

Maximizing Freedom & Limiting Meat Consumption

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The Compatibility of Government Interference with
Libertarianism



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“We’ve got to make a change. It’s time for us as a people to start making some changes, lets change the way we eat, lets change the way we live, and lets change the way we treat each other. You see the old way wasn’t working so it’s on us, to do what we got to do to survive.”

Changes (Tupac Shakur, 1998)

Introduction

We live in a society where the government takes a lot of measures to increase our safety. We encounter these measures on a very regular basis. If we only look at traffic rules there are many examples, for instance the obligation to wear a seatbelt in a car or a helmet on a motorcycle. Not many people dwell on these obligations or think of them as peculiar, yet at the same time these rules are paternalistic. The most obvious reason why most people accept these rules, even though they restrain our freedom, is because they make our society safer and protect people from harm. Hence, for the sake of our safety, we are willing to accept some infringements of our individual freedom. We accept the obligation of a seatbelt because it makes the chance of harm smaller.

The biggest and most imminent challenge of our time is global warming. Most of the scientific world is in consensus that the consequences of global warming can be catastrophic for everyone. To examine just one example: the warming of the earth causes rising sea levels, which will affect areas prone to flooding. If it is the case that we accept paternalistic rules that increase our safety and protect us from harm, then how is it possible that the most imminent problem of our time is not tackled by stronger legislation from the government?

There is still a small amount of people that do not believe that global warming is caused by humans. There are people in positions of political power who seem to belong to this group. For example, Donald Trump, the President of the United States, is known for not believing in climate change at all, and during his campaign he called it a ‘hoax’ (BBC, 2018). Moreover, in the Netherlands ‘Forum for Democracy’, the winner of the latest provincial elections, are known to at the very least doubt the fact that global warming is caused by humans (Mommers, 2018).

Despite the fact that small groups of (politically powerful) people deny or doubt the claim that global warming is caused by humans, within the scientific world there seems to be little doubt. Overall the scientific world is in agreement that global warming is caused by humans (Cook et al., 2016). The political debate in recent years has also shown that it seems evident that climate change is a problem. Global warming is currently one of the most important subjects of debate in the political realm. In addition, since the beginning of the century it has caused a shift in the public debate, because overall the majority of people is concerned about global warming and its consequences (Kvaløy et al., 2012). There is a general consensus that the political world needs to act upon the threat of global warming, hence the 2015 Paris Climate Agreements (UNFCCC, 2018). In the Paris agreements originally 195 countries

vowed to try to keep the temperature rise below two degrees Celsius for 2050 (ibid.).

Most of the political debate on how to combat climate change focuses around the topic of renewable energy, admittedly the combustion of fossil energy is the biggest contributor to global warming (IPCC, 2014). However, in the political as well as in the public debate there is far less attention for the second biggest contributor to global warming: the meat industry. The meat industry is the biggest polluter in terms of methane (ibid.). Methane (CH₄) together with carbon dioxide (CO₂) are the main greenhouse gas emissions (GHGE) present in our atmosphere, causing a greenhouse effect which warms up the earth. Thus the meat consumption and the industry can play a critical role in tackling the problem of climate change.

However, the meat industry is not only the second biggest contributor to one of the most imminent problems of our time, there are more problems clinging to the consumption of meat, and therefore the production of meat. There are moral problems to be discovered in the meat industry as well. These moral problems derive from the way the animals in the meat industry are treated. The quintessential moral argument against the meat industry is the fact that these animals are bred, mistreated and slaughtered solely for our consumption. I will further explain this in §1.3 of this thesis. The second of these problems is the negative consequences the consumption of meat can have on individuals regarding their health, besides the health problems the meat industry indirectly causes through global warming. First of all, abundant meat consumption increases the chance on diabetes. Secondly, even small doses of meat can cause other serious health problems to individuals as well, this will be extensively explained in §1.2. Meat consumption and the meat industry thus can have negative consequences for everyone, but the awareness surrounding this seems low, hereby stressing the societal relevance of this thesis.

In terms of political theory, there is an extensive history of writing about the meat industry, although most of these writings are regarding animal welfare, and what this means in terms of morality. In this thesis I will take these problems of animal welfare into account, however they will not serve as my main point of argumentation. There is substantially less written about the relation between the meat industry and the problem of global warming, and what moral consequences this could have. Here is a gap in the literature, hence the scientific relevance of this thesis. I argue that in times where climate change is such an urgent matter, we ought to look at what physical consequences the meat industry has in terms of global warming as well, and the moral problems these consequences bring. I argue that climate change is the biggest problem caused by the meat industry nowadays, however that does not mean the problems of human welfare and animal welfare will be neglected altogether.

That brings us back to the question above, if climate change is one of the biggest problems of our time, and it is true that in some cases we accept paternalistic rules, because they increase our safety and lessen the harm, why does the government not impose tougher legislation on the meat consumption or the meat industry? Out of this follows the main research question of this thesis:

Should the government influence our behavior to reduce meat consumption?

This question and the possible solutions will be evaluated through the lens of libertarianism. Libertarianism focuses on freedom of choice and protection from interference by especially the government. The libertarian school focusses on the individual and its freedoms. So far, in strict libertarian theory, there is not much written about the place of nature, let alone animals. For these reasons, at first glance, the libertarian theory would not be able to defend any measure imposed by the government. The libertarian theory would probably be one of the least likely political theories to support fare-going, freedom restricting measures. It would be far more likely to find support for this on the ground of a social or even a social-liberal theory, but the fact that it is more likely makes this also less interesting. If we can even make a case for government interference from a libertarians standpoint, we have a very strong case in favour of government interference being needed to tackle these problems. Although there is a wide scale of different interpretations of the libertarian theory, they all value freedom and are sceptical of government involvement in the personal sphere. These different interpretations put the emphasis of the theory on different aspects. The aim of this research is to find out which possibilities there are within the spectrum of libertarianism for tackling the meat problem. That brings me to the second question, which will serve as a sub question for the main question:

What can the government do within the boundaries of libertarianism to reduce meat consumption?

Ultimately, the underlying goal of this second question is to build a case for the most freedom restricting government measure, from the strictest form of libertarianism, as this would theoretically strengthen the government measure the most.

My thesis is divided into four chapters. In the first chapter I will discuss the problems that the meat industry causes that I just briefly touched upon, starting with an explanation of the imminent problem of global warming. Thereafter, the consequences for human welfare will be outlined. The last problem I will discuss in the first chapter is the way animals are treated and the moral implications the meat industry (in the current design) has. In the second chapter I will set out the libertarian school of thought. For the core argument of the theory I will mostly use the work of Robert Nozick (1974), who can be seen as one of the founders of the libertarian theory. I will mainly use his theory because he is in the strict Libertarian sense still very influential, and many strict libertarians still draw from his original work and theories. I will explain his ideas about justification of freedom and non-interference through the self-ownership principle. Subsequently I will explain Nozick's view on how you can justly acquire and own goods, through the entitlement theory. After I lay the groundwork for the libertarian theory, I will focus on different interpretations of the libertarian theory. I will examine the difference between right and left-libertarianism, subsequently outlining the important aspects of environmental libertarianism. To conclude this chapter, I will shortly and concisely link the three problems for the meat

industry to the libertarian theory, to touch upon the problems and possibilities for the three problems already. In the third chapter I will introduce and explain four different government measures that are possible. In this chapter I shall also lightly touch upon the consequences these measures will have for freedom, and therefore libertarianism. The first of the four measures I will explain is disclosure policy, this entails the policy of informing people about the problems and dangers of meat consumption. The second measure I will discuss is nudging, this incorporates the idea that the government will try to influence your choices so that you make a choice that is supposedly better for you. The third possibility I will outline is the meat taxation, this concept mostly explains itself, it is a tax on meat. I will conclude this chapter with the fourth and last option which will be a full ban on meat, meaning that meat consumption and production will become illegal. After this chapter I will combine all the groundwork I laid in the first three chapters and analyse all the four different options that the government has, to construct an answer to the questions above. I will discuss every possible measure of the government separately, and come to a separate conclusion about the degree to which libertarian theory (with its different interpretations) could defend such a measurement. After this analysis chapter, in the conclusion, I will answer the sub question first, for each of the possible measures I will come to a separate conclusion. Then I will take a step back from libertarianism, to construct an answer to the main research question. The answer of the main research question will reflect my own point of view regarding the meat industry. Lastly, I will discuss the potential shortcomings of this research and some suggestions for further research.

Chapter 1: The Problems Of Meat Consumption

Both the global total amount of meat consumption and the meat consumption per person has increased over the last few decades (Godfray et al, 2018). The most important reasons for the increasing meat consumption in the world are the increase of peoples income and the growth of the total global population. The growing consumption, thus production, of meat has consequences for humans and humanity as a whole for several different reasons. In this chapter I will examine the different problems that the consumption of meat poses for the planet we live on and humanity as a whole. First and foremost I will discuss the effect of the meat industry within the framework of global warming and its consequences for human welfare. Thereafter I will examine the problems meat consumption can have for individual people in relation to their health. Lastly I will dive in to the moral debate surrounding animal welfare by discussing the moral implications the current design of the meat industry might have for us as human beings.

§ 1.1 Humanity and the Earth

In this paragraph I will discuss the effects that the meat industry has on global warming and the consequences this in turn may have for humanity. To begin very dramatically, the meat industry (and the agricultural sector behind it) could have serious consequences for the continued existence of our species on earth (Thomas et al., 2004). The way the meat industry is currently designed has direct as well as indirect consequences for human welfare. The direct consequences regarding human welfare, I will discuss in the next paragraph; this being the fact that meat can have an acute effect on the health of people. The indirect consequences that the meat industry has on human welfare I will discuss in this paragraph. These indirect consequences will mainly have to do with global warming and the effects this will have on humanity. This paragraph will consist of three parts: firstly I will give a concise description of the concept of global warming itself. Thereafter I will discuss the way in which the meat industry plays a role in climate change and global warming. To conclude this paragraph I will describe the current consequences of global warming, and what the consequences can be in the future.

The problem of global warming is a well-known problem nowadays, however I believe it is still useful now to give a short and concise introduction. We live in an era in which it has become clear that we as a humans have an growing negative impact on the planet (Galvani et al.,2016). The climate is changing faster than it has ever done before. Although there is a small group of people who is skeptical about the cause, among the scientific world there is an overall consensus that this rapid change of the climate is caused by humans. Recently the evidence that global warming is caused by humans has reached the so called ‘‘Golden Standard’’ threshold (Doyle, 2019). This means that there is substantial scientific evidence that global warming is caused by humans and according to the golden standard threshold, the chance that climate change is not caused by humans is less than one in a million (ibid.). Furthermore, the overall consensus about climate change is that this will have no subsistent benefits for our species. As a matter of fact, the consequences of climate change can have severe consequences for our species in the future. I will elaborate on this later in this paragraph. The Intergovernmental Panel on

Climate Change (IPCC), the climate change research panel of the United Nations, states that there are several greenhouse gasses that are responsible for the warming of the earth (IPCC, 2014). These 'greenhouse gasses' create a layer around our atmosphere. This layer bounces back a lot of the warmth coming from the earth, causing the earth to slowly warm up. There are two important 'absorbers', the first being carbon dioxide, which we all know as CO₂. The emission of CO₂ comes mainly from the combustion of fossil energy sources (ibid.). The second one is CH₄, commonly known as methane. The latter (methane) is mainly produced by agriculture, especially the meat industry (Moss et al. 2000). The meat 'factories' themselves, commonly known as factory farms, might even be the biggest polluters. The meat industry as a whole surely is surely the biggest polluter of methane, especially if we also consider the production of livestock that is needed to sustain the meat industry (Koneswaran & Nierenberg, 2008). That means the meat industry, which includes livestock, is even a larger source of greenhouse gasses than the transport emissions of cars, planes and all other sorts of transport combined (Pluhar, 2010, p. 457).

I have concisely introduced the issue of global warming, now I will attempt to discuss in further detail the role that the meat industry plays in the whole issue of global warming. The environmental issue of the meat industry and its impact on climate change consists roughly out of two parts. The first part is the direct impact it has on the ozone-layer, due to the meat industry producing methane which damages the ozone-layer extensively (Francis, 2014). The second half of the argument considers the large amount of grain (food stock) which is needed to 'produce' meat (Pimentel, 2003).

The first half of the environmental problem like stated above lies with the methane production of the meat industry. Although methane is not the most prominent greenhouse gas, it is still one we simply cannot ignore, it is the second to most prominent. Because CO₂ is the biggest contributor to global warming it might be useful to refer to methane's contribution to the issue in relation to CO₂. So in relation to CO₂, the methane part has roughly one-third of the effect that the current CO₂ output has on the climate change. To describe it more simply and put it in more useful terms: methane is the most prominent greenhouse gas after CO₂. However, specifically to the case of the meat industry it is the most prominent one. Because the meat industry is the biggest contributor to the total methane emission.

The second part ties in very closely with the first half of the problem, the second half is bluntly said *the food of our food*. This refers to the amount of agricultural activity that is needed to provide the meat industry with sufficient food for the cattle. It is difficult to get exact numbers or figures for this because it keeps on growing in demand. However even the lowest estimates ensure us that at least half of the total production of grain and corn is produced to be the food of our food (USDA, 2018). Moreover, however beyond the scope of this thesis, even one third of the total fishing in the United States is used to feed the livestock (ibid.). These estimates show how large the industry behind the meat industry is. It is clear when we discuss the impact that the meat industry has, we should not only look at the meat industry itself. It is at least as important to consider the substantial part of the agricultural sector that is sustaining the food of our food.

I have addressed the concept of global warming itself, also how and to which extent the meat industry contributes to this problem. In the last part of this paragraph I will shortly discuss the effects of global warming on our planet, and how this will affect the people living on it, now and in the future. The heating of the earth will have a range of different consequences, for example sea levels will rise and more animals will go extinct (Cahill et al., 2013; Thomas et al., 2016). Some research projects and writers suggest that also the weather conditions in general might become more extreme, which can result in more heatwaves and periods of extreme drought. There is a high possibility that the extreme weather conditions are caused by the heating of the earth, although there is a lack of conclusive scientific evidence (IPCC, 2013)

Because the average temperature on earth is rising, large parts of Antarctica as well as parts of the Arctic that consist of ice, are melting. This melting of large parts of glaciers and the so called 'ice sheet' causes the rising of the sea levels. For various reasons it is difficult to estimate how much the sea level will rise the coming years. Estimations of the IPCC from 2013 range from a 26 to 98 centimeter in the 21st century (ibid). If we compare this to the 20th century in which the rise of the sea level was just 17 centimeter, we can see that even the lowest estimations are substantially higher than in the foregoing century. Moreover roughly 7 of these 17 centimeters have occurred from 1993 onwards, so it is safe to say that the last few decades have had a big impact on the sea levels (Sweet et al, 2017). However the National Climate Assessment (NCA), a government agency based in the United States, estimated in 2017 that the sea levels will rise 30 to 130 centimeters in the 21st century (ibid.). There are big differences between the different estimations, so much is clear. The consequences it might have are more important for this paragraph. Estimations state that roughly 100 million people are living 1 meter above sea level or less. Moreover a lot of coastal areas contain important cities, for example New York, London, Shanghai and Tokyo are all located near the coast (Nicholls, 2011). Even in these four cities combined the area of living, and possibly even the livelihood, of roughly 60 million people might be negatively influenced by the rise of the sea level. Of course in our affluent Western societies we have more possibilities and resources to prevent our areas from flooding. If we look for instance to the Netherlands, roughly a quarter of the country is under sea level, which translates to almost 4 million people currently living under sea level (Reuters, 2010). A country like Bangladesh on the other hand, is extremely vulnerable to rising sea levels for multiple reasons. It is one of the most densely populated countries on earth and almost 20% of the country is under sea level (UNICEF, 2017). A recent flooding in 2017 alone has claimed 89 lives, and 3,9 million people were directly affected by the flooding (ibid.). So in the context of sea levels rising, global warming may cause serious harm to a great number of people, everywhere around the world.

