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# **How is animal welfare internalized in consumers' purchase decision?**

- A Means-end chain analysis

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# Abstract

As a consumer, the choice of what food to buy can be rather challenging due to the great supply of items and each item's set of various product attributes. Consumer behavior is often viewed as goal-oriented, and by choosing a specific product or brand, the consumer will satisfy or achieve his or her broad life goal - a symbolic, personal value. In our food consumption, meat is a central element, and is often related to the "meat paradox"; most people enjoy eating meat but also care for animals' wellbeing. The ethical consumption has been up for discussion, with questions about what is right or wrong to purchase and consume in a moral sense. Particularly the animal welfare aspect of pork has been discussed because of the differences in the legislation of animal protection among countries.

Research about consumers' purchase decision has emphasized that consumers express a concern that the welfare of farm animals are protected. However, these studies did not investigate how the concern for farm animal welfare is related to underlying values, or which these values are. These results have also been obtained by methods where consumers give answers based on simulated shopping experiences. Though, when individuals are standing in the grocery store and making purchase decisions in the role of consumer, the connection between their stated attitudes and concerns, and their true purchase behavior is not always consistent. Thus, one cannot be sure that people's reported views on farm animal welfare appear when they select meat in a real purchase situation.

This study aims to explore how animal welfare is internalized in consumers' purchase decision and what personal values influence the decision when selecting animal-based food products. It is assumed that it is the personal values that motivate choosing a certain product with its certain attributes. By using Personal value theory, Means-end chain theory and Laddering interviews conducted at the point of purchase, we can obtain the true reasons for consumers purchase behavior. Through our method, we are able to find what values influencing the decision and obtain answers from the respondents in their role as consumers and not as citizens.

The result from this study indicates that animal welfare is not the most salient element in our respondents' purchase decision of pork. The results demonstrate that when selecting a specific pork fillet, almost half of the respondents expressed the product's price as the primary mean to reach their desired end state; having money for other things. Around one third of the respondents had farm animal welfare in their minds to reach their desired end state; feeling good or acting ethically. We can conclude from this study that our respondents prioritize their own comfort before the welfare of the animals. It is also possible to conclude that the overall most salient personal value types that influence the purchase decision of pork are; Hedonism, Security, Benevolence, and Universalism.

# Sammanfattning

På grund av det stora utbudet av livsmedelsvaror och produktattribut som erbjuds dagens konsumenter kan det vara utmanande att besluta vilka varor att inhandla. Konsumentbeteende ses ofta som målorienterat och genom att välja en viss produkt eller varumärke kan konsumenten uppnå sitt livsmål - ett symboliskt, personligt värde. I vår matkonsumtion är kött en central del och ofta relaterad till "köttparadoxen"; de flesta tycker om att äta kött men bryr sig också om djurens välbefinnande. Den etiska konsumtionen har diskuterats med frågor om vad som är rätt eller fel att köpa och konsumera i moralisk mening. Särskilt djurvälstånd aspekten av fläskkött har diskuterats på grund av skillnaderna i djurskyddslagstiftningen mellan länder.

Tidigare forskning kring konsumenters köpbeslut visar att konsumenter anser att djurens välfärd är viktigt. Dessa studier undersöker emellertid inte hur omsorgen för djurens välbefinnande är relaterat till underliggande personliga värden, eller vilka dessa värden är. Dessa resultat har även erhållits med hjälp av metoder där konsumenter ger svar baserade på simulerade shoppingupplevelser. Därmed finns risken att när individer står i mataffären och fattar köpbeslut i rollen som konsument är kopplingen mellan deras uttalade attityder och deras sanna köpbeteende inte alltid konsekvent. Således är det inte säkert att människors uttryckta oro för djurens välbefinnande visas när de väljer kött i den verkliga köpsituationen.

Denna studie syftar till att undersöka hur djurvälstånd är internaliserat i konsumenternas köpbeslut och vilka personliga värden som påverkar beslutet vid val av animaliska livsmedelsprodukter. Det antas att de personliga värdena är vad som motiverar att välja en viss produkt med dess specifika egenskaper. Genom att använda Personal value theory, Means-end chain theory och Laddering-intervjuer utförda vid köptillfället kan vi ta reda på de verkliga orsakerna till konsumenters köpbeteende. Genom vår valda metod kan vi hitta vilka värden som påverkar köpbeslutet och få respondenterna att svara utifrån deras roll som konsumenter och inte som samhällsinvånare.

Resultatet av denna studie tyder på att djurvälstånd inte är det mest framträdande elementet i våra respondenters köpbeslut av fläskkött. Knappt hälften av respondenterna valde en specifik fläskfilé med produktens pris som huvudsaklig orsak för att nå sitt önskade personliga värde; att ha pengar över till andra saker. Cirka en tredjedel av respondenterna hade lantbrukardjurens välbefinnande i åtanke för att nå sitt önskade personliga värde; att känna sig bra eller att agera etiskt. Utifrån denna studie kan vi dra slutsatsen att våra respondenter prioriterar sin egen komfort före djurens välbefinnande. Ytterligare en slutsats är att de mest framträdande värdetyperna som påverkar köpbeslutet av fläskkött är; Hedonism, Security, Benevolence och Universalism.

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# 1 Introduction

As a consumer in post-industrial societies, the choice of what food to buy in the grocery store can be rather challenging due to the great supply of items and each item's set of various product attributes (Marshall, 1996; Connors, Bisolgi, Sobal & Devine, 2001). Some of these attributes are easy to evaluate before the purchase, such as price and appearance, while others only can be confirmed afterward, like taste and texture (Nelson, 1974). In addition to the physical attributes of a product, consumers also face ethical issues related to the consumption of certain products: "Is it produced in an environmentally friendly way and in harmony with nature? What is its origin? Were the animals treated well? What kinds of health effects does it have? Are its producers good employers?" (Mäkiniemi, Pirttilä-Backman, Pieri, 2011, p501). When determining different food choices, the consumer's behavior is complicated, and the decision is influenced by many interacting factors (Köster, 2009; Furst, Connors, Bisogni, Sobal & Winter Falk, 1996). Consumer behavior is often viewed as goal-oriented, though the consumers are barely aware of it and are unlikely to state this as a cause of their behavior (Pieters, Baumgartner & Allen, 1995). Choosing a specific product or brand will help the consumer satisfy or achieve his or her broad life goal - a symbolic, personal value.

In our food consumption, meat is a central element (Grunert, 2006). What choices consumers make about the amount of meat to consume, what kind, and the origin of the meat, is of significant importance for the environment and climate, the animal welfare, their human health, the rural development and the global food security (Jordbruksverket, 2017). Meat is often related to the "meat paradox"; most people enjoy eating meat but also care for animals' wellbeing (Piazza et al., 2015). It poses a moral dilemma because eating meat implies that the benefit of the consumer includes that life of another sentient being is sacrificed (McEachern & Schröder, 2001). During the last decade, the industrialized countries have experienced an agricultural development that brought a substantial change in the way we keep farm animals (Thompson, 2001; Fraser, Mench & Millman, 2001; Miele, Blokhuis, Bennett & Bock, 2013). This industrialization caused a fall in prices, and the animal-based food products have never been cheaper (Jensen, 2012; Lööv, Widell & Sköld, 2015). From small-scale, diversified farms with small groups of animals living mostly outdoors to intensive husbandry with large units and animals kept in specialized indoor environments (especially for pigs and poultry) (Fraser et al., 2001; Thompson, 2001; Miele et al., 2013). An increasing human population enhanced the demand of animal-based food products to low prices, which resulted in the development of new production systems to help the farmer get higher yields and lower costs per animal (Thompson, 2001; Koknaroglu & Akunal, 2013). Animal producers had the pressure to conduct a more efficient and intense production to compete successfully on the market (Lassen, Sandøe & Forkman, 2006). Costs could be reduced by keeping more animals per unit area and using automated methods and housing types that eased the caring. Higher yields were obtained by selective breeding with the purpose to get animals who grew faster and produced more, with lower input of feed. These new systems focused on maximizing yields and lower average production cost, gave little attention to farm animal welfare (FAW), and welfare problems have grown to be more prevalent within the industry (Fraser et al.,



2001; Lassen et al., 2006; Miele et al., 2013). This raised a concern within the society about the quality of life for production animals (Miele et al., 2013). Laws protecting animal welfare and different types of animal welfare schemes have developed over the years (Bock & van Leeuwen, 2005). The ethical consumption has been up for discussion, with questions about what is right or wrong to purchase and consume in a moral sense (Starr, 2009). The reason for making an ethical food choice is the willingness to sacrifice a consumption benefit due to a concern for other living beings (McEachern & Schröder, 2001). Today's variety of production systems for meat and a global market allows consumers to choose between products produced with different strict criteria and laws for animal welfare (McEachern & Schröder, 2001).

