

MEAT THE PARADOX

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M-PSTS

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An inquiry of how to deal with the meat paradox after closing the experiential gap.

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Acknowledgement

After teaching economics for 10 years at secondary schools I decided it was time for me to expand my horizons by trying to obtain my master's degree. (Part-time) studying opened up a whole new world for me filled with philosophers and their ideas. This helped me to get a better understanding of the world and word my own ideas. The past five years, I had a great time in Enschede and I feel a little sad knowing this journey is over now. However, new challenges will surely come my way.

Writing this thesis has been quite a journey that started in January 2016 with a vague idea and that has over time become more and more concrete. Now it is finally finished I have to say that I am very pleased with the result. Many people have supported me through this journey. First of all, I want to thank Peter-Paul Verbeek for helping me to look beyond my own moral considerations regarding meat consumption and transform my intuition into an academic research project. Secondly, I want to thank Robert Jan Geerts for his constructive feedback and ad hoc help when needed. Also I want to thank my fellow students in the Masterlab sessions, for their feedback regarding my struggles to get my writings more accurate and less concise.

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Summery

The meat industry in the Netherlands has changed much in the past 70 years. The small local farms from the 1950s have been turned into efficient factory like environments where large quantities of production animals are raised and processed into meat products. This change has been caused by a combination of intertwined economic, political, social and technological processes, which allows for a large supply of meat and dairy that is being sold for a low price, available to all.

However, the upscaling in the meat industry has some side effects. For example, the meat industry is responsible for 15% of the Dutch greenhouse emissions and due to bringing economic efficiency onto a higher standard, animal welfare has declined and zoonosis have become a threat to public health. These problems could be solved by lowering both meat production and consumption. This thesis focusses on lowering meat consumption which will lower the demand for meat and as a result may lead to a decrease in meat production.

Due to the meat industry working in the background, most consumers are not aware of what happens in the meat industry, nor do they realise the consequences of the meat industry on their living environment. Briggles and Mitcham (2009) argue that one way to deal with this is to close the experiential gap between the animal and the meat consumers buy. This can be done in two complementary ways, the first being the change of rules and regulation by the government and the second way is to educate the consumer. Both ways are already happening concerning meat consumption, but change is slow. This can be explained by cultural and economic factors and with the theory of cognitive dissonance (Festinger, 1962) which argues that when people experience a difference in cognition and/or behaviour they perceive this as a conflict they want to solve. Solving cognitive dissonance can be done by using several cognitive dissonance reduction strategies of which only one leads to a change in behaviour. This implies that trying to change behaviour solely by educating consumers has little effect.

I want to argue that although educating is a useable tool to change behaviour it needs something extra. I believe this can be found in offering alternatives. By educating consumers in the supermarket and offering alternatives simultaneously, it is easier for consumers to solve the cognitive dissonance they experience by choosing the reduction strategy of changing behaviour. In addition, I think that adding

the idea of the experiential gap as a new cognitive dissonance reduction strategy sheds an interesting light on consumer behaviour and may help to get a better insight in how people make moral choices in general.

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Chapter 1 Introduction

After being a vegetarian on ethical grounds for twenty years, a few years ago I realised that being a vegetarian does not cover all the moral problems I have with meat consumption, because consuming eggs and dairy still allows for animal suffering. Through an article in a Dutch newspaper (Dinther, 2012) I got inspired to try a vegan or plant-based diet. After trying it for a month, with ups and downs I must add, I realised that I do not need animal products to live a healthy life. Since that day, now three years ago, I am thriving on a plant-based diet, feeling healthy and happy as this coincides elegantly with and conform my moral values concerning this issue.

What I also learned is that many people understand and agree with my moral values concerning meat consumption. However, they tell me they could never take the step to a plant-based diet. This reaction seemed puzzling but I also realized I would have reacted the same way for the largest part of my life. How is it that people believe that animals should not be harmed, but at the same time keep eating meat? As I want to understand this contradiction I have chosen to investigate this issue in my master thesis. Not only do I want to analyse the situation and understand people's behaviour, also I want to investigate if there are possibilities to make it easier for people to make a moral choice regarding meat consumption.

However, the aim of this thesis is not to promote a plant based diet, nor do I want to argue that everyone should stop eating meat. I realise that meat consumption is a sensitive topic and I have learned from experience that sometimes people can become offended by implying a change of diet. This is why I want to address the reader by saying that it is possible that while reading this thesis, unconsciously you may use a cognitive dissonance reduction strategy and this may influence your open look on the topic.

What I do want to achieve with this thesis is to open up the discussion around meat consumption, because I believe that when people are more aware of what the implications of meat consumption are, consumption of meat will decline and this will help in solving the problems concerning the meat industry.

1.1 The meat paradox

Once in a while information provided by small independent organisations shed a light on how animals are being treated in the meat industry. For example, on March 23th 2017, the non-profit organisation Animal Rights published a video concerning the treatment of pigs in a slaughterhouse in Belgium just before the animals were put to death (Molenaar, 2017). This caused a lot of public commotion, people were shocked about what the video showed and the slaughterhouse was shut down awaiting inspection. Two weeks later the slaughterhouse reopened, in contrary to the previous commotion over the controversy this did not receive big headlines in the papers.

What I find most striking about this example is that although many people were shocked to see how production animals are treated, most people that I talked to about this scandal in these two weeks said this would not influence their meat consumption. This implies that on the one hand they do not agree with the way animals are being treated, but on the other hand they keep on eating the meat of these same animals. Also, all supermarkets immediately published that they did not buy their meat supplies from this particular slaughterhouse, dissociating themselves from the scandal. The discrepancy between not agreeing with how meat is produced and still consuming it, I find very interesting, and I want to investigate how it is possible that people can separate the animal from the meat on their plate.

Today, millions of animals are slaughtered on a yearly basis. Since 1950 the meat production and consumption has doubled (CBS, 2016). This means that over 610 million animals are killed yearly, which is almost 2.9 billion kg of meat. This might suggest that we live in a time where we do not care about animals. However, there is also evidence that we show increasing concern for animals. Today, the Netherlands counts 1.5 million dogs and 2.6 million cats. All these dogs and cats live in 36% of the Dutch households. Nearly 20% of the households own a dog and nearly 25% of the households house one or more cats (Divebo, 2015). Together with laws against animal abuse, this seems to contradict with the amount of meat we eat. How can we on the one hand care so much for animals and on the other hand kill millions of animals in order to eat them. This contradiction is called the meat paradox (Loughnan S. B., 2012).

Dealing with the meat paradox can be done on an individual level and on a societal level. On an individual level, realising that an animal has to be killed for meat

can be rather disturbing. This has consequences for the food choices people make. In 2012, 4,5% of the Dutch population ate a vegetarian or vegan diet (Dagevos, 2012) and the Dutch meat consumption has shown a decline in the past five years (Verhoog, 2015). Vegetarians and vegans come up with ethical and practical reasons to defend their life style, such as concerns about environmental side effects, animal suffering, health issues and global injustice of land use for animal feed production instead of solving global hunger problems (Driessen, 2012).

On a societal level, we can see that 77% of the Dutch population has a meatless day weekly, but as a paradox, the position of meat in our menu has remained the same and 63% of the Dutch citizens regard meat as the main ingredient of their meal (Dagevos, 2012). Worldwide, the expectations are that meat consumption will double in the coming 40 years, even though the production capacity seems to be arriving at its limit (Post, 2012). Technological progress made it possible for meat to become a common consumption product, widely available and affordable for the majority of the Dutch society. At the same time, this technology caused a distance between animal husbandry and meat processing on the one hand and the consumers on the other hand. However, can technology also provide a solution for the meat paradox?

1.2 Problem statement

The meat paradox implies a disconnection between production animal and the meat consumers buy in the supermarket. I wonder where this disconnection between animal and meat comes from. Can the answer be found on the consumer side or should the production side be held accountable? I think that by taking a philosophy of technology approach, this ethical issue can be addressed from an interesting angle and the outcome may add to the debate regarding the meat industry.

Analysing the technological system behind the meat industry on the one hand and combining this with how consumers cope with the discrepancy between animal and meat on the other hand, may shed a different light on how both industry and consumer could make better informed moral decisions regarding the meat production and consumption.

In order to analyse the meat industry and consumer choices regarding meat, I have developed the following research question, which I will investigate in this thesis:

How can we close the experiential gap in the meat paradox and cope with the effects of this closure in order to contribute to dealing with the social and ethical issues regarding meat consumption?

This research question can be divided in four sub-questions which will be discussed in this thesis.

Question 1. What is the current situation in the meat industry and why does the meat industry need to change?

Question 2. What effect does the system of the meat industry have on consumer choices regarding meat?

Question 3. How do consumers cope with the discrepancy between their love for animals and their appetite for meat?

Question 4. How can technology aid consumers to close the experiential gap between production animal and meat and provide room for ethical reflection?

1.3 Organisation of the thesis

After this introduction, chapter 2 will give an overview of the current state of affairs in the meat industry. It will also explain which problems intensive animal farming causes and why change is needed. Chapter 3 will analyse the situation at the production side of the meat industry using the device paradigm and the theory of the experiential gap. But the solutions suggested to close the experiential gap do not suffice, hence in chapter 4 I will give an explanation about how consumers deal with the meat paradox by applying the theories of cognitive dissonance and moral disengagement to shed a light on the individual choices of consumers regarding meat. In chapter 5, I will argue how we can close the experiential gap and make consumers more engaged with the production of meat without pushing them into a cognitive dissonance response. This analysis may help making better informed moral choices regarding meat consumption. In the final chapter I will give a short summary of the outcome of my research and offer suggestions for further research.

Chapter 2 Analysis of the meat paradox

The meat paradox is caused by conflicting interests. The first interest is the one of the meat industry, which is a large sector in the Dutch economy that can exist through government subsidies and efficiently growing and processing meat. The second interest is a global interest because the meat industry as it is organised today causes quite a few unwanted side effects.

In this chapter I want to describe how the meat industry in the Netherlands changed in the past 60 years and the situation of the meat processing industry the way it is today. In the second part I will investigate the current discourse concerning the meat industry and argue that the consequences of the meat industry are of such gravity that a change in the way we value our meat industry is needed.

2.1 Development of the Dutch meat processing industry

Dutch people, like most people in the western world, appear to have a very romantic idea of what rural country-life is like. The way they imagine it, shows a picture of farmers working on the land and with their animals, having a chat with the neighbour and surrounded by peace and quiet leading a generally relaxed life. Animals spent their lives on one farm with enough room to move about and cows ate grass from the local pastures. Farmers made the hay they needed and occasionally bought extra animal feed from a local source or exchanging it for a favour to a neighbour. At the end of the year the animals needed were butchered at a local slaughterhouse.

This was the actual reality in the 1950s and earlier. But today we see a discrepancy of how farmers really live and how their lives are being imagined (Karel, 2013). Today agriculture is predominated with large and noisy agricultural equipment, trucks for animal transport and hay packed in agricultural plastic foil. On some fields, cows are walking and eating, but most animals are hermetically sealed from the outside world. Pigs spend their short lives in pens, not allowed to go outside. Most chickens live in groups of thousands in large stables and cows are being milked by a milking robot. Butchering is done in big slaughterhouses in very large quantities¹. All this is the result of technological development, economics, social change and politics that had a large impact on agriculture after World War II (Karel, 2013).

¹ In 2016: 3.5 million cows, 15.5 million pigs, 629 million chickens were butchered in the 132 Dutch slaughterhouses (cbs, 2017).

2.1.1 Development of the Dutch meat industry after World War II

Up until the 1950s, a considerable group of farmers could manage with a few cows, some pigs, a couple of chickens on a small piece of land. World War II (WWII) marks a big change in the Dutch agriculture. After the food shortages of WWII people were promised enough food, including meat by the Dutch government. The need to rebuild the agricultural sector was necessary, most of all to secure the food supplies. A large part of the American Marshall plan (1948-1953) was spend on the Dutch agriculture allowing farmers to purchase and apply new technologies (Wielinga, 2001) such as synthetic fertilizers and concentrated animal food. In this period the Dutch government policy was aimed at increasing production through land development projects, guaranteed prices for the most important agricultural products and subsidies on investments (Wielinga, 2001). At the same time the Dutch industry and services sector started to flourish. Wages in these sectors raised much faster than in agriculture and many agricultural workers decided to move to the cities and make more money in industry and services (Bergh, 2004). In a reaction to this situation the government stimulated the agricultural sector to invest in factory farming through mechanisation, specialisation and upscaling. This was done by building an agricultural structure policy², in which agricultural consolidation played a large role. This meant that some farms had to stop, for others to scale up. Through the O&S-fund³, an agricultural redevelopment organisation, the government tried to buy out the less viable farms and sell the land to the remaining farms (Brink, 1990). Especially older farmers without successor were urged to stop. This policy worked very well, from the 750.000 farmers in 1950, less than 300.000 remained in 1990 (Wielinga, 2001). To make this possible, in total almost 2 million hectares of cultivated land was rearranged in the Netherlands (Bergh, 2004) .

Other plans to help agriculture grow included infrastructural projects like building roads, bridges and dams. Also building canals and upgrading land contributed to this cause. The government also set up region-improvement projects⁴.

² The Dutch agricultural structure policy (Dutch: landbouwstructuurbeleid) influences directly and goal-oriented the agricultural structure with certain means and in a certain time sequence (Overheid, 2008)

³ O&S-fonds was set up in 1963 in order to boost development and restructure of the Dutch agricultural sector (Overheid, 2008).

