

Things that come and go - Waste prevention in south Swedish household

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Abstract

Purpose: This paper aims at getting a deeper understanding of opportunities and difficulties in promoting waste prevention in south Swedish households. The purpose of the paper is to provide local waste management organisations with guidance on how to work with waste prevention.

Methodology: Semi-structured, in-depth interviews were conducted with nine people. The interviews contained open questions with a focus on obtaining (new and second hand), repairing, disposing and waste prevention. Concepts from sociologist Gay Hawkins (“The ethics of waste – how to relate to rubbish” 2006) and anthropologist Mary Douglas (“Purity and danger” 2002) were applied in the analysis.

Findings: A prime concern identified is raising awareness. There is a need for a general discussion in society on waste prevention. Households already carry out activities that can be defined as waste preventive. These can be reinforced through e.g. focusing on value. Since prevention includes many different activities, the issue needs to be approached in different ways and by different actors. Households need to be involved as prevention activities are part of much of their daily activities.

Practical implications: This paper is written as part of a cooperation between the municipal waste organisation VA SYD and the University of Malmö.

Key words: waste prevention, households, local waste management, disposal behaviour, thing-power, value, disposal hierarchy,

Introduction

The incorporation of the EU waste hierarchy into Swedish law has presented the municipal waste organisations with new challenges. While introducing and promoting recycling of waste has focused on information and infrastructure, waste prevention, though, is a completely different cup of tea. Since waste prevention is not part of the traditional obligations of the municipal waste organisations, there may be a lack of knowledge and understanding (Sharp, Giorgi et al. 2010), e.g. lacking knowledge regarding the methods for monitoring and how local waste management systems can be designed to encourage waste reduction in the households (Zacho, Mosgaard 2016).

At Swedish national level, the Swedish Environmental Protection Agency (Swedish EPA) is the public agency responsible for environmental issues. The Agency carries out assignments on behalf of the Swedish Government relating to the environment in Sweden, the EU and internationally. In the Swedish national waste plan 2012-2017, a clear shift in the waste-handling regime can be seen. Already the title of the document reveals this: “From waste management to resource efficiency” (SwedishEPA 2012). The plan puts much of its focus on how not to destroy our resources

by letting them become waste. The plan identifies what needs to be done to achieve this change. Focus is on waste prevention, the manufacturing of better (more sustainable and recyclable) products, increased high-quality recycling, among others.

In 2015 Sweden presented its first waste prevention programme (SwedishEPA 2015). The programme focuses mainly on consumer goods and waste instead of manufacturing and industries. This is due to the belief that it is more efficient to take measures where the demand for materials is, rather than to try to reduce waste in the industry, which already has strong economic incentives for waste prevention. The waste prevention programme highlights the need for different actors in society to work in new ways.

Sweden is a country that has come far in waste management. Landfill is no longer a primary method for the disposal of waste. Instead, an increasing proportion of waste is treated to recover energy and materials and enable reuse. Rules and routines have been established which set out how hazardous waste is to be dealt with and there are producers who take responsibility (SwedishEPA 2012). It is however necessary for the local waste management organisations to take the next step and focus on how prevention of waste can be achieved. This paper aims at getting a deeper understanding of opportunities and difficulties in promoting waste prevention in south Swedish households. The purpose of the paper is to provide the local waste management organisations with guidance on how to work with waste prevention in the future.

The European Commission defines waste prevention 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).

In this study, where interviews were made with households, waste prevention was limited to the quantity of waste. This because it was assumed to be the most pedagogical topic to discuss with households in the interviews. Reuse is sometimes not defined as part of waste prevention. Within this study reuse has been considered to be a part of waste prevention.

This paper is written as part of a cooperation between the municipal waste organisation VA SYD and the University of Malmö. The municipal waste organisations in Sweden work continuously with behavioural change activities toward the households to promote a more sustainable waste management.

Theoretical framework

To understand the demarcation between waste and things, theories are drawn from sociologist Gay Hawkins ("The ethics of waste – how to relate to rubbish" 2006) and anthropologist Mary Douglas ("Purity and danger" 2002). Even though "Purity and danger" was written in 1966, it is still highly relevant for understanding people's relationship to waste.

Douglas (Douglas 2002) states that there is a system in every human culture, between purity and impurity. The habit of cleansing is important for building one's identity. The gesture of discarding is the first and indispensable condition of being. The boundary for what is me and not me becomes absolutely clear in this "ritual". What we reject is as important as what we identify with. Hawkins (2006) applies this on disposal activities. She claims that disposing of things does not primarily have

to do with guilt or environmental discourse. It's rather an activity that creates meaning and order in the private sphere.

