



A Culture Analysis of Practices and Usages of Best-Before Date
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Death by expiration date: a Cultural Analysis of the Practice and Usages of Best-Before Date.

Through an empirical study of families' everyday consumption patterns focussing specifically on the best-before date of milk products, this thesis highlights Swedish citizens' personal relationship with domestic food waste. In doing so it exposes the reasons behind waste to be used as a tool in the work to minimise domestic food waste, with the ultimate objective to lower Sweden's overall tonnage of waste. In 2010, 900,000 tons of foods were wasted in Sweden, of which 60% was still edible. An estimated 27% of Sweden's inhabitants' domestic groceries are going straight to the bin. There have been several reports in the past regarding domestic food waste which have lead to pamphlets and information both offline and online, but the response has still been insufficient to reach target goals. Domestic food waste is a complex state of affairs and requires a deeper understanding of the underlying reasons behind domestic food waste.

This study employs empirical material from several sources; online and paper questionnaires, interviews, focus groups and ethnographic fieldwork. Literature and theoretical analysis was triangulated with prior studies regarding food waste to fully explore the underlying reason behind domestic food waste. The study shows that there is no easy escape from domestic food waste; waste exists in all layers of Swedish society, and there is a number of key factors behind waste that must be addressed as measures to prevent unnecessary waste such as consumers belief in foods best-before date as an absolute, unplanned or impulse shopping only leads to waste but also a genuine fear of eating something past its best-before date.

Key Words: Best-before date, domestic food waste, consumption society, food fear

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"Take care of all your memories. For you cannot relive them" (Bob Dylan)

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Table of Contents:

Abstract		2
Acknowl	edgements	3
Table of	Contents	4
Table of	Figures	6
1. Introduction		7
1.1.	Background	8
1.2.	Research Question.	9
1.3.	Prior Research	10
1.4.	Overview	12
2. Resear	ch Methods	13
2.1.	Off- and Online Questionnaires	13
2.2.	Interviews	15
2.3.	Focus Groups	16
2.4.	Ethical Issues and Critique of the Study	18
3. Theore	etical Framework	19
3.1.	Habitus of Eating.	20
3.2.	Tradition Rules the World	22
3.3.	Unclean Mouth and the Government	23
4. Analys	sis of Fieldwork Material	27
4.1.	Expiration Date- An Absolute Truth	28
4.2.	Taste Buds- Friends or Foe?	30
4.3.	Food Waste- Someone else's problem	32
4.4.	Food Management- "I Don't Have Time for This"	34
4.5.	Fieldwork Results	35

4.5.1.	I shop therefore I am	36
4.5.2.	Home is where your heart is	38
5. Conclu	uding Discussion	42
5.1.	Out of Love.	42
5.2.	Out of Fear.	43
5.3.	How These Findings Can Be Applied	44
6. Refere	ences	47
7. Appen	dices	54
7.1.	Index A	54
7.2.	Index B	56
7.3	Index C	57

6

Table of Figures

Figure	Page
Figure 1: Chart 1: The total number of interview respondents according to age groups	14
Figure 2: Chart 2: The total number of interview respondents according to age groups	15
Figure 3: Traditional 'husmanskost' [Photograph]. (2011). Retrieved May 27, 2011, from	n:
http://hanneys.blogspot.com/2010/05/blodpudding-riktig-snabbmat.html	23
Figure 4: New fashionable 'husmanskost', [Photograph]. (2011). Retrieved May 27, 201	1,
from: http://www.aftonbladet.se/nyheter/article10412211.ab	23
Figure 5: Civiet and its coffee droppings, [Photograph]. (2009). Retrieved April 4, 2011,	
from: http://www.letitflow.com/worlds-most-expensive-foods/	24
Figure 6: Holmqvist, J. (Photographer) (2011) Trust your nose? [Photograph].	26
Figure 7: Modern food consumption- eating in front of the TV [Photograph]. (2005). Retr	rieved
May 5, 2001, from: http://www.telegraph.co.uk/science/science-news/8514093/Eating-ir	<u>1-</u>
front-of-television-leads-to-snacking.html,	27
Figure 8: Holmqvist, J. (Photographer) (2011) Baby eating. [Photograph].	32
Figure 9: Livsmedlesverket (2009) Number of reported outbreaks in food poisoning.	
Retrieved from: Livsmedelsverket (2009) Rapporterade misstänkta matförgiftningar.	41
Figure 10: New prototype of best-before [Photograph]. (2011). Retrieved May 5, 2011, f	rom:
http://cafepsych.wordpress.com/2011/05/07/195/	45

1. Introduction

- "- Hmmm, I need to make pancakes tonight.
- Why?
- The milk is expiring tomorrow." (Anna)

When I was a child I spent most of my summer with my grandmother at her summer cottage outside Malmö, and she had a fantastic vegetable and fruit garden. As long as I helped her with the garden, I could eat as much as I wanted. My grandmother never looked at best-before dates on anything; she would more or less eat everything; even the core of an apple!

My grandmother would taste, smell, tap and feel to determine if the food was ripe, edible or inedible. She had a very close relationship with food; the food itself would tell her when it was ready to be eaten. My stepfather, who was a chef, also had a close relationship with food. He would cook without a cookbook (unlike my mother) and, as a young child I would be watching him with horror as he put more and more ingredients into the pot. My mother would always read the packaging or cookbook fiercely, never straying from the instructions.

In my family, they all had different views on food and how to treat it. My grandmother and stepfather would listen and let the food tell them when it was ripe or too bad to be eaten and how to use it. My mother would treat it as an enemy and never fully trusted it. "Whatever the cookbook says goes," was her cooking mantra. Looking back, I believe my mother missed out on the wonderful organic relationship a person can have with food.

1.1. Background

What you put into your mouth is a personal matter. It becomes a part of you. As the saying goes: "You are what you eat¹". A complex relationship with food seems to be prevalent in Sweden. Food items best-before date label derived from a concern for the masses by the government but has now become the main source of food waste mainly due to fear of eating something past its best-before date and becoming sick. In this thesis the private relationship and views on food and its best-before date will be examined and discussed to highlight the belief system one has as well as how this is linked to ones views and belief regarding food handling/ waste, but also ones views on clean/ unclean, edible and inedible. Food sustainability and waste is no longer a local issue but a global issue where understanding underlying reason for domestic waste is key in hope to prevent future food waste.

In 2010, Swedes wasted 900,000 tons of food, of which 60% were still edible according to the Swedish report: 'Klimatavtryck från hushållens matavfall' [Climate impression from domestic food waste]. In the report, it is stated that 27% of all domestic food purchases go straight to the bin. Konsumentverket² recommends that a single woman spends 1,580 Swedish Krona (175 Euros) and a man 2,050 Swedish Krona (288 Euros) on groceries a month. However, this amount only includes the meals consumed and cooked at home (lunch boxes included) and does not take into account any meals consumed in restaurants or take-outs. If the report climate impression from domestic food waste and the numbers stated in Konsumentverket's guidelines are correct, it would mean that a average consumer throws out groceries worth 5,000- 6,000 (558- 670 Euro) each year, which is the equivalent of three months groceries that goes more or less directly into the bin.

¹ Man ist, was man isst, you are what you eat is a famous quote from the German philosopher Ludwig Feuerbach

² Konsumentverket is a Swedish government agency reporting to the Ministry of Agriculture, Food and Consumer Affairs. This agency supports the Swedish public with consumer affairs but also acts in the collective interest of consumers.

9

While the research reported above provides a perspective on food waste it is mainly written with the Swedish food industry in mind. Still, waste is not just a "Swedish" problem but also a global problem. I personally think that food waste is an interesting topic because food waste has increasingly been given a more prominent role in our society in the last decades, in both the public sphere and the private sphere; waste is not only a *side* effect of today's consumption society, but a *main* issue - a question highly related and relevant to global sustainability problems. Food waste triggers questions regarding economy, society, morality and identity. Waste that in the past was of concern to the public sphere has now entered the private home. This thesis focuses on a phenomenon that was first introduced as a way to *reduce* waste, but which now has become part of the food waste problem: the best-before date.