§ 1.2 Human Welfare

Of course not everyone is convinced by the concept explained in the previous paragraph. They are either skeptical about the idea of climate change as we see with some of the most influential and powerful politicians, such as Donald Trump (Viser, 2018). Or they might even be living with a kind of ‘After me the deluge’ attitude, to use the (in)famous quote of the French king Louis XV. In whatever way you think about the problem of climate change, this is not the only problem for humans caused by current levels of meat consumption. It also has very acute direct consequences to individuals regarding their health.

Humans are biologically speaking an omnivorous species. So historically seen the human diet has always consisted of plants, complemented by a substantial part of meat (Smil, 2002). There is no denial that meat contains of several nutrients and micronutrients that a human truly needs such as protein, iron, zinc and B-vitamins. The truth of the matter is that none of these (micro) nutrients will go lost if someone abolishes meat altogether and replaces his diet with a well-balanced vegetarian diet (Godfray et al. 2018). The former statement assumes that there is a wide ranges of (vegetarian) food available, which we can quite safely assume, at least in the affluent (Western) societies (ibid.). It might be a historical fact , that the human diet consists of meat: humans as a species have always consumed meat. The problem remains that the amounts of meat consumed in affluent societies nowadays have serious health consequences for all humans. On some accounts there is scientific consensus about the health consequences of red and processed meat consumption. Probably the most important part of the health issues is the correlation with colorectal cancer (ibid.). The International Agency for Research on Cancer (IARC), which is a part of the World Health Organization (WHO), has classified red meat as probably cardiogenic in 2015. This classification remains *probable* due to the limited evidence available (IARC, 2015). Red meat in this context refers to all types of so called mammalian muscle meat, the most common ones being beef and pork (ibid.). The research was mainly focused on the mechanisms between red meat and colorectal cancer, however there was also evidence found of a probable correlation with pancreatic and prostate cancer (ibid.). What is more striking and surely more important is the fact that processed meat is classified by the IARC as cardiogenic to humans (ibid.). This classification thus moves beyond probable. This means that there is a direct link between the consumption of this kind of meat and the increased risk of getting cancer. The IARC found a so called dose-response relationship between the eating of processed meat and the risk of colorectal cancer, which entails that when someone consumes around 50 grams per day the risk of cancer increases by 18 percent. I will use a quote to explain exactly what processed meats exactly are ‘*Processed meat refers to meat that has been transformed through salting, curing, fermentation, smoking, or other processes to enhance flavor or improve preservation.*’ (IARC, 2015, p.2). Most processed meat contains parts of red meat such as pork and beef, and they regularly contain other sorts of meat such as poultry and other meat byproducts such as blood. The most common examples of processed meat are hot dogs, other sausages and basically every kind of preserved meat in cans or jars (ibid.).

There are a lot of other claims by varying sources in the media that meat consumption is the (partial) cause of other diseases, and may pertain certain other health risks to humans, however these claims lack conclusive scientific evidence. Nevertheless meat is high in energy and fat contents so it can safely be stated that the abundant meat consumption, either red or processed meat, provides in any case a higher risk of obesity (Wang & Beydoun, 2009). Obesity in its turn increases the risk of other chronic diseases, such as cardiovascular disease, hypertension, diabetes, dyslipidemia and certain types of cancer (ibid.). Lastly there are some estimations that the consumption of red meat can lead to strokes or heart failures, however these estimations also lack substantial scientific valid evidence. The reason that some of these estimations lack scientific evidence is because it is hard to do statistical research on the sole subject of meat consumption alone, as there are way more variables that can have an influence on the heart and the health of a human being. Nonetheless a few things have become clear in this paragraph. The most important being that the consumption of a small amount of processed meat on a daily basis increases the risk of colorectal cancer by 18 percent. On top of that the abundant meat consumption (red or processed) leads to the increased chance of obesity, which on his turn increases the risk on among other diseases cardiovascular diseases.

§ 1.3 Animal welfare

The third problem of our meat industry I will discuss is a moral one: animal welfare. The first part of this paragraph will focus on aspects of animal welfare with regard to the meat industry, subsequently in the second part of this paragraph I will discuss the moral implications for humans regarding animal welfare and the aspect of animal rights. Because this second part might be morally speaking the most demanding of my three arguments I will first give an insight in the underlying arguments for these moral implications. Although this thesis will not go fully in depth of meat consumption as a problem of animal ethics, I do think it is important to shed a light on the moral problems the meat industry poses for us. The way in which animals are treated as objects or property has moral implications for everyone that consumes meat. The core of the problem consists of two parts, the first part being the fact that we produce animals for the sole purpose of our own consumption, and the second part is that we mistreat the animals in the production process. There is general consensus in the scientific world that animals (just like humans) are sentient beings, and have a real experience of what happens to them, and can therefore have a positive or negative state of mind (Cambridge, 2012; Halteman 2011; Singer, 1975).

In the meat industry there are many examples of animal cruelty. Many media campaigns are focused on the aspect of abuse of animals. There are many examples of footage online of animals being kicked, beaten or in other ways mistreated during the proces. Although I do not want to deny the assessment that such abuse of animals is unacceptable, this will not be the core of my argument about animal welfare. The most important part of the animal welfare issue is structural harm to animals, which can be divided in two parts: procedural harm and institutional harm (Halteman, 2011). Procedural harm is harm that is inflicted on the animals even though the procedures are done as they should by the workers, so this is technically speaking not to be defined as abuse. There many are examples of acute

procedural harm: dehorning (of cows), beak-trimming (of poultry), forced separation from their young and in the end of course the slaughter itself (ibid.: p.125). These acute harms cause in the physical sense pain, but on a psychological level also cause a lot of stress. Moreover these acute forms of harm can, and in many cases do lead to chronic problems. For instance when the beaks of birds (most likely chickens) are ‘trimmed’, meaning they are cut off, they firstly endure a great amount of pain (Singer, 1975: p. 102). Secondly they are able to eat less properly as well as defend themselves against other stressed out congeners, which may be necessary in the overcrowded spaces the chickens are most likely confined in (Halteman, 2011; Singer, 1975.). There are more (chronical) health problems animals can endure because of bioengineering, which many of the livestock animals are a subject of. The animals are ‘engineered’ in a way that they produce a higher so called meat-to-bone ratio, even a higher ratio than their skeletal and respiratory systems can healthfully endure (Halteman, 2011). There are some cases in which the ‘meat farmers’ do address the cruelty with regard to the treatment of their animals. However the attitudes of the farmers to this cruelty in general does not even address the morality in the cruelty itself. Most of the time the reasons for harm of the animals reach no further than economical or pragmatic arguments. As Harrison (1964) puts it strikingly:

‘Cruelty is acknowledged only where profitability ceases’. (Harrison, 1964, p.3)

So the morality of the cruelty is not the problem for the farmers, it is the profit margin that counts (ibid.).

As I have defined the welfare of animals and how they are treated, there come other questions to the fore. The first obvious question, is why are animals treated the way that they are? The most obvious answers to this question are of economic and pragmatic nature. The obvious, economical and simple, answer is: to meet the demand of meat. Furthermore the demand of meat keeps growing every year, not only in real terms because of the growing global population, but also because the demand per capita is growing (Godfray et al., 2018). So to meet the demand, the meat industry has to become bigger as well as more efficient. The way the meat industry is designed is already focused on pragmatism. For example the beaks of chickens are almost always cut off, because they are then less able to attack each other when they get aggressive, in the small spaces they are kept in. The reason they are in these small spaces is bluntly put to produce more meat per square meter, or more meat for less costs. The same goes for bioengineering or breeding the animals to produce more meat. Nevertheless, these purely pragmatic answers do not uncover the morality behind the way our meat industry is designed. In the following part I will attempt to uncover the moral implications the current design of the meat industry has for us.

The moral implications that lie with animal welfare are probably best shown by the concept of ‘speciesism’. The concept of speciesism essentially entails the discrimination of certain beings for membership of another species (Baumann, 2018.). Speciesism is classified as prejudicial by its opponents, because there is no moral ground to put the wellbeing of a certain specie (human) above that of another specie (animal) (Gruen, 2017). Basically there is no moral argument to be made that the interests of one species are more important than the interests of another specie. Moreover the difference

between belonging to one or the other species has nothing to do with a choice, but it is purely based on chance. Just like it is not my choice to be born in the Netherlands, it is not my choice to be born as human. So just like my Dutch nationality, the belonging to one or another species should make no moral difference according to opponents of speciesism. But the speciesism seems to be rooted in our current society, that is the reason people value the life of a pig less than the value of a human being. Anti-speciesist writers like Singer and Ryder claimed that based on morality speciesism is analogous to sexism, racism and other forms of discrimination on irrational grounds (Duignan, 2018).

Speciesism is opposed by writers with all kind of different theories of morality or ethics. The categorical imperative of deontologist Immanuel Kant is an important one, this imperative states that we should not solely treat other humans as means to a goal, but at least as a goal in itself (Kant, 1781). However Kant himself would probably be reluctant of the usage of his imperative in this way. We could use this imperative to oppose speciesism, if we extend the imperative to non-humans (animals) as well (Francione, 2006). On the other hand the utilitarian theory of Jeremy Bentham, construed in the 18th century, is one in which all beings (including animals) are equal. So on both sides of the ethical spectrum we can find arguments against speciesism. The theory of Bentham was picked up and extended by Peter Singer. In his well-known work *Animal Liberation* (1975), Peter Singer criticizes speciesism on the irrational distinction it makes between killing a being that belongs to the human race and doing the same to a non-human such as an animal (Singer, 1975). He asks that if both beings have the same kind of will to live on, why is it much less worse to kill the non-human than the human? Singer (1975) claims that there is no rational argument to be posed to justify this, and therefore speciesism is as irrational and immoral as racism and sexism.

What I have attempted to show in the last paragraph is the way we treat the animals we consume. I have given some examples on the way animals for instance are deformed to serve their purpose better, and the way they are bioengineered to ‘deliver’ more meat, while their muscular system and bodies are not designed for it. Subsequently I have shown the moral implications that not only these examples have, but also the design of the meat industry as whole, through the concept of speciesism. The implications should have serious consequences for the way we treat or at least morally consider other species, and first and foremost animals.

Chapter 2: Libertarianism

In this chapter I will discuss the libertarian school of thought. Libertarianism will serve as the theoretical basis for my analysis of the meat problem (as discussed in the first chapter) and the possibilities for the government (which I will discuss in the next chapter). Libertarianism would at first glance be the least likely theory to defend a paternalistic measure. Therefore if a far-reaching government measure can even be defended by libertarianism, that would strengthen the argument for such a measure very much. In this chapter I first will set out and examine the core and the basis of the libertarian tradition. For the main part of the libertarian tradition I will mainly use two writers who can be seen as founders of the libertarian tradition; two sources from the 20th century: *The constitution of Liberty* (1960) by Friedrich Hayek, but mainly the book *Anarchy, State & Utopia* by Robert Nozick (1974). In the first part of this chapter I will focus mainly on Nozick (1974). I will explain his views on libertarianism through the before mentioned book, and the explanation offered by Will Kymlicka (2002) in his book: *Contemporary Political Philosophy: An Introduction*. Nozick proposes a strong interpretation of libertarianism with a set of stringent rules. I think it is useful to first outline this stringent set of rules, before turning to more lenient adaptations of the theory, which I will do in the second part of this chapter. To get a complete and clear view on other adaptations of the libertarian theory, I will complete this chapter's literature with a more recent source: The Stanford Encyclopedia of Philosophy; specifically the chapter on libertarianism (Van der Vossen, 2019).

Firstly, I will discuss the concept of Self-ownership, an important notion for the libertarian theory, yet at the same time is the cause for a lot of debate between libertarians, who have different opinions about the degree to which we should follow the concept. Thereafter I will explain what entitles people to material goods in libertarian theory, a concept that will be discussed through the 'Entitlement-Theory'. After I have discussed the most important notions of strong-libertarianism I will move on to two different adaptations of the libertarian tradition: left and right libertarianism. Subsequently, in this chapter I will discuss a green adaptation of libertarianism, I will call this 'environmental' libertarianism. The concept of environmental libertarianism is not a clear cut concept, what I call environmental libertarianism considers the place of nature and animals within the libertarian tradition. The last part of this chapter will be dedicated to link the libertarian tradition to the problems of the meat industry I discussed in the first chapter (animal welfare, human health and global warming).

§ 2.1: Self-Ownership

“Individuals have rights, and there are things no person or group may do to them (without violating these rights”

(Nozick, 1974: p.ix).

The quote above is the opening sentence of *Anarchy State & Utopia*, this sentence describes the core of the argument about 'Self-Ownership'. The concept of self-ownership contains the notion that people have very stringent set of rights over themselves as individuals (Van der Vossen, 2019). Nozick presents

this principle as an extension of the Kantian imperative: treating people as ‘ends in themselves’ (Kymlicka, 2002, p.107). These ownership rights are as stringent as the ownership rights people might have over things they possess. It holds the idea that certain things may not be done to a person without his (given) consent (Van der Vossen, 2019). It puts the moral right to the self and sovereignty of the individual forward as the most important moral assumption. The most stringent and demanding form of self-ownership is known as full self-ownership. This version of self-ownership stresses the aspects of self-ownership that are most profitable for the individual. The core assumptions of full-self ownership are full control over the self, and the notion that people are not permitted to do anything to you against your will (ibid.). These core assumptions lead to the most appealing aspects of this concept in terms of freedom and freedom of choice. For example, it protects women’s undeniable rights over their bodies and it gives minorities (no matter how small) rights which prevent them from being sacrificed for the sake of the majority, because every individual has a same claim to the concept of self-ownership (ibid.). Considering the Kantian starting point and the foregoing argument, we can very well state that moral equality (everyone having the same claim) is important in the libertarian tradition. The self-ownership principle contains the notion that people cannot do anything to you that infringe your rights, this principle also holds for the government. Therefore, and this is an important notion, it should ensure the protection of people from many different forms of paternalism.