⁴ Dutch: streekverbeteringsbeleid

This was politically sold as a physical improvement of a region, but in reality it was a social engineering project to guide the local population in a more desired social direction. In this project lagging farmers were helped to adjust to the modern cultural world (Karel, 2013).

An interesting result of the agricultural policy was the start of the Dutch Agricultural foundation⁵, a farmer's organisation that helps making policy. This marks the beginning of both the Dutch Polder model⁶ and the powerful agricultural lobby that still influences the Dutch agricultural policy today (Bergh, 2004). Not only the Dutch government, also the rise of the Common Agricultural Policy (CAP) in Europe turned out to be a big player that largely influenced Dutch agriculture. Working together at European level had been done since the Marshall program, but with the Treaty of Rome in 1958, agriculture became part of the European law and regulations. Their most important instrument was a policy of price and market support (Bergh, 2004). Europe provided subsidies and guarantees minimum prices on milk to stimulate the production. Unfortunately this caused an overproduction of milk, resulting in the so-called butter mountains and milk puddles (Karel, 2013).

Meat production and consumption used to be dependent on and limited by seasons and availability. November was the "blood month" or slaughter month. The butcher sold the whole animal and the carcasses hung in the shop. This meant that better parts could be sold out early and some came in limited supply. For example, a cow only has one tongue. As a result, consumption of meat was also limited. From the 1920s onwards, mechanisation and cooling techniques made it possible for meat processing industries to produce the whole year round. Mechanisation, through the use of for example electrical saws, conveyer belts, and hydraulic lifting tools, made it possible to increase the production. Cooling techniques, like refrigerators, allowed for keeping meat fresh year round. Due to these technological developments, the slaughtering capacity increased drastically (Schönwetter, 1999).

Another big change is that the income per person, and with this the purchasing power of consumers, increased significantly after WWII. From now on meat became affordable on a daily basis (Vijver, 2016). As a result, cheap food was replaced by more expensive food (Hartog, 1982). Expensive food was appreciated more because

⁵ Dutch: Stichting voor de Landbouw

⁶ The Dutch polder model (Dutch: poldermodel) is consensus decision-making, based on the acclaimed Dutch version of consensus-based economic and social policy making in the 1980s and 1990s.

of the social standing or the convenience attached to it. According to the Dutch Food Service Institute (FSIN) it also became more affordable for people to go out for a meal instead of eating at home (FSIN, 2017). Another effect of increasing income, is that food production and preparation shifted from a household task into production done by machines and other people (Vijver, 2016). Production and eating became increasingly more dependent on the market and less dependent on the personal involvement of transforming raw material into food. The control of how food was processed and what was added to a product shifted to the stage of food manufacturing (Tansey, 1995). Distribution and wholesale made it easier to get the right parts to the right places. The cheaper parts of the animal could be used in convenience foods.

The normalising of meat was caused by the upscaling and industrialisation of the food production on one hand, and the possibility to sell products of uniform quality at low prices on the other hand. Especially consumers profited from this increase in bulk production (Jobse-van Putten, 1996). Food innovation and food control made this possible. A large player in this field is food technology. Food technologies deal with the application of food science to the development, processing, or preservation of foods (Dictionary, 2017). Examples of food technologies are heat treatments like pasteurisation and freeze drying, but also packaging of food like canning and bottling or other treatments like decaffeination of coffee and adding preservatives. Food technologies made it possible to shape the food manufacturing industry as we know it today, where raw materials (from the farms) were turned into food products. This development was stimulated by governments, research institutes and food companies in order to control food quality, nutritional value, stability, preparation, appearance and taste (Vijver, 2016)

Also a change in the kind of meats can be seen over the years, the number of beef declined and meat of poultry and pigs increased as the latter ones proved to be more convenient (Vijver, 2016). Bringing together the change in technology, consumption and agricultural policy the stage was set for large scale factory farming and meat processing in which animals were seen as products, and meat needed to be produced with a minimum of costs (Fiut, 2016).

Mid 1970s marks a change in the economic growth of the agricultural sector. Declining land prices and increasing surpluses indicated the structural problems in the sector. Even though the farmer's income had increased as a result of the

agricultural structure policy, that same policy also had negative effects. Agriculture became more and more associated with environmental problems. At the same time animal rights organisations started to raise public awareness on the living conditions and welfare of production animals (Bieleman, 2000).

2.1.2 Current state of affairs in the Dutch meat industry

Today, we see that mechanisation has changed the way production animals, like cows and pigs, are kept. According to the Dutch organisation Statistics Netherlands (CBS) in 2015 the average dairy farm had 90 cows while in 1950 this average was nine. An even bigger increase of animals per farm can be found on pigs. From an average of seven pigs per farm in 1950 to 2.500 pigs per year per farm in 2015 (cbs, 2017). With so many animals and the fast production process, which means that often the animals leave the farm after only a few months, animals no longer are regarded as animals, but as products (Fiut, 2016). This does not mean that farmers do not take good care of their animals, but emotional attachment has declined due to the rationalisation around meat production (Vijver, 2016).

For cows, pigs and poultry several housing systems are available on the market. Cows are usually kept in stables with cow cubicles, which allows them some peace and quiet when resting. The cubicles are about 1.10 m wide and 2.40 m long with a fence on both sides. The floors are often made of concrete grids with added mattresses for more comfort. Under the floor the dung pit can be found. (Nieuwsgrazer, 2017). Pigs are usually kept in group housing, the size of the groups depending on the lay-out of the stables. Sows are often kept in small groups of about six pigs in a stable the size of 3.0 by 4.5 meters. In this pig-sty they have a separated place for eating and for defecating. The meat pigs are housed in larger groups. Here a pig has an average of 1 m² of floor space (SKAL, 2017). The choice for the sort of housing is not only made for comfort for the animals or easy maintenance for the farmer, also the ammoniac and nitrate levels have to be according to the government rules. This last bit seems to put more weight in the decision making for new stables than comfort and maintenance (Nieuwsgrazer, 2017). The latest development in chicken housing is the “rondeel”. The main ideas for this system are: protection, safety and overview. The rondeel has different areas for food, walking around and every area has a different climate zone. The chickens can choose in which space it

wants to be and therefore show natural behaviour. In the Netherlands now three farms are built according to this concept and have been approved by several Dutch animal welfare organisations (Rondeel, 2017).

The latest technological breeding developments in animal husbandry are genomics, embryo-transplants and cloning. Cloning is not permitted in the EU, but genomics (genetic technology) and embryo-transplants are becoming common technologies for selective breeding of animals. The breeding aims are in general fast growth, lean meat and high milk production (Grandin, 2014). Today it is possible to make very specific changes to the DNA structure, for example by turning certain genes on or off cows without horns can be bred. Another genome example is the breeding of animals that are resistant to certain pathogens. In 2015 the first pigs were genetically manipulated in such a way that they are resistant to the porcine reproductive and respiratory syndrome (PPRS) which causes fertility disorder and breathing problems (Whitworth, 2016). In the future genomics will also play a large role in the faster growth and higher food conversion of all production animals (Jonas, 2015), decreasing the emission of the greenhouse gas methane and resistance to heat stress (Hayes, 2013). Another breeding technology in cows can be found in embryo transplantation (ET) and in vitro fertilisation (IVF) (RDA, 2016). With use of hormones, embryos are harvested from the uterus of a pregnant cow and (after IVF) transferred to a surrogate mother cow. In 2016 only, about 14.000 embryos were transplanted (RDA, 2016)(CRV, 2016), making it possible to produce more offspring than ever before.

In the second phase of the meat production process, are the animals ready for slaughter and transported to the slaughterhouses. Today, slaughtering can be done fully automated. The Dutch company MPS (Meat Processing Systems) provides automatic slaughter lines for pigs, cattle and sheep. They advertise with a slaughter line with a capacity of 1500 pigs per hour (MPS, 2017). This industrialising of slaughtering and butchering had as a result that the consumer became further removed from the animal and carcass. Now the consumer only saw and handled packaged meat or processed meat products (Vijver, 2016).

Due to overproduction, most of our meat and milk is not sold in the Netherlands, but is exported to other countries. From the Dutch milk production only 35% is sold in the Netherlands, 47% has is sold to other countries of the European Union and 18% to the rest of the world (cbs, 2014). We produce 150% more pigs

than we consume and from our meat export we earn about € 8,5 billion (Rabobank, 2017)

All this is made possible by the subsidies provided by the Dutch and the European government. About 40% of a farmer's income comes from European subsidies (EC, 2015). The Dutch government mainly subsidises for young entrepreneurship and rural development, and to compensate for boycotts, (RVO-b, 2017)

2.2 Consequences of the Dutch meat processing industry

The industrialisation of animal husbandry and slaughtering is part of the public and academic debate today. It has effected both the environment and public health, and it opened up discussions about animal welfare and animal ethics.

2.2.1 Environmental problems

Agriculture, and especially livestock production, is one of the significant players in causing environmental problems. They account for about 20% of the total greenhouse-gas emissions (McMichael, 2007), and is the most significant contributor to nitrogen and phosphorus pollution worldwide (Sutton, 2011b) (Pelletier, 2010).

Synthetic nitrogen is used as fertilisers to grow crops for animal feed and some of this nitrogen ends up polluting water systems and as the greenhouse-gas nitrous oxide, which has even more impact on global warming than CO₂ and in forests it has caused a loss of plant diversity (Sutton, 2011a). Phosphorus is another synthetic fertiliser added to the soil, but many of it is washed off with the soil into the water, causing major environmental damage to global freshwater systems (Cordell, 2011) and toxic algal blooms and dead zones in the sea (Sutton, 2011a). Next to this, livestock is the most important anthropogenic source of methane emissions (US-EPA, 2006). A large part of the crops grown worldwide is being used for animal food. Most production animals eat high energy food, such as soy which is often genetically modified. The huge amount of crops needed for animal food has caused for example the deforestation of the Amazon rainforest in Brazil, who is the biggest supplier of soy (FAOSTAT, 2006) (Fearnside, 2005). Furthermore, worldwide, the livestock sector is the largest user of land, with a shift in practice from grazing to the growth of livestock feed crops. Also about 100 times more water is needed to produce 1 kg of animal

protein than to produce 1 kg of grain protein (Pimentel, 2003). Another point is that growing livestock costs a lot of energy. The energy used to produce 1 kg of meat equals the amount of energy used to grow 3 to 10 kg of grain (Tilman, 2002)

In the Netherlands we see similar problems on a smaller scale. Synthetic fertilisers, herbicides, insecticides and manure surpluses cause loss of biodiversity. Most food is grown for animal feed and this makes the animal husbandry sector a large player in the environmental problems. In addition, problems like particulate matter, smell, noise and unsafe roads also influence the lives of people living in rural areas (Ruiter, 2017).

One of the main problems of our consumption based society is the amount of waste it produces (EEA, 2016). The meat processing industry is no exception to that and it is a problem throughout the whole chain. For starters livestock produces a surplus of manure. The production of manure is higher than allowed to be used as fertiliser. Hence it has to be stored in water to reduce the methane emission in the air. This influences the quality of water, not only for the environment and wildlife, but also for drinking water (Bellarby, 2008).

At the end of the meat industry we find the supermarkets, restaurants and other retail that sell meat and processed food that contains animal products. All food has to be labelled with an expiration date. If it is not sold before this date, even though the food may still be edible and healthy, food regulations require the shops and restaurants to throw it away in the garbage. About 22% of the original produced amount of food is being thrown away in European countries⁷. Consumers are responsible for another 10% (Gustavsson, 2011). Meat and dairy products are in the top 10 of products that are most thrown away (Westerhoven, 2010).

Concluding, the increase in production animals worldwide has caused land use changes, deforestation and associated biodiversity loss. This is a worldwide problem, due to the increasing demand of meat which is expected to increase with about 60% on a global level by 2030 (FAO, 2002).

⁷ These numbers represent the whole food production, not only the meat industry. No specific research has been done concerning the waste in the meat industry.

2.2.2 Public health

Another concern regarding the human environment is public health, such as the use of antibiotics in animal husbandry and zoonosis (illness that can be transferred from animals to humans). A causation has been found between the use of antibiotics in animal husbandry and resistant bacteria on humans. Since resistant bacteria can be passed on from animals to humans, the use of antibiotics in the treatment of animals should be reduced (Gezondheidsraad, 2011).

Zoonosis that occurred in the Netherlands in the last 20 years are swine fever (1997-1998), food-and-mouth disease (2001), bird flu (2003), blue tongue (2006), Q-fever (2007-2009) and Schmalenbergvirus (2011), all caused by the intensive livestock production (Klous, 2012). As a result, an extensive system of monitoring and mandatory reporting of ill animals is in place together with a plan of action in case a disease has been found (RIVM, 2011). One of these actions is preventive culling of production animals, as has been seen with the recent outbreak of bird flu in December 2016. When the media brings news of an outbreak of a zoonosis and preventive culling to the public, it fires up the public debate. Not much research has been done on the topic of the public's perception of the dangers of consuming animal products or living close to cattle farms, but some things can be said about this. Consumers do not want to get sick from eating meat or living close to a farm, they expect the government to deal with the problem and open communication. At the same time public faith in producers and government seems to decline (Kimman, 2010).

Another matter still missing is a complete picture on health risks of intensive livestock farming. Although much research has been done on individual diseases, knowledge is missing on risk factors like for example farm size, animal concentration and farm management (Kimman, 2010).