1.2. Research Question

In 2010, I conducted a research project for Skånemejerier in Kristianstad regarding the usage of cheese and cream in everyday cooking. I followed four families using different ethnographical methods to investigate their usage of cheese and cream in their own daily cooking. Milk is however what Skånemejerier is most famous for, and my main discovery had to do with milk; I found a worrying trend regarding the everyday handling of milk, which was directly connected to excessive food waste. Many participants would only look at the best-before date to determine whether the milk was bad or not. The milk would often be thrown out as early as a few days before the best-before date. When asking consumers about their reasons for this behaviour, they often answered; "Better safe than sorry". My finding was not an isolated incident in a single family, but would occur again and again in different families. This lead me to question the relationship with science, especially regarding the best-before date. This led me to the following initial question: "To what extent does the best-before date

rule the lifespan of milk". But as the research progressed I realised that this question was too narrow and changed it to: "To what extent does the best-before date rule the shopping trolley". Milk was my starting point, but my focus shifted at an early stage to include all types of food. To fully understand the power of the best-before date and the grip it has over the consumer and food, I need to look at all the aspects of best-before date and how the consumer today view and relate to not only best-before date but also food items. Do the consumer today have a understanding or relationship with food or are the consumer removed from food and therefore can no longer make a decision themselves regarding the item but solely rely on the best-before date stamped on the food item. Do consumer in today society know how food items should look, smell or taste like? Or have the consumer become a slave under number magic such as best-before date? And how does this affect the society as a hole? Does the consumer know the process food undergoes before it ends up in the grocery store or is this a magical process too? These are the fundamental questions that this thesis has built its foundation on. My goal is to clearly explain and demonstrate the personal reason behind domestic food waste in hopes of less domestic food waste.

1.3. Previous Research

The Swedish government has undertaken several studies and rapports and is actively working on less domestic food waste and more recycling. Konsumentföreningen Stockholm 's³ two reports: "Rapport från en slaskhink", [Report from a trashcan], (2009) and "Klimatavtryck från hushållens matavfall", [Climate fingerprints from domestic food waste], (2008) together with Naturvårdsverket's⁴ report: "Svinn I livsmedelskedjan", [Wastage within the food industry], (2008) have highlighted Sweden's problems with food waste and its effect on the

³ Konsumentföreningen Stockholm is a member association consisting of the 50 largest food associations in Sweden, it was founded in 1916 with 600000 members in 2011.

⁴ Naturvårdsverket is the Environmental Protection Agency, and working to meet Sweden's environmental objectives together with other stakeholders.

environment. Regardless of the outcome or findings in these and other reports no real action has been taken, it has only resulted in proposed recommendations or informational pamphlets. However, the reports and studies all point to the same direction- the consumer. The consumer is the one that buy products and is the one that chooses which products they buy. Of course the supermarket try to influence the consumer but in the end it is the consumer that makes the ultimate decision.

On a global scale there are several British studies on domestic food waste. The Waste and Recourses Action Programme (WRAP) in Britain conducts several studies regarding food waste and behaviour. Their food behaviour consumer research (2007) shows that young professionals aged 16 -34 (42%), and young families, aged 25- 44 (45%) produce the majority of food waste. Their food purchases are often left on the plate (after eating) or consist of products opened but not finished, or fruit, vegetables, salad and products that have not been opened due to its best-before date has been reached or passed.

According to WRAP's study 2007, these are the following key factors regarding domestic food waste:

- Buying too much food (larger packaging)
- Buying more perishable products (fruit and vegetable)
- Not eating food that needs to be eaten first, consumers eat what they want, not what needs to be eaten
- Food is often forgotten or hidden away in fridges, freezers or cupboards.
- Relying mainly on food labelling

The study also points out that young professionals are more likely to buy too much and are often lured into buying what suddenly strikes their fancy during the day, rather than planning

for purchasing what needs to be eaten at home. They also cook too much and do not save leftovers and claim to live a lifestyle that prevents them to plan ahead. Whereas young families are the most sensitive to food labelling such as best-before dates as they have a concern for their families and a responsibility for their health. But 61% in the study say they would not eat any type of food past its best-before date. This attitude has significantly impacted the English food market and industry- as it is the consumer that makes the final call.

As the reason behind food waste seems to be due to best-before date and this has been investigated and stated in several reports and studies and it is now time to find out the reason *why* this is so.

1.4. Overview

This thesis is structured in the following way:

Chapter two provides an overview of the methods employed in this study reflecting on the methodological approach and the different ways I have collected information. It provides a detailed introduction of the fieldwork process. Chapter three highlights the main theories used in this thesis and how they are applied in the analysis of the empirical material from the fieldwork. I discuss Pierre Bourdieu's concept of "habitus" and Nils-Arvid Bringéus' concept of "tradition" and how tradition dictates what you eat or do not eat. Pasi Falk, whose work explains that the mouth is our sensor of what we eat, is included as yet another way to better understand domestic waste and the underlying reason for wasting food. Moreover, Michel Foucault is discussed to get a better understanding of what the government and society sees as edible and inedible and how Swedish citizens are 'trained' in this manor. In chapter four, I present the ethnographic fieldwork and the different themes that surfaced during research together with the empirical material such as Zygmunt

Baumans's theory of the consumption society as a tool to understand why waste occurs and to discuss gender-based shopping. **Chapters five** summarises and discusses the research and the research process in order to give suggestions for future research and to the food industry.

2. Research Methods

"Fieldwork is an expression of curiosity of the Other- of people who construct their worlds differently than we researchers construct ours." (Czarniawska 2007 p.9)

Food waste starts on a personal level but penetrates all layers of our society. To understand the complexity of food waste, I wanted to work with methods that enabled me to discuss both personal experiences and collective and general attitudes. I decided to collect empirical material from several sources using different methods; off- and online questionnaires, interviews, a focus group and ethnographic fieldwork. I go through these below. To position my study scientifically within the field of socio-cultural analysis, I employed a variety of theories, which I go through in more detail in chapter three. I also consulted several previous studies on food waste performed mainly in Sweden and England, several of which I have mentioned in the introduction.

2.1. Off- and Online questionnaire

Questionnaires are an inexpensive way to gather data from a potentially large number of participants. I decided at an early stage that I wanted to offer both an off-line questionnaire distributed on paper as well as an online questionnaire. My assumption was that not everyone has got the time to fill out a questionnaire while shopping at the supermarket, which was the place I intended to ask people to answer the printed questionnaire.

The paper questionnaires were distributed in September 2010, at ICA Malmborgs in

Limhamn, Malmö. I approached people as they entered the supermarket (with the approval of the manager of ICA). The online questionnaires were sent out to participants via e-mail between January and February 2011. The paper and online questionnaires contained the same eleven questions (see Index A). The selection of participants was mainly based on their willingness to complete the survey. I invited as many prospective participants as possible to participate in my questionnaire or to be interviewed regarding food waste. 12% participants provided their email, but not everyone complete the questionnaire. The amount of responses to the online and off-line questionnaire was very high. The paper questionnaire had 150 responses and the online questionnaire had 258 responses, resulting in a total of 408 responses, divided into the following age groups: 18- 29 (26%), 30- 49 (38%), 50- 64 (31%) and 65- 74 (5%).