I just argued that moral equality is important within the libertarian tradition, redistributive equality on the other hand is a different case. Nozick argues against every form of people being forced to assist other people against their will, except to correct for their own wrongdoings (Van der Vossen, 2019). Thus redistributive justice is not a part of Nozick’s theory. On the contrary: the state obligating people to yield a part of their income from labour to the state, means that the state has a right on a part of your labour, hence they own a part of you. (Nozick, 1974: p. 172). This would entail that taxation makes people partially property of the state, which is fundamentally incompatible with self-ownership. For this reason Robert Nozick (1974) (in)famously made the claim that redistributive taxation is morally equal to forced labour and therefore slavery, because *‘If I own myself, then I own my talents. And if I own my talents, then I own whatever I produce with my self-owned talents’* (Kymlicka, 2002: p. 109). So the claim of moral equality in this argument, means in this case that people are equal in the rights they have (to themselves), which should be protected. The only form of taxation that is acceptable for Nozick is a system where tax revenues are used to ensure self-ownership. In this system the tax revenue would go to background institutions, that would make sure self-ownership is maintained for everyone (ibid.: p. 103). There are more ways in which self-ownership poses problems for the equality argument the theory makes a claim to. It is hard to make a case for full self-ownership. The concept of full-self ownership would for instance prohibit the situation in which people without giving consent, breath air that is polluted due to others. Such minor infringements of self-ownership are very hard, if not impossible, to prohibit or prevent. In addition, this puts untenable restraints on the liberty of people, because there is no difference between minor and major infringements (Van der Vossen, 2019). These

are the major reasons why most libertarians (even Nozick) reject the idea of full self-ownership as a foundational principle, and most libertarians therefore follow a more lenient interpretation of the concept.

§ 2.2: Entitlement Theory

Above I have discussed the issue of self-ownership, the right that people have for themselves without being interfered by anyone. When the issue of self-ownership is preserved, the second thing that is very important in the libertarian tradition is that people come about their possessions justly. In this section I will discuss what entitles people to material goods (possessions), according to libertarianism. It is especially important for this thesis because through this entitlement theory a first appropriation of nature can be justified. A just first appropriation is an important component of the way that libertarians understand nature. Like stated above, distributional justice through for instance redistributive taxation is rejected by libertarians for reasons of self-ownership. For the same reasons most libertarians will support the free-market, or even argue that the free-market is inherently just (Kymlicka, 2002: p. 102). However, this may seem to make libertarianism a defense for capitalism, as free-market constructions lay the economic base for most capitalist societies. As libertarians defend the free market economy not for the argument of efficiency or profit maximization, this is not the case, but their defense rests instead on the self-ownership principle again. Like stated in the previous paragraph, people own the things they produce with their 'self-owned talents' (ibid.: p. 109). Hence they can dispose of these possessions the way they see fit, without the government or anyone else interfering in this transaction (ibid.:p.103). According to libertarians the free market is the way to do trade without the government infringing anyone's right to self-ownership.

Following the 'Entitlement Theory' as constructed by Nozick (1974), the acquisition of goods consists out of three principles. The first principle is the *justice in acquisition* (1): how things that are unowned become justly appropriated (Nozick, 1974, p. 150). Secondly there is the principle of *justice in transfer*: how to transfer goods justly from one person to another (ibid.). Essentially, this means whatever is acquired can be used for transfers freely; meaning without outside interference (Kymlicka, 2002, p.103). Lastly a principle for the *rectification of injustice* (3): how to handle the possessions that are acquired unjustly, in other words the way to handle the possession that are acquired in discordance with the first two principles. From these three principles we can conclude that as long as peoples holdings are acquired justly, the way the holdings are justly distributed according to the entitlement theory would, simply put, be: "*From each as they choose, to each as they are chosen*" (Nozick. 1974: p. 160).

These three principles describe how to deal with holdings people acquired justly or not. However, an important part of these 'holdings' are or were natural resources. It is important how to deal with these resources, as on the surface it may seem that these cannot be justly owned by any particular individual, rather they seem to belong to everyone. Thus for the theory of Nozick to hold ground, an explanation of the first principle is highly necessary. The just initial acquisition principle poses problems

for libertarians, as there is no consensus within the libertarian theory about how the first acquisition can be justified. For some libertarians the first acquisition even is insignificant, because they care about the current distribution of goods, and whether or not this one is just.

However, for Nozick, justice is based on a historical account, so therefore the legitimacy of your current entitlement to holdings depends solely on the question whether or not the previous entitlement was legitimate (ibid. p. 154). If we then follow Nozick's historical account, the first acquisition is important. Specifically the way in which one can do a just first acquisition. The natural resources move from being unowned, hence usable for everybody, to being owned by a small group of people who can only use them. This is precisely what John Locke saw happening in the 17th century in England. The downside (according to Locke) was that the distribution was so unequal that, the small group of owners became very wealthy, while a part of the people could not provide for themselves anymore. John Locke wanted to protect the latter group. His most important argument regarding this debate was that appropriation (of unowned materials) is acceptable if it leaves people as well or better off overall (ibid. p. 178). The unowned land is called 'the commons', he argued that appropriation of the commons would indeed make the people better off. He argues this through the 'tragedy of the commons', which is a form of the collective action problem. This essentially boils down to the assumption that when these lands stay common, nothing stops individuals from maximizing their use of the land. Although everyone knows that the over usage of the land will deplete the land and make it unusable for all of them. At the same time, it is the most rational choice for every individual to do it anyway, because if they do not someone else will and they will be even worse off in that situation (ibid.). Nozick claims that to avoid the tragedy of the commons Locke is right and the land should be owned by people. In this way everyone, even the ones without a part of the land, will be better off overall than in the free for all situation. He calls this the 'Lockean proviso' which consists of four requirements, the most important requirement being that the appropriation leaves 'enough and as good' of the natural resource (Wissenburg, 2018). '*And this, Nozick argues, is the proper test of a legitimate appropriation: that it does not worsen anyone's overall position*' (Kymlicka, 2002. p. 114). That is why some people need to get property rights, to provide protection for now and the future against the tragedy of the commons. Strong libertarians even claim, through this statement of Nozick, that it is not only possible, but it is a moral obligation to avoid the tragedy of the commons and therefore give property rights of the commons to a small group of people (Schmidtz, 1990).

§ 2.3: Different Interpretations of Libertarianism

'Freedom must minimize coercion or its harmful effects, even if it cannot eliminate it completely'
(Hayek, 1960, p. 12)

The quote above shows a more lenient approach towards freedom and self-ownership than the quote by Nozick (1974) before the previous paragraph. On the foregoing pages I have explained the basic and core concepts of strict libertarianism in its most basic form. However, libertarianism is not one straight

forward political theory, there is a scale of different interpretations of libertarian theory. There are deontological, consequentialist as well as virtue-ethical interpretations of libertarianism (Miron, 2010; Rothbard 2002; Den Uyl 1991). Moreover, and more important for this research, libertarianism exists in different political theories varying from the left to the right side of the political spectrum (Van der Vossen, 2019). Obviously, there are a lot of differences between the theories on both sides of the libertarian continuum. On the far right side appropriation rights are as lenient as it could be, constituting that everyone is able to appropriate or even destroy whatever they want as long as they do not violate anyone in their self-ownership rights or their property rights (ibid.). Opposed to that lenient interpretation, on the left side, the view is held that it is unfair that the first ‘appropriators’ get to appropriate natural resources and they therefore have a big advantage over the other people (ibid.). These unfair circumstances call for compensation, and therefore some form of redistribution (Wissenburg, 2018; p. 71). Left-libertarianism values the rights for self-ownership just as classical libertarian theories do, however left-libertarianism tries to unify this conception with ‘robust material equality’ (Vallentyne, 2007, p. 187). Very simply stated, the left-wing libertarians make a stronger claim to concepts of material and social equality. For left-libertarians the justness of the appropriation is not solely rooted in the first appropriation. It is also based on how goods are distributed now, so what matters is what the result of the first appropriation was: if this result was a fair distribution or not. According to left-libertarianism a fair distribution is an equal distribution (Quong, 2010). In addition, the justness of the first appropriation itself differs very much between right and left-libertarians. The difference with regard to first appropriation lies in the very core of the two approaches. For right-libertarians natural resources or nature in general is owned by no one, but by working with or on it, nature can be appropriated (Feser, 2005) Hereby assuming that it upholds the Lockean proviso (leave enough and as good). However on the left-libertarian side, the approach is that nature is collective property, or in other words that nature is in some sense for everyone by virtue of their equality as moral agents (Van der Vossen, 2019; Steiner et al. 2005). Therefore left-libertarians are tied to tight constraints on (first) appropriation of natural resources, arguing that when you want to appropriate something that is collective property, you directly violate the assumption of self-ownership of the rest who share the ownership of the natural resources with you (Van der Vossen, 2019). In the analysis of this thesis I will focus on the differences between the right (or strict) libertarian theories and the left-libertarian tradition, therefore I think it is important to have introduced the differences between the theories. Moreover, I want to deny the common misconception that libertarianism is a straight forward right wing political theory.

§ 2.4: Environmental Libertarianism

The specific adaptation of libertarian theory that is important for this thesis, is ‘green’, ‘ecological’ or ‘environmental’ libertarianism. I prefer to define it as environmental libertarianism to not confuse the theory with the ideas of the green libertarian party in the United States. Libertarian theory is not well known for its interest in nature or even the natural world. Nature in itself is not one of the most prominent

concerns of libertarians. Because the theory is mostly concerned with property rights (self-ownership), many of them do not see nature as something with intrinsic value or importance in itself, but nature is conceived as a mere instrument. Environmental libertarianism is a relatively new concept in the theory. Nozick (1974) touched upon the conception of nature within libertarianism, through the entitlement theory. This is an exceptional case because the environmental interpretation is not widespread within the (strong) libertarian literature. However since the beginning of the new century more writers have shown an interest in the way libertarians understand nature (see for example: Rothbard; 2002; Widerquist 2009; Wissenburg, 2018, 2019). The most plausible reason for this increase in interest seems to be the growing politicization of the environmental problems of global warming and rise of the sea levels. Environmental issues have found their way into most (political) theories, as well is the case with libertarianism (Wissenburg, 2018).

I deem it important to note that there is no clear cut conception of environmental libertarianism. One could even doubt if there is such a thing as environmental libertarianism. Hence, what I will describe here is merely a set of ideas, concepts and arguments that are important for libertarians that see nature and the natural world as valuable parts of the theory. Like stated before most libertarians do not see nature as having any more value than the value it has to individuals: resources. Here lies an important distinction to the before mentioned classification of ‘ecological’ or ‘environmental’ implication. Environmental interpretations are anthropocentric in definition, where nature is seen as an instrument by humans (Wissenburg, 1993). Ecological interpretations on the other hand, value the intrinsic value of nature (Scriven, 1997). Few libertarians have taken the ecological standpoint to define or defend the value of nature in the libertarian theory. For this thesis I will mostly make use of the anthropocentric angle too. I do this because all of the three problems defined in the previous chapter I see as challenges for humans or humanity as a whole: the morality of the meat industry; the human health problems and the persistence of planet earth. However interesting it may be, to also take into account intrinsic and *eco-centric* considerations for nature would widen the scope of this research too much. Moreover the ecological interpretation would give us a very narrow interpretation of libertarianism, which would lead to very different conclusions that are not important for the focus of this thesis.

§ 2.4.1: *Original Acquisition*

The most important consideration regarding nature for libertarians is a just first appropriation of natural goods, mostly referred to as original acquisition (Wissenburg, 2018). With the action of first appropriation, goods that were previously unowned (or common good) become private property. However there is not really a ‘green’ or environmental answer to this problem, because as I have shown above, it depends on how you define the natural world before original acquisition. On the (far) left side of the libertarian spectrum the ‘common asset idea’ is the most prominent definition of the natural world before first acquisition (Steiner et al., 2005). This means that the natural world is interpreted as a common asset, belonging to *humanity*, and the natural world is in common ownership of humanity as a

whole. Technically seen the common asset idea denies the idea of original acquisition because it states that ownership is already in the hands of a certain community; being humanity as a whole (Wissenburg, 2018). This implies that every appropriation of this common asset, would directly infringe the freedom and opportunities of other individual people within this community, hence violate the self-ownership principle (ibid.). On the other side of the spectrum there is the stringent or right-wing view. The following quote sums up the view on original acquisition on the far rights side of the libertarian spectrum: *“The first type of original acquisition I call orthodox: it assumes that nature was literally unowned before its appropriation by individuals; there were no subjects to whom any (moral, or of course legal) ownership rights were assigned or attributed before the moment of original acquisition”* (Wissenburg, 2018: p. 70). This standpoint denies any former ownership before original acquisition as well as the idea of common ownership.

We can conclude that in the libertarian tradition regarding original acquisition we therefore have orthodox non-ownership (strict libertarian) opposed to the common asset idea (left-libertarian). These two views are mutually exclusive, as their starting points are in direct conflict with one another. I do not want to construct an argument that prefers one above the other, like Wissenburg (2018) does. I will take a rather nuanced standpoint and discuss the advantages and disadvantages of both interpretations, and what this means for the relationship between libertarianism and nature. The advantage of the orthodox interpretation regarding nature is that it allows for non-ownership, non-destruction and non-appropriation, meaning that some parts of nature simply belong to no one. The common asset tradition does not allow parts belonging to no-one, because everyone is in common ownership of everything. (ibid.). The orthodox view states that in the ‘state of nature’ (to draw from Hobbes) it is a free for all, however not a free for grabs, meaning that the original appropriation still needs to be justified, because ‘you do not necessarily take what belongs to *another* but you do take *what is not yours*’ (ibid.: p.75). The nature of this justification has to be intrinsically just, yet how this is defined remains vague (ibid.: p.80). Probably the most prominent will be the two parted Lockean proviso (leave as much and as good for others), the exact definition is not important here. The point I am trying to make here is that for the orthodox view as well as the common asset view the appropriation of natural resources in principle needs to be justified. If this appropriation lacks this justification, in the orthodox view natural resources will remain unowned. This, however, is not the case for the left-libertarian view of common assets. This view presupposes a shared ownership by humanity. The advantages for nature here lies in the fact that they can put more direct constraints of the way natural resources are used. Hettinger (1998) proposes the following constraints:

“Their ownership is a kind of trusteeship involving duties to preserve the renewable natural resources of the land. The ecological services the land provides (flood control, wildlife habitat, climate stability, maintenance of biodiversity and so on) are not something over which the landowner is sovereign.” (Hettinger, 1998).