2.2.3 Animal welfare

The large number of animals kept in factory farms also resulted in several problems concerning animal welfare (Fiut, 2016). Part of the problem has to do with the definition of animal welfare. The Dutch government has put up welfare requirements, which entails that the owner of the animal is responsible for health and wellbeing of the animal. This means that without a reasonable goals or out of proportion one may

not cause pain or harm to an animal or damage health or wellbeing of the animal (RVO-a, 2017)⁸. According to this definition, Dutch farmers take good care of their livestock because their goal is to use the animal for milk or food and in order to achieve that goal they may not cause pain or harm out of proportion. But looking at the Dutch livestock industry, one may argue that there is room for improvement. In the Netherlands alone, about an average of 500 million production animals are killed on a yearly basis. Many of these animals live in cramped stables without daylight or distraction. Due to breeding programs, food and medication production animals grow unnaturally fast. Broilers get heavy so fast they cannot stand on their feet anymore after only a few weeks. Chickens lay ten times more eggs than they used to in 1950 (Grandin, 2014) and during her 91-weeks lasting life a chicken will lay in total 423 eggs, which is about 16 times her own bodyweight (CBS, 2016). Cows are selected on producing as much milk as possible. Today an average Dutch cow produces 8400 kg of milk every year. This is 2,5 times as much compared to 80 years ago (CBS, 2009) (CRV, 2016). Also the total milk production of a single cow has reached a new record of 31 thousand kg during an average life of 5,7 years (CRV, 2016) (CRV, 2014). Calves are taken away from their mother just after birth, causing a lot of stress on both cow and calf (Dier&Recht, 2016). Calves that do not weigh enough are euthanized on economic grounds (Hall, 2016). And in 2015 about 18% of the new-born pigs in the Netherlands did not become old enough to be sold to the slaughterhouse. This means that in 2015, six million pigs did not survive to the age of 6 months (ViN, 2016). They died during or just after birth, or were weak or sick. One of the reasons being that the average number of piglets being born in one drop has grown from 12 to 14,4 piglets in the past 10 years (WD, 2017). By use of genomics⁹ the aim for the next few years is to breed pigs with 16 teats to accommodate the growing amount of piglets (Verardo, 2015).

According to research done by the Social and Economic Council of the Netherlands (SER), in the past few years many regulations to improve production animal welfare have been made, but in result many are not being kept. This has hurt both public respect for the production farms and trust in the government. Also, in the

⁸ Dutch: Gezondheids- en welzijnswet voor dieren: art. 36.1 Het is verboden om zonder redelijk doel of met overschrijden van hetgeen ter bereiking van zodanig doel toelaatbaar is, bij een dier pijn of letsel te veroorzaken dan wel de gezondheid of het welzijn van een dier te benadelen (Wetboek, 1992).

⁹ Genomics are advanced DNA-techniques used to genetically modify production animals. The genome of most production animals is mapped out (Crooijmans, 2016).

Netherlands, the authorities do not have the capacity to investigate the meat industry themselves because The Netherlands Food and Consumer Product Safety Authority¹⁰ is understaffed and announces their inspections. As a result, cattle farmers and slaughterhouses are supposed to control themselves in a way of self-regulating (SER, 2016). This leads to a non-transparent system regarding animal welfare in both farms and slaughterhouses (WD, 2017).

2.2.4 Animal ethics

The origin of our ethical ideas about animals can be traced back to Descartes' theory of doubt in which he argues that there are two dimensions to life: the mind and the body. Humans have both, but animals he believed to have no ratio. This implies that physical stimuli are not resonated in the mind, reducing animals to no more than automata who cannot experience pain. They can show reactions that seem like pain, but because they only consist of matter these reactions are no more than mere reflexes without "someone" to register the pain. Hence, according to Descartes, it is morally acceptable to use animals the way we want (Verdonk, 2016).

An interesting argument against Descartes' philosophy can be found in utilitarian ethics. Utilitarianism is generally held to be the view that the morally right action is the action that produces the most good (Driver, 2014). A very influential argument from the utilitarian point of view comes from Peter Singer, who argued in his book "Animal liberation" that the capability to suffer is determining the moral consideration organisms deserve. He argues that from a utilitarian viewpoint all organisms are equal when it comes to suffering, despite the species the organism belongs to. Singer sees pain and pleasure in terms of preferences, meaning that something is only good if it benefits the preferences of the organisms. He argues that killing animals that can have expectations for the future is a problem. Being death takes away the possibility to realise their plans and wishes. This implies that the more self-conscious a being is, the more morally problematic it is to kill it. Singer argues that cows, pigs and chickens have future aimed desires, hence their death is not morally neutral. Looking at how animals are kept in the modern cattle industry, their pain does not balance out the added pleasure that animal-based food gives to humans. When assessing the meat industry, it is clear that the interest of the animals

¹⁰ Dutch: Nederlandse Voedsel- en Warenautoriteit

is largely set aside in order to produce more efficient and at lower costs. From a utilitarian view, which does not only speak of right and wrong, but also in terms of better and worse, any step towards more consideration of the interest of animals is better than no step at all. But Singer takes it much further when ending his argument by claiming that a vegetarian diet will benefit all (Singer, 1973)¹¹. A few years later, in 1979, he adjusts this claim by stating that it is acceptable to kill animals for meat as long as they had a good life, are replaced and killed in a painless way (Singer, 1979).

Singer makes a difference between sentient and not-sentient beings. He sees no problem in killing not-sentient beings, as they are believed to feel no pain. Also the painless killing of a sentient animal that does not foresee its own death or take a conscious interest in the continuation of its life is not considered to be a bad thing, because they are not conscious aware of what is happening to them (Nussbaum, 2006). On the other hand, organisms that are capable of happiness will always have more wishes than can be fulfilled. Hence, one could argue that if less new organisms come into the world, less unfulfilled wishes will exist. This may morally be a good thing, but not a very preferable conclusion. One way to deal with this dilemma is to make sure that the organisms that already exist should be made as happy as possible (Visak, 2011).

Another point of critique to Singer's preference-utilitarianism is the problem of adaptive preference. Organisms tend to adapt their preferences to the situation they find themselves in. Even if they find themselves in a bad situation they will make the best of it. This problem can be solved by using capabilities instead of preferences. Something is considered good when the organism can use his capabilities to develop himself. This capability approach finds its origins in the notion of dignity and a life worthy of it (Nussbaum, 2006).

Others argue that each sentient being has an irreplaceable moral value. Tom Regan (1989) argued that the principle of dignity should be extended to animals. He argues that even though animals lack many abilities humans possess, neither do all humans have the same abilities. Therefore, we should look at the similarities between humans and not at the differences to value of our lives. The same is true for animals, they too should be seen as experiencing subjects of a life, with their own value (Regan, 1989).

¹¹ Singer also includes ethical questions regarding animal testing in his book, but I will not go into that as animal testing is beyond the scope of this paper.

Concluding I would argue that in animal husbandry, animals should be treated as living beings with their own values and at their interest. Not merely as “products” that are used to make a profit.

2.3 Reflection & conclusion

From the analyses of the meat industry, it can be argued that the meat industry is a major player in the meat paradox. The conflict between caring for animals and killing them in order to eat them seems very obvious as in the meat industry production animals are bred, raised and taken care of with the purpose to kill and sell them to the public for consumption. However, many people work in the meat industry and if they would experience a conflict or paradox they would not be able to do this work. To them this does not appear to be an issue or paradox.

The magnitude of the meat industry, and especially factory farming, causes many problems, such as environmental pollution, public health hazards and animal welfare. When combining the problems caused by the meat industry with the latest insights on healthy diets (less (red) meat and eggs, more fruit and vegetables (Voedingscentrum, 2017)), it would seem apparent that something has to change in the way the food industry is organised. Without the technological progress and innovation as described earlier, agriculture and animal husbandry, butchering, meat processing and distribution the way it is organised today, could not have been possible. On the other hand, without the societal change that influenced people’s consumption behaviour, the meat industry would not have developed as such. Therefore I argue that the whole meat industry should be seen as a socio-technical system that recognizes the interaction of society’s complex infrastructures and human behaviour (Trist, 1980).

The socio-technical system of the meat industry is not a stand-alone system in our society. It is influenced by technological development in other sectors and also by politics, public opinion, economics and consumers. It would be too easy to say that due to technological development, the meat industry has developed the way it has. Society as a whole has made this development possible. For example, production animals are regarded as products instead of living beings and farms are competitive businesses that have to make enough profit. Technological development made it possible to increase production and decrease the costs at the same time. However, I

do believe we have taken it a bit too far. First we adapted the environment to our needs (we want to eat meat at a low cost) and develop the meat industry. However, when the side effects of the meat industry appeared, it seemed to be more economic to adjust the animals to the existing system instead of changing the system.

In the Netherlands, it is acknowledged that the system of the meat industry puts a large mark on both environment and animal welfare and it can be argued that changes should be made to the system. However, many changes have already been made in the meat industry, both in animal husbandry and in the meat processing industry. At the same time, people are aware of the problems the meat industry causes. Still the meat industry continues to produce on a large scale and people continue to eat a lot of meat. Hence it can be argued that the meat paradox is firmly established.

The next step in trying to understand the meat paradox is to investigate the actors involved. However, in order to keep the research within the limitations of a master thesis I will put the emphasis on only two actors: the meat producers and the consumers. In the next chapter I want to investigate how the meat industry deals with the meat paradox.

Chapter 3 How the meat industry deals with the meat paradox

Due to the way the meat industry works, as described in chapter 2, a gap has appeared between production animal and consumer. In a way, consumers and production animals are far apart, both physically and relation wise. This gap in distance stands in the way for people to take a moral responsibility towards production animals. In this chapter I want to understand how this relation has become more distant and why it is so easy for consumers to close their eyes and avoid confrontation with where their meat comes from. I think one answer can be found in the industrialisation of the meat industry. Due to the factory-like environment in which animals are kept, slaughtered and the meat is prepared, the technology works in the background and out of consumers' sight. This causes an experiential gap between human and production animal. I will conclude this chapter by arguing why I believe that by investigating how to reduce the experiential gap, it could be possible to make both producers and consumers feel more responsible for the consequences of the meat industry.

3.1 Device paradigm

Before factory farming became the standard in agriculture, it was obvious for consumers to know where their meat came from. For the average consumer meat was a luxury. A village had some animals that were slaughtered in November and eggs came from chickens rummaging in the backyard. Also in the cities people would buy their meat from the butcher or on the market, where they were confronted with carcasses or, in the case of chickens, pick a live one that was killed on the spot.

Today it is common in our Western society to buy our meat in supermarkets. Most of the meat is prepacked and pre-cut, and shows no resemblance to an animal anymore. Looking at the amount of meat available in the supermarket and the prices, meat has turned from a luxury product into a commodity that is very affordable.

3.1.1 *Commodities*

In his book "Technology and the Character of Contemporary Life", Albert Borgmann (1984) argues that modern life can be characterised and explained by the device

paradigm. In his view, technology builds a fundamental pattern that strongly influences our everyday lives (p. 35). This technological pattern made it possible to bring the forces of nature and culture under our control, in order to liberate people from sickness, hunger, and suffering, as well as to make life better with education and art (p. 36). In order to see the effects of this technological pattern, Borgmann analyses the relation people have with technological devices. Technological devices make our lives easier and better as they give us availability. By making something available, technology helps us to achieve certain goals and make life easier without us having to put a lot of effort in it (p. 41).

Borgmann uses the example of the fireplace to explain what influence technology has on our daily life. In this example of pre-central heating, the hearth was the centre place of the house, the only place in the house where it was warm during winter and where the meals were cooked. In order to get (and keep) the fire going, trees had to be felled, wood had to be chopped, and the fire had to be maintained and needed constant attention. Every person in the house had his own job in keeping the fire going. Not only did it need physical work to keep the fireplace working, it also needed skill and commitment. The skills and commitment together Borgmann refers to as physical engagement. But the fireplace also had a social function. All members of the family attributed to it and it was the place where they came together for warmth, company and to cook and share a meal. Thus, what the fireplace provides is first of all warmth, and secondly physical and social engagement (p. 42).

Today we do not warm our house with a hearth anymore, we have central heating. We only need to turn the thermostat on and our house is instantly warm. Warmth is now available through the device called central heating. Devices are the technologies that do the work for us. In contrast we used to do the work ourselves with the help of things. Devices are not the same as things. Things are both embedded in the context or in the world and it cannot do anything without us, people, being involved. A device on the other hand can do the work without us interfering (p. 41). The central heating system warms our house up when we turn the thermostat on. The machinery behind it does all the work and we do not have the burden of chopping wood and maintaining the fire anymore. In other words, we are not physically engaged in the process anymore.

Borgmann shows a rather negative vision of the impact of technology on our lives. He argues that through technical devices we diminish our engagement with the world. In order to get this engagement back Borgmann suggests to reform technology by using technology to do focal things and practices. He uses the example of the culture of the table to explain focal things and practices. The main meal of the day used to be a meal that was shared with the family. It took time and effort to prepare and cook the meal and everyone would sit down together and take time to enjoy the meal and socialise. With the introduction of the microwave, Borgmann argues, eating together and joining in for a meal disappeared as the microwave offers the possibility to warm up an individual meal any time you like. However, the culture of the table can be seen as a focal practice when time is taken to prepare and enjoy a meal and people take time to enjoy it instead of using ready available commodities (p. 200). A commodity can be conceptualised as an availability that is provided by a technological device (p. 42). In order to do focal practices, we need focal things, which are technologies or devices we can use. In the example of the culture of the table, we need kitchen utensils to prepare our meal.

However, a contradiction can be found here. A microwave is not categorised as a focal thing by Borgmann, but can be used to prepare an enjoyable meal for a group which Borgmann considers to be a focal practice. Part of the process of preparing a meal can now be done with the use of a microwave, such as defrosting a selection of vegetables within minutes so that a bigger choice of greens can be put on the table without using many pots and pans, which saves on washing up afterwards. This example shows that on the one hand a technological device can offer a commodity and on the other hand it can be part of a focal practice (Verbeek, 2005).