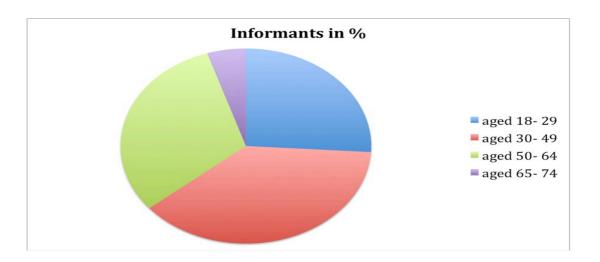


Figure 1: Chart of the total number of questionnaire respondents according to age group

2.2. Interviews

According to professor of organisational and social research Alan Bryman, UK (2006) interviewing is the most commonly used method for investigating sociological patterns. However, the techniques can vary, and for my interviews I decided to use structured interviews. I formulated ten structured questions (see Index B) but I also opened the questionnaires to give the interviewees the opportunity to express their own opinion.

Using the structured interview method gave me a clear understanding of people's food choices and their preferences when shopping. An understanding of all age groups and to find out whether there is a change in attitudes regarding food waste among the age groups was essential to the study. For these structured interviews I approached people as they entered ICA Maxi in Trelleborg, which was a hard task, as people often did not want to be interviewed and were in a hurry. The interviews took place in 2010 and 2011 and the selection of participants was mainly based on gender and age. Then divided into the following age groups: 18- 29 (15%), 30- 49 (55%), 50- 64 (27%) and 65- 74 (3%). In 2010, I interviewed 15, and in 2011 20 people and each interview lasted about 3-6 minutes. A total of 50 people were asked but 15 declined, these 15 were asked if they wanted to complete an online questionnaire and 10 of them said yes.

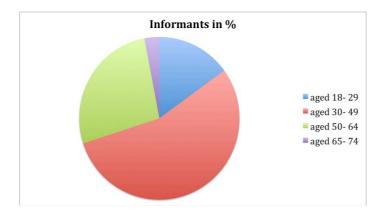


Figure 2: Chart of the total number of interview respondents according to age groups.

2.3. Focus Groups

"Focus group meetings are, in essence, simply a discussion". (Howard et al 1989)

According to Alan Bryman, (2006) focus groups consist of a group of individuals who are selected by the researcher to discuss and comment, from personal experiences, on the researcher's subject matter. However, there are some risks associated with focus groups. Professor Jenny Kitzinger (1994) argues that the interaction between the participants is crucial and the researcher needs to make sure that everybody feels comfortable to speak up and that not just one person speaks. Kitzinger also warns that what participants say may not be "the truth" as they adjust their story to the fact that there are others listening. Bearing this in mind I went ahead to form an informal focus group as I thought it relevant to collect opinions on food waste and best-before date of a group in dynamic discussion to compare with the individual opinion. What would differ and on what points would they agree or disagree on.

I approached ABF studio⁵ in Trelleborg to ask if they had any students that would want to

⁵ Arbetarnas bildningsförbund ABF (workers education association) was founded the 16 November 1912 in Sweden. A new way to educated the mass, mainly done informally (no degrees) and

participate in a focus group regarding food waste. A total of 20 people volunteered to participate. I considered this number too large for one group so I formed two groups based on age. The first group consisted of 8 people aged 18- 29 and group number two consisted of 12 people aged 30-65. Both focus groups took place at the ABF studio in Trelleborg, February 8 and 15 2011. And the objective of my focus group was:

- to create a meeting that would give me a deeper understanding of the participant's
 relationship to food and food waste and find out
 - ✓ how food waste occurs
 - ✓ what one can do to prevent food waste
 - ✓ how important the best-before date is.

The focus group was asked to discuss and reflect on the following questions:

- What is the main reason for your food waste?
- How quickly does milk go bad? Before the best-before date?
- Do your food purchases reflect anything about you?
- Does your food waste say anything about you?
- Who does the food shopping in your household?
- Do you think traditional gender roles have changed (in general)?
- How can businesses prevent food waste?
- How can you prevent food waste?
- Food with a short best-before date, is it dangerous to eat?

Both meetings started with me explaining in broad terms my outline for my thesis and the objectives for this focus group were but I also wanted them to know that they could speak

voluntary. Members would educate and thrive together leading to a better (sober) society in Sweden. Now educations such as leaning how to read and write become available to the mass, which was before reserved for the upper classes.

freely and that I would change their names in the thesis and if they wanted I would send them a printed copy of the meeting (no one requested this). I stared the meeting with showing them a few empty food cartons, plastic containers and tins which I asked them to (individually) rank, in which order of items that is the most important to look at the best-before date before deciding to throw it out. The cartons were: milk, cream, fresh soup and yoghurt. Tins were: fruit cocktail, peas and spaghetti sauce. The plastic containers were: cottage cheese and crème fraiche. Sadly, I did not have any meat products but the group where asked after this task to discuss the importance of best-before date on all types of food. In retrospective, I would have taken an image of meat and poultry with me so I could have included them in the exercise. Once the exercise where completed, the groups seemed to be speaking freely and openly. The discussion went more or less fluidly without much interference from my side. There were only a few occasions on which I had to steer the conversation back to food waste. My main concern was that they would all agree with my statements, which ultimately did not occur. They all shared similar views on best-before date but had differing opinions on food waste. For the focus groups I decided to record the meeting using my IPhone as well as take notes by hand.

The finds of the focus group are found in chapter 4.5. and are divided into different age group and where the waste occur, in the supermarket (buying too much or impulse) or at home (not utilise ones groceries).

2.4. Ethical Issues and Critique of the Study

My research involved attending to several ethical issues. Foremost, I wanted to reach all age groups, but to interview children under the age of 18, I needed a certificate from the police and their parent's approval, which would take some time to acquire. Thus, due to the time

constraints of the project, I eventually decided to exclude this group from my study. Most of the focus group participants wanted to remain anonymous, so I decided to make all my informants anonymous. In Index C, I supply a list of the names (anonymous), date, age, and level of participation of all the participants quoted in this paper.

Distributed questionnaires are a good tool for reaching informants, but they are impersonal and there is no way to tell if people are honest in their responses. This equally applies to interviews as these were only about 3- 6 minutes long. Some interviews took a little longer as some informants recounted personal examples and stories. Regardless, I have to say that I felt that most interviewees where reliable and there seemed not to be a reason to distrust them. However, as a researcher I did influence the research just by being present and most people want to show their best side to others. I noticed this in the focus groups. Group two gave me a sense that they wanted to say the "right" thing but when I asked them to provide examples from their own lives, this seemed to shift.

Time was a main obstacle; there was not enough time to work through each research method as thoroughly as I would have wanted. I thus conclude that I should have limited myself to one or two, not three, methods. But overall, I am glad that I did choose these methods, as they have proven to give me insight into private individuals' views and beliefs regarding food waste.

3. Theoretical Framework

To understand the underlying reasons for domestic food waste I have used anthropological, sociological and ethnological approaches to domestic food waste. One reason for focusing on food waste in Sweden is because food is heavily integrated into Swedish society. Sweden used to be a society in which dirt played a role in everybody's daily lives. Swedish

ethnographers, Jonas Frykman and Orvar Löfgren, (1979) talks about that historically, there was no opportunity to wash daily, and farm animals would often live indoors during the winter. But over the centuries according to them, dirt, once a public matter, has become a very private matter.

The anthropologist Mary Douglas (1966) has written about the importance of food intake to human life since the time of the Old Testament. Abundant food supply, combined with a society where most people can afford to buy more food than they need, sets the stage for competition. The food industry competes fiercely for customer's consumption and goes to extreme measures to convince individuals to consume more than they need. In Sweden, most humans no longer eat to survive, but instead use food to show the rest of society who they are and what they believe in. Waste is a side effect of the person an individual is looking to be as "you are what you eat". Food is a tool to show others your personal values, authority but also love not only for yourself but also for others. This correlation is important to understand so one can challenge or even alter this attitude.

The anthropologist Daniel Miller's studies (2001 & 1998) show that people buy products to show their affection for others. They can even buy product, which go against their own beliefs. For example, if her child wants a specific type of sausage, the mother will most likely buy that kind (even if it is more expensive) as a way to show she cares and wants her child to be happy. Another example is that vegetarians will buy meat for their family members or loved ones, despite their own preference because the purchase symbolise their care and affection for that person.