Important in this quote is the notion of preservation. Hettinger believes that we have a responsibility to our future generations, to preserve the nature and natural resources. Natural resources according to Hettinger belong to all life, both present and future. It is possible to see this as an adaptation of the Lockean proviso, to leave as much and as good of the natural resources to our future generations. This author thus sees responsibility towards our future generations with regard to the preservation of nature. Whether or not individuals have a responsibility to future generations is still cause for debate between libertarians (Vallentyne & Steiner, 2007). Hettinger (1998) furthermore argues that prohibiting these landowners from destroy these traits or capacities of the land is not an infringement on their rights, because these lands are held in public trust. To the specific part of biodiversity is added by Hettinger (1998) that biodiversity around the globe is a common heritage, of humanity and life in general, in the present and in the future.

§ 2.4.2: *Animals in Environmental Libertarianism*

The problems of the meat industry are central in this thesis. In addition, I have established the moral problems regarding speciesism in the first chapter. It seems clear that the position of animals within the libertarian theory is worth discussing. There is not much focus in the libertarian theory on animals themselves, this part of the libertarian theory is underdeveloped (Wissenburg, 2011). This is not only the case in libertarianism, but in most theories regarding morality, the animal standpoint is underdeveloped (Nozick, 1974).

What is however discussed a little more extensively in libertarian terms is the question: what exactly (if anything) distinguishes human beings from other beings, for example animals. Not only the position of animals are ambiguous in libertarianism, but also children and future generations (people who do not exist yet) are complex cases for libertarians (Vallentyne, 2000). The question is about who we should assign rights to, and what the prerequisites are for someone (or something) to make a claim to self-ownership rights. As Vallentyne puts it: *‘Libertarianism (both left and right) is committed to full self-ownership for rational agents. It is less clear how other sorts of being with moral status are to be treated’* (ibid. p. 2). The debate for libertarians thus is not only about distinguishing humans from animals, but distinguishing beings who should have rights from beings who should not have rights. This can for example also be the distinction between children and adults, as most libertarians agree children should not have extensive rights of self-ownership (Steiner & Vallentyne, 2007).

For this thesis I will only focus on the difference between animals and humans. The most basic but also most prominent idea, reaching beyond libertarianist views, is that it is rationality that distinguishes humans from animals. In the events where libertarians did discuss this difference or distinction, there is a scale of different interpretations to be found. Deontological libertarians stick to the capability of choice making, that gives mankind the ‘superiority’ over animals (Steiner & Vallentyne, 2007). While for consequentialist libertarians the capacity of wellbeing is enough to categorize entities as moral agents (Vallentyne, 2005; Singer, 1975). So for consequentialists in general most animals are taken into account for the moral calculus. Most libertarians seem to assume however it is self-evident

that humans are rational, while animals are not (Wissenburg, 2011). Rationality here includes the preconditions of choice making, having a conscious and having a will, thereby directly excluding all animals from the protection of infringement in their freedoms, because they do not have the right to self-ownership, or any rights for that matter. Amongst most orthodox libertarians it is agreed that animals can be legitimately reduced to resources (ibid.).

Robert Nozick (1974) seems to make an adaptation for the deontological standpoint of the ‘choice protecting conception’. Because there are marginal cases in which people temporarily lack the ability of making choices, for instance when people are in a coma, or even asleep (Wissenburg, 2011). Nozick argues that choice is not the only thing that distinguishes humans from animals, according to him it is a matter of qualities, context and degree. So in the context of a sleeping human, he temporarily is unable to make a choice, he is however still sentient, has a right to awake, and due to this has the right to not be killed or endure any other infringement on his self-ownership. If we take the standpoint of Peter Singer (1970) and other anti-speciesist authors into consideration, it seems not such a far stretch to attach these same rights to animals. For *‘Entities possessing these same qualities have by definition the very same rights implied by that quality, be they human, tiger or gnat’* (Wissenburg, 2011, p. 15). However thus far no libertarian, to my knowledge, explicitly made a case against speciesism for any of these reasons, thereby stressing again the moral relevance of this thesis.

§ 2.5: Libertarianism and the meat industry

In the foregoing paragraphs I have extensively discussed the libertarian theory: the self-ownership principle and the entitlement theory. Thereafter I have tried to clarify the many differences between the different *branches* of libertarianism. Specifically, I have given attention to environmental libertarianism, because this is important for the later discussion on global warming. Within the realm of environmental libertarianism I have discussed the important environmental or green perception of original acquisition and the ambiguous position of animals within libertarianism. In the next chapter I will discuss the different measures the government could take to reduce meat consumption and how these would fit in the different conceptions of libertarianism. Nevertheless, before I do this, I will dedicate this paragraph to link the libertarian theory of this chapter to the problems I have discussed in the first chapter, to get an overview on how the problems are connected to the libertarian theory. To avoid the risk of repeating myself too much I will be short and concise in this paragraph and discuss the problems in the same order as in the first chapter.

§ 2.5.1: Persistence of Humanity & The Earth

As argued in paragraph 1.1 the effects of the meat industry on the earth are tremendous. It is unnecessary to reconstruct my whole argument, yet helpful to reiterate the core argument of this section. The meat industry, including the agricultural sector needed to sustain it, is the second biggest contributor to one of the most imminent challenges of our time: global warming. I will discuss the environmental problems

around the meat industry, the agricultural sector that supports the meat industry, common ownership (with future generations) and how the right-wing libertarian tradition stands opposed to the left-wing libertarian interpretation on this subject.

First I will discuss the agricultural sector, that provides the meat industry with *the food of our food*. Half of the agricultural sector in countries as the United States is dedicated to provide food for the kettle. In this calculation the amount of fishing that is dedicated to feed the kettle is not even taken into account. For the sake of simplicity I will not include that part here either. If we take the left-libertarian idea of common assets, all of the natural resources on earth belong in some sense to everyone: common ownership by humanity. Moreover some of them argue that it does not only belong to everyone that lives now, also we have to share it in some way with future generations (Hettinger, 1998; Vallentyne & Steiner, 2007). The whole of humanity lives on earth, therefore, according to the original acquisition interpretation of left-libertarians, we (as humanity) have a common ownership of the whole (natural) world. Consequently, appropriating a part of the natural world would entail that you always harm someone's equal shared right to that part of the natural world. Because of this there is a great inequality, and we need a form of redistribution according to left-wing libertarians, to reduce or make up for the harm that is done. For right-libertarians this inequality does not matter as long as the original acquisition was just, in other words if it upholds the Lockean proviso. So right and left-libertarians stand opposed to each other here.

There seems to be no common ground for these two opposing views. Nevertheless do they share a common problem. The self-ownership principle rests on a base of equality and everyone has an equal claim to this principle. Let me show this tension with an analogy. According to the principle, people in Bangladesh have an equal claim to this principle as people in the United States. Rising sea levels caused by global warming (and thus the meat industry) will have severe consequences for people living in Bangladesh. Thus on the one hand we see the severe consequences for people in countries like Bangladesh, for who the rising sea levels are an imminent threat to their lives and livelihood, thus their self-ownership principle is infringed. On the other hand, we have the self-ownership of people in the whole world who have the liberty to choose for themselves what they can and cannot eat, thereby potentially contributing to the problems caused by rising sea levels in Bangladesh. It does not make a difference if you take a left or right libertarian standpoint, both of these cases are infringements of the self-ownership principle. The question arises if one infringement can be weighed more severe, or worse than another.

§ 2.5.2: *Human Welfare*

For clarification I will repeat the conclusion of paragraph 1.2 about the dangers of meat consumption here. *A small amount of processed meat on a daily basis increases the risk of colorectal cancer by 18 percent. On top of that the abundant meat consumption (red or processed) lead to the increased chance of obesity, which on his turn increases the risk of, among others, cardiovascular diseases.* People have

the liberty to choose what they want to eat, as long as they do not infringe others people's self-ownership in the process. Strong libertarians are against every form of paternalism, even if it is for an individual's own good. I have pointed out in paragraph 1.2 that consuming processed meat on a daily basis is classified by the IARC (part of the World Health Organization) as cardiogenic, and consuming red meat as probably cardiogenic (IARC, 2015). But eating meat, cardiogenic or not, is one's own choice, presupposed that the person is an autonomous adult, similarly to that there are numerous other things that are bad for your health, for example alcohol consumption and smoking. Although there are (paternalistic) attempts by the government to discourage them, for the consumption of meat this is not really the case. It seems common knowledge that alcohol and smoking is bad for your health, whereas for meat this is not the case. I doubt that it is well known that daily consumption of only 50 grams of processed meat increases the chance on colorectal cancer by 18 percent. You could make the case that by not informing the public (the consumers) or by passing up the opportunity to let the information become common knowledge, people are harmed in their self-ownership rights. As they do not know how their choice is affecting their health, they 'harm' themselves by consuming meat. I would however agree that this could be seen as an overstretching of the idea of self-ownership.

§ 2.5.3: Animal Welfare

As previously discussed, there is very little attention for animals and animal welfare within the libertarian theory. Animals are commonly (among libertarians) perceived as resources. They are usually not perceived, especially by libertarians, as beings with rights. There is some debate between libertarians what distinguishes humans from animals, however most of them seem to agree that animals should not have rights. However if we take on the theory of Peter Singer (1975) as described in paragraph 1.3, the distinction between humans and animals becomes more arbitrary. Singer's main point is that animals, just as humans, can feel pain and can suffer therefore animals are not lower beings than humans, but are morally equal to humans. To be clear, Singer is not a libertarian, but his ideas about animals are the core of one of the problems regarding the meat industry.

It seems clear why libertarians are reluctant to conceive animals as equal beings. Animals are not capable of making certain choices, so freedom of choice, or freedom at all, is not ascribed to animals. Because they are not capable of making choices they do not have a right to self-ownership. Moreover if animals are regarded equal to humans, that would mean that they would have the same rights to self-ownership, this would complicate the theory much more. For example this would mean that animals could not be seen as resources anymore, because by killing them and eating them we would then certainly infringe their self-ownership. It would therefore be hard to make a libertarian case for the reduction of meat consumption from the standpoint of the animals, however it could be possible from an ecological interpretation of the libertarian theory, because this would grant animals as having some intrinsic value, regardless of their moral status or being seen as resources.

Chapter 3: Possibilities for the Government

In the first chapter I have described the most imminent problems that the meat industry poses in three parts. In the first part I have examined the meat industry's large contribution to global warming and the accessory problems of, bluntly said, the persistence of the earth and humanity itself. Secondly I have discussed the problems it brings for the health of humans as individuals. The last problem I described in the first chapter is the consequences of the current design of the meat industry for animal welfare. The second chapter I have dedicated to the description of the libertarian theory. I have chosen the libertarian theory for this analysis, because at first glance it would be the least likely theory to support any measure by the government. Therefore, if even in this theory we can find some ground for a (paternalistic) government measure, it would provide a strong argument for such a measure. In this chapter I have discussed some different adaptations of the theory, most importantly the environmental angle within the libertarian school of thought. Subsequently I have briefly discussed how the first two chapters relate to each other, in other words I made the first step in connecting the problems with the libertarian theory.

This chapter will be devoted to the measures governments can take to reduce the consumption of meat, and thereby reduce the problems they cause. Naturally the question could be asked whether the government should be the one to 'solve' or at least tackle the problem. I believe the first chapter has shown that the problems are big and imminent enough that we as humanity need a structural solution. I argue that the government therefore should be the one to take on the problems of the meat industry. I will mainly focus on the possibilities for the government, and what these measures would mean for individuals. Because libertarianism is focused on maximizing the freedom of individuals, people are entitled to self-ownership and ought to be protected from infringements of this self-ownership principle. The degree to which this self-ownership should be protected differs between (left and right) interpretations of libertarianism. The government taking away people's freedom of choice is paternalism, and libertarianism is generally against any form of paternalism because it is an infringement of the self-ownership principle. Furthermore I will evaluate these solutions from different angles of libertarianism, this means I will connect different libertarian aspects to different possibilities that the government has. Ultimately this chapter combined with the first two chapters will serve as the groundwork for the analysis I will conduct in the fourth chapter.

§ 3.1 The Possibilities

With regards to the meat industry the government has a wide scale of measurements that it can take, with a few examples being an informational campaign or introducing a meat tax. Strictly seen libertarians would classify all of these measures as being paternalistic, simply because the government imposes it on them. Thus any measures the government takes, are in some way an infringement on the self-ownership principle. We can however classify them, from the smallest infringement towards the biggest infringement on the principle. So I think we need to put these options regarding the meat industry on a continuum and take on one side the least influential and on the other hand the most influential one.

With influential I mean the impact it will have on people's lives, more importantly people's freedom of choice. Hence we can make a difference between a small infringement of the freedom of choice and a big infringement. To put this into concrete terms, this would mean on the one hand, the side least infringing in terms of the self-ownership principle, provides people with information about the aspects of meat consumption and the meat industry that could affect their lives in a negative way. On the opposite side of the continuum, the side of big infringement of the self-ownership principle, this would mean a complete ban on meat, removing all the negative aspects of the meat consumption and meat industry regarding individuals completely.

Moreover, we should in this case consider the Lockean proviso that should be upheld for the original acquisition of natural resources. This proviso is a requirement for libertarians to judge whether or not the first appropriation (original acquisition) was done justly. In short it means, that after the first appropriation there should be enough and as good left as there was before. I have discussed the portion of the land and production that is devoted to the meat industry. Whether this distribution adhere to the Lockean proviso is a difficult question, it depends through which libertarian lens you look at it. Right libertarians only look at the first appropriation, whether or not this was fairly done, and whether or not after the first appropriation the Lockean proviso was upheld. Moving more towards the left side of the afore mentioned continuum, there is more attention to how the distribution is nowadays.

In this chapter I will discuss four different possibilities for the government, which will be discussed from least to most influential measure. Firstly, I will discuss the possibility of providing information to the public about the possible problems and dangers that meat consumption can have for people, like most governments currently do regarding for instance the consumption of cigarettes and drugs. Secondly I will discuss the option of nudging, which entails private or public organizations helping people to make better decisions in life regarding for instance health (Sunstein & Thaler, 2009). The third option I am going to discuss is a little more influential, a tax on meat, either through an carbon emission tax or through excise. Admittedly there is a thin line between the second and the third option, in terms of limiting freedom, and one could argue that they should be ordered the other way around. The crucial difference which caused this particular order, lies in the concept of positive freedom. I argue that through nudging, the individual retains the positive freedom to choose what he wants. By taxation the prices will increase, therefore the individual can lose his positive freedom to choose in this case the meat option, because he simply cannot afford it. The fourth and last option I will examine here is also the most controversial one, being a complete ban on meat consumption and hence production. As stated before I will not only describe these options, I will also try to connect them to a piece of the libertarian theory in terms of freedom, and uncover the problems or options it may provide for the next chapter.