In Sweden, the demand for meat is higher than the domestic supply, which results in a shortage that is filled with imported meat (Svenskt kött, 2016; Naturvårdsverket, 2017). The import of meat, particularly pork, has frequently been discussed in media because of the differences in the legislation of animal protection among countries (Sveriges radio, 2014; Röstlund & Stenquist, 2014; Jordbruksaktuellt, 2017). In EU, all member states need to incorporate the set directives on pig production to ensure the minimum animal welfare requirements. The welfare of European pigs shall be assured by “Council Directive 2008/120/EC of 18 December 2008 laying down minimum standards for the protection of pigs”. However, several national governments set even higher requirements on their domestic production (Veissier, Butterworth, Bock & Roe 2008; Lantbrukarnas Riksförbund, 2015). The most stringent legislation can be found in the northern parts of Europe (Veissier et al., 2008). As an example, EU directives allow tail docking on piglets if it is not routinely performed and only if other attempts to prevent tail biting have been made (Council Directive 2008/120/EC). Most of the member countries adhere to this legislation, but Sweden and Finland are at the front edge since they have entirely forbidden tail docking within the domestic pig production (European Food Safety Authority, 2007; D'Eath et al., 2016). Sweden is also the country in EU with the lowest use of antibiotics in animal production (Lantbrukarnas riksförbund, 2016; WWF, 2016; European medicines agency, 2017).

## 1.1 Problem

When a consumer decides what product to choose at the supermarket, the product's attributes can be used as quality cues (Steenkamp, 1990). FAW is a so called credence attribute, which means that the attribute is not directly represented in the product itself and therefore cannot be assessed or confirmed only in normal use (Darby & Karni, 1973, Becker, 1999). Credence attributes often include moral and ethical aspects and the consumer have to trust other actors that e.g. specific requirements on the production process have been fulfilled (Henchion, McCarthy, Resconi & Troy, 2014). Usually, there is a lack of information about the FAW status of food products or vague definitions of the animal welfare traits a product might hold (Miele et al., 2013). To develop and communicate information about FAW in a meaningful manner, it is necessary to adopt a consumer-oriented approach and understand consumers' motives, attitudes, and beliefs (Henchion et al., 2014). Numerous studies have suggested that personal values have a significant impact on decision making and behavior (e.g. Schwartz, 1994; Fritzsche & Oz, 2007). It is assumed that choosing a certain product with its certain

attributes are motivated by the consumers' personal values (Pieters et al., 1995). Research about consumers' purchase decision has emphasized what consumers find significant with FAW, such as sufficient living space for the animal (Denver, Sandøe & Christensen, 2017), the possibility of staying outdoors (Liljenstolpe, 2008) or slower animal growth (Carlsson, Frykblom & Lagerkvist, 2005). However, these studies did not investigate how a concern for FAW is related to underlying values, or which these values actually are. By knowing what influences consumers' purchase motives, products in the meat industry can be produced with standards consumers demand and that are fulfilling their purchase motives.

During the last decades, studies have shown that FAW has become a considerable public concern (Harper & Henson, 2001; McCarthy, O'Rielly, Cotter, de Boer, 2004; Thorslund, Sandøe, Aaslyng & Lassen, 2016). In surveys carried out by the European Commission (2007; 2015), a majority of the respondents replied that it was important for them that the welfare of farm animals was protected. Consumers have also expressed a willingness to pay premium prices for products with improved animal welfare (Harper & Henson, 2001; Carlsson et al., 2005; Clark, Stewart, Panzone, Kyriazakis & Frewer, 2017). However, these results have been obtained by methods such as surveys, where consumers give answers based on simulated shopping experiences. It is established that individuals tend to have two views on FAW, one as a citizen and another as a consumer (Schröder & McEarchen, 2004; Grunert, 2006; Krystallis, de Barcellos, Kügler, Verbeke & Grunert, 2009). Basic human tendency makes the individual unwilling to answer accurately on sensitive topics, especially FAW, due to the desire to present oneself in the best way possible (Fisher, 1993). In consumer behavior research, this may lead to spurious or misleading results. As a citizen, individuals express concern for FAW issues and a desire that the animal from which the products they consume are sourced from lived a satisfying life (Schröder & McEarchen, 2004; Mayfield, Bennett, Tranter & Wooldridge, 2007; Krystallis et al., 2009). But when individuals are standing in the grocery store and making purchase decisions in the role of consumer, the connection between attitudes and concerns, and purchase behavior is not always consistent (Vermeir & Verbeke, 2006; Krystallis et al., 2009; Verbeke, Pérez-Cueto, de Barcellos, Krystallis, Grunert, 2010; Clark et al., 2017). Hence, one cannot be sure that people's reported views on FAW appear when they select meat in a real purchase situation.

Though, to sort out and understand how the personal values influence the purchase decision is a challenging task. There have been several attempts to provide a structure that both conceptually and theoretically connects consumers' values to their behavior, and help understanding how the consumers use choice criteria in their decision process (Gutman, 1982; Reynolds & Olson, 2001). In 1982, Jonathan Gutman introduced a framework, grounded in the theories of Kelly (1955), namely Means-End Chain (MEC), which is used to identify those criteria, accompanied by a method named laddering (Reynolds & Olson, 2001). The framework has since its introduction frequently been applied in research of consumer food choice (Harper & Henson, 2001; Zanolli & Naspetti, 2002; Devlin, Birtwistle & Macedo, 2003; Richter & Bokelmann, 2018). By using MEC and laddering interviews at the point of purchase, we can obtain the true reasons for consumers purchase behavior by finding what

values influencing the decision and getting answers from the respondents as consumers and not as citizens.

## 1.2 Aim and research question

This study aims to explore how animal welfare is internalized in consumers' purchase decision and what personal values influence the decision when selecting animal-based food products. We will contribute with findings that are useful to all actors in the industry and along the food chain. To fulfill our aim, the research question that will be investigated and answered is,

- How salient is farm animal welfare when consumers purchase pork, and what personal values is pork connected to in consumers' purchase decision?

## 1.3 Delimitations

The study was geographically delimited to Uppsala, which is the fourth biggest city in Sweden (SCB, 2018). Further, two supermarkets that are considered relatively comparable were selected, ICA Maxi and Stora Coop. The supermarkets were chosen because of the greater number of customers and because a comparison between different supermarkets was not the purpose of the study.

The consumers who represented the respondents in the study had selected a pork fillet and put it in his or her shopping cart. No consumers who selected a different kind of meat or piece of pork were approached. Pork is the focus in this study because it is a livestock product that has been up for discussion both in academic literature and popular press in association with animal welfare (Cummins, Olynk Widmar, Croney & Fulton, 2016). Pork fillet as the specific pork product is selected because the differences in price between a domestic and imported fillet, where the domestic is produced under stricter FAW legislations, is greater than the differences in price for e.g. pork chops with diverse origin. According to (Harper & Henson, 2001), price has an important impact on consumers' food choice at the point of purchase. Therefore, the consumer choice between different types of pork fillet can present a clearer picture of the attributes, values, and consequences that are crucial in consumers' purchase decision.

## 1.4 Contribution

As previously mentioned, other studies have concluded that consumers are willing to pay more for FAW (Harper & Henson, 2001; Carlsson et al., 2005; Liljenstolpe, 2008; Clark et al., 2017). However, there is a risk that the consumers in those studies have expressed their views as citizens rather than consumers since they are not performed at the time of purchase, but in a simulated situation. Our study contributes with important empirical insight in

consumer behavior by collecting data at the direct moment of purchase to overbridge the citizen-consumer gap and reveal the true reasons for consumers' consumption choices. In that way, it will be possible to distinguish whether FAW is an important aspect considered when choosing meat.