3.1. Habitus of Eating

The cultural sociologist Pierre Bourdieu argues that the human body is the very basis of social differentiation and cultural production. It is in the body that one's personal predispositions are combined with the social and cultural world. Bourdieu explains that each person is born into a particular cultural and class system that codes and orders the body in ways of "standing, speaking and thereby of feeling and thinking" (1972, p.32). Bourdieu's habitus is acquired and developed at home, in school and other institutions. But it is the repetitive and affirmed performances of certain bodily repertoires that form the mainly unconscious habitus, meaning that a young child will learn what is right and wrong and will be corrected when doing something wrong.

Habitus is associated with everyday, situations, actions, practices and choices. Habitus is also used to analyse how people within a social context are related through relationships.

According to Pierre Bourdieu, habitus also defines the principles of how and what a person consumes. Further, habitus is a socialised and structured body, which has incorporated the social environment's configuration and thus behaves and understands the environment a certain way, and, in turn, influences other people accordingly. However, habitus does not determine practices, but it does make it more likely that certain practices are adopted rather than others. Bourdieu consequently claims that consumption is bound to class and that consumption of different goods is a way for people to claim, maintain and display their status.

To understand how habitus is formed, one has to look at the concept of socialisation, which is acquired in an unselfconscious way simply by being immersed in a particular social setting.

The dispositions acquired through habitus are the ways of doing things that those sharing a particular social position think of as natural and obvious, common sense, and taken for granted. These dispositions do not prevent us from behaving in other ways, but the patterns of

behaviours common to a particular habitus become inculcated in our sense of who and what we are. Therefore habitus disposes individuals to make certain choices. Pierre Bourdieu thus concludes that since habitus is embedded in class positions, choices and taste are collective matters of class rather than individually constructed selections

3.2. Tradition Rules the World

Animals instinctively know what is edible or inedible. With humans this is a very different story. There are examples of humans eating bark or dirt due to starvation or during wartime, where food con be scarce but even during the most extreme famine people will in some cultures and traditions not eat pork according to Mary Douglas (1966). According to the ethnographer Nils-Arvid Bringéus (1988) there are three factors determining what one eats: tradition, ideology and technology. Bringéus claims that tradition makes some types of food natural to eat for some cultures but not for others, such as pork. For some pork is contaminated and should not be eaten. Food habitus carries a large part of one's legacy and constitutes a big part of life as one's personal food habitus is shared within family and community.

Bringéus states that humans have a need to eat food that has been tried and tested by history as a way to make sure that it is safe. But in today's society food is often tested in industrialised kitchens and spread through the Internet, cookbooks, magazine and personal experiences (for example eating at the new local Indian restaurant). Regardless of this new input, tradition will always have a pull and in Sweden "husmanskost⁶" has become the "new" trendy food in restaurants. Bringéus claims that enforcing tradition through food gives

⁶ Swedish traditional cuisine, for example meatballs with mashed potatoes, sauce, pickled gherkin and lingonberry jam. For example in the cookbook *Husmanskost* by Werner Vögelis and *Kokbok* by Tobias Roth. and in several restaurants such as Operakällarens bakficka and Gyldene Freden.

humans stability in an otherwise unstable world and is something that can be trusted.





Figure 3 (right): Traditional 'husmanskost

Figure 4 (left): New fashionable 'husmanskost'

3.3. The Unclean Mouth and the Government

According to the anthropologist Pasi Falk (1994) the mouth is the "gate" to the body and the eyes are its gatekeepers, which is highly influenced by what culture and society teaches us today in regard to what to eat or what not to eat. The philosopher Jacques Derrida (1986) claims that society controls what is allowed into the body and ones mouth; one does not put forbidden or "polluted" things in ones mouth. Derrida here means that it is not you, that decides what is forbidden or disgusting to eat, it is society, religion or tradition that created these norms and dictates what you put in your mouth, an argument similar to Bourdieu's in that it recognizes the collective construction of taste. Take Kopi Luwak coffee for example; this type of coffee bean comes from Civet (a cat sized mammal, see figure 5) excrement. The Civiet only eats the finest berries and excretes the partially-digested beans, which makes Kopi Luwak the most expensive coffee in the world. At the specialty shop Kahls The och Kaffehandel, 50g of Kopi Luwak costs 149 Swedish Krona (17 Euros) in 2011.



Figure 5: Civiet and its coffee droppings.

It is social norms that approve of Civiet excrement to be used as coffee but "forbid" most societies on earth to eat anything else classified as excrement. The distinction between edible and inedible is a basic one that most people learnt as children. Children will examine and explore their environment using their mouths, whereas parents will tell the child what is right or wrong to eat. Consuming Kopi Luwak faeces is right, whereas eating other animals' faeces is wrong. However, this distinction is not written in stone, it can easily change. According to Falk (1994) the labels "edible" and "inedible" relies on time and place, the ritual setting, and depend on the items' social status, and this is constantly changing.

According to Mary Douglas (1966) and the philosopher Michel Foucault (1997b) humans are constantly dividing the world into dichotomies: right/wrong, good/bad, clean/unclean, mad/sane and so forth. Douglas claims that a human distances herself from things that are seen as dirty and unclean. If one does not share the same distinction one will be excluded by society as a dirty and disgusting person. According to Foucault this is how the government has trained us to police and judge one another, to make sure that everyone follows these guidelines. Jonas Frykman and Orvar Löfgren, (1979) claim that the human body and its functions are reflections of one's society. The higher you are in the hierarchy, the tighter is society's grip and you will discipline your body harder to fit in. Douglas calls this "the purity

rule". This is often learnt early in life. If one does not have these skills one may be considered a social deviant—a dirty and unclean person.

Taste according to professor of history of food Massimo Montanari (2004) and the author Michael Pollan (2008) is in constant change and it can change within one generation. Montanari also claims that in the past one was taught to cook by parents or grandparents, imitating their behaviour. Today it is often food companies that prepare food and there is no longer a need to imitate, just read the instructions. This means that cleanliness or the purity rule has won over nature, just as science has won over personal food relationships. Citizens are trained not to eat anything unclean or unhealthy, even fruit and vegetables should not have any blemishes or black spots. Eating expired food or waste is not seen as clean or healthy and not the norm of the Swedish society.

According to Michel Foucault "governmentality" (1997b, p. 67) meaning the government need to protect the masses as the masses has problems with self-control and need guidance for the family and for ones children, management of the household, directing the soul etc.

Foucault defines government as conduct, and that one needs "to govern" oneself and others.

As stated before it is not you yourself that controls what to eat but it is the society, religion or tradition that makes that decision. As a way to guarantee ones place/status in society one will eat what is accepted or the norm of the society ones belongs too or risk punishment or loosing ones status. As a member the European Union (EU) Sweden must follow the common regulations and rules regarding food labelling and all food sold in Sweden must include: product name, ingredient list with all the ingredients, best-before date, name and address for the manufacture, food origin. In 1972 it became state law for all food in Sweden to have a best-before date the Swedish food agency Livsmedlesverket, has sustained that all food in

⁷ Livsmedelsverket is the national food administration, which is the Swedish government food agency whose

Sweden has the correct labelling with the exception of fruit, vegetables, wine, salt, sugar, gum and pre-packaged ice cream. Food producers or manufactures must now guarantee that they can stand behind the quality of the product they are selling. Milk for example has undergone tests to see how long it will last. A crucial point is, that milk and other products will/can last up to a week longer after their best-before date, but, according to Kaj Grenrud (chief of dairy control at Skånemejerier), for milk it is around two more days but for eggs it can be up to a month as long as they are stored correctly. The problem here lies *how* does one know the right storage condition when it is different for all types of food. If there is no longer any personal relationship with food and the consumer solely relies on best-before date, than most food items will be thrown out once the best-before date is reached. As the best-before date is a guarantee, that you will not become sick. And if you eat the product after its best- before date then it is your responsibility as there is no longer any guarantee for your safety.