§ 3.1.1: Disclosure Policy

The first option of the government I am going to discuss here is the one that has the least impact on people's freedom. Providing people with information about the things they eat by describing the problems the meat industry brings to the world, animals and themselves is a quite straight forward strategy. The first option would not be much different from the way the government tries to educate young people nowadays about the dangers of tobacco, alcohol and drugs. For most people it is now quite clear that there are dangers to the usage of alcohol, drugs and tobacco and in turn they agree that we need to educate the population about these dangers. In the case of meat consumption the awareness of the dangers and problems it brings is way lower. The harmful effects of tobacco and alcohol have been made clear, by obliging companies to inform the consumers about the effects of cigarette smoking and alcohol usage. The (potential) harmful effects of meat consumption are way less known and visible for the consumer, however I have shown in the first chapter that there are certainly harmful aspects about the meat industry as well as meat consumption itself. Hence, what seems to be the first step in the process of providing information is creating more awareness overall. The discussion about meat consumption needs to play a bigger part in public debates. The public needs to be informed: *"An important and highly libertarian step would be an improvement in the process of feedback to consumers through better information and disclosure"* (Thaler & Sunstein, 2008: p. 189). This type of policy by the government is called disclosure policy.

However, even if the government will only go as far as to inform people about the effects that meat consumption (and industry) has, strict libertarians will object to this. This is due to the fact that the government provides these programs, similar to the government such campaigns regarding drugs, tobacco and smoking. The government funding these programs means that it is tax-payers money that is used. As discussed in paragraph 2.1, strict libertarians believe that taxation should only be used to fund the government facilities (background institutions) that make sure that no one's self-ownership principle is infringed (Nozick, 1974: p. 172). Strict libertarians would accept programs that inform (young) people about dangers of drugs or in this case meat only under the precondition that it is not funded by the government. Funding such programs through for instance a crowdfunding campaign would be allowed for strict libertarians.

§ 3.1.2: Nudging

The second option I will set out here is nudging. I will explain nudging through the book of Sunstein & Thaler (2008): *Nudge: improving decisions about health, wealth, and happiness*. Nudging can be viewed as an extension of the previous option. Where informing the public basically should remain neutral in terms of people's choice freedom, nudging is defined by giving you a push in a certain direction, supposedly in the *right* direction. Like the title of the book suggests it will improve the decisions you make. Of course, what the right direction is depends entirely on the one who 'nudges'. To nudge more than the previous option attempts indirectly to influence people's choices or behavior. In the case of my thesis, this would mean the government nudging people into consuming less meat. Nudging can

probably best explained by an example. Thaler & Sunstein (2008) in the introduction of their book use the example of a school cafeteria, in which the director of the school chose to rearrange the food in the cafeteria. The same food is available in the cafeteria, so there are no restrictions regarding choice freedom. However, they chose to put healthier food options on display, while the unhealthier (junk food) options were on places harder to reach, for instance creating a separate line for a sugar filled desert, while the fruit option was displayed at the normal line. The goal of the experiment was to influence the behavior of the children into a healthier diet, which was ultimately achieved. This is a small scale example of how nudging could work. Although technically this example implies no restraints on the freedom of choice children have, it can be conceived as paternalistic, because the school tries to nudge the children towards something that is supposedly better for them. So instead of letting them make their own choices, out of their own motivations, they push them in a certain direction in which they conform to the norm that the school believes is better for them. Thaler & Sunstein (2008) believe that the idea of nudging can work for adults the same as for children, thus the question for this thesis is how to nudge people into eating less meat. Studies have been done on other options regarding environmental behaviour changes. Pichert, D & Katsikopoulos (2008) researched a case of nudging people into choosing renewable energy. The study showed that if the renewable energy is the default option, more people would choose for the renewable option. To draw on the example given by the authors, we can easily replace the school cafeteria by the workplace cafeteria. If there is choice between three different meals, making the vegetarian option the default one, this would presumably nudge people into eating less meat. Furthermore if someone should want meat included in his meal, he needs to specifically ask for it.

As I have explained above nudging can be seen of a paternalistic measure. Which would mean that libertarians could not ever accept this measure. However, Thaler & Sunstein (2008) do not see libertarianism and paternalism as mutually exclusive concepts. On the contrary, they propose a new way of thinking: *Libertarian Paternalism*. The libertarian part of this concept lies the in general claim of the authors that people should be free to do what they want to, and the ability to opt out of undesirable agreements:

‘‘ We strive to design policies that maintain or increase freedom of choice. When we use the term libertarian to modify the word paternalism, we simply mean liberty-preserving...The paternalistic aspect lies in the claim that it is legitimate for choice architects to try to influence people’s behavior in order to make their lives longer, healthier, and better..’’ (Thaler & Sunstein, 2008: p. 5)

The starting point of the authors is a libertarian conception of freedom of choice, although a rather weak conception of libertarian freedom. They do not take into account any concept of self-ownership, but only state that it is liberty-preserving, because of the absence of coercion, (Grüne-Yanoff, 2012). According to the authors, when it comes to making certain choices about their lives, people are allowed to be steered (or paternalised) towards the better (or healthier) option. The freedom of choice remains

with the individual, but within this realm of choices they have, they are (according to the authors) allowed to be nudged towards making the *right* choice.

§ 3.1.3: Meat Tax

The third option is even more intrusive when we speak in terms of freedom. The measure I will discuss here is the taxation of meat. There are different ways to approach the topic of taxation of meat. One option is to put excise, sometimes called a ‘sin-tax’, on meat products. This would work the same as the excise on gasoline, alcohol and tobacco. Another way to tax the meat, is to raise the tax on Greenhouse gas emissions (GHGE’s) made by the meat industry, and at the same time subsidizing food that can be produced with way less GHGE (Briggs et al. 2015). I do not think it is useful to go in to the debate which of the methods would work better, as that is beyond the philosophical question in thesis. The general reason for taxing meat can be best put as follows:

‘‘There is a potential market failure in agriculture as the true social cost of carbon (the wider costs to society of GHGEs, such as their direct and indirect impacts on food production and health) is not included in the price of food and therefore is neither paid for nor is visible to the consumer.’’
(Briggs et al. 2015: p. 2)

No matter which way we go about taxing the meat, the simple outcome is that meat gets more expensive, thus people are encouraged to eat less meat. The taxation of meat can potentially have three positive outcomes. The first positive outcome is more revenue for the government, However not of the upmost importance for this thesis. Secondly it can encourage people to choose a healthier diet, less focused around meat. Thirdly, and most importantly for this thesis, it should reduce Greenhouse Gas Emissions, thus a decrease regarding the contribution of the meat industry to global warming.

From a libertarian point of view however, the outcomes are not solely positive. As discussed above, taxation, according to strict libertarians, means the government owning a part of your earnings, hence a part of yourself (Nozick, 1974). Thus taxation is an infringement of the self-ownership right everyone has an equal claim to. However there are some exception to this rule, for example for Nozick taxation is allowed if the funds are used to maintain the background institutions that ensure the concept of self-ownership in the community (ibid.).

§ 3.1.4: Prohibition of Meat

The last option for the government I will discuss here is probably the most controversial and for many people unthinkable: a full ban on meat. However opposed to what we might think, not a measure that is the most easy to discard. This measure would mean that all meat would become illegal, therefore the whole meat industry would cease to exist. This is definitely the measure which would have the biggest positive impact on the problem of global warming. It would mean not only that the factory farms would disappear, but also that large amounts of the agricultural sector, which now provide *food for our food*,

would become obsolete. Like stated in paragraph 1.1, estimates show that in the case of grain and corn this counts roughly half of the total production in the United States at least. Furthermore it would mean that the fishing industry, which is for roughly one third devoted to sustaining the livestock, could decrease. However this is also the measure that would have the biggest impact on people's lives and freedom, because, except for vegans and vegetarians, a part of peoples diet becomes illegal. The meat part of most people's diet is not the only thing that changes, but also quite a substantial amount of jobs will become either obsolete or illegal. The whole meat sector is so big it will not only affect farmers that 'produce' meat, but also for example farmers producing *food for our food*, people working in the factories where meat is processed and the logistical sector.

The problems regarding freedom are very big in this last measure I discuss here. The government violates everyone's freedom, as people are not free to eat meat anymore, taking away a part of the freedom of choice as meat is no longer an option. The reasoning for the government is that meat is bad for people's health, animal welfare and the earth. Strict Libertarianism would surely classify this as paternalism, because the government decides what is better for people, and therefore they take away their freedom of choice regarding dietary choice.

Chapter 4: Analysis

The foregoing chapters were dedicated to laying the groundwork for this chapter. In the first chapter I discussed three problems surrounding the meat industry: global warming, health problems and animal welfare. In the second chapter I described the libertarian school of thought and some of its core concepts: the idea of self-ownership and the entitlement theory. I also gave a description of different interpretations of the libertarian theory: left, right and environmental libertarianism. In this chapter I will elaborate upon some points that I discussed at the end of the second chapter. In the third chapter I described different strategies that governments can use to address the three problems mentioned above, also briefly discussing the consequences these measures might have in terms of freedom and self-ownership. In this chapter I will further elaborate on these consequences on the basis the libertarian theory. In this chapter all the foregoing chapters will come together to answer the question:

‘‘ What can the government do within the boundaries of libertarianism to reduce meat consumption? ’’

In this chapter I shall further discuss the four measures I introduced in the foregoing chapter. For each measure I will analyze what possibilities it gives for the specific three problems I have described in the first chapter. Subsequently, I will analyze each problem through a libertarian lens to see if and to what extent different versions of libertarianism give us ground to accept these measures. I shall discuss them in the same order as in chapter three, from least intrusive in terms of freedom and self-government towards the most intrusive. To be clear these four measurements are not exhausting all the possibilities, however I do think that the four measures present us with a comprehensive and inclusive account of the different measures that governments can invoke. We can put the different measures on a continuum, with on the one side the measure that puts the least restraints on freedom (disclosure policy) and on the other side the measure that puts the most restraints on freedom (meat ban). No matter in what order we discuss the measures, the first point I want to make is that they are all in some way lessening freedom. Whether this lessening of freedom can be justified, however, is still an open question. Given that some of these measures are meant to promote some form of good (health and animal welfare), and this is my second point, these measures can be seen as paternalistic. So from the perspective of those libertarians for whom self-ownership almost has an absolute value, each of these four measures can be opposed. Things might look different, however, for those libertarians for whom self-ownership is, in a certain sense, a conditional good.

The first problem we will encounter on the strict libertarian side with every sort of government measure is taxation (see §2.1 and §3.1.1). Taxation is a problem for every government-imposed measure, because the measures need to be financed by the government, who get their funds from taxation. For strict libertarians almost every kind of taxation is problematic. Robert Nozick (1974) in his strict form of libertarianism only allows for taxation that is needed to maintain the institutions that make sure everyone’s self-ownership is protected, though it is not entirely clear what level of taxation he has in mind.

§ 4.1: Disclosure Policy

In this section I will discuss the idea of the government imposing a disclosure policy. First, I will explain the possibilities this option has for the three problems of the meat industry. Then I will look at the governments' option through a libertarian lens and its different interpretations. On this analysis I will lastly draw some conclusion on the possibility of the disclosure policy within the libertarian school of thought.

Disclosure means that the government informs the public, in this case about the negative effects the meat industry has on the world, for individuals and animals. The first part of this paragraph will focus on the problem of animal welfare. A big benefit of the disclosure policy is that it is cheap and not as intrusive as the other measures I proposed. Disclosure policies can provide governments with the means to invoke programs that inform people about the dangers of alcohol, drugs, tobacco or in this case meat. The government can also impose disclosure policies upon companies, to oblige them to inform their costumers about (possible) dangers of their product. This is what tobacco companies in most countries around the world are obliged to do and is probably one of the most famous examples of disclosure policy, since 1965 tobacco companies in the United States are obliged to inform their consumers about the risk of smoking (HHS, 2014). Regarding animal welfare, in the Netherlands customers are sometimes informed how the animals they consume are treated. Companies however are however not obliged to inform their consumers on this subject. Moreover this disclosure policy is not meant for all of the meat industry, but for the part that is (according to animal protection association) in between the 'biological meat industry' and the 'normal factory farms'. On meat packaging, and since recently some dairy products, consumers will find a '*beter leven*' (translates to: better life) quality mark (Dierenbescherming, 2019). This hallmark varies from 0 to 3 stars, and represents the living conditions of the specific animal, with a higher amount of stars on a product indicating better life conditions for the animal. These living conditions entail for instance the quality of the food, the amount of space per animal and whether or not the animal is exposed to daylight. This hallmark is not issued nor controlled by the government, but by the Dutch animal protection association. This association is a non-profit goodwill organization, yet this association is subsidized by the government, indirectly involving taxation. Thus, strict libertarians still would have a problem with this initiative on grounds of the taxation argument at least, because it is partially funded by the government. This taxation argument is in short (as explained in §2.1 and §3.1.1) the idea that strict libertarians are against most forms of taxation, apart from a taxation that ensures the self-ownership principle. For strict libertarians to agree with this initiative the government would therefore need to cease funding.

Regardless, companies are not obliged to participate in this initiative, but can choose to opt in. Consumers are better informed about the living conditions of animals, and the freedom of the consumer is not infringed. How much good this hallmark does is debatable though, because animals are still getting slaughtered for consumption, meaning the moral problem as described in §1.3 is not fully addressed. Nevertheless, the animals that are slaughtered will have slightly better living conditions and endure less

suffering, thus a step in the right direction in the case of animal welfare.

This still leaves two problems of the meat industry untouched, namely global warming and human welfare (health). For both these problems it is important that people receive information about the negative (side) effects meat consumption has:

“Some disclosure statutes are designed to trigger political rather than market mechanisms; here the goal is not to give consumers feedback on their decisions but to inform voters and their representatives”.
(Thaler & Sunstein, 2008, p. 189).

The authors further on give an example of a case where this is put to use in environmental terms:
“The idea behind the statute is that if the public gets riled up, the government will be pressured to give some weight to environmental effects, but if the public reacts to the disclosures with a yawn, the government would be justified in doing nothing.”

(Thaler & Sunstein, 2008, p.190).

These kinds of disclosure policies can cause the public debate to shift. This goes for the problem of human health as well as for the maybe even more important problem of global warming. If the problems of the meat industry become a bigger part of the public debate, this can mean a first step in the government taking action. Strict libertarians would however still be reluctant of the government taking any action as this would cost money, making taxation inevitable. Another consequence of the meat industry becomes a bigger part of the public debate is that more people will be aware of the problems the meat industry causes, possibly making people in general less reluctant to measures that are taken to reduce meat consumption. I would say that, these kind of information policies are allowed for most left libertarians, on the requirement that it is not funded by the government. According to strict libertarians it has to be financed via other ways, for instance crowdfunding. These strict beliefs about taxation can be placed on the far rights side of the libertarian continuum.