Hawkins also states that waste is subordinated to human classification. One man's rubbish is another man's treasure. Waste is in other words an instable classification and things can pass from one state to another: waste and thingness (Hawkins 2006). Hawkins goes on to say that on the other hand waste cannot be entirely reduced to an effect of human action and classification. That would be to ignore the materiality of waste and the fact that things exert power on us. The concept of thing-power tells us that things have an ability to attract our attention, and make us choose and act. In other words, it's not just people who have the ability to control things, but things have the power to control people (Hawkins, Potter 2006).

Much of the research done on household waste prevention comes from UK Department of environment, food and rural affairs (Defra) and their Waste and Resources Evidence Programme (WREP) (Defra 2010). Research on waste prevention in Swedish households is more limited. One project was done by American anthropologist Cindy Isenhour (Isenhour 2010) who studied sustainable behavior in Sweden. She found in her research that people devoted to sustainable living could fulfill their missions for sustainability in almost all areas but one: sustainable consumption.

Isenhour's research shows that even people devoted to sustainable living have a lot of barriers to handle when trying to change their consumption. *Social barriers*: consumption fulfills an important social function in our societies, helping us to signal belonging, mutual understanding and adherence to shared social norms and culture. *Life style barriers*: overcoming routines, habits and social norms. *Economic barriers*: for example, price or availability of environmental alternatives. *Political barriers*: the helplessness that many people feel when they believe that their actions are insignificant given those of others (individuals, states, organizations or industries), who do not seem to take responsibility. These barriers, difficult for those devoted are probably impossible to handle for those with less interest.

Method

To investigate the households' relation to waste prevention, semi-structured, in-depth interviews were conducted with nine people in the south of Sweden. The interviews contained open questions with a focus on obtaining (new and second hand), repairing, disposing, waste behaviour and lastly how to prevent waste. The topics were discussed in the order displayed in the mind map shown in figure 1 with the purpose of following the life cycle of possessed things from obtaining to disposing. Waste prevention connects back to obtaining, hence the closed loop.

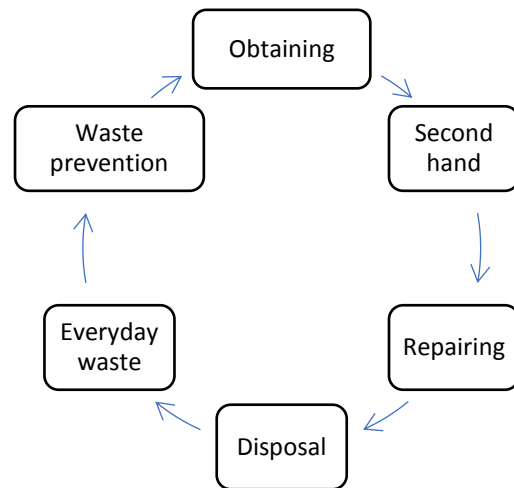


Figure 1. Mind map used in interviews.

The concepts *obtaining* and *disposal* were used deliberately instead of the more widely used *consumption* and *waste*. The reason for this was to open up for a wider perspective of how things come and go in our lives. The disposal discussions came to focus mainly on objects like clothes, furniture and electronics. Therefore, everyday waste behaviour, including recycling habits, was added as a separate point of discussion.

The informants were not chosen because of special interests for waste prevention or sustainability. The municipality waste organisations are assigned to manage the waste of all those living and operating within the municipality, not only those devoted to sustainability. It was therefore of interest to this project to interview a wider range of people. The informants in this project were three men and six women, age varied between 24 and 75 years, living in different municipalities in the south of Sweden, in varied types of housing and with different education and occupation.

The interviews were recorded and transcribed verbatim. The analysis of the material was made according to Richie's and Spencer's analysis method framework (Ritchie 2010). The framework or index was used to categorise the data.

The effort was to study the data with an open mind and to look for unexpected patterns and happenings, applying concepts from Hawkins' (Hawkins, Potter 2006, Hawkins 2006) and Douglas' (Douglas 2002) theories and finding new fields of inquiry. The findings have then been compared to other research in the area.

Focus has not been on obtaining, but rather on disposal. Why things are disposed of and why they are not disposed of. During the interviews, though, it became clear that the whole chain from obtaining things to getting rid of them was of relevance. It has not been possible to study disposal-activities without touching upon obtaining, but the limitation of this project does not make it possible to focus on it.

Qualitative research is rooted in a phenomenological paradigm which holds that reality is socially constructed through individual or collective definitions of the situation. Qualitative research is also concerned with understanding the social phenomenon from the actors' perspectives through participation in the life of those actors. The ethnography study helps the reader understand the definitions of the situation of those studied. The qualitative researcher therefore becomes "immersed" in the phenomenon of interest (Firestone 1987).