Figure 6: Dare you drink this after the third of November? According the WRAP study 2007, (on page 11) 61% of you will say no.

4. Analysis of Fieldwork Material

Best-before date in today's society is often the reason behind domestic waste and the mains task it is to protect the consumer by working towards safe food and to ensure that all food has the correct labelling.

professors John Antle (1999) and Michael Pollan (2008) both argue that the development of food processing has turned today's food culture into an industrialised way of eating/consuming. Less and less time is spent on food (planning, shopping or cooking) and food is consumed everywhere except at the dinner table. Today it is more common to eat in front of the TV or on the move.



Figure 7: Modern food consumption- eating in front of the TV.

An important factor to keep in mind according to Professors Saleem Bhatti and Rajesh Srivastava (2003) is the shift in the traditional household gender roles, which are the outcome of progressive social and demographic movements. Professor Susan Murcott (2000) argues that there is now a greater acceptance of working mothers, as well as women having to higher income due to higher and improved education and work. She also points out that today there are more and more single households and households where both partners are working full-time. Professors Bhatti and Srivastava also state that these changes have changed the (traditional) family, and men are more likely to go shopping as a voluntary or necessary task. This is visible also in the material accounted for in my study.

In this chapter I will discuss attitudes, values and fears regarding best-before date but also what goes on in the supermarket as well as in the home, which has surfaced during my research together with the empirical material used in this thesis.

4.1 The Best-Before Date - An Absolute Truth

"If it has reached its best-before date, then I do not need to check, the date says it all."

(Björn)

Best-before date has undergone a major transformation; with the starting point of being a guideline/ recommendation into *the* reason behind food waste. Professor Zygmunt Bauman (2008) explains that today's society forms us into being consumers. He continues to explain that as consumer we have a value and not being a consumer expels us from the community. And the fear of this exclusion may be a factor as to why we consume so much. According to the professor Don Slater (1997) our consumer culture is the culture of a market society, which means that goods are produced for a marketplace of anonymous consumers. It can be argued that our consumer culture today has bonded with the market and that daily life and the market infuse those cultural factors such as status and identity. However taste is not individual, it is social. My younger (18- 35) informants shows clear patterns of this, as they are very aware of what is going on around them, what their family is and is not doing but they also make sure that they are not eating something that has reached its best- before date. As their friends or peers are not eating anything that has expired as the item belongs in the bin. They are so trained in this thinking that they no longer question this action for themselves.

During the research it becomes clear that there is an overall fear of foods best-before date.

There is a stronger trend among 18-29 year olds that the best-before date means that the food is not edible on that day or after. This age group does everything they can to avoid eating anything that has reached its best-before date. Some also admit that they have thrown out food before the best-before date, often without smelling or tasting the food. The main reason for

this waste is the idea that they might become sick. None of my informants have actually been sick but the *idea* of being sick is so deeply rooted (especially in age group 18-29) that they would rather throw the food away then to risk getting sick. "The other week or so I was alone at home working and around lunch time I got hungry so I made myself a baked potato and I saw that we had some cottage cheese so I put that on my potato and it tasted fine, I felt fine. My girlfriend got home a few hours later and noticed that I had eaten the cottage cheese and she told me that it had expired about one week ago. Not long after that I started to feel nausea and had some stomach pains but I was not actually sick, I did not throw up or anything and the next day I felt fine" (Lars). This is just one example of the idea of becoming sick and Lars did not feel sick until his girlfriend told him he had eaten something that had passed its best-before date.

The age groups 29 and above are not so concerned about the best-before date then actually smell or taste the food to see if has gone bad. What is interesting about the age group 18-29 is that the boys/men are more worried about the best-before date than the girls/women. "It is unhealthy to eat something that has expired" (David) and his friend Erik agree: "Because when the best-before date is reached it can be dangerous to eat or taste bad". The girls (18-29) tend to take a more scientific approach to the best-before date: "The best-before date is there for a reason, why else have it" (Birgitta). But still they do not trust themselves and the also go by the best-before date on food. In the older ages groups (30-49 and 50-64) it is the women rather than the men who worry about this. As it is often women who buys or cooks the meals at home, this means that they are more observant to their family's wishes. They are also worried about getting sick, but in a more practical manner: "I have eaten food after best-before date, but I felt really sick after I found out that the food was expired so I will not do it again" (Dagmar). Or: "I am afraid of being sick, I cannot take time off work due to bad food"

(Ella). When shopping most informants agreed that they look at the best-before date when shopping: "I always look at the best-before date, especially on milk and dairy and I try to find the one with the longest date" (Carl).

All age groups except 65-74 find appearance, especially of fruit and vegetable, important, and often kids will often not eat fruit with blemishes on them. Some mothers admit buying fruit and vegetable that they know the kids do not like, but which "are good for them" (Ella) but these purchases often lead to waste, as no one will eat the items. This concludes that there is a genuine concern for ones or ones family welfare and the buyer often wants what is best for them regardless if the purchases knowingly or unknowingly heads straight into the bin. Miller (1998) claims that women use shopping as a way to create their own identity but also a way for them to show their love to their family. But this is an important key factor into the understanding of family care and management as this is a direct result of domestic waste due to this type of love.

4.2. Taste Buds- Friends or Foe?

"If it has gone bad I do not want to taste it." (Cecilia)

According to Pierre Bourdieu (1984) consumption practices are a product of the habitus that goes with a certain position in the social system. According to Professor Mike Featherstone (2007) consumption is no longer an innocent act, but actually part of binding people together across the world in terms of production consumption. In Swedish supermarkets consumer can often find food from all over the world and be a part of different food cultures. Featherstone calls this a complex global consumer culture. However, Michael Pollan (2008) argues that it is now up to companies to fulfil people's needs, by different marketing schemes (for example

"buy one get one free"). Pollan continues to argue that today's consumer is so far removed from food that they no longer themselves can determine what is edible or inedible and this change has derived within two generations. The research detected a clear indication of this trend as the younger age group of (18-29) is less likely to use their own taste buds to determine whether something is edible or not. Kristina tells me that she does not have the time to cook so she often buys readymade meals or eats at her mums. "None of my friends cook, well if we cook it is things like taco or lasagne, you know meals that come in packaging and you just add meat or whatever... We want things that are easy to make and have great flavour... Of course they do not taste like my grandmothers food but who has the time today? (Kristina).

Informant Lena, 57, tells me that eating ready- made food/ meals was the "trendy" thing to do in the 70s and 80s: "You would only or more or less only eat ready meals, back then, stuff like frozen pizza.... As a single parent I did not have time to cook like my stay at home mother did. Working all day and then coming home to two small children... I had no energy for cooking nor the interest and there was a freedom in buying readymade meals". Lena is not alone in this reasoning and the informants see these types of meals as a quick dinner solution and thus freedom.

In the age groups 29 years and above, women are more comfortable with actually tasting or smelling the food and then decide whether it is bad or not. However, for milk and poultry the informants rely more on the best-before date. This is mainly due to their fear of becoming sick, which means staying home from work, which results in less money. The choice of throwing out expired milk thus makes financial sense to them. But there seems to be a more underlying problem then becoming sick which seems to be a more shameful reason: "I do not

know how it is supposed to smell or taste like" (Ingrid) then it is pointless to taste or smell according to some informants.



Figure 8: It taste like it has reached its best-before date.