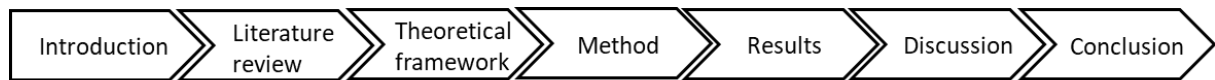
Values are examined rather seldom and often in isolation (Peter & Olson, 2010). Generally, market research focuses only on product knowledge concerning attributes and consequences and misses the critical connection between them and the consumers' personal values. This gives the marketers an incomplete understanding and knowledge of consumer preferences. Theoretically, our contribution is to highlight what values the consumer strives to fill when animal welfare is an aspect the consumer has in mind when buying meat. Our results will be of use to actors along the food chain that benefits from information about consumers' purchase decision.

In pork production, there is especially problematic communicating and verifying the animal welfare aspects of production systems since the rearing process is multistage, and there is usually more than one transfer of ownership throughout a pig's life (Olynk, Tonsor & Wolf, 2010). Because of the difficulty with communicating the animal welfare aspect to consumers, one may debate it would be appropriate with some kind of labeling representing the welfare of the living animal (Grunert, Bredahl & Brunsø, 2004). Even though there are established labels that include FAW as a dimension, there are few elaborated with FAW as the primary focus (Mayfield et al., 2007) and generally, they do not communicate welfare as the key selling point (Vanhonacker & Verbeke, 2014). FAW is often included in the ethical dimensions of food labels, e.g. organic labels (Van Loo, Caputo, Nayga Jr. & Verbeke, 2014). In Sweden, there are voluntary labels for animal-based products that guarantee Swedish country of origin, e.g. "Swedish meat" and "Swedish milk" (Från Sverige, 2017a). The country of origin is marketed as a quality aspect that includes environmental convenience, food safety and FAW (Från Sverige, 2017b). However, animal production with FAW above minimum legal standards entails higher production costs because of higher input costs of feed and labor, and lower output due to e.g., a reduction of animals per unit area (Bornett, Guy & Cain, 2003). To make a farmer willing to produce for improved welfare, the income a farmer gains must cover those costs (Nocella et al., 2012). Joining a labeling scheme and adjusting production methods thereafter poses a risk for farmers if it later turns out that the label is not something that consumers are demanding and believe to be worth paying for (Golan, Kuchler, Mitchell, Greene & Jessup, 2001). Similarly, it would be a loss for label owners to develop and market a label with a content that consumers do not care for in a purchase decision. To know that a label would fulfill a purpose, it is necessary to investigate whether animal welfare is a salient aspect of the consumers' cognitive decision process when purchasing a pork fillet.

## 1.5 Outline

To guide the reader through the content of the thesis, an outline is found in *Figure 1* below. The first chapter in this thesis introduced the subject and background of the problem.

Subsequently, the aim and research questions were presented followed by delimitations and our contribution. Chapter 2 will begin with a literature review of the definition of farm animal welfare and continuously with previous research of consumers' perceptions of, and attitudes towards pork. In chapter 3, the theory of personal values and MEC are presented, which later will be used to analyze the empirical data. Chapter 4 gives an overview of the chosen methodological approach, the course of action, method discussion, and ethical considerations. In chapter 5, the results of the study is presented and analysed, followed by a discussion in chapter 6. Finally, we state our conclusions in the last chapter of the thesis, chapter 7.



*Figure 1. Outline of the thesis (own creation).*

## 2 Literature review

This chapter gives an overview of previous research and knowledge within the subject of the animal welfare and consumers' perceptions and attitudes toward pork. The literature was mainly collected through the databases Primo, Web of Science and Google Scholar where keywords were used to search for relevant articles and reports. The keywords were used individually or in combination with each other and were *animal welfare, pork, attributes, values, means-end chain, laddering, consumer decision, behaviour, and perception*.

### 2.1 Animal welfare

Animal Welfare is a term with several different definitions and criteria (Backus & McGlone, 2014; Fraser, Weary, Pajor & Milligan, 1997; Velarde, Fabrega, Blanco-Penedo & Dalmau, 2015). The reason is the many elements of quality in an animal's life and to which extent every person sees these as important when formulating the meaning of animal welfare (Duncan & Fraser, 1997). The term has emerged from the society as an expression for concerns regarding how to treat and care for animals and has been adopted as a subject of scientific research. Since the concept is based on both ethical values and scientific information, a debate about how to conceptualize animal welfare in science has been going on for many years (Backus & McGlone 2014; Duncan & Fraser, 1997).

Broom (1986, s. 524) explain animal welfare as "The welfare of an individual is its state as regards its attempts to cope with its environment". Welfare is satisfactory if the animal manages its environment with small effort and consumption of resources. If the animal fails or struggles to cope its environment, the welfare is considered poor. Further, Broom (1996; 1991) argue that animal welfare can be scientifically and objectively measured if the assessment of the welfare and the ethical considerations are kept separate. After the evaluation, the information obtained can be used for making ethical decisions about the situation. Dawkins (2017) means that good animal welfare can be objectively defined if both *animal health* and *what animal wants* are considered. The health aspect gives a hint of which factors increase survival but misses the evolved mechanisms that make animals act on what is most suitable for the situation rather than long-term survival. What animal wants reflect the perspective of their environment but misses the fact that animals often make other decisions than what is best to increase survival. Therefore, Dawkins (2017) find it necessary to utilize both health and what animal wants to establish good animal welfare. Duncan and Fraser (1997) state in contrast that the assessment of animal welfare can never be completely objective because it contains both ethical values and scientific information.

A concept frequently used as a basis for animal welfare is the Five Freedoms originated from the Brambell Report in 1965 where the welfare of farm animals kept in "Intensive Livestock Husbandry Systems" were investigated (FAWC, 2011). The report concluded that farm animals "should have freedom to stand up, lie down, turn around, groom themselves and stretch their limbs," (Brambell, 1965) and affected and influenced the view on animal welfare

around the world (Veissier et al., 2008). The Brambell Report resulted in the setup of the Farm Animal Welfare Advisory Committee which later was replaced with the Farm Animal Welfare Council, FAWC, established by the British Government in July 1979. FAWC listed five conditions that would be met to ensure animal welfare and these are known as the Five Freedoms.

The Five Freedoms address both good and poor welfare through animals' physical fitness and mental suffering (Backus & McGlone, 2014; Webster 2009). The first freedom refers to hunger and thirst. It says that animals should have access to fresh feed and water to maintain full health. The second freedom is the freedom from discomfort which means that animals' environment should be proper and include a comfortable area for resting and shelter. Freedom from pain, injury, and disease is freedom number three and is ensured by prevention and treatment. The ability to express normal behavior is freedom number four and is secured by sufficient space, appropriate facilities, and the company of other individuals of the same species. The last and fifth freedom implies that animals should be kept in a way that avoids mental suffering and is called Freedom from fear and distress.

Although the Five Freedoms have been criticized for being too general and overlapping, they have been used as guidance in regulations and certification schemes (Botreau et al., 2007). The Office International des Epizooties, OIE (also known as the World Organisation for Animal Health), refer to the freedoms for their adopted definition of animal welfare (OIE, 2010) and EU use them as a guide in their work for animals' well-being (Veissier et al., 2008; Botreau, Veissier, Butterworth, Bracke & Keeling 2007).

### **The Swedish Model**

Countries who are members of EU need to incorporate the set directives on animal production to ensure the minimum animal welfare requirements (Veissier, 2008; Council Directive 98/58/EC of 20 July 1998 concerning the protection of animals kept for farming purposes). Some countries set even stricter domestic requirements than the minimum within EU, one of those countries is Sweden. Since Sweden entered EU in 1995 the "Swedish Model" has been promoted to imply greater quality and animal welfare consideration in contrast to production systems in other member countries (Andersson & Hoffman, 1997; Jonasson & Andersson, 1997). The Swedish prohibition of antibiotics in the feed, a strict animal welfare law, and long-term salmonella control programme are features that have been highlighted to represent the Swedish model.