3.1.2 Background technologies

Borgmann (1984) makes a distinction in the device between its machinery and its function. But, he argues, only by concealing the machinery, the commodity can truly be enjoyed as a mere end. When we are not confronted with the machinery we can forget that it exists and the work (or engagement) it involves. This way it is much easier to enjoy the commodity. Today the gap has become very wide between the commodity that is accessible to everyone and the machinery known by almost no one

(p. 46). Take meat for example, very few know how to kill and butcher an animal, but meat is accessible to everyone.

The concealment of technology is what we see with most commodities in our consumption driven society. The machinery stays out of sight as much as possible to make it easier to enjoy the commodity. By concealing the machinery, a division between means and ends is being made possible. The machinery can be seen as the means and the commodity can be regarded as the ends. This way we can enjoy the ends and not bother about the means. With many commodities this can be very convenient.

Borgmann argues that, due to technological devices, what we keep is the commodity but what we lost is the engagement. Commodity in the case of the central heating is warmth. Other examples of commodities are a car providing transportation or a microwave providing ready-made meals. What we lost is the engagement with the process of preparing the commodity. In the example of transportation, we lost the engagement with the outside world. Instead of walking and being in nature, we sit in our cars and are physically separated from the outside world. In the example of the microwave meal, we lost the engagement of cooking our food.

Regarding the meat industry, consumers only see the commodity of the (prepacked) meat. Meat in supermarkets is cut down in such a way that it does not resemble an animal anymore. Of course, the package shows what animal the meat comes from, but it is made very easy to avoid making the link between the meat and the animal. As consumers do not see the process behind the product, the production process of raising and butchering animals is being put into the background where consumers do not have to see it. Hence the meat industry can be regarded as a background technology and the technology and the commodity are kept radically separated from each other.

Taking all this into account, I would say that background technologies can be seen as technologies we hardly ever interact with and we take for granted how they work. Don Ihde (1990) argues that background technologies can be delegated to the horizon of technology, meaning that they are situated at the borders of our lifeworld (Ihde, 1990). Background technologies only become visible when a piece of technology breaks down. For instance, we take mobile internet on our smartphones for granted, only when it is not available we realise how much we rely on it. This means that background technologies influence our social environment and we

organise our lives around background technologies even if we do not use them directly (Kiran, 2012).

Background technologies shape the context for other experiences. For example, if we want the experience of drinking coffee, we only interact with the coffemaker at the start and at the end of the process. What happens in the technological process in the middle is hidden, it does not show any kind of transparency. As Ihde argues, their functioning is characterised by an *absence* (Ihde, 1990). But we organise our daily lives around the background technologies and we take them for granted, they are part of our lives. Hence background technologies can be considered not just to be absent, but taken-for-granted (Kiran, 2012).

Today, most people do not know how the machines in our lives really work. Most of the time we are not aware of what the machines are doing, they work in the background and only becomes visible when a piece of technology breaks down. We take background technologies for granted, whether we use them or whether they just idly wait to be used. In the example of the smart phones, online access is taken for granted. Many people use their mobile phone to access their e-mail, social media and check their bank accounts. We have integrated online access into our lives. In other words, background technologies influence actively the social environment we live in. For example, teenagers today have little idea how one could meet up with someone on a music festival before mobile phones were invented. The idea of leaving a note on a common message board at a central point at the festival has been replaced by leaving notes on WhatsApp or sms. The way we relate to the world is influenced by the technology we hold in our hands (mobile phone), but also by background technologies (mobile network). Hence, background technologies are not just absent, they shape the appearance of our environment, its structure and how we experience our world (Kiran, 2012).

3.1.3 Device paradigm in the meat industry

The meat industry can be considered as a socio-technical system that happens in the background. We have shaped our world around this background technology. We see the beginning, the cows in the field, and we experience the end, we buy our prepacked meat, cook and eat it. What happens in between, we do not know. With chickens, pigs and other production animals we only see the end. We only become

aware of what happens in the meat industry when we actually see it. This can be through any kind of media (TV, papers, social media, internet), but will mainly happen when online videos go viral or when 'the technology breaks down' for example during an outbreak of BSE (mad cow disease) or H5N1 (bird flu). Images shown of animals being put to death and disposed of, fires up the public debate on animal welfare.

Therefore, only when we take a background technology out of the background and bring it to the forefront, we could become more engaged in how the technology works and what it may imply. By concealing the machinery, it becomes anonymous in such a way that consumers can avoid taking the moral responsibility of how the machinery works.

The meat industry can be seen as a background technology, but it is not absent in our society. As Kiran (2012) argues, it shapes the appearance of our environment, its structure and how we experience our world. Consumers experience a large quantity of commodities in the form of prepacked meat. This availability of (prepacked) meat offers consumers a choice in meat purchasing without having to think about where the meat comes from. The machinery of how the meat is produced is hidden from their sight. Borgmann (1984) argues that technology has liberated people from misery (p. 36), however, in my opinion, in the meat industry this has happened at the expense of production animals. Therefore the meat industry has diminished our engagement with production animals. As our engagement to production animals is very low, it is easy to focus only on the commodity of meat and not on what happens in the background to the animals that provide the meat.

Borgmann offers a solution by arguing that in order to become more engaged we have to get involved in focal practices. From the side of the meat industry some action has been taken to get consumers more involved and offering them focal practices, such as visiting pig farms (Varkensinzicht, 2017), and organising open farm days on dairy farms (Campina, 2017). However, visiting farms only affirms the image that animals have a good life. The less attractive side, such as the process of slaughtering animals is not shared with consumers. This implies that consumers, even the ones who do get involved, still experience a gap between the animal and the meat in the supermarket. They miss out on the process of turning animals into meat. In the next paragraph I will analyse how this experiential gap influences consumer choices.

3.2 Experiential gap

Due to the technology that works in the background in the meat industry, consumers do not know anymore where their meat comes from. But it is way too easy to say that because the meat industry happens in the background, consumers are not aware and therefor can be set free from the responsibility of what happens in the meat industry. Another explanation why consumers are not morally engaged with the origins of their meat can be described by the theory of disembedding and networking as formulated by Briggie and Mitcham (2009). They argue in “Embedding and networking: Conceptualising experience in a technosociety” that understanding the modern society as a networked society is a way to understand the relationship between technology and society.

3.2.1 *A disembedded and networked society*

Briggie and Mitcham start their argument with the idea that our society over time has changed from an embedded society to a disembedded and networked society. An embedded society is most often found in small communities that are not connected with the rest of the world. In these small communities, everything and everyone (the parts) are dependent of the whole community and the parts have a strong relation with the whole. As everything is interconnected, the parts hardly ever stand out on their own (Briggie A. &., 2009).

With the introduction of new technologies this embedded society changes. Briggie and Mitcham use the example of a small village that is introduced to the technology of running water at home. Before, the villagers had to go to the central well to collect water. Everybody had to do this and all were interconnected. No part stands out on its own. But with the introduction of running water at home, the villagers become disembedded for the social activity of gathering water at the well and at the same time they are connected by a system of water pipes. Therefore, due to new technologies, the strong part-whole relations dissolve and the parts (the villagers) become independent. In this disembedding process the status, place and function of the parts are being questioned and get their own identity. The clarity of the whole disappears and the previously taken-for-granted status is being revealed. As a result, the autonomous parts can become nodes that can be linked together in networks. Because the strong part-whole relation is gone, the new network relations

that have taken its place are much more susceptible to change (Briggle A. &, 2009). Of course, not all technologies have this disembedding effect, but it is a tool to recognise certain techno-social developments (Geerts, 2012).

Our society can be acknowledged as a very complex network based on technology. It can be argued that when a person undertakes an action, due to the complexity of the network system this person cannot see the actual effects of this action on the network as a whole. Hence there is a gap between the action and the effect it has, the so called experiential gap (Briggle A. &, 2009). One could argue that due to new technologies the experiential gap broadens and the engagement diminishes. Especially when the technology is a non-transparent background technology, it is very difficult for people to see the effect of their actions when they use this technology.

3.2.2 Disembedding experience

Briggle and Mitcham (2009) identify five disembedding processes that are not exhausting and to a certain point show overlap. The first process is the disembedding of economic and social institutions. Where economic systems were embedded in religious, family, or social communities, since the seventeenth century the economic system became independent. Being independent means that the market is separated from government and social institutions. The products sold in the market have transformed to mere commodities, whereas before they also had social value. Now, when people buy a product, they buy a commodity that is not influenced by social value. For example, in western Ireland there used to be a non-market for sheep trading. Prices were based on the relationship between families and their history and local culture. For example, a farmer has two similar sheep for sale (same weight, same quality). One was sold to farmer A for 20 pounds, and another sheep was sold to farmer B for only 10 pounds because farmer B happens to be his nephew. In this example, the relation between the two farmers is very important and this relationship is part of the value of the sheep. Today sheep are sold as a commodity and valued according to standard prices on the world market.

In our society we buy our food in supermarkets where there is ample choice and people can individually make the choice of what to buy. This implies that we make individual choices that are no longer based on collective values and world

views. Consumers need to reflect on their individual choices by themselves and this means that they have an individual responsibility towards the world (Briggie A. &, 2009).

The second disembedding process can be found in science, education and knowledge. Science today is conceptualised as objective, and is therefore not part of the social context. The secularisation of universities has resulted in the production of new specialised knowledge that in some cases can transcend over common knowledge. For example, much research is being done on production animal welfare but most of this research has no direct implication for the daily choices consumers make.

The next disembedding process is found in technology and production. Modern technology is not based on the context, but on efficiency. For example, a butcher used to kill a pig on demand and sell the leftover parts to local community. Today, in the factory like slaughterhouses, about 42.500 pigs are killed on a daily basis in The Netherlands alone (cbs, 2017) to be sold in supermarkets or exported. The pieces that are not sold within the expiring date are thrown away. This is still cheaper and more efficient than butchering on demand. This means that the production of meat is disembedded from its context and diminishes engagement with the origin of the meat bought in supermarkets.

The fourth disembedding process is formed by place, trade and typography. As our social relations are no longer confined to local communities due to for example internet, money, and quantifiable time, we are disembedding from our place in the world. Due to the disembedding of place, trading also has become less place-bound. Because of money we can buy anything we want in the world, instead of bartering what we have with neighbouring communities. Today we are no longer dependent on where we live for what kind of meat we can buy at the supermarket. Any meat is available any time for an affordable price.

The shift from oral to writing cultures also marks this fourth disembedding process. Today we do not need to see someone in person in order to get a message across. A written message can survive place and time without its content being changed. At the same time, it disembeds the writer from the writing. The writing becomes less personal and more abstract and is understandable and available to a bigger crowd (Briggie A. &, 2009). For example, instead of asking the butcher what kind of meat he sells, we can read on the package what kind of meat it is and where

it comes from. But we have no personal relation or context to the original animal anymore.

The final and most interesting disembedding process concerning the topic of this thesis is experiential disembedding. Briggie and Mitcham (2009) argue that in traditional, embedded societies the consequences of one's actions are only a little mediated. This means you see the direct consequences of your actions. The opposite is the case in a disembedded society. Consumers have immediate access to disembedded products (commodities) with which they have only a material relationship. Where the products come from or how they are produced is not part of this relationship (Briggie A. &, 2009). In other words, we do not experience where our commodities come from. As a result, one can argue that the more technology is embedded in our society, the more material relationships we have and the less experience and engagement we have with the production of the commodities we use. In our technology-based society, the feeling of control over the production processes disappears. We do not experience the effects of what we buy, because we have no relation with the origin of the commodity.

3.2.3 The meat industry and the experiential gap

When applying the concept of the experiential gap to the meat industry, it is not difficult to see how people are able to close their eyes for what happens in it. The meat industry does not only happen behind closed doors, making it a non-transparent technology, also it is a very complex network that consists of many nodes, such as farmers, slaughterhouses, and supermarkets, that all influence the socio-technical system the meat industry is. This complex network lies behind a simple action. In order to buy a piece of meat, many things have happened to get it in the supermarket. What seems to be an individual choice (what meat shall I buy today?) is in fact part of interdependence of the system.

The process from production animal to meat seems rather straightforward: from farm to slaughterhouse to meat processing factory to supermarket to consumer. But in reality our country imports and exports a big part of the meat the consumer buys in the supermarket (COV, 2017). This way the network becomes even more complex and this makes it more complicated for consumers to oversee the consequences of meat consumption.

As we miss the experiential relationship with the origins of our commodities it is easy to see why people are not feeling any responsibility towards where our meat comes from. Consumers do not experience the animal behind the meat. Before the introduction of the socio-technical system of the industrialised meat industry, people would see the animal before and after it is slaughtered and experience the process of turning an animal into meat. Today there is no relation with the (production) animal anymore. Meat has become a commodity. Only the name on the package could tell us what kind of animal the meat comes from.

For consumers it is not easy to find out where meat comes from. For example, all pigs in The Netherlands have an ear tag with an UBN-number (unique company number). This number stays with the pig until the slaughterhouses and is recorded in a database (Vlees.nl, 2017). But this information is not to be found on the packaged pork in the supermarket. This way the meat can be seen as anonymous, which increases the experiential gap between human and animal.

3.3 Moral experience

In the former paragraphs, we have seen that the meat industry, as many socio-technical systems in our society, works in the background and that consumers are only in contact with the commodity (the product) at the end of the process. As a result, consumers do not experience what happens to their commodity prior to buying it. Adding to this, we live in a complex networked society that consists of many nodes, hence it can be argued that people cannot oversee the consequences their individual actions have on the whole.