Findings

Barriers to waste prevention

As stated earlier, the informants in this project were not chosen because of their environmental interest or their specific interest in waste prevention. On the contrary, the aim was to understand how waste prevention is perceived by people who do not have this devotion. The concept of waste prevention was not defined to the informants in detail. There was however a discussion, at the end of the interviews, on their own amounts of waste and of waste in a national and international perspective. This discussion ended with the question of what actions the informants themselves could take to prevent creating waste in the future.

The general reaction to this question was silence and time for reflection. The following answer from almost all was that they didn't know. They felt that they already did the best they could. When asking the respondents how much waste they produce in their household almost all answered "average". The reactions to these two questions show that the issue of the amounts of waste being a problem has had very little focus prior to this interview. Some of the informants also stated clearly, after the interviews, that they had never thought about these questions before.

The initial reactions to prevention and waste amounts described above were however followed by questions and discussions from the informants. Something that could be explained by an interest in the question, or in worst case just politeness towards the interviewer. Below, the difficulties discussed by the informants regarding waste prevention will be presented. To categorise the barriers discussed by the informants, Isenhour's concepts about barriers to sustainable consumption will be applied (Isenhour 2010).

Political barriers were mainly discussed in terms of living in a growth economy and how this contradicts limiting the consumption. Decreasing waste was almost entirely connected to decreasing consumption, and not to repairing, mending or buying second-hand, even though these were discussed earlier in the interviews. Nor was it connected to environmental impact or harmful substances, which is part of the European definition of waste prevention (European Parliament 2008). Informant also talked about not having power to make an impact on "the system". An elderly woman, who had begun to have problems walking, expressed her perceived lack of power:

Well, it's like this, I don't go shopping anymore. I have groceries sent home. [...] I don't have a good answer. Since I'm not part of the society like normal people are. Not anymore. /Gerda, 75

Other informants expressed similar feelings about lack of power in not understanding how to affect the system or not understanding who is in power. Concepts like "the system" and "those that are in power" were used. When asked to specify what they meant or what was included answers were very vague. "The system" could include the economic system or the society as a whole. "Those in power" could include both authorities and the industry.

Thomas is interested in sustainability questions. He feels that he is aware and does what he can, but doesn't feel that it's enough:

No one can renounce their responsibility. I must do what I can do. At the same time, I'm stuck in a larger system that I cannot influence. I can influence by voting this or that. But it's bloody long-sighted. /Thomas, 62

Closely linked to political barriers were *economic barriers*. The economic barriers are more about the daily activities within the economic market. One such barrier is what the stores supply. Margret talks

about why there isn't dry goods like flour and cornflakes in bulk to be bought loose so you can bring your own packaging. She makes a reflection about there being no formal barriers:

If you can buy candy in bulk, then it could work for everything else! /Margret, 43

Informant Anna studies environmental engineering at the university and sees herself as very environmentally conscious. Her friends or relatives sometimes ask her what the right choice is when shopping, and she find herself not being able to answer:

And then it's a jungle if you want to make a conscious choice. /Anna, 24

Anna's confusion can be exemplified by a visit to an all organic grocery store in the Western Harbour in Malmö, where a greater proportion of the groceries were in packages compared to the average non-organic grocery store. Since organic fruits and vegetables are a smaller part of the total industry these are packed to avoid being mixed up with the non-organic fruits and vegetables. This makes it more difficult to be both an eco-friendly consumer and waste preventive.

Another economic barrier is that of your own private economy. Henrik talks about how a better economy can bring more conscious choices:

When you have a bigger wallet, you can choose more consciously. Make more conscious choices based on sustainability thinking, locally and organically, and that bit. And we do that to a greater extent, much more now than we did 20 years ago. But it is not because we are that much better people but that we have more money. /Henrik, 51

Then there are the *social barriers*. Consumption fulfils an important social function in our societies, helping us to signal belonging, mutual understanding and adherence to shared social norms and culture. Anna feels that she already does her best says:

But it's quit a big leap after all, between being normal but still conscious to not having any waste. [...] If you don't consume you get extreme and that's really weird. /Anna, 24

Klintman, Carlsson-Kanyama et al (2013) have done a study on people having chosen so called simple living. Simple living is defined as a conscious choice of consuming less, owning less and working less. The study states that having limited economical and material resources is often perceived as failure. For the people that actively choose simple living it is important to emphasise that it is an active choice made from free will. The consumers doing this do not want to be regarded as victims. They emphasise that they support higher principles than those who blindly follow the norms of society.