The Swedish society is characterized by high level of trust in the institutions of government (Bock & van Leeuwen, 2005). This includes both trust in local and central government as well as trust in government bodies that regulate and control companies' activities and production. The trust includes that consumers at the supermarket trust the products available to be safe to consume and that the farm animals behind animal-based products of Swedish origin have been raised in an acceptable way in accordance with Swedish laws and standards. According to Nocella (2010), consumers in northern parts of Europe also believe to a greater extent that farmers follow the established legislations and other commitments. Sweden has more stringent animal welfare legislation than most of the countries in EU and fewer products

with pure welfare-labelling (Roe, Murdoch & Marsden, 2005). The word “Swedish” mediate a welfare-claim because the consumers have knowledge about the higher national legislation and hence connect Swedish products with good FAW.

## 2.2 Previous research

When consumers decide what products to purchase and consume, they have to consider various product attributes and make value trade-offs between them (Bettman, Luce & Payne, 1998). In the case of food products, the trade-offs can be between e.g. convenience in variety of goods, ethical considerations, safety or price. Consumers’ views of pork and pork consumption and quality attributes that influence the purchasing decision have been the focus in several studies. Pork has been stated to be a fat and less healthy meat alternative among some consumers (Verbeke & Viaene, 1999), while others have a positive picture of pork as suitable for a variety of dishes and with a good flavor (Bryhni et al., 2002). It has also perceived to be accessible and a good value for money (Ngapo et al., 2003). When Meuwissen & Van Der Lans (2005) investigated consumers’ trade-offs for pork, they found the attributes animal welfare and food safety to be important, but not to the same extent as taste and price. Other previous literature concludes that what consumers find important and what influences consumer attitudes towards pork is in greater extent health, safety, FAW and eating enjoyment than environment and price (McCarthy et al., 2004; Cummin et al., 2016). Animal welfare is according to Krystallis et al. (2009) one of the most salient criteria for people to differentiate between good and bad pig production methods. However, FAW is not the attribute that consumers are willing to pay the highest premium for compared to other attributes such as origin and organic production (Nocella, 2012). It demonstrates that FAW may be significant when consumers purchase pork but is not the highest prioritated attribute. According to Thorslund et al. (2016), some consumers consider FAW as a valuable quality attribute and some does not, a third consumer group regard welfare as important due to its connection to other aspects such as organic status, country of origin, food safety, high price and eating quality.

The examples of diverse results about consumers’ perceptions and attitudes of pork can be explained by the fact that most food products are affected to consumption trends such as ethical and environmental issues, health concern, interest in variety, convenience, and social roles (Font-i-Furnols & Guerrero, 2014). Another reason could be that the concern for animal welfare can be distinguished as animal-centered or human-centered (Vanhonaker & Verbeke, 2014). This means that the same attribute can be interpreted differently depending on the consumers’ focus. Animal-centered concerns are mainly focusing on caring for the living animal itself, while human-centered are motivated by the interest for the benefits of the consumer. For example, a mobile abattoir has both an animal welfare dimension and an environmental one connected to the reduction of transportation (Liljenstolpe, 2008). No castration can be seen as reduced pain and stress for piglets as well as food safety because of a risk of boar taint. Therefore, it is important to find out what focus the consumer has when they express opinions about attributes associated with pork. Grunert, Sonntag & Glanz-



Chanos, (2018) found when studying consumers' interest in different aspects of modern pig production, consumer demanding process characteristics that gave them individual benefits related to health and safety rather than benefits for animals or environmental improvement. Harper and Henson (2001) stated that their result of investigating consumer concern about animal welfare and the impact of food choices indicates that consumers are equally motivated by concerns for human health as they are for animal welfare.

### **Different approaches to examine consumers' perceptions**

To investigate whether and how much consumers value FAW when purchasing animal based-food products, the willingness to pay (WTP) has become a popular analytical method and consumer willingness to pay for FAW attributes of pork have been evaluated by several researchers (e.g. Meuwissen, Van Der Lans & Huirne, 2007; Tonsor, Olynk & Wolf, 2009; Olynk et al., 2010; Denver et al., 2017). Swedish studies, conducted through choice experience surveys, demonstrated a WTP for improved pig welfare product attributes (Carlsson et al., 2005; Lagerkvist, Carlsson & Viske, 2006; Liljenstolpe, 2008). The attribute with highest WTP was the outdoor production of pigs. Lagerkvist et al. (2006) found that consumers also valued housing systems with plenty of straw, prohibition of both tail docking on piglets and fixation of sows. However, previous literature shows that there is a lack of connection between people's attitudes toward pork and their consumption behavior (Ngapo, 2003; Lassen et al., 2006; Krystallis et al., 2009). According to Nyborg (2000), this can be of importance when scrutinizing studies of WTP since there is a risk that the respondents answer as a citizen rather than a consumer. This can lead to overestimation of what consumers are willing to pay for specific product attributes (Nyborg, 2000), for example FAW, and therefore give a misleading picture of the consumer value of animal welfare.

Previous literature on the consumption of pork has investigated what attributes consumers consider important in their purchase decision, but there is lack of knowledge of why and in what way these attributes are important. Furthermore, studies of what consumers recognize in the case of pork consumption are mainly conducted through methods where consumers are provided predetermined product attributes or fixed set of responses such as best-worst scale, choice experience, and contingent valuation. (e.g., Nocella, Hubbard & Scarpa, 2010; Kehlbacher, Bennet & Balcombe, 2012; McKendree, Olynk Widmar, Ortega & Foster, 2013; Cummins et al., 2016; Denver et al., 2017). In research of pork with FAW in focus, the data collections are not performed at the real point of purchase, which poses a risk that participants' answers do not reflect their actual buying behavior (Vermeir & Verbeke, 2006; Krystallis et al., 2009). Consumers' expressed perceptions of meat and what issues that seems to be relevant when discussing meat consumption is argued by Korzen & Lassen (2010) to have a relationship to the associated context. Data collection separated from the purchase also implies a risk that the person responding is not the one who usually is responsible for the purchases of the household which can give a misleading picture of consumers' purchase decisions.

In Finland, consumers' perception of locally, organically, conventionally and intensively produced pork products was studied by Roininen, Arvola & Lähteenmäki, (2006). The

results concluded that FAW and healthiness was in greater extent associated with organically produced pork than the locally produced alternative. FAW were also associated with intensive production, but negatively as profit-seeking, cruel to animals and not animal-friendly. Lind (2007) identified consequences and values that consumers attach to the product attributes *imported, unbranded* (cut in the store with no brand, except country of origin), *branded* and *local-organically produced* pork. The study demonstrated that consumers chose branded and local-organically produced pork because it was perceived to involve quality and good taste. Essential for buyers of branded pork was the domestic origin and health when the organic production was significant for the local-organically produced pork implying good FAW. The other two types of pork were bought considering monetary reasons. Consumers who purchased unbranded pork valued good taste and the opportunity to save money as the most prominent reason to choose this kind of pork. Those who bought imported pork did so because of its low price. Also, imported pork was the only type of pork with no connections to FAW. Consumers of branded and local-organically produced pork proved to be more involved in the purchase decision and related the choice of pork to values and self-relevance, than consumers of the other two kinds of pork.

Previous research about consumer behavior related to pork and pork consumption has been performed with a variety of methods. To our knowledge, no study has been conducted to investigate FAW as the specific product attribute of pork by using MEC and laddering interviews at the point of purchase, which is performed in this study. Neither has previous research investigated what values are related to FAW in the consumer's purchase decision of pork. To have knowledge of what values that are linked to animals' welfare is useful since values are influencing and guiding choice patterns (Gutman, 1982).

## 3 Theoretical framework

The theoretical chapter begins with a description of the term “personal values” and continues with presenting the Means-End Chain theory as the theoretical framework for the study, representing a way to systematically connect distinctions at the attribute level to consequences and finally identify a consumer’s personal values.