3.3.1 Individual and collective responsibility

Briggle and Mitcham borrow the example of Garret Hardin's tragedy of the commons (Hardin, 1968) to address the problem of responsibility. In this example a group of sheep herders share a common pasture to graze their sheep. For each individual sheep herder, it is in his own interest to put in as many sheep in the pasture as possible, as more sheep means more profit. For one sheep herder, one sheep more on the pasture means more profit. But if all do so, in the long run the pasture will wear out and the grass will all be eaten and not have the chance of growing back.

This means that for the one sheep herder it seems that the choice for putting in one extra sheep only means more profit, but on the collective level it means that an extra sheep in the long run, collectively, will cost them all.

When looking at society as a whole, we all are responsible for the long term effects of our choices. Yet, as an individual, we only see the effects of our choices in a restricted domain. Influenced by disembedding and networking, ethics play only a part in our personal sphere. Hence, our personal ethics are badly matched with the ethical issues at the socio-technical level. This gap between collective and individual responsibility is also part of the experiential gap (Briggle A. &, 2009).

Applying this theory to the meat industry allows for the following argument. What the individual consumer experiences is the taste, smell and the enjoyment of their meal. When eating their meal, people are enjoying their meal and not thinking about where all the ingredients come from. The individual consumer experiences his meal as a good thing. The downside, or tragedy, of enjoying a meal with meat is that if every household in the Netherlands would consume meat on a daily basis, it would entail a lot of animals that have to be transformed into meat. This leads to collective problems, such as environmental issues, waste and zoonosis¹² and ethical questions such as animal welfare. As argued by Briggle and Mitcham, it is difficult for consumers to see the effect of their individual choice on the collective problems.

3.3.2 Closing the gap and taking responsibility

Briggle and Mitcham (2009) propose two complementary solutions to the individual-collective problem. The first solution is to appoint responsibility to the collective side, the ones that have the power to enforce regulations. This entails that the individual must give up some of its individual freedom for the good of the collective. This solution calls for new laws and regulations that are binding for all individuals involved.

However, they also argue that there is a two folded catch to this approach. The choices made regarding legislation are made by politicians and based on predictions of the future by scientists. As we have a science based society, this seems like a good idea. However, network based societies are composed of linked nodes and all nodes want to have autonomy. Scientists and politicians are also

¹² A more detailed analysis on collective problems caused by the meat industry can be found in paragraph 2.2, page 11-15.

nodes with their own interests. So, how can they be only looking out for the greater good without taking their own interests into account?

The second catch lies in the fact that new rules and regulations often go together with innovation of products and systems in order to keep the economic process going. But relying on “technological fixes” also means that unexpected side effects can be created which may have a good result in one sector, but become problematic in another. For example, the US economy’s energy intensity has dropped by 46% since the mid-1970s, while in the same period the nation’s energy consumption and CO2 emissions have risen by 39%. This suggests a more active consideration for consumers regarding their lifestyle choices (Briggle A. &, 2009).

Increasing individual (consumer) responsibility is the second and complementary solution Briggle and Mitcham propose. In our networked society technology is disembedded and separated from ethical considerations and causes passive, uncritical consumers. To overcome this passive attitude and overcome the experiential disembedding, people have to be proactive and take their responsibilities when it comes to the technologies they use. Briggle and Mitcham propose that education, culture, and information that comes from ICT and media should give people knowledge about the consequences of their choices in order to make them aware of the consequences. Only, when people are aware of the consequences they can make an ethical choice that also benefits the whole and act accordingly. Together, both solutions should be able to close the experiential gap (Briggle A. &, 2009).

3.4 Reflection & conclusion

In this chapter I have discussed the influence of technology on ethical choices in socio-technological systems. In our disembedded and networked society we have many socio-technological systems that mainly work in the background and are hidden from the consumer. Socio-technological systems have the same kind of problems concerning the consequences taken into account when making ethical choices on a personal level versus the collective level. One of those systems is the meat industry.

Borgmann (1984) argues that, due to the device paradigm, means and ends are separated. By allowing the meat industry to be in the background, consumer only

interact with the commodity (end), while the machinery (means) remains out of sight. As the meat industry happens in the background, we lost our engagement with the origins of meat. One way to get the machinery out of the background is, according to Borgmann, to participate in focal practices. Concerning the meat industry this is not an easy thing to do, because doing your own slaughtering is prohibited and visiting slaughterhouses is not regarded as a nice day out, while visiting a farm is. What consumers can do is look on the internet for information about the meat industry, and a lot of information on this topic is available.

Briggle and Mitcham (2009) propose a combined solution for making ethical choices regarding the meat industry. On the one hand they propose regulating the industry and placing the responsibility for the right choice at politicians and professionals. On the other hand, they argue that consumers should be better informed and given more choice in order to make a carefully considered choice.

I think that a change in regulations is part of the answer. For example, the Dutch Party for the Animals (PvdD)¹³ aims to improve animal welfare in the meat industry on a political level. This has already led to many improvements and changed regulations concerning production animal welfare. Not only do they work on political level, they also provide information to the general public. While much is happening at the government and production side, less change is seen at the consumer side.

Where Borgmann argues that disengagement happens through the device paradigm, Briggle and Mitcham argue that disengagement happens due to the experiential gap. I think these two options are intertwined as consumers are only involved in the commodity and have been given the possibility to ignore the machinery that happens in the background. In the meat industry the machinery should not be seen as part of a device, as Borgmann sees it, the meat industry as a whole should be regarded as a background technology. Hence moral disengagement works on two levels, consumers experience a gap between commodity and its origins and at the same time the context of the meat industry makes this happen.

To close the experiential gap, producers and consumers need to take their responsibility for the whole and not just think about their personal gain. Producers can be coerced by rules and regulations to make the right choice for the whole

¹³ Dutch: Partij voor de Dieren (PvdD)

society, but consumers have to experience that there is a gap and only then they can make a moral choice.

However, closing the experiential gap does not seem to have a lot of effect on consumer behaviour. Today, only 5% of the Dutch population eats a vegetarian diet and when talking to people, many are aware that there is a problem with the meat industry but choose not to do anything with it. In order to find out how this is possible I will analyse how consumers deal with the meat paradox from a psychological point of view in the next chapter.

Chapter 4 How people deal with the meat paradox

From an ethical perspective (as discussed in chapter two) it is regarded un-ethical to eat meat. From this perspective, I found it striking to find out that around 95% of the Dutch population eats meat (Dagevos 2012). This seems to indicate a discrepancy, or a gap, between how we ethically think about animals and our meat consuming behaviour. I wonder how this discrepancy can exist. In an effort to close this gap and bring ethical ideas and behaviour in line, some people adopt a plant-based diet. Regarding the majority of people that do eat meat, I wonder how they cope with this discrepancy.

In this chapter I want to investigate why so many people eat meat, even though many of them are uncomfortable with it. I will investigate this by literature research about why vegetarians decide not to eat meat and why meat eaters do decide to eat meat. After that I will investigate how people deal with the meat paradox and how they make moral choices regarding meat consumption and how their moral choices are influenced by society and technology. This chapter will conclude that meat eating can be seen as morally significant behaviour, but for most people it is not a moral choice.

4.1 Why some people do eat meat and others do not

When people are asked about their reasons to eat meat they come up with several reasons. However, vegetarians have different reasons to abstain from meat. In this paragraph I want to investigate what motivates people to eat meat or not to eat meat.

4.1.1 *Why vegetarians do not eat meat?*

Although vegetarian is a common word in our language today, the definition of vegetarianism is very wide. What all self-indicated vegetarians have in common is that they do not eat meat from production animals. Whether they eat fish, seafood, eggs or dairy seems to be a personal choice (Vinnari 2008).

There are several reasons that make people decide to change their diet into a vegetarian one. The main motivators to stop eating meat are health and ethical treatment of animals (Radnitzka 2015). Related to health is weight loss. Especially a vegan or plant-based diet seems to be a good tool to accomplish that goal (Turner-

McGrievy 2007). Environmental concerns seems to be a secondary motivator and often used as a long-term motivator for sustaining or further restricting the vegetarian diet (Fox 2008). And lastly, many religions provide restrictions on food choices. For example, Buddhist monks and Rastafarians are encouraged to abstain from meat, Hindus do not eat meat from cows, and Muslims and Jews do not eat pork.

These are common arguments used in discussions between meat eaters and vegetarians. This discussion is mostly about why vegetarians refrain from meat, often resulting in the vegetarian finding a need to defend himself. However, what are a meat eater's arguments for eating meat?

4.1.2 Why do people eat meat?

Loughnan (2010) empirically investigated why people eat meat and three main reasons were found: habit, taste and culture. These reasons coincide with the main psychological factors regarding the purchasing of meat include beliefs, attitudes and expectations (Font-i-Fornuls 2014). Beliefs can be conceptualised as cognitions and represent a person's perception (or opinion) of the relationship between something and the particular attribute associated with it (Smith 2012). For example, meat is regarded as healthy food. It is regarded as a good source of protein and not eating meat and adopting a plant-based diet is seen by many as a less healthy diet. The Dutch Health Council advises against a plant-based diet, but does urge to eat less (red) meat. They also advise to consume dairy products on a daily basis (Gezondheidsraad 2015).

Beliefs are not static, but keep on changing due to observation, information and interference. Beliefs are founded on experience or acquired knowledge and together with personal characteristics they form the basis of consumer attitudes, buying intentions and preferences. Whether these beliefs are true or false is not considered important regarding food consumption (Claret 2014).

The second psychological factor, attitudes, refers to a person's feelings regarding an object, issue or event and has an evaluative nature (Axelson 1989). Both beliefs and attitudes have a big influence on the meat consumption and this consumption is based on the product itself combined with the person's characteristics (Claret 2014). Most people eat meat out of habit and as part of the daily practice. But meat does have a negative image when it is related to living animals, handling

practices and slaughter conditions, environmental issues and religious, ideological, ethical or moral concerns (Font-i-Fornuls 2014). It would be expected that a negative attitude would result in a reduction on consumption, but with meat this is not the case. Negative attitudes towards meat are not necessarily associated with a reduction in meat consumption. Probable reasons for this are that consumers have little knowledge and the knowledge they have comes from indirect sources (Grunert 2014), they underestimate the ecological impact of animal production (Vanhonacker 2013) and many claim that they are not ready to compromise the sensory features of their food products for potential benefits to their health (W. Verbeke 2006). Culture also plays an important role in consumer behaviour, especially in western European cultures meat is still a central item in our meals despite the negative beliefs and attitudes towards them (Font-i-Fornuls 2014). Another interesting effect of the western cultural values is that men eat more meat more often than women and women show a higher willingness to eat plant-based meals (Lea 2001). Our culture is very much influenced by marketing and marketing is an important factor on meat consumption. Much of the information consumers receive regarding meat is provided through advertisements, information campaigns, labels and brands (J. W. Verbeke 2006). This is why people are prepared to pay more for free-range eggs, local produce and organic meat.

The third psychological factor is expectation. Expectations can be defined as a group of feelings and/or beliefs inherent to people concerning the likelihood that something will happen in a certain way or that a product will have certain characteristics (Font-i-Fornuls 2014). Expectations imply anticipation and some degree of rational thinking and play an important role in accepting or rejecting a product. Regarding fresh meat, the expectations are based on labelling (including price) and appearance. People like the taste of meat and it has a certain taste and structure that cannot not be found in other food. Taste, structure, and colour influence the meat consumption (Font-i-Fornuls 2014). That is all the information consumers get and with this they have to decide what kind of quality they buy, therefor it is difficult to have quality expectations regarding fresh meat. That is why with meat, experiential quality attributes such as convenience, freshness and sensory characteristics are important together with credence quality attributes, such as healthiness or naturalness (Grunert K.G. 2004).

Concluding, people buy meat because they like the taste and structure, they are used to eating meat as a main part of their meal and it is part of their culture. Vegetarians decide not to eat meat because of health, animal welfare, environmental concerns and/or religion. This empirical research answers the question why people eat meat, but it does not explain how people deal with the discrepancy between ethical considerations and meat consumption. To find an answer to that question we have to take a closer look at the meat paradox.

4.2 Cognitive dissonance

Most people do not like the idea of killing an animal. They would not like to kill an animal themselves, nor would they enjoy watching someone else killing an animal. I suspect most people would feel uncomfortable setting foot in a slaughterhouse. Still, most of these people eat meat on a regular basis. So, how do people cope with this inconsistency of on the one hand not wanting to be confronted with killing animals and on the other hand wanting to eat the meat of these animals?

4.2.1 Cognitive dissonance theory

The inconsistency between not wanting to be confronted with killing animals and the willingness to eat meat, causes a friction between certain cognitions or between cognitions and behaviour. Cognitions can be conceptualised as ideas, beliefs, opinions, emotions and knowledge. In example of meat, killing animals in general is believed to be “wrong” (cognition), but in their behaviour these people show that they eat meat and therefore accept the fact that animals are being killed. When people are confronted with this inconsistency they experience a feeling of discomfort. This feeling of discomfort can be explained by the psychological theory of cognitive dissonance (Festinger 1962). Cognitive dissonance theory argues that people prefer their own cognitions to be unopposed (consonant) and struggle with those that are opposed (dissonant). Due to the sheer number of cognitions we process, they are often in conflict and these conflicts become noticeable when we have to make decisions or are faced with new information that contradicts ideas that we already hold. Let me explain this with the following example: when preparing meat for dinner a person can have two thoughts at the same time. He can believe that eating a lot of

red meat is unhealthy and he eats red meat every day. Both of the believes he regards as facts, but they are inconsistent with one another. As a result, the meat eater is faced with a dilemma. As a rational person he would cut down on eating red meat if he knew it was unhealthy, but because he is now cooking his meat he now experiences a dissonance between believe (cognition) and behaviour, hence a cognitive dissonance.