This takes us to the next group of barriers: *life style barriers*. Life style barriers are about overcoming routines, habits and social norms. This is a form of barriers that is primarily perceived by people already aware and trying to make changes. This was discussed to a lesser extent than other barriers in this study. However, Sofie talks about how a meeting with the bank, to make a financial audit, changed her attitude towards consumption, giving her new habits.

But I'm thinking more, and I have to say that it's the financial audit that made me feel "Don't buy if you don't need it. And how long will you keep it?" It's much more that things I buy are more expensive now than they were before. Before, I bought stuff that was on sale or so. I can do that now too, but not just because it's on sale [...] But now I feel I've got a lot of interior decor and maybe it's fun with new stuff. But ... it feels like it's a bit ... unnecessary. /Sofie, 45

The concept of unnecessary is discussed by other informants as well. Anna who is environmentally aware and trying to act accordingly ponders on the fact that consumption ought to be about covering our basic needs, and that the problem is the unnecessary purchases.

Interviewer: But how do you classify an unnecessary purchase?

Anna: Well, I guess if you already have fifteen nice dresses in your wardrobe...

Interviewer: So, then you won't need number sixteen?

Anna: No... But it's like all the other things you buy at the grocery store. Is it unnecessary to buy like potato chips if you have a craving? /Anna, 24

The concept of unnecessary is a difficult one. Some of the informants talk about it as being a problem but none of them can really define it in connection to their own behaviour.

Isenhour's study was on people already aware of and engaged with issues of sustainability. *Informational barriers* were for them not a big issue. On the contrary, the participants in that study spoke about too much information and that it could feel overwhelming to try and keep up with all the latest information. In this study however, information, as well as general awareness, seem to be barriers. In general the informants had never reflected on consumption or waste amounts being a sustainability problem.

But, is there much waste? [...] Is that a problem? /Jane, 31

According to Tucker and Douglas (2007) household waste prevention can be divided into five categories of behaviour: private reuse (including mending and repairing), point of purchase decisions (like buying non-packaged products or refills), minimising the purchase of new resources (new buy), valorisation of unwanted goods (e.g. selling or buying second hand), use of disposable and long-life products (pre-emptive shopping choice). When discussing difficulties to waste prevention the informants in this project focused almost exclusively on point of purchase decisions.

Understanding the difference between recycling and prevention

Some of the informants did not make a distinction between preventing waste and recycling waste. When asked about what they could do to produce less waste, recycling improvement ideas were discussed. Though this is not surprising, since recycling is the prevailing norm on how to manage your household waste in Sweden today, it is of great importance. The waste prevention research undertaken during the last two decades is distinct in that waste recycling and waste prevention are two different phenomena, they represent different dimensions of waste management behaviour, and will therefore require different strategies (Barr, Gilg et al. 2001, Tonglet, Phillips et al. 2004, Barr, Gilg et al. 2005, Cox, Giorgi et al. 2010, Bortoleto, Kurisu et al. 2012, Cecere, Mancinelli et al. 2014).

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

Prevention behaviour and reuse behaviour on the other hand are fundamentally underlain by environmental values. According to Barr, Gilg et al (Barr, Gilg et al. 2001) prevention and reuse are governed by the degree to which people make favourable value judgments concerning the efficacy of these behaviours. That is, only those who feel responsible for, concerned by, and threatened by waste will take part. Bortoleto, Kurisu et al (Bortoleto, Kurisu 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. In other words, awareness is at the focal point here.

Another important difference between recycling and waste prevention has to do with 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, Gilg et al. 2001). Prevention on the other hand is an invisible action, carried out at home or when shopping (Cox, Giorgi et al. 2010). Since it’s carried out in the privacy it provides significantly less opportunity for the exertion of social pressure (Bortoleto, Kurisu et al. 2012).

The difficulty of connecting obtaining to disposal

Another barrier to prevention of waste is the lack of connection to waste when buying a product. There is generally very little connection between any form of obtaining (be it gifts, inheritance, new or second-hand purchase) and disposal (selling, giving, donating or waste). There are exceptions, such as making investments where the motivator for acquisition is selling at a better price or buying gifts, which are bought with the purpose of passing it on. When the informants were asked, in the beginning of an interview, to give an example of something they had bought recently, there was also a question of how long they were planning to keep it. This was another of those questions that was followed by a moment of confusion and contemplation.

This can possibly be explained by turning back to Mary Douglas (Douglas 2002) and the importance of the binary self and waste. Acquisition is connected to the pleasure of the new, the clean and virgin. This is something we don’t wish to connect to death or dirt, i.e. the categories of waste.