As we move more to the left side of the libertarian continuum I would argue that most libertarians would not have a problem with providing the public with information about (potential) harms for the world and dangers to their health. Left-libertarian theory is more egalitarian by nature because left-libertarians aim for robust material and social equality, they see freedom as a means to this end (Vallentyne, 2007). This is illustrated in the way they perceive natural resources as well. They see natural resources as something that is in common-ownership of everyone or humanity as a whole (see §2.3 & §2.4.1). When someone appropriates a part of the natural world, everyone else’s freedom and opportunities are infringed, hence their self-ownership is violated (Wissenburg, 2018). On this egalitarian basis most left-libertarians allow for some sort of taxation and even the government enforcing and redistributing this taxation (Van der Vossen, 2019). Because it would create more equality in terms of materials, or ‘robust material equality’ (Vallentyne, 2007).

Providing everyone with the same information about the problems surrounding the meat industry can also be seen as a measure to increase equality. Moreover, as merely providing information to people does not take away any freedom of choice, the self-ownership principle is not seriously harmed

by informing the public about the dangers of meat consumption. On the other hand however, people's freedoms might be harmed by the people not having all the information about what they eat, and the problems this causes. Therefore, I would argue that, left-libertarians want everybody to have the same information, so that chances are more equal. For the same reason, they would support a government issued program to inform the people about possible negative (side) effects of the meat industry; especially because this program does not infringe the principle of self-ownership and everyone retains freedom of choice. However, as I have mentioned before, there is still the paternalistic counterargument of stricter right-wing libertarians. They would say that although the government does not *directly* take away any freedom choice freedom, the government does try to indirectly change the choices you make, because they supposedly know what is better for you. The government actually trying to influence your choices is called 'nudging', this and the paternalistic counter argument will be extensively discussed in the next paragraph.

Concluding this paragraph I can argue that there certainly are possibilities regarding disclosure policy to be found within the libertarian spectrum. Especially when the government does not have to fund it, even strict libertarianism would have no problem with information campaigns. I argue that left-libertarians would have no problems with a government issued and funded information campaign, for informing the public would create a more equal society. For left-libertarians in this case the taxation can be justified, because it is used to create a more equal situation.

§ 4.2 Nudging

In this section the option of nudging will be discussed. I will not relay the consequences for each of the problems as discussed in chapter one, as the consequences are more or less similar for each of the problems. I will analyze nudging more generally, and discuss the possibilities and the difficulties nudging can pose for the different strands of libertarianism. Lastly, I will draw some preliminary conclusions on the case of nudging within libertarianism.

According to Thaler & Sunstein (2008) nudging is defined as follows:

"Aspect of the choice architecture that alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives"

(Thaler & Sunstein, 2008, p. 6)

The focus of my analysis will be on government issued nudges. Many nudges can be done by the private sector, a famous example is the supermarket putting certain products on eye level, to nudge the consumer into buying these products. Of course the government can make the private sector impose certain nudges, but when the government imposes nudges on the private sector the goal is obviously to serve the ends of the government, the ends of the private sector are of less important for nudges of these kind. When the government obliges companies to nudge their costumers, it might be said that the whole point of nudging is undercut, because the company would lose its choice freedom on certain issues, while an important aspect of nudging is for everyone to retain their freedom of choice. Nudging however focusses

on the subject of the nudge, as the people who are nudged should be making a choice that in the end is better for them. Hence, if a government obliges a company to nudge, the government is the one who is responsible for the nudge. Still, this criticism seems true to some extent, but I think that not in every field the government has another option than impose nudges, to achieve the biggest reach of their policy. What the government can do in this case, is to at least try to construct the nudge(s) in such a way that they are both beneficial for the ends of the government (better choices for the people) as for the ends of the company (profit). Or to speak in libertarian terms (Lockean proviso), to not make the company's position worse off than before. This does increase the difficulty of nudging, and might to some extent decrease the level of freedom I attached to nudging in the foregoing chapter.

Nudging can for instance be done by making the favorable option, as established by the government, the default option, which has shown to work on several occasions. In the previous chapter I provided the example of an energy company making the green renewable energy option the default one, instead of the 'normal' grey energy (Pichert & Katsikopoulos, 2008). This is an example of a company nudge. With regards to a government nudge however, I want to take a look at the donor system. For an organ donation system there basically are two options: an opt-in system and an opt-out system. In an opt-out system the subject is an organ-donor unless the subjects take the action to opt-out, so being a donor is the default option. The opt-in system works the other way around, where the subject is by default not a donor, unless if he takes action to become a donor. The idea of the opt-out system is to nudge more people into becoming a donor, or technically speaking remain a donor. The subject still has the option to opt-out at any time, without giving a reason for it, so he retains the freedom of choice to not be a donor. Suppose that opting-in and opting-out requires the same amount of trouble (effort, time and money) in both systems I would say the subject retains the same amount of freedom. The goal of the opt-out system is to have more donors, when being a donor is the default option the idea is that this results in more donors.

When it concerns meat consumption, it seems a little harder to construct a strategy that the government can use to nudge people into eating less meat. It seems evident that for a nationwide nudge the government needs to meddle in the private sector. It is way more complicated than the opt-in or opt-out system choice. There are many different places where someone can buy and consume meat. Some examples are restaurants, school or work cafeteria and supermarkets. Recently there have been different experiments of nudging at restaurants. Some examples are: the enhancement of visibility of the vegetarian option or showing carbon emission values of the meal choice on the menu (Kurz, 2018; Filimonau et al, 2017). However restaurants are only a small portion of the meat consumption of course, thus nudging also needs to happen at the supermarket where the meat is bought daily by consumers. Experiments have been conducted decreasing the visibility of meat, and other product placement changes to nudge people into buying less meat, or buy relatively more vegetables (Lindstrom, 2015). It is not exactly clear which nudges work the best, and which are more desirable. My point here is that nudging on such a big scale is complicated and therefore more research is needed, to know where and

how best to nudge. The question which is more important for this thesis remains: to what extent is nudging acceptable for libertarians?

The first and foremost problem that libertarians would have with nudging is likely paternalism, because the government supposedly knows what is better for you than you do and try to influence you to make better choices. However, like touched upon in §3.1.2, Thaler & Sunstein (2008) do not deem paternalism and libertarianism as mutually exclusive concepts. On the contrary, they created a combination of these two terms to substantiate their standpoint: *Libertarian Paternalism*. By using the term of libertarian paternalism, at first glance the authors seem to pose a libertarian defense for nudging (including paternalism). However, the definition of libertarianism as well as paternalism the authors seem to use in this case is so thin that I doubt the argument can even be called libertarian, or really paternalistic. The reason they call their argument libertarian is because it is liberty-preserving - given the absence of coercion (Grüne-Yanoff, 2012). There is no conception of self-ownership present in their argument. Self-ownership is one of the most important parts of any interpretation of libertarianism. Moreover, *paternalism* supposedly is permitted because in the end the people who are nudged would make better or healthier choices. The core of the argument is not different from any other form of paternalism, however in the case of nudging there is no coercion. Hence it might be the case that the government decides what is better for you, yet the individual still makes the choice in the end. So because of this absence of coercion nudging is not a paternalistic measure. Whether or not the individual makes the best choice is not fully relevant for libertarians. For strict libertarians it is not the most important thing what the best choice is, as long as one has full control over the choices one makes. The importance of freedom of choice is the very reason libertarians want to avoid every form of paternalism. In the case of nudging, choices are not taken away but only some choices are made more appealing. So I do not think that libertarianism and paternalism can be conjugated for a convincing defense for nudging. Mostly because nudging is not really paternalistic, because of the absence of coercion and the retaining of full freedom of choice. Moreover, just like the information-providing (disclosure policy) measure nudging has a financial side. Just like with every measure the government takes, when nudging is paid for by the government it would be another reason for strict libertarians to stand opposed this measure.

What conclusions, however, should we draw when we move a little bit more to the left side of the libertarian continuum? The implicit message that nudging carries, is that overall people cannot make the right choices on their own. If people always choose the option that is in their best interest, government nudges would not be necessary. We can connect the nudging proposal here to the meat consumption problem presuming people make worse choices on their own. Suppose, as established in the first chapter, the bad choice is the consumption of (too much) meat. With this choice they harm themselves, because surely eating too much red meat brings a higher risk of obesity. This, in turn, increases the risk of cardiovascular diseases and colorectal cancer. Taking these risks can even be seen as harming everyone, if we take into account the higher welfare costs this would bring. Moreover, with

the choice to eat meat they can also indirectly harm others through global warming, because global warming affects everyone. If harm to the self and others can be prevented without fully taking away freedom of choice, I think left-libertarian support is also possible for nudging. However, I think that there should be some tough constraints here, because it might be hard to determine what is the better choice for people. On the other hand, it seems quite evident that in any case reduction of meat consumption decreases the risk of some diseases, so it is beneficial for the individual. Moreover, it seems clear that the reduction of Green House Gasses is better for the sustainability of our planet, thus better for everyone. Because, like shortly discussed above (and extensively in §2.4.1), all the people have a shared common ownership of the natural world, according to left-libertarians.

§ 4.3 Meat Tax

As introduced in the foregoing chapter, the third option for the government is the (extra) taxation of meat, which I will further introduce and analyze below. I will first explain the distinction in terms of freedom with the nudging measurement. After that I will discuss meat tax regarding the ever prominent three problems. Lastly I will conduct a libertarian analysis on the measure, on which I will draw some preliminary conclusions.

I deem the taxation of meat slightly more freedom-infringing than nudging. With regard to the latter, the choice itself might be influenced, or at least an attempt is done to influence the choice. With nudging however, I argue that people always retain their full freedom of choice. That is not the case with taxation, no matter how the taxation is carried out, either through carbon emissions or through an excise, meat will get more expensive. Because of this price increase some people might not be able to afford meat anymore, so these people lose the positive freedom to buy meat, while with nudging this positive freedom is retained.

There are two main options for the taxation of meat, the first being an excise like there is on gasoline, tobacco and alcohol, sometimes called a sin-tax. The second option is carbon emission tax, which puts extra tax on the carbon emission of meat producers, possibly subsequently subsidizing food producers that provide healthy alternatives while contributing less carbon emission. Both of these approaches serve one main purpose: to cover for the hidden costs that are attached to meat. The hidden costs consist of damages to the environment which are hard to calculate precisely, and health problems with increasing healthcare costs for meat eaters (Springmann et al., 2018). The overarching result of the meat taxation would be a reduction of environmental damage as well as health damages. Either way we choose has serious benefits for all humans. It can even be argued that it indirectly benefits animals as well, be it in utilitarian sense. If lesser animals are consumed in total, that means that less animals have to suffer and die for consumption. Overall this means less pain in the utilitarian calculus.

This proposal in terms of freedom is nonetheless more intrusive than the two I have discussed so far. Like I have explained extensively in §2.1 and shortly in §3.1.3 strict libertarians stand directly opposed to most forms of taxation. The only opportunity for taxation within the strict libertarian sense is the taxation that is meant to maintain the background institutions that protect people from

infringements on their self-ownership (Nozick, 1974).

For this government measure, the different way the natural world is perceived by left-libertarians plays an important role. If we shift more leftwards on the libertarian continuum, we have found libertarians that care about preservation of the natural world. There are two varying reasons why left-libertarians care about preservation of natural resources. The first is a matter of principle, as according to leftist libertarians the whole natural world according to leftist libertarians is in some sort of common ownership of humanity as a whole. When someone acquires a part of this natural world, immediately everyone's self-ownership is somewhat damaged. From a left-libertarian standpoint it can be argued that those who are disadvantaged by this infringement should be compensated. A system of taxation can bring in revenue, that can be redistributed among those who are disadvantaged by the (according to left-libertarians) unjust first acquisition. This redistribution is important for left-libertarians, because they look beyond a just first acquisition and strive for a just and equal distribution. The second reason for preservation ties in with the first one. We have a duty to preserve natural resources because they belong to everyone, including children who may not be old enough to be seen as moral agents. Following the reasoning of some left-libertarians this also includes future generations, thus people who do not exist yet (Hettinger, 1998). The interesting part of a meat taxation is the fact that the ones that contribute to the problems as described in chapter one, are also the ones who pay for it. Meat taxation therefore can rightly and strikingly be called a 'sin tax'. Whether or not taxation would help us directly to preserve nature remains uncertain. It is safe to state however, that increasing the costs of meat would mean less meat consumption (as well as production). The decrease in overall consumption will mean fewer health risks, this is beneficial for the individuals as well as for the community. The decrease in production also means less Greenhouse Gas Emissions (GHGE). This would at the very least mean a decrease in global warming. Moreover the taxation of meat brings in revenue. This revenue can for instance be used to subsidize the production (and research on) alternatives for meat, so that these alternatives become more affordable than meat itself. As any appropriation of the natural world causes infringement of the rest's self-ownership. The tax revenue can also be used to redistribute among everyone, to make up for this injustice in the first appropriation, and create more material equality.

To end the paragraph around meat taxation I will draw some preliminary conclusions. We can simply say that strict libertarian stand directly opposed to the idea of taxation, hence also on the increase of meat taxation. According to Nozick (1974) taxation is meant to ensure everybody's self-ownership principle, and this meat tax would do the contrary: infringe this self-ownership of people because they can lose their positive freedom to purchase meat. According to left-libertarian theory however, taxation opens up an opportunity for redistribution. For left-libertarian theory there are two major benefits for this approach, the first being that less meat consumption likely leads to better preservation of natural resources. Secondly, the tax revenue can be used to create a more equal distribution of (the benefits of) these natural resources. If the tax revenue is used this way, in the case of an excise (sin tax) those who

eat the meat directly pay for those who are disadvantaged. In the case of carbon emission, they indirectly pay for it. Thus I argue that a left-libertarian defense for meat taxation is highly possible.

§ 4.4 Prohibition of meat

The last paragraph of the analysis will be dedicated to the most infringing measure the government can possibly take: a total meat ban, making the production as well as the consumption of meat illegal. I will start this paragraph with the effects this might have, positively and negatively, on the problems we have discussed extensively now. Thereafter I will connect the proposal to libertarianism and make an attempt to construct a libertarian defense for a full meat ban. I will end this paragraph with a conclusion on the most controversial, and freedom restricting possibility for the government.

Of all the measures I proposed here a ban is surely the most controversial. At the same time it is certainly the measure that will have the biggest positive impact on all of the problems. Firstly regarding the problem of global warming, the second to largest contributor to global warming (roughly 15 percent) will completely disappear, making a huge difference in one of the most imminent problems of our time. All the factory farms would disappear and a big part of the agriculture that is now producing the food of our food would become obsolete, or could be used to produce food for ourselves now. Secondly, for the case of human health, it was established in §1.2 that even a small intake of processed meat increases the risk of cancer by 18 percent, and red meat is likely (according to the WHO) cardiogenic. It would become illegal to eat these (probably) cardiogenic substances. The high intake of meat that could possibly lead to obesity, which in its turn could cause cardiovascular diseases, would become prohibited as well. Bluntly put, more preventable diseases will actually be prevented by the prohibition of meat. Lastly, with regards to the animal welfare case, the prohibition of producing animals for consumption would mean that (apart from illegal ‘production’) no animals will suffer for the sole purpose of human consumption anymore.