The cognitive dissonance urges us to solve the dilemma that caused the dissonance. Not only does cognitive dissonance give a mental discomfort, many people also experience physical sensations when confronted with a cognitive dissonance (Zanna 1974). The discomfort is even stronger when you feel that you may have had some choice over the inconsistency. If something is forced upon you, for example when certain behaviour is acceptable in your social environment and you feel obliged to show the same behaviour, the feeling of discomfort can easily be rationalised. But when you choose to stay within this social group with the associated behaviour and do not choose for an acceptable alternative, that is when you experience the dissonance (Croyle 1983). In order to experience the discomfort, you have to believe that your inconsistent ideas may have a negative impact on the future (Losch 1990). For example, some people argue that it is no problem to eat meat, because the animal is already dead and if they would choose not to eat meat it would not have any influence on the meat industry. Hence, they argue that eating meat has no negative impact on the future and therefor they will not experience a cognitive dissonance.

4.2.2 Dissonance reduction strategies

To solve the discomfort that accompanies the cognitive dissonance four main dissonance reduction strategies can be distinguished. The first strategy is to try to change one or more of the beliefs or opinions involved in the dissonance. The second strategy is to change the behaviour involved in the dissonance. The third one is to acquire new information or beliefs that will increase the existing consonance and thus cause the total dissonance to be reduced. The fourth reduction strategy is to forget or reduce the importance of those cognitions that are in a dissonant relationship (Festinger 1962). When applying the resonant reduction strategies to meat consumption, people try to reduce the dissonance, regarding not wanting to

hurt or kill animals and wanting to eat meat, using a variation of the following defences which are grouped by the different dissonance reduction strategies.

When asking people why they eat meat the answer often given is that they really like the taste of meat, believe that meat is healthy and that they need meat in order to get enough protein in their diet. Most people believe that production animals have a good life, hence it is not such a bad thing to eat meat (strategy 1). Some people change their behaviour and stop eating meat and become vegetarian or vegan (strategy 2). Others argue that they eat only organic food, believing that animals on an organic farm have a better life than animals living in the factory farms and that eating organic food is better for the environment (strategy 3). Lastly, many people try to avoid being confronted with how animals are kept on farms and try to separate the animal from the meat on their plate (strategy 4).

It can be argued that this last reduction strategy is the most obvious way for people to deal with cognitive dissonance regarding meat. Our society is structured in such a way that we can focus only on what we buy in the supermarket, without having to think about what happens before this point. But when confronted with the process of turning cattle into meat, for example when talking to a vegetarian, the main coping strategy could be to trivialise the situation. Even though people like to eat meat, most are reluctant to harm things that have minds. One way to solve this is to deny minds to animals, and dissonance helps people to do this (Bastian 2012). In their psychological experiment, Bastian et al. show that animals considered appropriate for human consumption are ascribed diminished mental capacities. Not only that, meat eaters are motivated to deny minds to food animals when they are reminded of the link between meat and animal suffering. This means that production animals like pigs are not only considered less intelligent than dogs or cats, they also are assumed to feel less pain. In their final experiment, when people are expecting to eat meat soon they increase mind denial compared to people who are expecting to eat an apple (Bastian 2012). Apparently this mind denial of production animals reduces the negative effect associated with dissonance that people experience.

I can see the advantage cognitive dissonance has for people in general to have the capability to deal with things that makes them uncomfortable. Similar behaviour can also be found in examples like the holocaust, slavery or soldiers in a battle field. To be able to cope with these awful experiences and still keep on going is, I presume, one of the reasons we are capable of harming others. We have the

ability to transform harmful practices into worthy ones through social and moral justification (Mitchell 2011). Therefore it is important to have a moral concern for the world we live in. But, by denying animals a mind, the animals can subtly be excluded from this moral concern (Bilewitz 2011). Besides denying animals morally relevant qualities, another way to make suffering of food animals less bothersome is to mentally disengage from the origins of meat (Bilewitz 2011).

4.3 Moral disengagement

Cognitive dissonance theory gives a good account of how people cope with conflicting ideas and behaviours. Over time, new additions have been made to this theory, resulting in the moral disengagement theory (Bandura 1999). The theory of moral disengagement proposes that believing what is right can be selectively deactivated. Selective deactivation can be used to reduce dissonance, so that you can disassociate the damage you may have caused from your own behaviour. This allows for egocentric behaviour that could go at the expense of others without having to self-evaluate emotions such as guilt (Bandura 1999).

Bandura argues in his moral disengagement theory that the self-regulation of morality is not entirely a personal matter nor is it always turned on automatically. The self-regulatory mechanisms need to be turned on. There are several mechanisms that can be used in different situations. Selective activation and disengagement of self-sanctions allows for different behaviour by people with the same moral standards. As people are not autonomous but part of social networks that influence their behaviour, due to social influences one may be able to redefine harmful behaviour as not-harmful. Tools for doing so are moral justification, social comparison and adapting language (Bandura 2002).

The moral engagement theory consists of four categories that work together to allow for harmful behaviour while maintaining a positive self-image. The four categories hold together a set of eight cognitive mechanisms (Bandura 1999). The first category entails the cognitive re-interpretation of behaviour in order to see it as not immoral despite the harm it may have caused. This category includes three cognitive mechanisms: moral justification, euphemistic labelling, and advantageous comparison. Moral justification can be seen as a tool to make certain behaviour acceptable because it serves as a means to a higher end. For example, I had to kill all

the snails in the garden, otherwise they would have eaten all my lettuce. Euphemistic labelling means that euphemistic language is being used in such a way that harmful behaviour is downplayed and seems to be in agreement with moral standards. For example, people refer to meat from a calf as veal, sheep as mutton, pig as pork or sausage. This way the relation between animal and food can be avoided.

Advantageous comparison is used when a person compares his behaviour to the behaviour of people that deploy behaviour that is considered much more immoral. For example, I may eat meat but my neighbour kicks his dog.

The second category has to do with obscuring your personal responsibility in order to minimise your role in causing harm. In this category the mechanisms diffusion and displacement of responsibility can be found. Diffusion is being used when you project the responsibility of your behaviour into the larger group. For example, everybody eats meat, me not eating meat does not make a difference for the amount of animals being killed. Displacement of responsibility means that you frame your behaviour as a result of other people's demands. For example, the animal is already killed (by someone else) so I might as well buy and eat it.

The third category applies when giving a false account of harmful consequences that flows from certain behaviour. For example, I only buy organic meat because those animals are treated well.

The final category is aimed at the recipients of this behaviour. The mechanisms dehumanisation and victim blaming fall into this category. An example of dehumanisation is to deny minds and feelings to animals. Victim blaming means that victims are held accountable for the harm that has been caused to them. For example, farmers have no choice but to look after animals the way they do. Farmers reason their animals need it. These are reasons like cows need milking, female animals need inseminating, sows with piglets need restraining, and animals need to be transported.

Concluding, according to the moral disengagement theory, moral behaviour is determined by a combination of moral justifications and social influences. The moral justifications show an overlap with the cognitive dissonance reduction strategies, but gives the person more tools to overcome the dissonance. The social aspect is also very important. This means that even if you believe that animals should not be harmed, when your social environment eats meat it is very difficult to take a different stance. Especially when people defend their choice to eat meat with choices they find

logical and use social strategies to keep you in the group. Taking a different stance could push you into social isolation (Bandura 2002). Thus, besides values, beliefs, attitudes, and expectations, social environment plays an important role in the choice people make to eat meat.

4.4 Technology and moral choice

When I make a moral choice, I have the impression that I make it myself. But in the former paragraphs we have seen that our moral choices are influenced by both internal factors and the social environment. To these two influences I want to add a third factor that helps us make our moral choices. This factor is technology. As we live in a technological world, it is very hard to ignore the influence technology has on our daily lives and consequentially on our (moral) decision making. For example, the internet provides us with information about where our meat comes from, webcams show how animals are treated in slaughterhouses, television programmes investigate where our meat comes from and cooking programmes show us how to prepare our dinner.

The influence technology has on our moral choices may be more or less compelling. Tromp et al (2011) argue that the influences of technology on consumer behaviour are based on two dimensions: how strong the influence is being experienced by the consumer and how visible the influence is. To understand how technology influences consumer behaviour, four types of influence can be identified: coercive, persuasive, seductive, and decisive technologies (Tromp 2011).

Along these lines, coercive influence shows a strong force and is explicitly present, and people are externally motivated to perform the desired behaviour. For example, electronic labels on products that stops people from stealing in shops. The labels are explicitly present and when people do steal an alarm goes off, hence influencing behaviour in a forcing way.

The opposite of the coercive influence is a seductive influence. A seductive influence is weak in force and implicitly present. For example, some meat is sold much cheaper than regular meat. In the Netherlands special offers for cheap meat are called “kiloknallers”. The price difference with regular meat is substantial, hence people are seduced to buying kiloknaller meat. Of course consumers have a choice between regular priced meat and kiloknaller meat and therefore do not experience a

strong influential force. Also, as supermarkets are filled with special offers, kiloknallers are not experienced as explicitly present. But low prices are tempting.

The third influence is experienced as decisive by consumers. It has a strong impact but it is implicit in its presence. For example, most liquorish contain gelatine, cheese is made with the use of rennet, which comes from calves' stomachs and many E-numbers¹⁴ contain animal products (Vegetariersbond 2017). Vegetarians have to read the ingredients on all the prepacked food they want to buy in order to be sure not to eat animal products. As most people do not read all the labels, many consumers are not aware that in much of the food they eat, animal based ingredients are used. In that regard, it is decided for consumers that those products contain animal products. Hence, the technology that produces this food has a strong impact, but is implicitly present.

When the forcing influence is experienced as weak and the technology is explicitly present, the influence of the technology is called persuasive. An example of a persuasive influence can be seen in commercials. We are aware of the technology and how it pushes us, but we feel we have a choice whether we buy the product or not. Another technology induced influence that can be found concerning decision making is nudging. Nudging technologies are technologies that both offer freedom of choice and influences behaviour at the same time (Thaler 2008). Nudging technologies are for example meat substitutes that can be found next to the meat section in the supermarket. Companies like the Dutch Vegetarische Slager (Vegetarian Butcher) produce "meat substitutes" or "fake meat" that looks like meat but is made from lupine and other plants (VegetarischeSlager 2017). By offering consumers a choice between meat and meat-substitutes consumers are given the choice to not eat meat without having to change the way they prepare their meals. This nudging technology is explicitly available, but is weak in force. Hence I would argue that nudging technologies are part of the persuasive influence a technology can have.

Concluding, the examples above show that there are many ways technologies influence our (meat) consumption. Only when people become aware and when they want to make an effort, they see that they have the option to not eat meat. Only then they can make a moral choice regarding meat consumption.

¹⁴ An E-number is a reference number given to food additives that have passed safety tests and have been approved for use throughout the European Union (NHS 2015)

4.5 Reflection & conclusion

Wrapping up this chapter, I would argue that many choices we make, especially regarding daily consumption of food, are being made out of habit or due to social pressure. Most people do not make a moral choice every time they go to the supermarket to buy their food. Due to technologies around us we do not have to make a moral choice regarding meat consumption, we make our choice based on what is available. What we see here is moral behaviour, we do what we think is morally right. Not until we are confronted with the effects our behaviour has, we think about it. But, due to dissonance reduction strategies, it is much easier to defend our behaviour than to look at the consequences and change our behaviour, especially when it goes against the group's social morality. Hence I would argue that meat eating can be seen as morally significant behaviour, but for most people not as a moral choice.

Closing the experiential gap can result in cognitive dissonance which triggers one or more reduction strategies. However, I think that cognitive dissonance reduction strategies also allow people to create an experiential gap. For example, most of our meat does not resemble the animal it is made from. This is convenient for most people because this makes it easier to separate the animal from the meat and does not create cognitive dissonance. At the same time, it creates an experiential gap between reality and experience. However, sometimes meat does resemble an animal. Fish, for example, is sometimes served with head and tail still attached. Some people like to eat fish, but find it too confronting to eat something that resembles a living being. At the dinner table, the experiential gap between animal and meat is closed and people experience cognitive dissonance between eating fish and seeing the head with eyes and this cognitive dissonance needs to be reduced. Some people solve this problem by putting a slice of lemon on the fish's head. This way the head is less visible and can be more easily ignored. This way the fish becomes less animal and more food. However, putting the lemon on the head, which is a cognitive dissonance reduction strategy of not wanting to see the fish's head, creates an experiential gap between the experience of eating meat and the reality of the meat being a dead animal. In this example an experiential gap is deliberately caused to reduce cognitive dissonance.

Hence I would argue that creating an experiential gap is another strategy for cognitive dissonance reduction. Looking at the other cognitive dissonance reduction strategies, creating an experiential gap is not one of them. Therefore, I suggest adding the experiential gap as an extra cognitive dissonance reduction strategy, which should be taken into account when educating the public concerning moral choices.

It can be argued that more information about how the meat industry operates could lead to change in consumer behaviour. And although there is a trend to be found towards eating less meat, most people still eat meat on a regular basis. Much information about the meat industry is available through internet and campaigns from animal welfare organisations, like for example the Dutch organisation Wakker Dier, who tries to raise awareness for animal suffering in the meat industry through (playful) campaigns (WakkerDier 2017). Zoonosis, like bird flu, sometimes have a temporary effect on meat consumption and so do news items, such as the release of a documentary filmed in a slaughterhouse in Belgium (RTLnieuws 2017).