There is, however, one category of products that does not apply to this reasoning, and that is children’s clothes. Children’s clothes are mentioned frequently as something one both buys and sells second-hand. There is also mentions of there being a plan for disposal (selling, giving or donating) already at the time for obtaining. The reasons for this can be several. The interviews within this project reveals that it is a product that stays in a household’s life for a very limited time. It is also of great quantity. To make room for the new, the old ones have to go. Since the second-hand market for children’s clothes is big and publicly accepted, there is no difficulty in finding receivers to prolong the value of the clothes. Connecting back to unwillingness of connecting the new to the old, this reasoning is foiled by the positive emotions of experiencing your child growing up. Guy Hawkins writes (Hawkins 2006) how the cult of the new and worship of youth can lead to denial of organic change. But in the case of children growing up, the organic change has a positive nature.

Waste prevention - a new name for an old habit

Even though the question of waste prevention is unreflected upon by the informants, they still talk about activities they perform, that can classify as waste preventive. These actions are however not classified as waste prevention by the informants themselves. As said earlier household waste prevention can be divided into five categories of behaviour: private reuse (including mending and repairing), point of purchase decisions (like buying non-packaged products or refills), minimising the purchase of new resources (new buy), valorisation of unwanted goods (e.g. selling or buying second hand), use of disposable and long-life products (pre-emptive shopping choice) (Tucker, Douglas 2007). Below follows how the informants reflect on activities that can be categorised as waste preventative.

Unwillingness to classify valued things as waste

When coding and analysing the empirical material from the interviews, a common story, with varieties, developed on how things are disposed of. The behavioural-economic concept of value is used to analyse this complexity of people's disposal management. Ekström (Ekström 2007) discusses different kinds of value from a consumer perspective. *Economic value*, that is market value. *Sentimental value*, the emotions that an object create. The sentimental value is often superior to the economic value. *Nostalgic value*, which includes a longing for the past. *Historical value*, where patina and provenance can enhance the economic value. *Experience value* which has to do with experiences of and with the object. *Placing value*, that is how objects are placed, which is affected by for example lighting and how they're related to other objects. *Functional value* which has to do with utility. I believe that these consumer values also can be used in discussing how things are valued at the disposal stage.

The values that could be seen in the interviews will, however, be summarised into three groups: Emotional value (combining sentimental, nostalgic, experience and placing value), economic value and functional value. Historical value was not discussed in any of the interviews, and depending on the object in question could have either or both emotional and economic value.

The results show that the more value we put into things, the less they're inclined to be classified as waste. This reflects back to the concept of thing-power, which tells us that things have an ability to attract our attention, and make us choose and act. It's not just people who have the ability to control things, but things have the power to control people (Hawkins, Potter 2006).

Emotional value was mentioned by the informants in terms of favourite jacket, now grown up children's bedlinen carrying memories, inherited furniture, the car that is a hobby. Doing away with things with emotional value can be difficult. Below, Anna talks about moving in with her boyfriend and how the lack of space makes her sort out more clothes than she otherwise would have.

Well, it's when your 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 cloths!". I think I cleared out half my wardrobe. But it's also very difficult, 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 to 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, 24

Anna, as well as other informants, wants to make sure that the things she cares for will come to use. The best way to ensure this seems to be to give it to someone she knows.

Things with less emotional value are much easier to part with. If things have an *economic value* they can be sold. Several informants talk about the efforts of selling. Some feel it to be too much work, others consider it worth the effort. For John, it's a hobby:

Well, it [a table] must be 60 years old, at least. So, I thought "No. I'm not taking this to the recycling centre. "I refurbished it and made it very nice. Put an ad on the web and was flooded with calls after an hour. So, it lives on. [...] And the lady who bought it was really happy. "Oh, how well kept it is!". So that was great fun. /John, 28

If the economic value is low or the effort of selling exceeds the economic gain, but there still is a *functional value*, then one moves on to donating, to e.g. charity. If it's *without value*, then it will be categorised as waste. Sofie reflects on sorting and cleaning out the children's things after they have moved away from home.

We have done that sorting there as well. When they [the children] have helped. It's like: what's going to the dump, what's going to charity, what are you going to keep yourself, what are you going to give to someone else? If it is something specific that you know that someone else would like. Something like that. /Sofie, 45.

Hawkins (Hawkins 2006) explains the fact that we have emotional attachment to things has to do with fitting things into our lives. When making them part of our lives we need to do more than possess them in economic terms, which creates attachments and affects.