### 3.1 Personal values

A variety of literature suggests that personal values are strongly connected to a person’s behavior since it holds the role as a standard or criterion for influencing choices or evaluations (Vinson, Scott & Lamont, 1977; Pieters et al., 1995; Schwartz, 1992; Roccas, Sagiv, Schwartz & Knafo, 2002). The goals people strive for is largely determined by their personal values, and the values regulate at the same time the ways and methods used to achieve it (Vinson et al., 1977). At the most abstract level, the basic values are the ones defining who a person thinks he or she is, or who he or she wants to be (Pieters et al., 1995), e.g. having an exciting life, a comfortable life, self-respect or pleasure (Vinson et al., 1977). It is assumed that it is the personal values that motivate choosing a certain product with its certain attributes (Pieters et al., 1995), which makes it a suitable choice for this study.

To study values, we adopt Schwartz’s (1992) personal value theory to classify personal values. The theory is a modification of Schwartz’s and Bilsky’s personal value theory that was developed through a revised theory of Rokeach’s value survey (1973). Schwartz’s (1992) personal value theory includes deriving ten types of values that each are distinguished by their distinct motivational goal. Schwartz (1994) argue that it is “significant theoretical and practical advantages to identifying a limited set of value types” to be able to limit the infinite number of values there are to study.

#### *Self-Direction*

The goal of this value type is independent thought and action. To measure this type of value to fit the goal, the set of values used are freedom, creativity, independent, choosing own goals, curious and self-respect.

#### *Stimulation*

The stimulation values derive from a desire for stimulation and variety and maintaining an optimal level of activation. This value is related to the self-direction values. The person’s values might be an exciting or varied life and the feeling of daring.

#### *Hedonism*

The hedonism value type has formerly been called “enjoyment”. Schwartz (1992), however, changed the values included (happiness and cheerful) from Rokeach’s list to define the motivational goals of pleasure and sensuous gratification more sharply, and replaced them with personal values of pleasure and enjoying life.

### *Achievement*

A person's motivational goal for this value type is "personal success through demonstrating competence according to social standards" (Schwartz, 1992). Individual triumph is reached through competent performance and obtaining social approval. Personal values in this type are ambitious, influential, capable, successful, intelligent and self-respect.

### *Power*

The motivational goal of power values is viewed as an attainment of social status and prestige and also dominance or control over resources and people. The values included are social power, wealth, authority, social recognition and preserving the individual's public image.

### *Security*

The security value type is considered to be two separate types, individual or group. In that case, some of the security values serve primarily individual interest while others serve collective interests. In this study, both individual security values and group security values are included in the security value type. Here, the individual's motivational goal are safety, harmony, and stability of society, of relationships and self. To measure this value type, the values used are; national and family security, a sense of belonging, social order, healthy and clean.

### *Conformity*

Restraint of action, inclinations, and impulses that probably will harm or upset others, and impulses that go against social norms are the defining goal of the conformity value type. The values used to measure this value type are obedient, self-discipline, politeness and honoring of parents and elders.

### *Tradition*

The defining goal of tradition values is commitment, respect, and acceptance of the behavior and ideas that a person's culture or religion impose on the individual. The individual's values are respect for tradition, devout, accepting his or her portion in life, humble and moderate.

### *Benevolence*

The benevolence value type is recognized through a concern for close others welfare in everyday interaction. The goal is enhancement and preservation of the welfare of the people the person is in frequent personal contact. Personal values to measure the benevolence value type is helpful, responsible, forgiving, honest, loyal, mature love, true friendship.

### *Universalism*

Understanding, appreciation, tolerance and concern for all people and nature (a broader focus than the benevolence value type) is the motivational goal in the universalism value type. Universalism is measured by a desire for equality, unity with nature, wisdom, a world of beauty, social justice, broad-minded, protecting the environment and a world at peace.

Findings from previous studies show that attributes and consequences are sector specific, while the personal values are not (Devlin et al., 2003). In this study, it is essential to explain *why* consumers differentially evaluate product's attributes and *how* values influence consumption patterns. The Means-End chain theory suggests a model that distinguish the consumers' personal values and presents the reasons for choosing specific product attributes.

## 3.2 Means-end chain

It has been proven by economic theory that there are some limitations when explaining consumer behavior due to its complexity and multidimensionality (Zanoli & Naspetti, 2002). Most models apply only disposable income and relative prices as explanatory variables of consumer behavior and all other factors, such as economic, cultural and social influences, as unobservable and latent variables. Since personal values have been shown to have a dominant role in directing a consumer's choice, the MEC analysis offers a way to distinguish these (Veludo-de-Oliveira, Ikeda & Campomar, 2006). The MEC model goes beyond the "standard" economic theory and the understanding of a product's functional properties and emphasizes why and how it is important in an individual's life. Gengler, Mulvey, and Oglethorpe (1999) called it to "uncover the reasons behind the reasons".

MEC has been used in studies to analyze consumer perception and decision process in the food sector. Harper and Henson used MEC analysis in 2001 to investigate consumer concern about FAW and how it impacted food choices. Several authors have used MEC to find what motivates consumers to purchase organic food (e.g. Makatouni, 2002; Zanoli & Naspetti, 2002; Baker, Thompson, Engelken, & Huntley, 2004). Devlin et al. (2003) identified what consumer desire most from food retailers, by using MEC, and Richter and Bokelmann (2018) conducted a MEC study of consumer behavior in attitudes towards and handling food waste.

Evidentially, MEC can be useful when trying to understand consumer behavior (Audenaert & Steenkamp, 1997; Reynolds & Olson, 2001; Roininen et al., 2006). It predicts that when consumers are choosing to consume a product, they evaluate the product's attributes in term of the perceived consequences that are gained from that choice and in turn reinforce the consumers' individual end-states of being, i.e., personal values (Gutman, 1982). The model allows the respondent to speak freely and formulate answers based on own thoughts and perceptions, in contrast to answering questionnaires with already predetermined answer options. The MEC does therefore not only identify which choice criteria that are important to the consumer, but also digs deeper and explains *why* these factors are important and give a better understanding of consumers' motives related to food consumption (Reynolds & Olson, 2001; Costa, Decker & Jongen, 2004; Roininen et al., 2006). The model is based on the distinctions used by the consumers when grouping objects regard to their similarity and when distinguishing among them depending on how they vary in common dimensions (Gutman, 1982). In this hierarchical model, values are linked to behavior by narrating in what way concrete attributes of products are linked to personal values and self-relevant consequences of consumption for the consumer (Reynolds & Olson, 2001; Costa et al., 2004).

MEC is connecting the knowledge the consumer possesses about product attributes to their knowledge about consequences and values. Hence, the chain has three levels of distinctions (see *Figure 2*), of which one level sometimes is divided into two; *grouping*, *consequences* (functional and psychosocial) and *values* (Peter & Olson, 2010; Gutman, 1982). Since the model is focusing on the linkage between the consumers' desired place to be and their chosen means to get there, the grouping level is focused on product attributes while the focus of distinctions at the other levels are on what the product can do for the consumer (Gutman, 1982). "Means" refers to objects like products or activities, such as running and reading, while "ends" are instead desired states of being, like happiness, accomplishment, and security. Thus, the marketplace is crowded with many more various products than people have values, and therefore the means are many, but the ends are few (Gutman, 1982; Gengler, Klenosky & Mulvey, 1995).

Attributes are characteristics of a product that can be sensed, such as form, color, taste, sound, smell, etc. (Audenaert & Steenkamp, 1997). The consequences refer to what benefits come from consuming a specific product, while the values are explained as "intangible, higher-order outcomes or ends". The model proposes that the consumers reckon the product attribute in virtue of personal consequences and think in terms of "what does this attribute do for me? Why should I care about this attribute?". Peter and Olson (2010) express this in the way as the consumers see product attributes as *a mean to an end*, where the end could be either a consequence such as a benefit or a risk, or a value on a more abstract level.

In the MEC concept, the consumers are viewed as goal-oriented decision-makers who think in terms of personal consequences at different levels and will perform behaviors that most likely will lead to their desired outcomes (Costa et al., 2004; Peter & Olson, 2010). The consumers learn over time to distinguish between what products that will lead to this desired outcome, and in what situations (Gutman, 1982). Since MEC is subjective and symbolizes a consumer's personal perception of products, the chains are unique to every consumer's interest and background (Peter & Olson, 2010).