Although most people still eat meat, it can be argued that this information does influence the meat industry's image and may have influence in the long term. But I would like to add that due to dissonance reduction strategies and social influences, only providing information is apparently not enough to make a major change in people's behaviour. As technology can be designed in such a way that it influences consumer's behaviour, maybe technology could be an answer to closing the experiential gap and offer a solution to the meat paradox? In the next chapter I will try to find an answer to this question.

Chapter 5 Exposing the experiential gap

Briggle and Mitcham (2009) propose a combined solution for making ethical choices which can be used to solve the meat paradox. Their first solution can be found in rules and regulations and the second solution should be to educate individuals. However, what they have not taken into account is the cognitive dissonance that individuals experience when the experiential gap is closed. I think that we need to take the cognitive dissonance reduction strategies into account in order to increase the impact of education.

In this chapter I will analyse how education and rules and regulations can reduce the effects of the cognitive dissonance reduction strategies and argue how I think these strategies can be overcome in order to make room for ethical reflection regarding meat consumption. At the end of this chapter, I will argue how I think the problem of the experiential gap and cognitive dissonance could be solved.

5.1 Why and how reduce meat consumption

The meat industry today has many negative impacts on environment, animal welfare, and human health. In effect, much has improved due to new rules and regulations regarding animal husbandry. However, the amount of produced meat has stayed the same in the past few years, even though the Dutch consumption of meat shows some decline (Verhoog, 2015). This is possible due to increasing numbers in the export of meat and livestock (CBS, 2016). In order to do something about the problems, the meat production has to decline and one way to do this is by declining meat consumption drastically on the one hand and using rules and regulations to diminish the problems caused by the meat industry on the other hand.

In this chapter I want to focus on how to influence consumers in such a way that they will change their behaviour concerning meat consumption. Because, when demand for meat decreases for the long term, the supply of meat will eventually follow (as long as the loss of income for farmers is not compensated with subsidies as is happening today, but this is policy matter).

One solution to lower meat consumption could be to offer an alternative for meat to consumers and a possible alternative could be found in in-vitro meat. In-vitro meat is meat grown in a lab. From only a few cells of skeletal muscle, meat tissue is

made which is edible for humans. The good news is that according to some calculations only one parent cell can be sufficient for the current global demand for meat (Edelman, 2005) which would make the regular meat production needless. However, not only is this technology still in development, also it implies many economic and ethical questions that need to be addressed first (Dilworth, 2015).

In order to speed up the process I think it is inevitable that consumers need to change their behaviour. Although it seems unlikely that meat consumption will disappear, with some help of rules, regulations, education and technology it may be possible to lower the meat consumption.

However, if we really want to speed up the process of lowering meat consumption, the problem of the meat paradox needs to be tackled first. The meat paradox can be explained by the theory of the experiential gap. Because the meat industry happens in the background, there is a gap between production animal and meat. This gap can be closed by educating consumers and, at the same time, regulating the meat industry. But when consumers are confronted with the reality and the consequences of the meat industry, they experience cognitive dissonance. When dealing with the cognitive dissonance through reduction strategies, all the effort of education is made undone. How to deal with the cognitive dissonance reduction strategies will be discussed in the following paragraphs.

5.2 Reduction strategy 1: change cognition

Festinger (1962) developed four coping strategies for the cognitive dissonance people experience when the experiential gap is closing. The first strategy is to change consumer cognition. In this paragraph I will analyse how this cognitive dissonance reduction strategy can be avoided in order to allow people to make a moral choice regarding meat consumption.

5.2.1 Government

Many people believe that production animals have a good life. The image of the meat sector is that production animals are there for us to consume and the animals are taken good care of during their lives. As it is in the farmer's interest to have healthy

livestock and the newest technologies make it possible to keep the livestock healthy, it is easy to believe that there is nothing wrong with eating meat.

When the experiential gap is closing, people are confronted with the reality of the meat industry. One way to deal with that reality is to change your cognition. For example, people may argue that it is okay to eat meat because when they buy meat in the supermarket, the animal is already dead and processed. Hence, it does not make any difference whether they buy the meat or not.

The question here is, how to change this cognition in order for people to look past the dissonance reduction strategy. I think the government can play a large part in this by educating people.

The Dutch government informs the public about food choices. They subsidise the Netherlands Nutrition Centre¹⁵, an independent organisation to which people can turn with any questions they have on healthy, safe, and more sustainable food. The goal of the Netherlands Nutrition Centre is to explain relevant scientific knowledge and offer practical guidelines and advice. In order to do so they have developed the Wheel of Five¹⁶ which is updated every few years according to the latest findings on scientific research. Their latest update, in 2017, advises consumers to eat less meat and more vegetables (Voedingscentrum 2017b).

The Wheel of Five is a model to help show the essence of a healthy diet and for the government an important instrument to educate people. The Wheel of Five is a mandatory part of the educational curriculum. Other activities to educate young people are for example the free fruit programmes in primary schools and the healthy canteen campaigns in secondary and higher education in the Netherlands (Voedingscentrum 2017b).

5.2.2 Media

Apart from the government, newspapers and other media have a large task in informing the public. Where scientist do their research and publish their findings, the media translates this into understandable information and makes it available to the public. In the last few years, many articles have been published in the papers to

¹⁵ Dutch: Stichting Voedingscentrum Nederland

¹⁶ Dutch: Schijf van vijf

inform the public about the influences of the meat industry on environment and public health.

Another form of media that intends to influence people's ideas on the meat industry is animal activism. In the Netherlands, organisations like Dierenbescherming, Wakker Dier, Greenpeace, and Animal Liberation Front try to inform and educate the public about the problems caused by the meat industry. For example, in December 2015 the Dutch population saw billboards that were part of the "plofkip"¹⁷ campaign of the organisation Wakker Dier. In this campaign attention was paid to the welfare of overfed broilers, which are fast raised chickens for meat production which was often sold in supermarkets in bulk for discount prices. People were shocked by the atrocities that were shown and this led to a public debate on animal welfare that accomplished that the three biggest supermarkets in the Netherlands stopped selling "plofkip" (Wakkerdier, Campagnes, 2016). By showing explicitly what happens in the meat industry the experiential gap is closed. But although this kind of chicken breed (such as Ross708) is now rarely sold in most Dutch supermarkets, the discussion about fast growing broilers still continues (WakkerDier, 2017). 30% for the Dutch market have slightly improved living conditions and is sold under several names in different supermarkets (Klein Swormink, 2017). The Dutch consumption of chicken meat has not declined. The other 70% of broiler production is still done the regular way and this meat is used for the export market.

I would argue that informing the public through the media helps to diminish the experiential gap because the media does report about the problems regarding the meat industry. However, although many people know that eating meat has large consequences, the consumption of meat is only slowly declining. Hence, I would argue that bringing out this information publically does not have to result in changing the public's beliefs, therefore media information does not have the effect Briggie and Mitcham had expected.

5.2.3 Industry

Since the 1990s, a number of livestock producers decided to change the way they produce meat. This resulted in for example organic farming and improved living

¹⁷ Plofkip refers to the explosive growth in size and weight of this kind of chicken.

conditions for animals. Today, supermarkets sell meat from different ways of livestock farming and use logos to show the difference. This means that consumers are now being offered a choice between for example regular, Better Life¹⁸, or organic¹⁹ meat. This allows for meat consumers to become aware that there is a difference in the way animals are treated. This awareness also implies that the connection between animal and meat is made, which results in closing the experiential gap. By offering alternatives, the reduction strategy of changing beliefs can be avoided, because now consumers have the choice to choose for meat that comes from an animal that had a better life. This way consumers are able to deal with the cognitive dissonance they experience and have been given the opportunity to make a moral choice regarding meat.

5.3 Reduction strategy 2: change behaviour

The second strategy of dealing with cognitive dissonance is changing behaviour. This is the strategy that would be best to reduce the problems concerning the meat industry. But how can consumer behaviour be directed in consuming less meat? In this paragraph I will analyse which strategies government, industry and other consumers use to influence consumer behaviour.

5.3.1 Government

One way to influence consumers to buy less meat is to put higher taxes on meat. The National Institute for Public Health and the Environment (RIVM) proposes to increase the tax paid on meat in order to change consumers' food patterns. RIVM argues that we need to change the current Dutch food pattern because of public health (90% of the Dutch population eat too little fruit and vegetables and almost 30% of our food comes from animals), waste (about 47 kg per person per year), and because of the fact that the current Dutch food pattern causes as much greenhouse gas emissions as the entire Dutch transportation sector (RIVM 2017). By adding to and increasing taxes on meat, the consumer price of meat will go up. This may have some effect on consumer behaviour, but as meat is regarded by consumers as a basic need, the

¹⁸ Meat with a better life (beter leven) logo (Dierenbescherming 2017).

¹⁹ Sold as Biologisch in the Netherlands

effect of higher prices will have little effect on the amount bought (Boer J.M.A. 2006). The effect may increase when alternatives become more affordable, such as meat substitutes. However, increasing prices does not result in diminishing the experiential gap between production animal and meat. It does not make people more aware of the fact that their meat comes from an animal, but it does change consumer behaviour.

Another government initiative to change consumer behaviour concerning their diet is the Netherlands Nutrition Centre. They offer, next to the Wheel of Five²⁰, personalised advice and daily menus to make it easier for people to change their eating habits. The angle the Netherlands Nutrition Centre takes to inform the public is health. By focussing on health issues, prevention of diseases, and providing tools to adjust diets, they aim to influence consumers' eating habits, without confronting them with the problems and (environmental) effects of the meat industry.

5.3.2 Industry

It is not in the meat industry's interest to make people eat less meat. However, when the consequences of the meat industry became clear, a new industry of alternatives for meat products started to rise. A very well-known initiative for meat substitutes is the Vegetarian Butcher²¹, who started his innovative company with a concept store in 2010 in The Hague. The Vegetarian Butcher makes "meat" made from legumes and won many prizes over the years with his products (VegetarischeSlager 2017).

Other companies that make meat substitutes are companies like the Dutch Vivera, Tivall and the Dutch Weedburger. These companies and many more have started a platform to increase acceptance of sustainable products that are made of plant proteins in 2012 (Planeet 2015). As the market for meat substitutes is growing, the Albert Heijn, one of the leading supermarket chains in the Netherlands, now has taken meat substitutes in its house brand (AH 2017).

This trend of producing products made from meat alternatives is not exclusive. A whole industry is growing that makes alternatives for cheese and milk, for example made from soy, coconut, rice, nuts, or oats. Other products made from livestock such

²⁰ See paragraph 5.2.1 for information on the Wheel of Five

²¹ Dutch: Vegetarische Slager

as leather can be replaced by for example leather made from mushrooms (Lifematerials 2017) which can be used to make bags and shoes²².

With the recent growth of the meat substitutes' assortment, consumers get more choice in what to buy. This implies that it is easier for consumers to eat less meat and therefore change their behaviour. By offering a large selection of meat alternatives consumers can be seduced to make a moral choice regarding meat consumption. Offering meat alternatives, therefore, has a nudging influence that is designed into the product (Tromp 2011). Consumers are now given a choice between meat and meat substitutes and can therefore choose to not eat meat without having to adjust their eating habits to radically.

5.3.3 Supermarkets

Offering tools to individual consumers to change their behaviour is a way to educate the individual consumer. Most supermarkets today offer their consumers free magazines containing not only commercials, but also recipes and interviews with for example farmers and employees of the supermarket. What started as a marketing tool to make consumers buy more and different kind of products, today it is an instrument to influence consumer behaviour. Of course, these magazines show a coloured picture, because its main goal is to sell commodities to consumers and not to educate them. However, they reach a very big audience. For example, the monthly magazine of the Dutch supermarket chain Albert Heijn, *Allerhande*, runs and expands to 2 million copies and has 4.5 million loyal readers (AH 2017). In the last few years the number of vegetarian and vegan recipes in the *Allerhande* has increased, this way educating the public how to find alternatives for meat. Next to the recipes, these magazines contain interviews with producers and show an insight in how, amongst other things, production animals are kept. As stated earlier, these interviews show an idealised image of the meat industry as the aim is to sell (meat) products. However, by showing where meat comes from, the supermarket magazines educate the public and thus close the experiential gap between animal and meat and by giving the consumers tools they can easier change their behaviour.

²² There is much more to say about these alternatives, but it goes beyond the scope of this paper to address all other alternatives for animal based products.

5.3.4 *Activist consumer*

An influential form of activism is the vegetarian or vegan consumer who refuses to consume meat. This type of consumer is engaged with the animal and through his behaviour shows that something is wrong with the meat industry. This behaviour influences the people in his direct social environment as he shows moral behaviour concerning meat. Through his behaviour the activist consumer closes the experiential gap for himself but also for his direct social group.

The activist consumer does not only influence their social environment due to giving information and confronting others with their behaviour. Also, they cook vegetarian meals for friends and family, and they coerce meat eaters in cooking vegetarian meals when they are invited for dinner. This way meat eaters get a taste of the vegetarian cuisine, which may inspire them to try it more often.

The vegetarian consumer influences the demand for meat and the meat industry has to react to this change in demand. Also, when the number of meat rejecting consumers rises this will influence the public opinion which, in turn, will influence government policy. This has resulted in for example the political Party of the Animals²³ who comes up for the rights of animals.