To visualize the disposal behaviour in relation to value, a disposal hierarchy could be applied. The concept disposal hierarchy is inspired by the European waste hierarchy. The European waste hierarchy indicates an order of preference for action to reduce and manage waste. Starting at the hierarchy's bottom, landfilling is the least preferable, followed by energy recovery and material recycling and at the top reuse and waste prevention. The disposal hierarchy would picture the informants' preferred ways to dispose of their things. The top step of the hierarchy would be *giving to family and friends*, this because of the *emotional value*. The next step would be *selling*, which is driven by *economic value*. The third step would be *donating*, motivated by *functional value*. And the bottom step, where things have *no value*, would be *waste*.

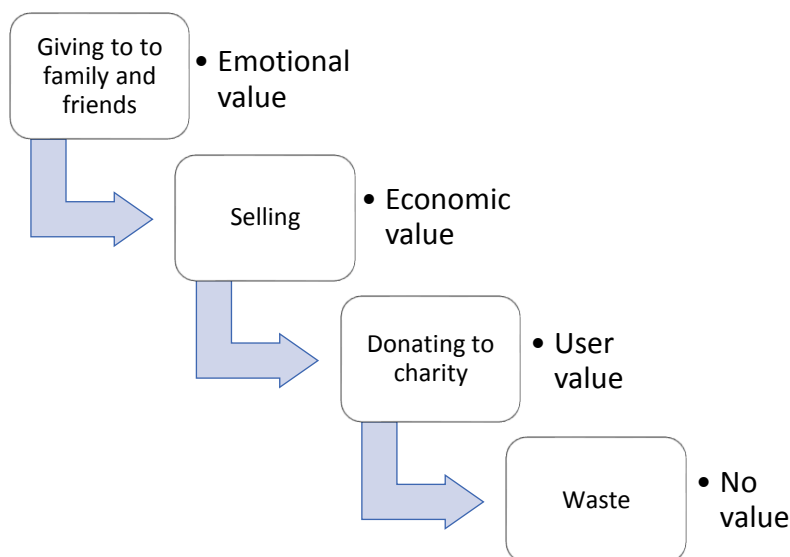


Figure 2. The disposal hierarchy picturing the informants' preferred ways to dispose of their things, based in different kinds of perceived value.

In a research project on consumer understanding on product life-time (Cox, Griffith et al. 2013), the lifetime of a product was defined in two different ways, as *nature* (how long the product would hold before it broke) and *nurture* (how long the person wanted to keep it). Nurture, the willingness to keep was according to this study connected to the perception of value. It was found that the value was influenced by how the product meets personal needs (such as function, emotional attachment, identity) and by the wider market and societal environment (such as price, quality and belonging in society).

Value is subjective to the one who disposes

Important to notice is that the value is subjective, set by the person disposing the object. There is not necessarily a receiver of the value, especially emotional value. Giving things that we care about to people we know is one way of trying to secure a receiver. In selling things we find a receiver in the buyer. But in donating to for example charity we can only hope for a receiver. Lilly gives an example of giving to charity where she hopes a receiver will increase the value of the good.

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. /Lilly, 42

Some informants mention how they refrain from giving, selling or donating because of there not being a perceived receiver. Sofie talks about an increased difficulty in giving to friends:

Occasionally you reach out to a friend and ask, if you think it's something that somebody would like. Because I experience more and more that everyone has their own taste, so it doesn't work in the same way as before. It's not like you could just ... That someone else would like that thing. /Sofie, 45

This quote shows the difficulty of forwarding value, especially values that have to do with aesthetics and emotions.

The municipal waste organization VA SYDs does an annual costumer survey (VA SYD 2015). One questions in the survey has to do with in what degree the respondents sell or donate to second hand and another in what degree they buy second hand. The results of the survey show that almost twice as many sell or donate things compared to those who buy second hand. These figures imply that there is an imbalance in the value set in things put into the second-hand market and the value that is set on second-hand products by buyers.

The binary of things and waste

The above suggested disposal hierarchy tells us that there is an unwillingness to classify things as waste as long as there is value. However, there is a great variation in how easily the informants classify things as waste. For example, Gerda, 75, has a very clear distinction between waste and things, both in buying:

Gerda: I only buy new, have never bought second hand.

Interviewer: Never antiques or retro?

Gerda: No. Not a thing.

Interviewer: Because?

Gerda: It's not me!

As well as when disposing:

Interviewer: You said before that when clothes get worn then you throw them out.

Gerda: Yes!

Interviewer: You mentioned the clothes collecting bin. I can see it standing out there. What happens to the bin? Is it waste?

Gerda: No. Well, if it is... What they do with it, there is a sign, but I don't care [laughter]. I just want to get rid of it. Does it say recycling? Or...? Well, something like that.