4.3. Food Waste- Someone else's Problem

"My wife always checks these things so I don't have to." (Hans)

Zygmunt Bauman (2008) states that waste is a side effect of our consumption society. Humans are therefore thought to waste (not only food but also material objects). But he also claims that there is no longer the expectation of objects to last very long. Objects go out of fashion very quickly. To stay on top one constantly needs to consume. However, brand loyalty is key in today's consumption society, for example if you normally buy Heinz ketchup you will not change brand unless you are desperately need ketchup that day, but the ketchup will most likely be replaced once you find Heinz ketchup and this loyalty is a direct contributor to waste. There is also an overall sense of wanting to save money in the supermarket (by buying larger packages or "buy one get one free deals"). However, this type of (mindless) shopping seems to lead to waste. When asked about their own food waste, the respondents often had an explanation. Lina explains that her children have all moved out (two boys and one girl) and she cannot stop cooking larger portions. She knows that she and her husband do not eat that much, but in practice she cannot make the portions small enough for

them. Both are retired so they do not need any lunchboxes, but if there are leftovers, she tries to freeze them or eat them the next day. But the longer we talked, she admitted that most dishes that get frozen stay in the freezer and get thrown out when she is defrosting. This is not an isolated event, as the behaviour resurfaces again and again. There is a genuine sense among the informants of intending to make more so that it can be frozen or had for lunch the next day. Madeline explains that she always cooks more in the hope that her husband will eat it for lunch the next day. She also admits that he often "forgets" or leaves the food at home and that she then has to throw it out. Nina explains that she often "forgets" food in the fridge or freezer and when she "discovers" the food, then it has often gone bad and has to be thrown out. Most interviewees also feel guilty when throw the leftovers out, as they more or less all agree that they should do something with their leftovers. "It happens that I will take leftovers to work the next day, but not often" (Ingvar) or "I will leave it in the fridge in the hope that someone else will eat the leftovers, but in reality no one does" (Johanna). Another informants explains: "I do not like when things smell or taste like the freezer. You know that flat flavour food gets when it has been in the freezer too long. So that's why I throw food out... when it tastes like the freezer" (Jacob). However, he cannot answer when this flavouring happens to the food but he guesses around one month after being frozen.

It seems that most informants want to be responsible and economical by observing store offers and buy good offers. And at least in their head they plan ahead for the next day lunch box or plan to freeze leftovers. They are just bad in executing this good intention. Most informants "forgets" or fill their freezer full of leftover dinners, you can say that once out of sight out of mind mentality. This mentality or lack of interest of ones leftovers leads to domestic food waste. Just because it is out of sight does not mean that someone else other than you will magically eat the leftovers. Again this is an important understanding of the

domestic waste: just because you *plan* your food shopping and intake it does not mean it will *practically* occur. The consumer must actively and knowingly prepare, cook and eat ones food purchases and utilise leftovers and not turn a blind eye or ignore ones domestic waste.

4.4. Food Management- "I Don't Have Time for This..."

"When I am stressed for time I just grab whatever catches my eye in the supermarket" (Kalle).

The Swedish society is a fast moving society and my informants claim that they do not have time for food management anymore. There are other things to do. However, most aspects of food take time: planning, shopping and cooking all take time. But in today's busy society there is a feeling of not having much time for food anymore and informants feel stressed when thinking or talking about dinner. The nostalgia of ones grandparents or parents cooking prevails and is an extra stress factor. There seems to be a genuine desire for cooking more (for one's family) but time is not sufficient. Semi- prepared or pre-cooked products are often used as a way to save time, but they also give the mothers especially, a bad conscience for not cooking themselves. For example: "I know pizza dough is easy to make and I can freeze it but when will I have time to prepare the dough?" (Maria) or "I want to make my own soup and I know it does not take long but can soup is so much easier, you just heat it up. But it is not as good for you... I know that... but I work late and do not have the energy anymore" (Ella).

It becomes clear that grocery shopping is filled with desire and shame. As Daniel Miller (1998) points out, shopping is a way to show one's affection for one's family or close ones, but it also conflicts with one's finances or time. Michael Pollan (2008) on the other hand points out that we are now trained to eat semi- or pre-cooked food and sees this as time savers. He concludes that these types of food can offer relief in a stressful environment but at

the expense of our health.

4.5. Fieldwork Results

My research aim where to get an understanding and insight into what extent does the bestbefore date rule the shopping trolley. In doing so, I had to dig deeper into the personal views, relationship and understanding of my informants⁸. Did they have a relationship or an understanding of food or have they removed themselves away from the equation and what does this mean for the society if we are no longer evolved in the process. Food waste does exist on all layers of Swedish society and we are all responsible for our own domestic waste. Majority of my informants know they *should* do something with their leftovers, but do not know what or how to change. Konsumentföreningen Stockholm's two reports⁹ found three important themes in food waste; 1. lack of knowledge, 2. how food should be stored or prepared, and 3. how important the best-before date is to the individual. The 2009 study shows that 50% of domestic food waste is unnecessary and a direct result of not knowing how to properly store or handle food. My research also show and confirm these findings but also highlights that there is a lack of knowledge of the entire food process and seems to exist a belief in number magic- best-before date as an absolute truth. My informant's best-before waste is due to a genuine fear of becoming sick or allowing others to become sick due to eating food past its best-before date. Additionally, Konsumentföreningen Stockholm's two reports also point to this fact: the best before date results in 1/3 of the total domestic purchases being wasted, as participants would look at the best-before date in stores and choose the one with the longest best-before date. As a result of their research they have published a small pamphlet: "Släng inte maten" (Don't throw the food away), which gives

⁸ My study shows there is a small difference in the attitudes among women and men. I do not want to establish absolute gender based differences but they keep resurfacing in my study. Therefore find it relevant to highlight the differences in gender that do exist.

⁹ Report from a trashcan (2009) and Climate fingerprints from domestic food waste (2008)

clear instructions on how to store food. For example, not all fruit should be kept in the fridge. This pamphlet has to be ordered through their website. They also suggest changing the name: best-before date to "at least durable to" however, livsmedelsverket declined their suggestion.

The report 'Wastage within the food industry' found that one reason behind food waste in grocery shops depends on the varying demand of groceries, which makes it hard for the stores to order the exact right amount of food. Still, the customers themselves often choose the items with the longest best-before date – leaving products with shorter dates on the shelves. Again this pattern emerges, that the customer only goes by the best-before date and not the product itself. So again research has shown the significant of this belief and action that perishable items like fruit, vegetables and fresh bread are most likely to become waste, as customers want fresh food with no imperfections.

As a tool to examine the different views and beliefs regarding best-before date I have organised my findings into different venues and age groups, firstly examine the undertaking in the supermarket and secondly what happens at home.

4.5.1. I shop therefore I am

As mention previously women do the majority of shopping (Miller 1998). This is an important platform for women to showcase their love for their families. A retail study by Professor Robert Putnam (2007) found that men are more likely to buy additional impulse purchases and do not buy a substitute of an item that is on the grocery list. "She has listed a specific marinade for fish. This kind says it's a marinade for fish but it's not exactly what she wrote down and I can't see the one she wrote down on the shelf. I'll skip it and just tell her they didn't have it" (Putman 2007, p.3). However, shopping is so much more than just finding

the 'right' product on the list. Daniel Miller states that women are more focused on the experience. Men are on a mission.

Starting with the age group 18-35 in this age group it is important that both men and women do the shopping but it doesn't have to be together. They shop often sometimes everyday and less items and prefer local supermarkets. This group is very brand loyal and think commercials are important tools to help with choosing food brands. They often do not write a shopping list and are more prone to buy impulse items in the shop, depending on what's on offer in the store that particular time. If they find something on offer that they rather have for dinner than they tend to change their dinner plans at the store. Due to lack of planning or interest this age group tend to make food decisions directly in the supermarket. They are hoping the supermarket has the solution for dinner, which means they do not have to make the decisions themselves. They buy more pre- prepared or cooked foods as well as tins and jars of sauces. As this group hardly spend any time on planning, cooking or food intake they often buy food products they already have at home. One such typical food item they will buy is milk as they are unsure if they have it at home and do not want to be without it. This group will most likely never buy anything near its best-before date and are very scared of the idea of eating something past its best-before date. Even though they have not actually been sick they believe that the best-before date is an absolute. Men are more worried about being sick than the woman in this age group.