5.4 Reduction strategy 3: acquire new information

The third strategy Festinger (1962) described is to acquire new information or beliefs that will increase the existing consonance and thus cause the total dissonance to be reduced. In order to influence consumer behaviour, we need to ask ourselves how do we make sure consumers get the kind of information that will allow them to change their behaviour?

5.4.1 *Government*

In the Netherlands the political Party for the Animals (PvdD) main goal is to speak up for the rights of animals. They do not want animals to be abused; not for entertainment, food, clothing, or medicine testing. By influencing rules and regulations the party tries to make change in how (production) animals are taken care of. However, how does the party make sure this information reaches the consumer?

²³ Dutch: Partij voor de Dieren (PvdD)

At the moment (in 2017) the party focusses on more transparency about live and death of animals in the meat, dairy and egg sector. They argue that the information and communication about what really happens to the animals in the meat industry is incomplete or meaningless to the public. This is of most concern regarding products in which meat is processed, such as lasagnes, sausages, and pizzas. The party proposes that the origin of the meat should be described on the label of the product, such as place of birth, raise and slaughter, in order to give insight in the many long animal transports (PvdD 2017). This insight could help consumers to say no to absurd long transports of animals and may influence the choice for regional products.

Other rules and regulations proposed are for example obligatory grazing for cows, not taking calves away from their mothers just after birth, pigs being allowed to keep their tails, and the abolition of battery farming in The Netherlands. Although these rules and regulations help in making the meat industry a better place for animals, these measures seem to have little influence on meat consumption in general. For example, the abolition of battery farming in 2012 has had no significant effect on the consumer price for eggs nor on the amount of eggs bought (WUR 2017). Although a growing demand for animal friendly producing has caused a growth in the market for free range and organic eggs (Rabobank 2017).

This example shows that one way to make the consumer aware of what really happens in the meat industry is to inform the public about the problems. However, it needs a follow-up and I think this can be found in the labelling and packaging of meat. If, on the package a picture of a real animal is put, instead of a drawing that only resembles the image we have of a healthy animal, consumers are confronted with the reality of the meat industry and cannot deny the information given about change of rules and regulations. By offering alternatives, such as organic meat and meat substitutes, consumers may choose to buy meat from animals that had a better life or maybe choose to not buy meat.

5.4.2 Producers

Some farmers use an alternative approach to bring animal and consumer together. Take for example Piggy's Palace in Bathmen that works with a unique concept of having most of their pigs live outside on a large patch of land, where they are

accommodated in an environmental and animal friendly way. The pigs have enough space to show natural behaviour, with a hay stack, fields, mud pool, water slide, and fields with different kinds of food. The farm organises open days, takes part in local events, and sells the meat of their own pigs (Stegink 2017). This way consumers can buy their meat locally and the connection between animal and meat is available, hence closing the experiential gap between animal and meat.

However, only a few farms try out this kind of new concepts. In most farms animals are seen merely as products and making enough profit is more important than those conceptual improvements for animal welfare. For these farms it is much better when the experiential gap stays in place. Although many farms do not offer open days or excursions, because of rules on hygiene and health risks, more transparency in the meat sector in the form of consumer visits to farms is recommended (Boogaard 2011).

When consumers do not see with their own eyes how the meat industry works, it is easy to choose the information that reduces the dissonance in order to make a choice regarding meat consumption. By opening up the meat industry and showing people first-hand information about how the meat industry works, the cognitive dissonance reduction strategy of using other information to decrease the dissonance is much more difficult to use.

5.4.3 Supermarket

An influential place to offer additional information to the consumer is at the place where the product is bought and where the final decision to buy a product is made. I would propose to use the labelling and packaging, as suggested in paragraph 5.4.1, to offer information about the origin of the product that is for sale.

Information that could be added to the labels of meat products may be the origin of the animal, for example date of birth of the animal, what country it was born, what country it was slaughtered and in which factory it was further processed. But this information should be available on all meat products, including for example sausages and hamburgers. Especially with this kind of processed meat it is not always that clear to consumers what it is made of and where it comes from. The information on the origin of the product may offer room for avoiding the dissonance reduction strategies and making a moral choice regarding the products consumed.

Besides information on the origin of the product, information on public health is also considered important information for making food choices. In the Netherlands we already have the Check Mark logo²⁴ that is put on products that are regarded as a healthier and/or conscious choice in a certain food segment (Ikkiesbewust 2017). What could be added to this logo concerning meat may be the effect on the environment that the production of this particular meat product has had. For example, the amount of water used or greenhouse gasses produced. This way consumers get more information that may be used to avoid the cognitive dissonance reduction strategy.

5.5 Reduction strategy 4: forget or reduce importance of cognitions

Many people try to stay away from where their meat comes from. In order to make it more difficult to use this strategy, the meat industry has to be brought to the foreground. One way to do that is to have the confrontation with the reality of the meat industry taken place in supermarkets.

Most people are aware that chicken meat comes from chickens. They just do not want to be confronted with it. Due to rules and regulations it is compulsory to put the ingredients on the packages of all products, however with careful use of language and imaging the association with the animal can be made as low as possible. For example, meat from pigs is called pork, and calves meat is called veal. Also the picture on the package is either a happy animal (to avoid association with animal cruelty and slaughtering) or it is a drawing of an animal shape or silhouette, showing a resemblance of how we think a healthy animal should look but this does not represent a real animal, which does not allow for the closing of the experiential gap.

I would argue that by showing where the meat comes from, the consumer is educated and the paradox is made visible. In this case buying alternatives may be the easiest escape for the consumer from the meat paradox and the cognitive dissonance it causes.

In order to take the meat industry out of the background and make it visible to the consumers, the design of the label will have to change. It needs to be more confronting than it is today, because only by confrontation with reality the experiential gap can be closed. When the relation with the real life of the animal and the

²⁴ Dutch: Het Vinkje

environmental consequences become visible at the moment a consumer wants to buy the product, the cognitive reduction strategy of denying is not useable. Now, consumers have the room to make a moral choice regarding meat.

5.6 Alternative products: a possible solution for the meat paradox?

Borgmann (1984) argues that technologies should be taken out of the background into the foreground. By doing so people can become more engaged with the world behind the commodity. Briggie and Mitcham (2009) argue that both strategies, rules and regulations on the one hand and educating the public on the other hand, work together and influence each other. Although I agree with all of them, the solutions they offer still allow for cognitive dissonance reduction strategies. Therefore I think that the solutions they offer do not take it far enough, it needs an extra step.

In the case of meat, a lot of rules and regulations are in place and on the way. Also, people are already being educated about the reality of the meat industry and the environmental and health problems the meat industry causes. However, I think this education should be expanded to the supermarket. It is in the supermarket where consumers make the choice to buy or not to buy meat, therefore I think part of the education should take place there. Education in the supermarket can be done in two ways, through pictures and words. By putting real pictures of animals on the packages instead of drawn silhouettes consumers may realise that the meat in the package comes from a real animal. By adding texts about what happens in the meat industry and the consequences of the meat industry, the message may come across and the experiential gap between consumer and animal can be closed for a moment. At the same time as the experiential gap closes, people experience cognitive dissonance and their first reaction is to take the dissonance away by using a dissonance reduction strategy.

And this is where I want to make an addition to the theory of the experiential gap. After analysing in the former paragraphs how to avoid cognitive dissonance reduction strategies, the one thing that worked against all reduction strategies was offering alternatives. Hence I want to argue that if, at the moment between the cognitive dissonance and the reduction strategy, an alternative is available people may be able to postpone the cognitive dissonance reduction strategy and use this time to make a moral choice. If there is no alternative then the choice to buy or not to

buy meat is either yes or no. Due to cognitive dissonance reduction strategies and in the consumers own personal interest, I can imagine that most people will choose to buy the meat anyway. This can have multiple reasons, for example the dish they have in mind requires meat or they do not know how to cook without. However, when an alternative is present, people get an extra choice. They can choose for meat, no meat or for example meat substitutes. Technology has made it possible to make “fake meat” from plants, such as lupine and soy, that has a structure and taste very close to real meat and can serve as an alternative for meat.

For example, someone wants to buy chicken to make tikka masala (an Indian dish with chicken) and goes to the supermarket. At the chicken section the packages of chicken breast have pictures of fast growing broilers. At this moment the experiential gap is temporary closed as the information about how animals are being treated is given. At the same time this person experiences some uncomfortable feelings (cognitive dissonance) because he realises that meat and animal are the same which in many cases will lead to conflicting cognitions. If, at that moment, an alternative is available that lies next to the chicken section, the dissonance reduction strategy will be postponed. Now this person can take the time to make a moral choice whether to buy the meat or the substitute. This does not mean that everyone will choose for the alternative, but at least room has been made to think and make a moral choice.

Consumers are used to buying commodities. Also consumers are influenced by social values and habit. Therefore I would like to add another feature to make the choice for the alternative more equal. In the case of chicken tikka masala, chicken meat can easily be replaced by alternative chicken substitute. But, when people are used to cooking the meat as a separate dish, the substitute may be a bit of a disappointment as it may come close to meat, it is not meat. In order to help consumers try out new commodities, for example recipes could be added to the substitute section. This way, the choice to try something new may be made easier. This way a second experiential gap is being closed. By trying something different the new thing becomes normal.

Chapter 6 Conclusion and discussion

6.1 A quick recap

In this thesis I tried to find an answer to the issues concerning the meat paradox. Starting with a description of the meat industry as it is today made clear that there are many problems that are caused by the meat industry, such as environmental issues, public health, and ethical questions. What became clear was that the meat industry works out of sight from the consumers. Applying Borgmann's device paradigm (Borgmann 1984) to the meat industry shows how it is possible that the meat industry has moved to the background and why it stays there. In order to make consumers aware of what happens in the meat industry, the meat industry has to be taken out of the background into the foreground. However, Borgmann's solution of more engagement through focal practices is not applicable to the meat industry. Another solution to bring the meat industry to the foreground can be found in the theory of the experiential gap by Briggie and Mitcham (2009). They argue that because our disembedded society has become so complex, it is difficult for people to see the consequences of their actions. This means that as consumers do not know the origins of the commodities they buy, they cannot oversee the consequences of their consumer behaviour. This is the experiential gap. The solution to the experiential gap can be found in two intertwined directions, by making rules and regulations on the one hand and educating the individual on the other hand. However, this solution does not seem to work for the meat industry as consumers experience cognitive dissonance when they are confronted with two conflicting ideas. In order to get rid of the uncomfortable feeling caused by the conflicting ideas, four dissonance reduction strategies can be used. By investigating how to circumvent these reduction strategies it can be argued that the role of alternative products may help to provide room for consumers to make moral choices regarding meat consumption.

6.2 Conclusion

In this thesis I aimed to find an answer to my research question of how we can close the experiential gap in the meat paradox and cope with the effects of this closure in order to contribute to dealing with the social and ethical issues regarding meat

consumption. I think that in order to close the experiential gap in the meat paradox the individual needs to be educated on different levels and from different sources. I believe the government should play a big role in educating the public, not only by making rules and regulations but also by providing information and translating research outcomes into understandable language and tools. Next to this, the media is also an influential actor in educating the public about the problems concerning the meat industry.

I would like to suggest the idea of providing extra information about the meat industry and its consequences at the moment consumers make the choice to buy meat. Most likely this happens in the supermarkets, hence the government should make rules and regulations to make sure that supermarkets and producers show the reality behind and the consequences of buying meat products.

The second part of my research question concerns how to deal with the effects of the experiential gap. Providing information that contradicts the ideas or beliefs consumers have, causes cognitive dissonance. This uncomfortable feeling can be taken away by four main reduction strategies. An analysis of the reduction strategies that can be used in the meat paradox suggests that offering alternatives to meat could help to avoid the reduction strategy and allows for room to make a moral decision regarding meat consumption.

The role of technology in solving the problems of the experiential gap is twofold. First, technology can help to educate the public in closing the experiential gap between consumer and production process, for example through (social) media and by developing educational material for schools. Secondly, technology can help to execute moral choices. By innovating and investing in alternative products making a moral choice could be made easier for consumers.

6.3 Implications and limitations

In my investigation of the meat paradox I have taken the position of lowering meat consumption as an answer to the problems caused by the meat industry. However, not everybody will agree with me on this subject. This implies that what I take to be the correct cognition (eat less meat) does not need to be the right cognition for everyone. Some may argue that eating meat is a better option than not eating meat, for example because it is considered a healthier diet or it is considered to be a more

natural product than the artificial meat alternatives. An argument I have encountered often in private conversations is why would someone buy an alternative if they can have the real thing?

However, the idea of offering alternatives in order to lower the meat consumption seems to work. Today 55% of the Dutch population has three or more meatless days a week (Voedingscentrum 2017b), while in 2011 only 22% of the Dutch population had one or more meatless days a week (Vegter 2012). I believe this increase in flexitarians is probably a combination of education and the expansion and increased quality of meat substitutes. When considering that the Vegetarian Butcher started selling his products in the supermarkets in 2012 (VegetarischeSlager 2017), I cannot believe this to be a coincidence. However, whether a correlation exists between meat alternatives and flexitarian diets has not yet been investigated.

Another suggestion for follow up research is applying the idea of offering alternatives to other fields of consumer behaviour where a discrepancy can be found between individual choices and collective responsibility and where moral choices are therefore difficult to make, such as environmental issues and clothing industry in low-wage countries.

An interesting issue that has not been included in this thesis is the political debate regarding the meat paradox. Different political parties have different ideas about how to deal with the consequences of the meat industry. It would be interesting to add this aspect to the analysis of the meat paradox and it would surely contribute to a better understanding of the meat paradox. However, adding another dimension goes beyond the scope of this thesis, but would be a nice suggestion for follow up research.

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