Gerda puts no effort into recreating value. This can be for several reasons. She mentions in her interview that she only buys cloths of good quality and never clothes that she doesn't need. As a child, she was taught to be careful with her things, because buying new was too expensive. She also mentions the difficulty of giving things to friends and family, who already have everything they need. Can this be explained by an upbringing where cloths were used until worn out, along with an experience of that there is no perceived receiver of unwanted things? In other words putting value in things possessed, as well as applying a clear binary of thing or waste, creating meaning and order (Hawkins 2006).

Obtaining second-hand

The interviews show that there are many ways in how used goods are obtained. When discussing about second-hand products most respondents referred to flea markets and Blocket (a very popular Swedish online site for reuse exchange). But there were other forms mentioned: online sites for antique porcelain or designer furniture, buying sports gear from colleagues, exchanging clothes with relatives, inheriting and so on.

There are in many cases a difference in status of these different forms of exchange, for example the flea market is considered to have a lower status than the antique sites. This has in turn a connection back to value, as discussed earlier. Anna who generally is positive to buying used furniture on Blocket is more hesitant to cheaper second-hand:

But still it's harder to make those bargains that become real favourites in the second-hand store. If you have checked out something in a store for a while, I may feel for that purchase a little more. But if it's second-hand, maybe it's a little more spontaneous because it's not that expensive. So, you don't worry that much about that purchase, and then it will be a little unnecessary. /Anna, 24

Anna's connection to value is about emotional value; finding favourites, feeling for the purchase. The more expensive purchase forces her to make a conscious decision as opposed to the spontaneous one. The more spontaneous purchase leading to the unnecessary.

This connects to the fact that none of the informants talk about second-hand shopping as an environmentally friendly activity. The reasons for buying second-hand were rather about economic (cheap, affordable) or social (hobby, day out) aspects. This was also found in a research project about car boot sales (Gregson, Crang et al. 2013). At the car boot sales people like to bargain but according to Gregson et al it is often the bargain per se that is the pleasure, not the item. And therefore, quite a lot of the items quickly end up in the bin. The car boot sales are a place where goods are in a limbo between waste and thingness. It's often the last attempt to transfer a value. For many sellers, the things that don't find a buyer end up as waste at the end of the day (Gregson, Crang et al. 2013).

Gregson et al also state that the car boot sales are a means to saving money, to making the money last longer. In other words, to consume more. These sales are therefore located strongly within normative consumer cultures. For sellers, they are about realising value from stocks of goods, and for buyers they are about consuming more with less.

The cheaper reuse exchange like the car boot sales can be connected to more consumption, but this is not necessarily the case for the second-hand markets that exchange higher values. Used goods with high economic value (like antiques or designer furniture), or emotional value (like inheritance or exchanging clothes with relatives) tend to be more about prolonging the life of goods which do not, in contrast to the car boot sale goods, limbo between thingness and waste.

Mending and repairing

The informants were asked about habits of mending and repairing. Almost all of them do this to some extent. However, the discussions were dominated by the barriers they come across.

Things are mended only if they are connected to some kind of value. It can be emotional, economical or user value. Things that are planned to be disposed of are only mended if they are to be sold and it's considered worth the effort. The more common barriers to mending mentioned in the interviews were for example that products are not designed to be repaired and that goods like electrical devices are cheap to buy, making them uninteresting to repair.

According to the interviews made in this project, one important key to mending is in knowledge and skills, either your own or that of someone in your social network. 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 are not only about the actual mending but also on whether it's worth paying a professional to repair. Self-efficacy, that is personal capabilities, confidence, know-how and skills needed to carry out a particular behaviour (Tucker, Douglas 2007), is also found by Tonglet et al (2004) to influence repair and reuse behaviours.

Unsolicited packages

There is one kind of good that passes straight through the disposal hierarchy and directly classifies as waste. That is so called disposable products. One could say disposable products, like packages, impose no emotional value at all on us. We make no effort of fitting them into our lives. On the contrary, there is already a system of recycling to get them out of our lives as quickly as possible. Packages and disposable coffee cups don't come to us out of choice. When asking informant Henrik if he could do anything to waste less packages, he replies:

I can't see that now, if I could make a difference there. I guess it's in the shop, when you make your choices. But usually I want that one and it happens to be wrapped up in a package, or not. So, I don't opt out of that one, because I want it for its qualities or whatever. /Henrik, 51

The feeling of packages coming to us, as something we can't choose, is mentioned by other informants as well. It can also be found in other research (Tucker, Douglas 2007).

Hawkins (Hawkins 2006) states that waste depends on a kind of blindness that helps us not see, not acknowledge the things we want to be free of and that our waste habits are characterized by distance and denial. The waste management system distances us from the waste so we don't have to see, touch or be aware of it and by not fitting them in to our lives, we deny them value.