I will not deny that there are some serious downsides to a meat prohibition. Firstly, because of the size of the meat industry a lot of people will lose their jobs. Jobs in factory farms, the agricultural sector devoted to the meat industry, the logistical sector, butchers and other people involved in the meat industry will practically become either obsolete or illegal. Although, naturally a lot of jobs in the meat substitutes industry will open up, this will not solve the problem entirely. Secondly, the problem of livestock remains now, which (legally) cannot be slaughtered and eaten anymore, hence will become scarce and therefore valuable. This can cause problems for those who own the livestock the moment meat will be banned. The moment meat that will be banned is not the same moment all (livestock) animals are gone. How to deal with this abundance remains a problem. I do not intend to dwell on these problems for too long. Nevertheless I think it is important to acknowledge that there are also going to be some pragmatic difficulties apart from the freedom restrictions.

The problems of a meat ban for libertarianism became immediately clear in the first sentence of this paragraph. The self-ownership principle of everyone is infringed, because people cannot decide anymore what they want to eat, specifically eating meat. Farmers can also not choose to produce animal

meat anymore. Thus it seems quite clear where the problems for libertarians lie with regard to the meat ban, as the government deciding for the people what they can and cannot eat is paternalism in its purest form. Surprisingly though, even for the most strict interpretations there are also possibilities of having a more nuanced perspective on such a ban. The fact remains that also within strict libertarianism the principle of self-ownership rests on equality (Nozick, 1974). Everyone has the same claim to self-ownership and everyone has the equal right for that self-ownership principle not to be violated. With the way the meat industry is designed, it is the cause for roughly fifteen percent of the total of global warming, which causes ice caps to melt and in its turn cause the sea levels to rise. If people are threatened by the rising sea levels, because they live in places that are prone to flooding, are their freedoms (and thus self-ownership) then not indirectly violated by the people who cause the sea levels to rise? Of course the meat industry is not the only cause for global warming, and there could be more pragmatic solutions to areas that are prone to flooding, but that is beyond the point here. If the numbers are correctly showing that the meat industry has such a big contribution in the cause of the rising sea levels, we have a strong case to say that the meat industry directly threatens peoples livelihood and even their lives. The biggest (libertarian) argument to not stop this threat to people's live and livelihood is the concept of freedom. Everyone has an equal right to his freedom, and their freedoms to not be infringed. People therefore do have the freedom to do what they want, free from government interference, as long as they do not violate anyone else's freedom with their actions. The government should make sure that your freedom is guaranteed, and not infringed by anyone. For that reason the government should also not allow for people to lose their life or livelihood, because that is also a big violation on the freedom of people. To put it very bluntly, the question then becomes whether the principle of self-ownership is equally important for people who have their dietary choice restricted as for people whose life and livelihood might depend on it. Intuitively I, and hopefully most people, would say that human lives are surely more important than dietary choices. This last sentence might be a farfetched representation of the problem, but it might just be what it frankly boils down to.

Now I move on to the 'entitlement theory' as constructed by Robert Nozick. Together with self-ownership, the entitlement theory belongs to the core concepts of strict libertarian theory. The historical account of Nozick concludes that:

'A process normally giving rise to a permanent bequeathable property right in a previously unowned thing will not do so if the position of others no longer at liberty to use the thing is thereby worsened'
(Nozick, 1974: p. 178)

Nozick explains with this quote the Lockean proviso I discussed before. A legitimate appropriation of natural resources should not worsen the overall position of everyone, but property rights over natural resources can be legitimate to avoid the tragedy of the commons. To analyze the entitlement theory we might need to stretch the argument a little bit. We have a global problem and we need to see the earth as a whole as a natural resource, of which we are all shared owners according to left-libertarians. If we

take this assumption we can see quite directly that people are definitely worse off than before. Mainly in the Western world we have appropriated a huge proportion of the earth for the production of meat. We gained property rights over animals as well as big proportions of the earth to serve as factories to process the animals. But we did not only gain property rights over animals, estimates show that at least half of the grain and corn production of the United States is used for *the food of our food*. The meat production has such a big contribution to the heating of the earth that everyone is worse off, because we are close to living in a world victim to the tragedy of the commons. So if we use the entitlement theory in the way I argue, we can find another libertarian defense for the complete meat ban, as this would largely solve the tragedy of the commons.

Let's now take a look at the Lockean proviso, which is a requirement for libertarians to judge whether or not the first appropriation (original acquisition) was done justly. For the Lockean proviso two things are most important: to leave enough (1) and as good (2) of the resources as there was before. The way the meat industry currently is designed does not seem to uphold this Lockean proviso. Admittedly we are now a long time after the first appropriation, so strict libertarians would hold to the first appropriation being just as the criterion. However left-libertarians also consider the distribution and equality after the first appropriation as an important criterion, for the appropriation being just. Therefore in the Lockean proviso there another left-libertarian argument for a ban on meat.

The conclusions we can draw from this last paragraph are, remarkably enough, that a full ban on meat can be defended from left-libertarian as well as strict libertarian views. The two most important strict libertarian concepts, self-ownership and the entitlement theory, both give us ground to defend fair government measures. In left-libertarian theory however, there was ground for measures on the whole continuum of options for the government. For the ban on meat there is also a left-libertarian case, on the base of the common asset idea and the Lockean proviso being violated. A full ban on meat would have a tremendous impact for all of the three problems. Keeping in mind that an illegal meat industry will likely arise, the problems will not disappear completely. However, a lot of the problems regarding individual health will disappear and the overconsumption of meat will become illegal, hard and expensive. The cases of diabetes, caused by the overconsumption of meat will be greatly reduced and people have a lower risk of getting cancer. With regards to people's health, the meat ban will have great benefits. Although it might not take on the moral problems of speciesism, it will surely cause less animal suffering because factory farms become illegal and millions of (future) animals will be saved from a life of suffering.

Conclusion

This research has shed a light on the meat industry, more precisely the problems attached to the meat industry. Four different government measures have been discussed to deal with these problems. Subsequently the libertarian school of thought is explained and used to evaluate the feasibility of these government measures within libertarianism. The foregoing chapter attempts to answer the sub-question as posed in the introduction. In this chapter the findings for each different government measure will concisely be summarized, in the same order as in the foregoing chapter. After that I will take a step back and try to answer the main research question, by giving my own interpretation of the problems and possibilities. Furthermore, the possible shortcomings of this research will be evaluated, and lastly some recommendations for further research will be given. The sub-question that will serve as the theoretical basis for the answer of the main question is posed as follows:

What can the government do within the boundaries of libertarianism to reduce meat consumption?

The first measure is informing the public through a *disclosure policy*, in terms of freedom restrictions the most lenient option for the government. For this policy the conclusion can be drawn that for strict libertarians it is difficult to defend such a policy when its conducted by the government, the ground for this objection is that for the government to fund such a policy taxation is needed. Strict libertarians reject most forms of taxation, as well as this one. For strict libertarians to support a form of disclosure policy or an informational campaign for the public, it needs to be funded by the public and not the government. If we move away from the strict libertarian side of the spectrum towards the left, we can find more room for a defense of such a disclosure policy. Left-libertarians see freedom as means to an end, these ends are among others a more equal society. From a left-libertarian standpoint, in some cases a defense for taxation is possible, for through this option a more equal distribution of information can be achieved, and therefore a more equal society. Moreover, the measure of disclosure policy, apart from the taxation, does not take away freedom of choice, so everyone retains full self-ownership.

Secondly, in terms of freedom a little more restricting, is the possibility of *nudging*. For nudging the case becomes a little more complex. Nudging can be seen as a paternalistic measure, because the government decides what is better for you, and on this basis they try to influence your choice. The government then tries to steer you towards the right choice, the right choice in this case being eating less meat or no meat at all. However, nudging entails only steering, I would not deem this as a restriction in the freedom of choice. In the end the individual remains the one who makes the choice. Strict libertarians would still reject nudging from the government on the base of the taxation argument, because government funded nudges require tax revenue. On the left-libertarian side, nudging would be acceptable. Because nudging can, without taking away freedom of choice, prevent harm to the self and to others. Moreover, it can prevent or at least reduce harm to the natural world, which we are all shared owners of according to the common-asset idea of left-libertarianism.

The third possibility for the government I have evaluated is the *meat tax*. The strict libertarian

view would stand opposed to this for the same reasons they reject the first two possibilities. Taxation for strict libertarians is only possible when the revenue is used to ensure peoples self-ownership. This meat tax would not defend the self-ownership principle therefore strict libertarian theory stands opposed to this government measure. Moreover, this meat tax can even infringe people's self-ownership, because when meat becomes more expensive, some people can lose the positive freedom to purchase this meat. On the left-libertarian side the taxation of meat opens up possibilities. Taxation can be justified if it enhances equality. Taxation can bring in revenue that can be redistributed. Through this taxation we can thus create a more equal distribution of the benefits of these natural resources. Any appropriation of the natural world is an infringement on everyone's self-ownership, as everyone is a shared owner of the natural world. To make up for this unjust acquisition(s) of the natural world the tax revenue can be used, to at the very least create more (robust) material equality.

The last, and most freedom infringing, measure is the *prohibition of meat* or a *meat ban*. From the left-libertarian perspective we have established multiple reasons to defend such a measure. The way the meat industry is designed, it takes up large proportions of the earth with the portions that house the factory farms themselves but also the portion of agriculture that is devoted to the meat industry. This means that the Lockean proviso cannot be maintained regarding the meat industry. A meat ban would mean that at least in terms of the agriculture usage, there can be enough and as good again for everyone. What is more remarkable, is that we can even find a strict libertarian defense for the ban on meat, or at the very least a more nuanced position to such a measure. I argued that global warming is such a threat to humanity, that the whole world is close to becoming victim of the tragedy of the commons, because of the over-usage of the natural resources. The meat industry has such a big contribution to global warming, that a meat ban for a big part would solve this tragedy of the commons. Moreover, there is a severe tension for the self-ownership principle to be found with the problem of global warming, and therefore the meat industry. Is the self-ownership principle and its maintenance equally important for people whose livelihood depend on it as for people who would have to make a dietary switch? To put it very bluntly: is the freedom to live of the same importance as having the freedom to choose what to eat?

I have shown that even in the most strict libertarian school of thought there are aspects that think more nuanced about government interference. Nevertheless, I highly doubt that there will be many strict libertarians in favor of a meat ban. Even if they concur with my argument regarding the tragedy of the commons and the equality claim of self-ownership, there are other, less infringing measures that can be taken. Strict libertarians could agree that the way the meat industry currently is designed is wrong, but that does not mean that meat consumption in itself is wrong. Very simply put the argumentation is based on the harmful effects of climate change in two ways. First with regards to the direct harm inflicted to people that for instance live in areas prone to flooding. Secondly through the way climate change is worsening the overall state of our planet, where we and our future generations are all a victim of. So libertarians could argue that a certain kind of meat industry, one that does not have the same harmful effects to the environment would succeed. If meat is produced in a biological, environment friendly way,

both of the arguments do not hold. It is possible for this reasons that libertarians would support small-scale biological production of meat. Nevertheless, overall the conclusion regarding libertarianism is still in any case that the way the meat industry is designed now, should change.

With the libertarian view as the groundwork, I will now attempt to answer the main question of this research:

Should the government influence our behavior to reduce meat consumption?

Although there might be bottom up possibilities like people choosing to be vegetarian or even vegan, it is highly doubtful this will have the effect is of desirable scale. Besides, I think the problems are urgent and imminent enough to argue that a solution on a bigger scale is needed. Moreover, the problems are too big to either solve themselves or be solved bottom-up, therefore I would say that the government is needed to solve the problem. The requirement of government interference can even be defended through the strict libertarian theory, this strengthens the argument of government interference tremendously. The fact that it can be even through this theory be argued, gives us much ground to believe that more lenient approaches will surely be in favor of government interference. As I have showed above (and in the foregoing chapter), the more lenient (in terms of self-ownership) left-libertarian approach gives reasons to accept all four of the proposed measures by the government. However, we should not limit the conclusions to libertarian interpretations, as I have done above for the sub question. I would argue more lenient political approaches such as liberalism could be in favor of government interference as well, as liberals are usually less strict in their freedom interpretations than libertarians are. That then also social liberal, social democrats and green political approaches can provide argumentation for government interference seems evident.

If we take a step back from libertarianism and look at the problems in themselves, the global warming arguments could be enough to argue for government interference. As stated above, you could argue that even though the current design of the meat industry is fundamentally wrong, this does not mean that meat consumption itself is wrong. We could however provide substantial moral arguments for the case of animal welfare as well. Like I argued, in the first chapter, there is no morally valid answer to the question why we are allowed to kill (and mistreat) animals that have the same will to live as humans whom we are not allowed to kill. This moral reason is, in my opinion, very important why only the closing of the factory farms is not enough, because even in the biological environment friendly alternatives for these factories, these animals will live solely for our consumption. For the case of human welfare the situation is a little bit more dubious, because you could argue that people are free to consume things that are unhealthy, just like people are free to consume alcohol, tobacco and candy. At the very least, we should say that people need to be aware of the problems meat may cause for the health of humans, which is I think in many occasions not the case yet. We should aim for the option that would have the most positive impact on all of the problems posed in the first chapter, therefore we would need a full ban on meat. So ideally the government should prohibit meat altogether. However, it is almost

completely unforeseeable what the practical implications of such a meat ban would be. This would have its impact on for instance the economy and probably the society as a whole. So before a (full) meat ban can become reality, a lot of research needs to be done on what these consequences will be. The most effective short-term solution out of the possibilities I offered would probably be a meat tax, simultaneously subsidizing environmentally friendly alternatives. What I have attempted to argue above: even though it might practically not be possible (yet), the government should influence our behavior to reduce meat consumption, or stop it all together.

Reflection

In this last segment I will discuss some of the shortcomings of this research, thereafter I will give some recommendations for further research. In this research I focused on the theoretical question of what the government could within the borders of libertarianism to reduce the consumption of meat. The most important shortcoming is that a description such as I gave on libertarianism is not a complete overview of the theory. Because of the space and time limitations, I have to make a divide between right, left and environmental libertarianism, which may seem farfetched or dubious to some libertarians. Nevertheless, within the limited space I had I have tried to construct a concise and complete overview of the libertarian theory. Another obvious shortcoming in this research is that I only have discussed four measures the government could take, while the actual scale of different options for the government is much bigger. Moreover, the government does not have to pick one of the options and neglect the others, it can also use different combinations of options. However, for the sake of simplicity and my argument I chose not to complicate it that much. Additionally, the practical and political implications of a meat ban are tremendous, as it is very difficult (if not impossible) to predict what will happen to the (world) economy for example. Next to that I have talked about the government imposing something, but a full meat ban will only work if the whole world would impose this altogether, yet as there is no world government this is impossible.

