sight, and will no longer provoke activity.

Household waste prevention is claimed in earlier research not to have 'a stage for performance' (Barr, Gilg, and Ford 2001), which I would claim it does. The replacement of objects with, for instance, reusable takeaway containers displays a form of conspicuous consumption (Veblen 1899), not in showing off wealth, but rather it has a potential to display another form of status: that of being aware and not following the norms of the wasteful society. Waste prevention is not, as is the case with recycling, performed through the waste-bin, but through other processes. Neither is household waste minimisation limited to the privacy of one's own home, as claimed in earlier research (Bortoleto, Kurisu, and Hanaki 2012). In trying out new activities the bloggers repeatedly talk about involving other actors, such as the personal at the lunch bar, colleagues and relatives. Establishing new routine that lead to waste minimisation is not always care free as it involves other actors.

This study suggests that if waste prevention is to become a shared practice more opportunities to reduce waste need to be provided, and also spread. The second hand-market for clothes in Sweden is a good example of a spread, normalised, opportunity. The practice of second hand-shopping has emerged due to the elements of meaning, material and competence connecting. There is a common acceptance, well developed infrastructure as well as skilled second hand-consumers. Other activities carried out by the waste minimisers, such as bringing your own container to the lunch bar has not (yet) developed into a shared practice even though there are no real obstacles. Rather there is a lack of normalisation. The waste minimisers display that there are several opportunities for waste prevention that may be spread. Working to normalise these opportunities can be one way of establishing waste prevention as a shared practice. Still, this study has also identified areas where opportunities are hard to grasp and also lacking. There is in other words a need to identify where opportunities need to be created and also how this can be done. This calls for further research.

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