Two fundamental assumptions about consumer behavior are relevant in this goal-oriented framework (Gutman, 1982; Costa et al., 2004). The first one is that the preferred end-states of existence, the values, are influencing and guiding choice patterns (Gutman, 1982). The second assumption is that consumers cope with a wide variety of products, which all are potential satisfiers of their personal values and desired end-states, and to manage and simplify the complexity of choice the consumers are grouping the products into sets of categories based on product functions. In addition, there are two more general assumptions - all actions of the consumer have consequences, and the consumer learns to relate particular actions to particular consequences.

### **Attribute level**

The base for the attribute level (also named grouping level) is the product's physical and surface properties (Gutman, 1982). Every product has a broad set of attributes that give the

consumer information about its characteristics. By categorizing products, the consumer can identify and divide them into sets based on what attributes they possess with the ability to provide the consumer with desired consequences. At the beginning of the 1970's, an approach to investigate the connection between product information and consumer behavior was set up by divide product quality into three groups (Nelson, 1974; Darby & Karni, 1973). This approach has later been applied to product attributes that are divided into search, experience, and credence attributes (Caswell & Mojduszka, 1996; Becker, Benner & Glitsch, 2000; Thorslund et al., 2006).

Search attributes are those a consumer can find information about before the purchase through a search and examining process, like the appearance of the meat. Experience attributes simply can be confirmed after the purchase, like the meat's taste and texture (Nelson, 1974). The credence attributes are, on the contrary, not represented in the product itself and are therefore not possible to evaluate for the consumer (Darby & Karni, 1973; Becker, 1999). They are hard to judge, and the consumer is forced to trust the accessible information and whatever party providing the product (Darby & Karni, 1973; Caswell & Mojduszka, 1996). FAW is an example of a credence attribute, including aspects such as breeding, treatment, and housing systems, which the consumer has to make more effort to obtain information about. The credence attributes are a challenge to communicate since they are invisible to the consumer and cannot be assessed either before or after the purchase and consumption (Olynk et al., 2010). Because of the imperfect information, these markets for quality do not function well (Caswell & Mojduszka, 1996).

### **Consequences**

The most common MEC has two levels of consequences, *functional* and *psychosocial* (Olson & Reynolds, 2001). The functional consequences are the ones that are immediate and tangible, produced by product attributes or features during consumption and experienced directly by the consumer. These functional consequences can successively lead to consequences on a more personal and higher level that are more emotional or effective - these are the psychosocial consequences. The consequence can have either a positive or a negative effect on the individual (Gutman, 1982, Zanoli & Naspetti, 2002; Rokeach, 2008).

### **Values**

Values are proposed to be a higher level of abstraction than the other levels of distinctions and therefore difficult to measure (Zeithaml, 1988). Values are personal and individualistic (Zeithaml, 1988), learned and developed through experience of pleasure or pain, approval or disapproval, goal attainment or failure (Rokeach, 2008). When talking about human values, assumptions are made that the personal values are defined as final end states of existence and become criteria for preference, judgment and are to a great extent directing the individual's choice (Zeithaml, 1988; Veludo-de-Oliveira et al., 2006).

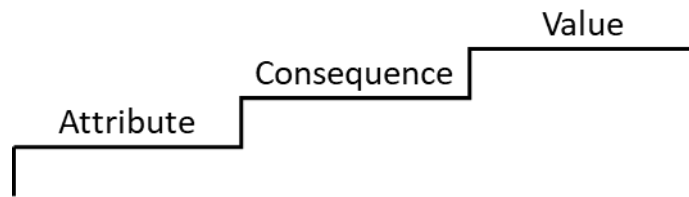


Figure 2. Means-end chain illustration (own creation).

This study aims to explore how animal welfare is internalized in consumers' purchase decision and what personal values influence the decision when selecting animal-based food products. MEC is a proper tool to use to fulfill the aim since it focuses on the linkages between attributes, consequences, and values and goes beyond a product's functional properties to emphasize how and why a product is necessary in a consumer's life (Gutman, 1982). The MEC theory will be applied at the point of purchase by using an interview technique called laddering (see further in chapter 4). The importance of point of purchase is due to the risk of the citizen-consumer gap that might appear when a respondent is giving answers in a simulated shopping experience and not in directly connection to their true behavior.



## 4 Method

This method chapter is intended to provide a clear and comprehensible description of how the study was conducted to answer the given research question. The chapter begins with the choice of approach followed by the laddering interview technique that was used. A description of the analysing method and ethical considerations end the chapter.

### 4.1 Choice of approach and strategy

The collection and analysis of data within a study can be carried out with a quantitative or a qualitative strategy (Bryman & Bell, 2015). There are several differences between these strategies regarding the research process and the collection and analyzing of data, therefore the choice of strategy should be the one that is most suited the aim of the study (Trost, 2010; Bryman & Bell, 2015). Quantitative strategies focus on the relationship between cause and consequence as well as measurement of quantitative data (Bryman & Bell, 2015). In opposite, the qualitative strategy emphasizes words rather than numbers and focuses on interpretation and understanding of the studied phenomenon with regard to social reality. It takes a view of social reality as a constantly changing emergent property of individuals' creation (Bryman & Bell, 2015). The aim of this study is to explore how animal welfare is internalized in consumers' purchase decision and what personal values influence the decision when selecting animal-based food products. Thus, a qualitative strategy is best suited to contribute to understanding purchase behavior, decisions and answer to "what", "how" and "why" (Ritchie, Lewis, McNaughton Nichols & Ormston, 2014; Robson, 2011). The qualitative strategy does not allow our conclusions to be generalized over an entire population due to the selection and number of respondents in our study (Huberman & Miles, 2002). However, all human behavior is time- and context-bound and the conclusions may be used in a broader context where studying settings, times and people are similar to the ones in our study (Schwandt, Lincoln & Guba, 2007).

The MEC theory has been proven to be useful when analyzing consumers' behavior in the food sector (Grunert & Valli, 2001; Roininen et al., 2006). It makes it possible to obtain the understanding of why and to what extent certain attributes are salient in a consumer's decision-making process (Olson & Reynolds, 2001). To measure consumers' means-end chains, the semi-structured interview technique laddering is practiced (Olson & Reynolds, 2001; Grunert & Grunert, 1995). To find the consumer's desired end states of being, as the MEC model is aiming to do, the product attributes that facilitate these valued states, and the consequences that follow for the consumer has to be uncovered (Gutman, 1982). We use MEC-theory and conduct personal laddering interviews at the supermarket to frame the consumer's values and connect them to their actual purchase behavior. The MEC also help us to capture how FAW is internalized in a consumer's purchase decision since it goes beyond a product's functional properties and emphasizes how and why the product is necessary in the consumer's life (Gutman, 1982).

## **Interviewing**

Interviewing is the most widely used method to collect data within qualitative research (Robson, 2011, Bryman & Bell, 2015). The reason for the popularity is its flexibility and the possibility to directly follow up answers and reactions that could be of interest in the study. Interviews give an opportunity to study important personal issues and to explain the interview questions if any uncertainties arise (Rubin & Rubin, 2005). It can be designed in a variety of ways and to different degrees of structure (Bernard, 2006). The unstructured interview allows the respondent to speak freely within a broad topic and a structured interview gives the respondent predetermined questions with fixed wording and order (Robson, 2011). The semi-structured interview is something intermediate. It is based on an interview guide with topics and questions that need to be covered, but the interviewer has room for additional unplanned issues. When the researcher only has one chance to interview a person, semi-structured interviews are considered to be the beneficial choice (Bernard, 2006).

Interviews can be performed face to face, by telephone or internet (Robson, 2011). In this study, the interviews are conducted with personal meetings with the consumers in two supermarkets in Uppsala. This enables to ask questions to the respondents in direct connection to the time of their meat purchase. As presented in chapter 1, most of the previous research is not connected with the time of purchase which poses a risk that the respondents in a greater extent answer as citizens than consumers (Schröder & McEarchen, 2004). As citizens, people often express concern for ethical issues, but in the supermarket at point of purchase, these issues compete with other considerable attributes such as price and brand (Vermeir & Verbeke, 2006). By asking consumers to explain what they find crucial in the choice of meat just after they made that specific choice increase the probability that the response is based on their role as a consumer rather than a citizen. According to Kvale and Brinkman (2014), the context of the interview influences the response and answers from the respondent, which is why we think it is most appropriate to conduct the interviews at the supermarket since that is the representative context for purchase decisions.