For further research it would be very interesting and helpful to take into account some of the practical implications I just mentioned and considering what would be the economic, political and societal consequences of a meat ban or a substantial meat tax for a country, and worldwide. Furthermore, with regards to nudging it would be interesting to find out how and where this is most effective. Can the government impose a nudge on companies without negatively influencing the profit of that company?

Bibliography

- Anthoff, D. & Emmerling, J. (2016). Inequality and the Social Cost of Carbon. SSRN Electronic Journal. 10.2139/ssrn.2830457.
- Baumann, T. (2018). 'The Case Against Speciesism' *Reducing Risks of Future Suffering*. Retrieved from: <http://s-risks.org/the-case-against-speciesism/>
- BBC (2018, November 26th). 'Trump on climate change report: 'I don't believe it''. *BBC*. Retrieved from: <https://www.bbc.com/news/world-us-canada-46351940>
- Berlin, I. (1969). "TWO CONCEPTS OF LIBERTY," *Four Essays On Liberty*, (Oxford, England: Oxford University Press, p. 118-172.
- Boaz, D. (1999). Key concepts of Libertarianism, *Cato Institute*. Retrieved from: <https://www.cato.org/publications/commentary/key-concepts-libertarianism>
- Briggs, A.D., Kehlbacher, A., Tiffin, R., & Scarborough, P. (2015). Simulating the impact on health of internalising the cost of carbon in food prices combined with a tax on sugar-sweetened beverages. *BMC public health*.
- Cahill, A. E., Aiello-Lammens, M. E., Fisher-Reid, M. C., Hua, X., Karanewsky, C. J., Ryu, H. Y., ... Wiens, J. J. (2013). How does climate change cause extinction?. *Proceedings. Biological sciences*, 280(1750), 20121890. doi:10.1098/rspb.2012.1890
- Cambridge. (2012, July 7.) *The Cambridge Declaration on Consciousness*. [press release] Retrieved from: <http://fcmconference.org/img/CambridgeDeclarationOnConsciousness.pdf>
- Cook, John & Oreskes, Naomi & T Doran, Peter & Anderegg, William & Verheggen, Bart & Maibach, Edward & Stuart Carlton, J & Lewandowsky, Stephan & Skuce, Andy & Green, Sarah & Nuccitelli, Dana & Jacobs, Peter & Richardson, Mark & Winkler, Baerbel & Painting, Rob & Rice, Ken. (2016). Consensus on Consensus: A Synthesis of Consensus Estimates on Human-Caused Global Warming. *Environmental Research Letters*. 11.
- Dierenbescherming (2019 z.d.). *Beter Leven*. Retrieved from: <https://beterleven.dierenbescherming.nl/beter-leven>
- Doyle, A. (2019 February 25). Evidence for man-made global warming hits 'gold standard': scientists. *Reuters*. Retrieved from: <https://www.reuters.com/article/us-climatechange-temperatures/evidence-for-man-made-global-warming-hits-gold-standard-scientists-idUSKCN1QE1ZU>
- Duignan, B. (2018). 'Speciesism'. *Encyclopedia Britannica*. Retrieved from: <https://www.britannica.com/topic/speciesism>
- Feser, E. (2005). There is no such thing as an unjust initial acquisition . *Social Philosophy and Policy*, 22(1), 56-80.

Filimonau, V, Lemmer, C, Marshall, D & Bejjani, G (2017). 'Nudging' as an architect of more responsible consumer choice in food service provision: The role of restaurant menu design, *Journal of Cleaner Production*, Volume 144, Pp: 161-170,

Francione, Gary L. () "Equal Consideration and the Interest of Nonhuman Animals in Continued Existence: A Response to Professor Sunstein," *University of Chicago Legal Forum*: Vol. 2006: Iss. 1, Article 8.

Francis, A. (2014). *What in God's Name are you Eating?: How Can Christians Live and Eat Responsibly in Today's Global Village?* Cambridge, United Kingdom: Lutterworth Press.

Galvani, A. P., Bauch, C. T., Anand, M., Singer, B. H., & Levin, S. A. (2016). Human-environment interactions in population and ecosystem health. *Proceedings of the National Academy of Sciences of the United States of America*, 113(51), 14502–14506. doi:10.1073/pnas.1618138113

Godfray H CJ, Aveyard P, Garnett T, Hall JW, Key TJ, Lorimer J, Pierrehumbert RT, Scarborough P, Springmann M, Jebb SA (2018) Meat consumption, health, and the environment. *Science* 361

Gruen, L. (2017). "The Moral Status of Animals", *The Stanford Encyclopedia of Philosophy* (Fall 2017 Edition), Edward N. Zalta (ed.), Retrieved from: <https://plato.stanford.edu/entries/moral-animal/#Spec>

Grüne-Yanoff, T. (2012). Old wine in new casks: Libertarian paternalism still violates liberal principles. *Social Choice and Welfare*, 38(4), 635-645

Halteman, M. (2011). Varieties of Harm to Animals in Industrial Farming. *Journal of Animal Ethics*, 1(2), 122-131. doi:10.5406/janimalethics.1.2.0122

Harrison, R (1964), *Animal Machines*, London: Vincent Stuart.

Hayek, F.A. (1960). *The Constitution of Liberty*, Chicago: University of Chicago Press

Hettinger, N. (1998). Who owns nature? A debate (www.bioethics.iastate.edu/forum/hettinger.html) Accessed 15 May 2019.

International Agency for Research on Cancer (2015): *Red Meat and processed meat: IARC monographs on the evaluation of cardiogenic risks to humans*. Retrieved from: <https://monographs.iarc.fr/wp-content/uploads/2018/06/mono114.pdf>

International Agency for Research on Cancer (2015, October 26) *IARC Monographs evaluate consumption of red meat and processed meat* [press release] Retrieved from: https://www.iarc.fr/wp-content/uploads/2018/07/pr240_E.pdf

IPCC, 2013: Summary for Policymakers. In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

IPCC (2014): Summary for Policymakers. In: Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Edenhofer, O., R. Pichs-Madruga, Y. Sokona, E. Farahani, S. Kadner, K. Seyboth, A. Adler, I. Baum, S. Brunner, P. Eickemeier, B. Kriemann, J. Savolainen, S. Schlömer, C. von Stechow, T. Zwickel and J.C. Minx (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA

Kant, I. (1998). Critique of Pure Reason (The Cambridge Edition of the Works of Immanuel Kant) (P. Guyer & A. Wood, Eds.). Cambridge: Cambridge University Press.
doi:10.1017/CBO9780511804649

Koneswaran, G., & Nierenberg, D. (2008). Global farm animal production and global warming: impacting and mitigating climate change. *Environmental health perspectives*, 116(5), 578–582. doi:10.1289/ehp.11034

Kurz, V. (2018). Nudging to reduce meat consumption: Immediate and persistent effects of an intervention at a university restaurant, *Journal of Environmental Economics and Management*, 90 pp. 317-341,

Kvaløy, B., Finseraas, H., & Listhaug, O. (2012). The publics' concern for global warming: A cross-national study of 47 countries. *Journal of Peace Research*, 49(1), 11-22.

Kymlicka, W. (2002). Contemporary political philosophy : an introduction. Oxford ; New York: Oxford University Press.

Lindström, L. (2015). Nudging towards sustainable meat consumption: a natural field experiment (Dissertation). Retrieved from <http://urn.kb.se/resolve?urn=urn:nbn:se:su:diva-124378>

MacKinnon, B. (1977). "Animal Liberation: A New Ethics for Our Treatment of Animals," by Peter Singer. *Modern Schoolman* 54 (4):420-421.

Miron, J.A. (2010). *Libertarianism from A to Z*. New York: Basic Books.

Mommers, J (2018, 11th of January). 'Nee, Thierry Baudet heeft geen gelijk over het klimaat'. *De Correspondent*. Retrieved from: <https://decorrespondent.nl/7817/nee-thierry-baudet-heeft-geen-gelijk-over-het-klimaat/861503753-97cd1455>

Moss, A., Jouany JP., Newbold,J. (2000). Methane production by ruminants: its contribution to global warming. *Annales de zootechnie, INRA/EDP Sciences*, 49 (3), pp.231-253.

- Nicholls, R.J. 2011. Planning for the impacts of sea level rise. *Oceanography* 24(2):144–157,
- Nozick, R. (1974). *Anarchy, State, and Utopia*, New York: Basic Books.
- Pichert, D & Katsikopoulos, K.V. (2008). Green defaults: Information presentation and pro-environmental behaviour. *Journal of Environmental Psychology*, 28 (1). Pp. 63-73.
- Pimentel, D & Pimentel, M (2003). Sustainability of meat-based and plant-based diets and the environment, *The American Journal of Clinical Nutrition*, 78/3: 660-663
- Pluhar, Evelyn B. (2010). Meat and Morality: Alternatives to Factory Farming. *Journal of Agricultural and Environmental Ethics*_ 23 (5):455-468.
- Quong, J. (2011), Left-Libertarianism: Rawlsian Not Luck Egalitarian. *Journal of Political Philosophy*, 19: 64-89.
- Rasmussen, D.B. and Den Uyl, D.J.. 1991. *Liberty and Nature: An Aristotelian Defense of Liberal Order*. La Salle: Open Court.
- Rothbard, M.N. (2002). *The Ethics of Liberty*. New York: New York University Press.
- Rothbard, M.N. (2006). *For A New Liberty: The Libertarian Manifesto*. Second Edition. Auburn: Ludwig von Mises Institute.
- Schmidtz, David (1990). 'When is Original Appropriation Required?', *Monist*, 73/4: 504-18.
- Scriven, T. (1997). *Wrongness, Wisdom and Wilderness: Towards a Libertarian Theory of Ethics and the Environment*. Albany: State University of New York Press.
- Shakur, T (1998) Changes. [Deon Evans] [mp3 file]. Marin city: Amaru
- Singer, Peter. (1990). *Animal liberation*. New York, N.Y: New York Review of Books.
- Smil, V. (2002). Eating Meat: Evolution, Patterns, and Consequences. *Population and Development Review*, 28(4), 599-639.
- Springmann M, Mason-D’Croz D, Robinson S, Wiebe K, Godfray HCJ, Rayner M, et al. (2018) Health-motivated taxes on red and processed meat: A modelling study on optimal tax levels and associated health impacts. *PLoS ONE* 13(11)
- Steiner H, Vallentyne P, Otsuka M (2005). Why left-libertarianism is not incoherent, indeterminate, or irrelevant: a reply to fried. *Philosophy & Public Affairs*, 33:201-205.
- Steiner, H.I. and Vallentyne, P. (2007). Libertarian Theories of Intergenerational Justice. *In*: Gosseries, A. and Meyer, L., eds., *Justice Between Generations*. Oxford: Oxford University Press.

Sweet, W.V., R. Horton, R.E. Kopp, A.N. LeGrande, and A. Romanou (2017): Sea level rise. In: *Climate Science Special Report: Fourth National Climate Assessment, Volume I* [Wuebbles, D.J., D.W. Fahey, K.A. Hibbard, D.J. Dokken, B.C. Stewart, and T.K. Maycock (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 333-363, doi:

Ten Bos, R. (2017), *Dwalen in het antropoceen`* (1st edition). Amsterdam, The Netherlands. Boom Filosofie.

Thaler, R. H., & Sunstein, C. R. (2009). *Nudge: improving decisions about health, wealth, and happiness*. Rev. and expanded ed. New York: Penguin Books.

Thomas, C. D., Cameron, A., Green, R. E., Bakkenes, M., Beaumont, L. J., Collingham, Y. C., ... Williams, S. E. (2004). Extinction risk from climate change. *Nature*, 427(6970), 145-148

U.S. Department of Health and Human services (2014). Fifty Years of Change 1964–2014 in: *The Health Consequences of Smoking—50 Years of Progress: A Report of the Surgeon General*. (pp. 15-35). Atlanta. GA: U.S. Department of Health and Human services.

United Nations Framework Convention on Climate Change (2019). About the secretariat. Retrieved from: <https://unfccc.int/about-us/about-the-secretariat>

United Nations Framework Convention on Climate Change (2019). *About the secretariat*. Retrieved from: <https://unfccc.int/about-us/about-the-secretariat>

USDA (2018), Economic Research Service, "World Agricultural Supply and Demand Estimates, WASD-256,"

Vallentyne, P. (2000). Introduction: Left-Libertarianism – A Primer. In: Vallentyne, P. and Steiner, H.I. eds., *Left-Libertarianism and Its Critics: The Contemporary Debate*. Basingstoke: Palgrave , 1-20.

Vallentyne, P. (2005) Of Mice and Men: Equality and Animals. *The Journal of Ethics*, 9 (3)403-433.

Vallentyne, P. (2007). Libertarianism and The State. *Social Philosophy & Policy*, 24 (1), 187-205.

Van der Vossen, Bas, "Libertarianism", *The Stanford Encyclopedia of Philosophy* (Spring 2019 Edition), Edward N. Zalta (ed.), Retrieved from: <https://plato.stanford.edu/entries/libertarianism/>

Viser, M (2018, 2 December) ‘Just a lot of alarmism’: Trump’s skepticism of climate science is echoed across GOP. *The Washington Post*. Retrieved from: <https://www.washingtonpost.com/politics/just-a-lot-of-alarmism-trumps-skepticism-of-climate->

[science-is-echoed-across-gop/2018/12/02/f6ee9ca6-f4de-11e8-bc79-68604ed88993_story.html?noredirect=on&utm_term=.2a99781cf177](https://www.theguardian.com/science-is-echoed-across-gop/2018/12/02/f6ee9ca6-f4de-11e8-bc79-68604ed88993_story.html?noredirect=on&utm_term=.2a99781cf177)

Wang, Y., & Beydoun, M. A. (2009). Meat consumption is associated with obesity and central obesity among US adults. *International journal of obesity (2005)*, 33(6), 621-8.

Widerquist, K. (2009). A Dilemma for Libertarianism. *Politics, Philosophy & Economics*, 8 (1), 43-72.'

Wissenburg, M. (1993). The idea of nature and the nature of distributive justice. In: Dobson, A. and Lucardie, P. eds., *The politics of nature*. London: Routledge, 3-20.

Wissenburg, M. (2011). The Concept of Nature in Libertarianism. Paper for the ECPR General Conference, Reykjavik, September 2011.

Wissenburg, M. (2018). The Foundation of Rights to Nature. In: Oksanen, M., Dodsworth, A., and O'Doherty, S. eds., *Environmental Human Rights: A Political Theory Perspective*. London: Routledge, 66-84.