For the **age groups 35**¹⁰ **and above** they have more similarities than the younger age groups, which is why they are summarised together in this section. This group spends more time on food, both planning and cooking than the younger age group. They also spend more time

¹⁰ From the ages of 55 and above there seems to be more time spent on checking at home, writing lists and cooking then any other age groups. One reason could be due to retirement.

grocery shopping and tend to follow shopping list but with some smaller modification depending on what the offers are at the shop. This group (with the exception of ages 55 and above) seems to spend at least one to two hours more a week on planning and cooking food. They seem to have a desire to cook more and often refer to *when* they have time, then they will cook something really nice for the family or bake. What is interesting to notice that there is clear gender concerning best-before date. Women are more worried about staying home from work looking after their family (they are not so worried about getting sick themselves) whereas men are more concerned about being sick themselves as it is unpleasant but not worried about staying home caring for family members. As Daniel Miller (2001 & 1998) pointed out it is women in this age group that are using shopping as a tool to show their love for their family or friends. They will buy products they know their family like but also products that are good for them such as fruit and vegetables, but with the knowledge that these items will most likely not be eaten.

4.5.2. Home is where your heart is

What goes around at home is a different matter than what happens in the supermarket. Where the supermarket can be a place to showcase ones ideal, values and economical statues it is at home where this gets practised. The home is the greatest platform to show others "this is me and who I am". You may *buy* organic fruit and vegetables but in reality they do not get eaten. As stated in chapter 1.1 on page 8 around three months worth of groceries goes straight into the bin at home. In this section there are more visible different attitudes, which is why there are more age groups ranked.

For the **age group 18-29** or more significantly 'living at home' there is a stricter but at the same time a relaxed attitude towards best-before date. Mainly due to the fact that it is often

the parents/ mothers that do all the shopping. There seemed to be a general feeling of helping with cooking dinner but I did not go into this due to time restricting. Below are some attitudes listed that surfaced during the research.

- "It is disgusting to eat some thing that has expired". (Nathalie)
- "Best-before date is scientifically proven that food is okay to eat". (Robin)
- "I will eat fruit with black spots on them but I will cut or eat around the black stuff".

 (Annie)
- "I eat anything my mum tells me to eat". (Selma)
- "I do all the cooking at home so I try to check the best-before date on meat, milk but for pasta and spices I never check. I just assume it is okay to eat". (Greta)

For the **age group 30-55** they claims to be to busy for cooking and tend to be snacking instead of eating meals (more in single households) as a way to get away from cooking. Some informants think it is pointless to cook for just one person. As the "traditional mum" that spends a long time cooking and baking does not exist anymore; "it is grandmother that did that. She cooked everything from scratch" (Nils). This is also the group that will most likely eat separately cooked meals and does not often eat together at the dinner table but in front of TV or computer together or alone. They also see eating out is no longer a treat, it happens on a regular basis but is also a getaway from cooking or as a last minute resort as no dinner plans has been made. This group also tend to throw out leftover after dinner they do not want to eat them the next day. If put in freezer they often get "forgotten" and then later thrown out. When it comes to best-before date this is still important, especially for milk and poultry, mainly due to fear of being sick or tasting bad.

In this group it is important to note that for mothers the best-before date is a clear worry for them, as they do not want to jeopardise their family health. Young professionals without children seems to be the main group that rely on supermarket to solve or decide what they should eat for dinner or buy whatever they fancy to eat that day. They are less likely to have a grocery list and are more sensitive to their own needs.

As for the **age group 56-74** there is a less fear of best-before date, they tend to smell, taste and feel before they decide if it can be eaten. The older the informants were the less worried they were about the best-before date. This could be a direct result of lack of income as they are retired and may not have the finical gain to throw food out.

There is a belief amongst most interviewees that you will get sick by eating food past it best-before date and most will do anything they can to not eat anything that has expired. They will more or less just look at the best-before date and then make a risk assessment regarding the date. Being sick often results in staying home from work, which can have some effect on ones pay check. In this section I came across a small gender division but it is too small to differentiate gender-based consumption clearly. In this research, women were more worried about staying home looking after their family (caring), which untimely leads to a decrease in their income. Men are more worried about actually being sick themselves. But in reality there are not many reports referring to food poisoning to the Swedish food agency Livsmedlesverket¹¹, and in 2008 there were 239 reports of suspected food poisoning, three due to dairy.

¹¹ Livsmedelsverket is the national food administration, which is the Swedish government food agency whose mains task it is to protect the consumer by working towards safe food. All private reported suspected food poisoning gets reported and investigated there.

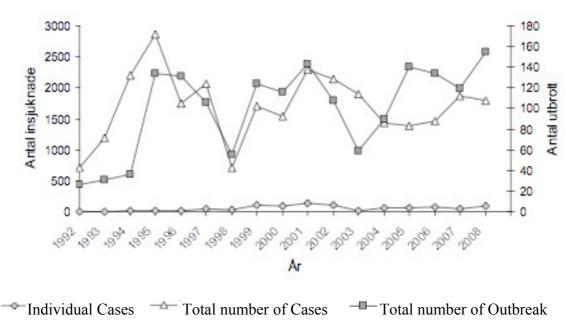


Figure 9: Number of reported outbreaks in food poisoning.

The left axis shows the number of sick people and on the right axis shows the number of outbreak over the years between years 1992 to 2008. As this table shows, there is a gap between myth and reality; the individual cases are at minimum less than 100 cases per year and around 200 cases between the years 2000 to 2002. When I asked the focus groups if they or someone they knew had been sick due to food poising only two said yes but they were not sure if it was due to food or not.

5. Concluding Discussion

Drawing on all chapters of this thesis I have discussed, analysed and formed the below conclusions regarding domestic food waste.

5.1. Out of Love

Love for ones family and near ones comes before domestic food waste. Waste is a part of daily life and there is no getting away from it. Regardless of how waste occurs 900 000 tons of food waste in Sweden today is not sustainable in today's society. My research and the empirical material show that some domestic food waste derives from the care of ones family. Daniel Miller's studies (1998 & 2001) illustrated that mothers would buy fruit and vegetables that they knew no one would eat, but they bought it anyway due to concern for their family's health and a genuine desire for healthy eating. His studies also points out as well as my own research that it is the women who do the majority of food shopping and it is a strong stress factor for them. A large problem that I found in my research is that they buy too much and do not know how to downsize. They often have a shopping list but will stray away from the list being tempted to buy what is on offer. 'Buy one get one free' and multipacks are the main teasers. The desire to utilise these offers is genuine but they cannot find the time. My research shows a fear of best-before date and that food would often be disregarded due to the bestbefore date and end up in the bin, also due to the care of ones family. Several subjects explain that they did not want to become sick due to bad food they wanted to be safe rather than sorry. Some families claim that most of their domestic waste occurs due to bad planning and because they do not want their children or family to eat anything that has expired. Families with children tend to generate more waste than people aged 65 years and above and families tries more to follow a shopping list but often stray away due to other family members wishes.

Konsumentföreningen Stockholm study's show a need to educate the consumer, as many of them do not know how to store or properly prepare food, which results in the food becoming bad sooner or reaching its best-before date with the item left in a cupboard for example. My study in conjunction with the empirical studies shows that people do not eat what needs to be

eaten at home but rather what they like. They also admit that they rather throw out food that has or is near its best-before date as they do not want to risk becoming sick.

Most interviewees admit to feeling guilty regarding their waste but their actions show different. If throwing leftovers out makes you feel guilty, would you not want to change that behaviour and try to cook less or use it the next day? Just saying that it makes you feel guilty, when you are doing it and not changing it, is a poor excuse for domestic waste and there seems to be a insincere desire to change ones domestic waste habits and it seems to be due to the fact that it is convenient to waste food in Sweden. As Zygmunt Bauman (2008) has pointed out previously, we have to consume to be a part of our society and waste is a byproduct of this attitude. But let us not forget that someone's family and their wishes come first, resulting in love before waste.