### **The laddering interview technique**

Laddering has proven to be an advantageous method when trying to understand human behavior in numerous areas (Reynolds & Gutman, 1988; Veludo-de-Oliveira et al., 2006). The interview technique allows the respondent to describe, in their own words, why something is important to them (Reynolds & Olson, 2001). Studies of consumers' perception of animal welfare have mainly been conducted through methods where the consumers choose between or rank predetermined product attributes or fixed set of responses (e.g. Liljenstolpe, 2008; Nocella et al., 2010; Cummins et al., 2016; Denver et al., 2017). These methods are missing the respondent's own view and expression of why and how animal welfare is important to them. The laddering approach refers to one-on-one interviews with the objective to understand in what way consumers translate the product's attributes to meaningful associations, following MEC theory (Reynolds & Gutman, 1988). The format of the interview is a series of direct probes arranged "Why is that important to you?" (Reynolds & Gutman, 1988). An example of an interview can be found in *Figure 3*. Unlike the traditional semi-structured interviewing techniques, laddering is fairly stricter. The interviewer has a definite

agenda and structure to follow and the questioning is similarly for each of the interviews (Reynolds & Olson, 2001). The answer usually leads to distinctions including basic functions of the product and consequences, which function as the basis of higher level distinctions (Gutman, 1982). The procedure continues to the point when the respondent no longer can give an answer to the question and is considered to have reached its personal values.

When applying the laddering interviewing method, two types of techniques can be employed - *hard laddering* or *soft laddering* (Costa et al., 2004). A hard laddering technique is when the subject is constrained to generate and verify separate ladders containing associations between elements in increasing levels of abstraction. When applying a soft laddering technique, the ladders are constructed later on, and a more unrestricted flow is encouraged during interviews. The difference is thereby that the subject is allowed to provide different reasons why a specific attribute is important for them or the same reason for different attributes, which is not allowed when using a hard laddering technique. In this study, a soft laddering interview structure is applied since it generates more means-end chains of increased abstraction level than hard laddering does and makes it thereby more suitable when trying to distinguish complex motivations of consumers' consumption decision making. A soft laddering structure is also preferable when studying smaller samples, due to the limited previous knowledge about the consumer's cognitive structures.

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**Interviewer:** *Why did you choose to buy that meat?*

**Consumer:** *Because of its absence of hormones. (attribute)*

**Interviewer:** *You said that the absence of hormones is important to you in deciding what pork to buy, why is that?*

**Consumer:** *Because I believe I am buying a wholesome product. (consequence)*

**Interviewer:** *Why is it important to you to buy a wholesome product?*

**Consumer:** *Because I want to be healthy. (value)*

**Interviewer:** *And why is it important for you to be healthy?*

**Consumer:** *If I am healthy I can enjoy life more. (value)*

**Interviewer:** *Why is it important to you to enjoy life?*

**Consumer:** *Well, it just is!*

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Figure 3. Illustration of laddering interviews (own creation).

### **Hierarchical value map**

By assembling all individuals' unique means-end chains, and aggregating them together, it is possible to identify patterns of attributes, consequences and values that are relevant to the specific purpose (Gengler et al., 1995). To completely understand consumers' decision making processes, both motives for and against certain decisions should be examined to enable a comparison between the two (Costa et al., 2004). A hierarchical value map (HVM) is a way to aggregate the individual value maps that are developed from the laddering interviews (Gengler et al., 1995), and indicate what values make a product personally relevant (Pieters et al., 1995). HVM is a tool to ease communication of and effectively organize the relevant information and result collected through the MEC approach. Each distinguished pathway between the lower level and the higher level is interpreted as a potential perceptual orientation (Reynolds & Gutman, 2001). One of the weaknesses of HVM lifted by researchers (e.g. Gengler et al., 1995), is that the map does not illustrate the strength of a connection between elements since it does not specify the number of people who mentioned it (Gengler et al., 1995). We thereby chose in our map to include the number of times each link was mentioned to make it more apparent to the reader where the strongest connections are. To make the decision of what elements and linkages that should be represented in the HVM there is usually a trade-off between presenting sufficient information from the laddering interviews and at the same time show a simple and comprehensible map (Costa et al., 2004). This trade-off is usually made by a cut-off point that specifies a minimum number of times a link must be established before it appears in the HVM. The lower cut-off value, the more complex HVM. Reynolds and Gutman (1988) recommend a cut-off value between 3 and 5 when managing data from 50-60 respondents.

## **4.2 Course of action**

The empirical data were collected in two different supermarkets in Uppsala, ICA Maxi and Stora Coop. The supermarkets are considered to be relatively comparable due to their supply of pork fillet and the shared location. Further, both supermarkets are two of the larger ones in Uppsala and have a customer base that represents many different customer segments. The alternative of two more unequal supermarkets was dismissed since a comparison between them is not the purpose of the study. The data was collected at eight separate occasions, on Thursdays and Fridays afternoons for four weeks in April 2018. Each occasion lasted for approximately two hours. The respondents were chosen by convenient sampling, meaning that the respondents were the ones most accessible for the study (Marshall, 1996). All consumers who selected a pork fillet of optional kind and put it in his or her shopping cart were approached and asked to take part in the study. Out of 67 approached customers, 10 declined and 57 were willing to participate, with whom laddering interviews were conducted. According to Kvale & Brinkman (2014), the number of respondents should be adjusted according to the aim of the study. When we began collecting data, the intention was to conduct 50 interviews. The number was determined by the intention to use soft laddering since we wanted to allow the respondents to speak more freely when answering our questions and construct a larger number of ladders than through a hard laddering technique. However,

we conducted 57 interviews to get a slightly broader respondent base as an addition to support our findings, but also as a back up if some of the interviews would be find useless at a later stage.

Prior the interview, the consumer was informed about the anonymity and confidentiality, that he or she could choose to discontinue the interview at any time or deny answering any question, and that there were no right or wrong answers. The chosen pork was used as a starting point for the laddering interviews, and every interview started with the question “Why did you choose that pork fillet?”. Each interview lasted in average 5 minutes. After completion of the interview, some background questions were asked about the consumer. The questions included age, number of people in his or her household, education and employment, if the consumer usually is responsible for the household’s food purchases, and finally, if the consumer had any specific knowledge or experience of farm animals.

When the data had been collected, the bulk of raw data were to be reduced. The 57 interviews, including 288 direct linkages and 381 indirect linkages between elements, were analyzed and scrutinized for attributes, consequences and values. The elements were further summarized into 44 master codes - a common heading for similar answers. The 44 master codes are find in Appendix 2. The master codes were used to construct an implication matrix consisting of the linkages between the different concepts. The implication matrix was further utilized to summarize the laddering results in to a HVM that became the base for the analysis.

## 4.3 Method dicussion

Within the scope of qualitative research falls a variety of different methods, which makes it difficult to generalize about designs (Staller, 2010). All method designs have advantages and disadvantages that can be handled in different ways. We dedicate this section to present our position and respond to the criticism that can be directed against our study.

### 4.3.1 Product choice

Lindeman and Väänaänen (2000) point out religion as an important aspect for individuals when making food purchase choices. We are aware of the fact that when limiting this study to a pork product, we are also limiting the customer segment that are possible consumers of this product, and thereby who are able to participate in the study. Despite, the focus of pork was chosen due to the ongoing discussion in the academic world and popular press concerning animal welfare aspects (Cummins et al., 2016), as mentioned in chapter 1. It is also a multistage production process and a product with greater price differences and distinction in animal welfare laws between diverse origins than other meat products. Research has concluded that when consumers are deciding what food products to purchase, price has an important impact on the choice (Harper & Henson, 2001). Therefore, the consumers’ choice between different types of pork fillet can present a clearer picture of how animal welfare is internalized in consumers’ purchase decision.