According to Susan Strasser (Strasser 1999) packages are a part of the modernist culture which is signified by efficiency, cleanliness and replaceability. Disposable products are dependent of a discourse about disease and contamination and spread widely justified by convenience. According to Strasser there is a kind of value in the disposable products, but only in how they protect the goods we actually value, or in how the develop efficiency.

Discussion

The informants in this project all expressed a general lack of power when asked how to prevent their waste. The barriers discussed were numerous and were also perceived as hard to affect. This can in part be explained by the fact that this was an unreflected issue prior to these interviews. This shows that there is an obvious lack of public awareness of there being too much waste produced by the households and that this is a sustainability problem. The fact that the barriers discussed in the interviews in general only focus on point of purchase decisions shows that there is much more the households can do to prevent waste, given the knowledge and information. Knowledge and information would also empower the households, making them feel less “stuck in a system” that cannot be affected.

However, people do things that can be identified as waste prevention activities: the unwillingness to waste valued things, obtaining used products, mending and repairing, as well as giving, selling and buying long-life products. However, these activities seem to be motivated by other things than sustainability. The reasons the informants give for activities that unconsciously lead to waste prevention vary quite a lot. Several informants give *economic reasons*: lack of money can lead to postponed or cancelled purchase, while having more money may lead to buying better quality. Other reasons are about *hobbies* and *interests*. Buying and selling second hand, whether it's designer furniture or children's clothes can have economic motives but some of the informants talk about it mainly as a day out with the family or a specific hobby. Other reasons have to do with *tidiness and order*. Making conscious decisions, having specific requirements and buying quality often lead to a higher perceived value and a motivation for mending and repairing. A fourth reason has to do with *morals*, most clearly exemplified by the unwillingness to waste food. This is something you just don't do, something you learn from childhood.

The Department for environment, food and rural affairs (Defra) in the UK have in their Waste and Resources Evidence Programme (WREP) commissioned a comprehensive portfolio of research projects exploring household waste prevention and waste-related behaviour (Defra 2010). One project focused on household motivators for waste prevention (Defra 2009). It concluded that the activities under the umbrella term waste prevention are not one but many different behaviours and that the motivations behind these actions are both numerous and diverse. It was also found that most prevention activities are undertaken on some occasions rather than always or never (Tucker, Douglas 2007).

Much behaviour in this study does however seem to be connected to how things are valued. That which is valued is more reluctant to turn into waste, it is more frequently mentioned when discussing mending and repairing, as well as giving and selling.

Conclusion

The sustainability problem of the amount of waste produced by households is a waste management problem, since this is where the physical managing of waste takes place. The issue of waste prevention is in some ways also a waste management question since waste is an unstable category and many discarded objects could find new value. However, waste prevention is in most ways not a waste management question since activities such as private reuse (including mending and repairing), point of purchase decisions (like buying loose products or refills), minimising the purchase of new

resources (new buy), valorisation of unwanted goods (e.g. selling or buying second hand), use of disposable and long-life products (pre-emptive shopping choice) happen before the objects are classified as waste. Prevention activities are furthermore part of much of a households' activity. This means that waste prevention cannot be dealt with by the local waste management organisations alone. It cannot be dealt with by any single or isolated organisation or authority.

A prime concern identified is raising awareness. And due to the complexity of the question, and the fact that waste prevention and recycling are two different phenomena, there is a need for a more general discussion in society about waste generation as a sustainability problem. Since the problem perception at large starts at the local waste management organisations, awareness raising activities would start here. Not only towards households but also within the own organisation as well as towards other organisations and authorities.

The informants in this project all carried out some activity that can be categorised as waste preventive, mainly unaware of its environmental benefits. These actions can be reinforced. One way to do this can be by working with value, since perceived value leads to longer nurtured life-time, mending, passing on and less wasting. These findings and recommendations were also found in the project of perceived life-time of products by Cox et al (2013). They also recommend building on social norms around the wrongness of waste.

Since waste prevention is composite of many different actions for different reasons, there will be no "one size fits all" solution. Instead there is a need for a "basket of measures" (Cox, Giorgi et al. 2010). The different groupings of prevention behaviour (private reuse, point of purchase decisions, minimising the purchase of new resources valorisation of unwanted goods, use of disposable and long-life products) can provide a good level at which to aim any interventions (Tucker, Douglas 2007).

Important to remember when working for waste prevention, being a part of much of households' activities, is that households are experts on their own daily practices (Fahy, Davies 2007). This indicates that communication and interaction between households and other actors is an important road to new knowledge for all parties involved.

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