5.2. Out of Fear

According to Zygmunt Bauman, today's consumption society is based on quick turnovers and there is never enough time for anything. There is a higher expectation of material standard, which results in most households not having time to plan dinners. But an overall trend amongst both my participants and the empirical material shows that most consumers do not know how to store or manage food properly, which results in the food reaching its best-before date or even going bad. The trend shows that most informants are reluctant to taste, smell or touch the food once it has gone bad, more or less due to fear of the item. "I don't want to become sick" is a typical response and there is a gap between myth and reality.

Tasting expired food will not kill and most likely not make people sick either (as figure 9 demonstrates), but the idea is so strongly rooted that most interviewees wanted to be safe rather than sorry. My informants (mainly in the age group 18-35) just shrug their shoulders

and offer no explanation for their domestic food waste. Birgitta explains is that their "parents have always done it this way and cannot be bothered". When reflecting on the amount of money that is potentially thrown in the bin (5,000-6,000 Swedish Krona) they all tend to agree that, the money could be spent on something more fun, for example on holiday or on eating out. But they do not reflect on the fact that they themselves need to waste less.

5.3. How These Findings Can Be Applied

This thesis does not represent Sweden as a whole but delivers a good foundation to build upon. There is knowledge regarding domestic food waste but now is time to take action. This thesis demonstrates that there is a fear regarding best-before date and this needs to be addressed. The food market main aim is to make a profit and to sell. However, the food industry also needs to take responsibility for the mindless shopping that is taking place in the supermarket. The supermarket needs to address the following:

- Train consumer into tasting food themselves, having competition in store asking people to taste and explain how to store the item. For example monthly campaigns into the correct handling of bananas. For example the first week of May:

 Information about the nutrition regarding bananas, the history of banana eating in Sweden together with some unusually stories/information about bananas. To also share information about correct storage of bananas and recipes for when your banana needs to be eaten, for example banana bread. Having a competition for children; write about their banana experience, draw or answer question about the banana. Using this as a preventative tool for working against food waste but also showing that the store cares about the consumer and the environmental effect food can have.
- Have a section (if there is not one already) where items are close to or have reached their best-before date. This section could have some information regarding

environmental bonuses for choosing these products.

• Changing the best-before label on packaging having information regarding the product, such as how to store the item. See image 10 that is a new prototype in Britain.

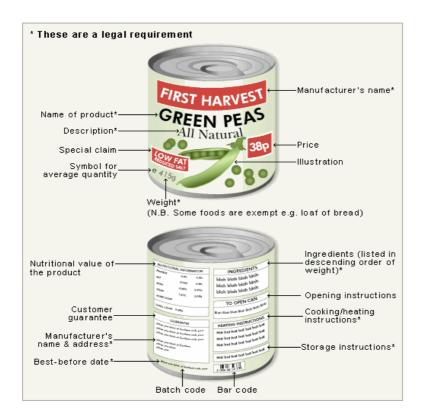


Figure 10: New prototype of best-before label

TV commercial encourages people to taste smell food rather than just looking at the bestbefore date. Commercial campaigns such as "When did you smell your milk?" or "Did you know what your local bus is running on your personal food waste?"

5.4. Suggestions for Future Research

My research together with the empirical material identified the need to develop a deeper understanding and a strategy as a tool to minimize domestic food waste. They are as follows:

• Due to the time limit of this research more time is needed to develop strategies that

enable the private individual to minimise their own domestic food waste. There is an understanding that one *should* minimise their waste but not sure how. Public needs to be educated and feel that they themselves are benefiting from less waste. Internet based information and pamphlets are not enough. In Sweden almost everyone knows that one *should* waste less but is not the habit to do so. Therefore, strategies that actually work should be developed for the individual. For example: Each food item could have information on the label regarding how it should taste and be stored.

- As many informants claim that they themselves do not know how the food should smell and taste like, it is important to address this issue. Someone only looking at the best-before date and living a stressful life only leads to waste. Instead food producers should aim to address this. This could be done in schools for example. But it could also form a stronger bond with the customer as the company "cares" about ones economy and quality of the food item.
- Strategies to <u>make</u> people taste food are empirical and information pamphlets and sheets are not enough. There is a need for action and not words. I wanted to execute the 'milk test' for this research. As a tool to see if people actually could smell or taste whether food had expired. I wanted to take cups with numbers 1, 3, 5 and 7 on them and tell participants to taste the milk, which had expired by that many days. To see if participants were comfortable to taste number 5 or 7. However, this seemed to pose more problems due to the practicality of the test and in the end I did not have time to conduct the test.

6. References

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Interviews

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7. Appendices

7.1 Index A

1, How often do you go grocery shopping?

54

Death by Expiration Date

10, Age

11, Any other comments?		

55

7.2 Index B

Death by Expiration Date

- 1, Do you look at the best-before date when you shop?
- 2, How important is the best-before date to you?
- 3, If you are going to eat the food the same day, does this affect the best-before date?
- 4, Do you buy products with short best-before date?

5, What types of food do you tend to throw out?

Why, what are your motivations...

- 6, How important is the best-before date on milk?
- 7, Would you drink milk past its best-before date?
- 8, Do you trust your nose to tell whether food has gone bad?
- 9, Gender
- 10, Age

7.3 Index C

All the names are in alphabetic order and taken from svenskanamn.se (under nametrends 2009-2010) to ensure the confidentiality of the informants and ordered as follows: Name. Date. Age. And level of participation.

Adam. 2011-02-07. 38. Interview.

Alfred. 2011-01-20. 18. Focus group.

Anders. Date unknown.45. Questionnaire.

Anna. Date unknown. 25. Questionnaire.

Annie. 2010-11-30. 63. Interview

Anton. 2010-11-30. 42. Interview.

Birgitta. 2011-02-08. 20. Focus group.

Björn. 2010-11-30. 33. Interview.

Carl. 2010-11-30. 44. Interview.

Cecilia. 2011-02-08. 20. Focus group.

Cornelia. 2011-01-20. 45. Interview.

Dagmar. 2011-01-20. 33. Interview.

Dalia. 2011-01-20. 67. Interview.

David. 2010-11-30. 22. Interview.

Ella. Date unknown. 35. Online questionnaire.

Elsa. 2011-01-20. 46. Interview.

Emma. 2010-11-30. 18. Interview.

Erik. 2011-01-20. 23. Interview

Frida. 2011-01-20. 36. Interview.

Gabriel. 2010-1-30. 56. Interview.

Greta. 2011-01-20. 73. Interview.

Hans. 2011-01-20. 65, Interview.

Helena. Date unknown. 31. Online questionnaire.

Ingrid. 2011-02-08. 21. Focus group.

Ingvar. 2010-11-30. 45. Interview.

Ivar. 2011-01-20. 54. Interview.

Jacob. 2011-02-15. 33. Focus group.

Johanna. 2011-01-20. 38. Interview.

Jonathan. 2011-01-20. 20. Interview.

Kalle. Date unknown. 56. Online questionnaire.

Kristina. 2010-11-30. 23. Interview.

Lars. 2010-11-30. 26. Interview.

Lena. 2011-02-15. 57. Focus group.

Lina. 2010-11-30. 49. Interview.

Linus. 2011-01-20. 21. Interview.

Madelene. 2010-11-30. 19. Interview.

Marcus. 2011-01-20. 59. Interview.

Maria. 2010-11-30. 43. Interview.

Matilda. 2010-11-30. 68. Interview.

Nathalie. 2011-01-20. 33. Interview.

Nils. Date unknown. 36. Online questionnaire.

Nina. 2010-11-30. 28. Interview.

Robin. 2011-01-20. 69. Interview.

Samuel. 2011-01-20. 43. Interview.

Selma. 2011-01-20. 29. Interview.

Sofia. 2011-01-20. 55. Interview.

Tove. 2011-01-20. 35. Interview.