### 4.3.2 Interview technique

In order to conduct high quality interviews, it is important to practice and understand the interview technique to be used (Kvale & Brinkman, 2014). The laddering interviews has faced some criticism since it is a complicated technique for both the interviewer and respondent (Veludo-de-Oliveira et al., 2006). Veludo-de Oliveira et al. (2006) emphasizes the importance of a qualified interviewer and a researcher who possesses skills of in-depth interviews and analysis of data. This recommendation is supported by Reynolds and Olson (2001) who entitles the interviewer as the key instrument in laddering and that the laddering data are only as good as the interviewer collecting it. However, Reynolds & Olson (2001) claims that the interviewer to some extent can learn useful information about laddering techniques through reading. Further, Kvale & Brinkman (2014) reckon that reading interview examples and listening to recorded interviews can introduce how to use a certain technique. However, skills and confidence to use it are obtained through real practice. Considering all above, after studying the technique through literature, we performed five test interviews each to gain experience about the most optimal way to start the interview, when to push forward and when to end it. The test interviews also gave an impression of how to create a good and relaxing relationship to the respondent within the interview situation.

### 4.3.3 Interview situation

If the cognitive processes that generate respondents' answers in the interview are very different compared to those in situations where the actual behavior is performed, the study will lack predictive validity (Grunert & Grunert, 1995). This is avoided in this study by not letting the respondent face a simulated shopping experience but instead interview him or her in a situation where the actual behavior is observable, in our case the supermarket. Since the interviews were conducted by the meat counter, in an environment where people are often focused on their task and stressed to get home, it is a troublesome situation for an interview. Although others have conducted similar studies, they have simulated the shopping experience and opened up a possibility for the consumer to answer in their role of citizen. Thus, to fulfill our aim, this setup was necessary.

There is a possibility that consumers are more price sensitive during spring and summer when people barbecue and purchase a larger amount of meat. This may imply that more consumers consider FAW during autumn and winter, and a study conducted during that time of year may give different results. Since this study was conducted only during the month of April, it is not possible to draw any conclusion concerning this.

### 4.3.4 Analysis of the data

At two occasions during the interviews, we encounter the situation when the respondent had selected a pork fillet of foreign origin but gave answers as if he or she had chosen Swedish

meat. This was revealed early in the interview when the respondent gave the attribute *Swedish* as the primary reason for buying that certain pork fillet. When analyzing the two interviews in our raw data, we had to consider how to handle these answers which together formed three ladders. Fisher (1993) argues that the human tendency makes people try to present oneself in the best way possible when discussing FAW. We found it unclear if this was what the two respondents aimed to do and if they were aware of the contradicting answers and actions or if they believed they bought Swedish meat. Because of this, we chose to interpret the two respondents and three ladders as spurious and removed them from the analysis.

Lin (2002) presents some limitations of the MEC methodology and mean that when selecting and grouping the attributes, consequences and values, there is a subjective process which may cause an elimination of relevant variables. To minimize the risk, we began to group our data individually to review each other's selections later. In that way, the data was reviewed three times, one individual time by each researcher and one jointly by us both when we discussed the elements we did not agree on.

The HVM were constructed after determining what cut-off value to use. Depending on the cut-off value, the map will include different amount of information. The recommended cut-off value to use when managing data in the range we do, is a value between 3 and 5 (Reynolds & Gutman, 1988). However, our cut-off was set to 2 after trying out different values and judging when the map was presenting enough information in a comprehensible way. By applying the cut-off value to our bulk of raw data, we reduced our 44 master codes to 20 that became visible in the map. Our primary 669 linkages were reduced to 94 direct and 51 indirect. Direct linkages occur when one element leads to another without any intermediate element. Using a cut-off set to 2 means that each link that appears in the HVM was mentioned minimum two times, directly or indirectly, and all collected data is not presented in the map. The new total of 145 linkages, resulted in a HVM that contains 21,7% of the total data collected. Using a higher cut-off would entail an even bigger loss of data included in the analysis and a lower cut-off would mean that all data was included, resulted in a too complex map. The presented HVM in this thesis are therefore the one we find most detailed but still comprehensible.

#### 4.3.5 Trustworthiness and authenticity

When assessing a qualitative research, the two primary criteria are *trustworthiness* and *authenticity* (Bryman & Bell, 2015). Trustworthiness include four parts; credibility, transferability, dependability and confirmability (Mathison, 2005). Credibility means that there are alternative ways to describe the social reality and the credibility of the researcher's description determines the acceptance of others (Bryman & Bell, 2015). To establish the credibility criteria in this study, we adopted well recognized and appropriate research methods. Further, the sample of participants in this study were not selected in advance but consisted of all customers who selected a pork fillet during the time we collected data in the supermarket. A study's transferability is determined by how well the findings can be transferred to other contexts (Bryman & Bell, 2015). To ensure a study's transferability, many researchers highlight the importance of presenting a detailed description of the studied

phenomenon and the contextual uniqueness, and in this way allow comparisons to be made (Shenton, 2004; Bryman & Bell, 2015). Our hopes are that this method chapter will provide the reader of this thesis with sufficiently descriptions of the collection of data, analysis and the context in which the study has been conducted. By achieving this, the dependability will also be established. Dependability recognizes that the research context is evolving and might be quite different from what was expected (Jensen, 2008). Therefore, the researcher needs to supply relevant and adequate information about the methodology to enable a replication of the study. A study's confirmability can essentially be described as the degree to which the results of a study are based on the purpose of the research and not influenced by researcher bias (Jensen, 2008). To avoid misinterpretation throughout our study we endeavored a reflexive approach and continuously confirmed each other's interpretations.

Authenticity in qualitative research is not something to be taken for granted (Coghlan, 2014). To establishing authenticity, the researcher is seeking to assure genuine and true research in both conduct and evaluation (James, 2008). We are not in this study viewing ourselves as objects from the outside, but rather attend to how our own prejudices, values and beliefs are influencing how we make decisions and take action. To establish the authenticity of our study, we have aspired to be open to data, asking questions and seeking answers. According to Coghlan (2014), the authenticity of a study is diminished if the researcher is being uncritical or avoiding issues, and we have constantly been trying to minimize the risk by judging if ideas are correct or if they fit the evidence. Research is intended to contribute to the individual participant's raised level of awareness and a better understanding of the phenomenon being studied (James, 2008). By questioning the consumers at the moment of purchase, we are highlighting the underlying reasons for their decisions and help to expand their awareness, not only of themselves, but also of their social milieu as a consequence of participating in the study.

#### 4.3.6 Ethics

When carrying out social research involving people, there is always a need to consider ethical aspects (Guillemin & Gillam, 2004; Trost, 2010). Because of the risk that a respondent is exposed to discomfort, stress or other negative consequences as a result of the participation, there are ethical principles developed for protection (Bryman & Bell, 2015; Rubin & Rubin, 2005). These are based on the respondents' right to integrity, dignity, and consent (Trost, 2010). It is essential that the person who is interviewed agree to take part in the study and have information about its purpose (Rubin & Rubin, 2005). A feeling of being comfortable and protected during the entire process is also of importance (Robson, 2011). The respondents in this study were asked to participate in a short interview and were informed about the objective of the study to get an understanding of their involvement. The standard is to give the participants full information in the startup phase, but in interviews where the researcher wants to gradually develop the respondent's answers towards a topic or a goal, full information is not desirable (Kvale & Brinkman, 2014). We chose to not inform about FAW as the studied phenomenon since we wanted the consumers to express their spontaneous views about the topic and not be directed to giving specific answers.



In accordance with Robson (2011), we informed about the confidentiality of the study and that all participants in the study were anonymous. This was done to reduce insecurity and to make the respondents comfortable and willing to provide information and views about their purchase behavior. Before the questioning phase, information was given that there were no correct or incorrect answers and that they were not forced to answer questions that felt uncomfortable. The respondents also knew they had the opportunity to discontinue the interview at any moment.

## 5 Results

In this chapter, the results of the laddering interviews are presented. The chapter begins with background information about the context of the interview and the respondents. Later, the HVM are presented and analyzed through the view of animal welfare and other essential aspects.

The two supermarkets where the interviews were conducted had a similar supply of pork fillets, with some disparity (see *Table 1*). The selection of pork fillet of different brands and origin varied between each time data was collected in the supermarkets. Therefore, a summary of the supermarkets' supply is found in *Table 1*. Stora Coop offered their customers five brands of Swedish origin, of which one organic. They also supplied two imported brands, one from Denmark, and the other from Netherlands. The imported pork was available both frozen and unfrozen. ICA Maxi offered their customers four domestic pork fillet, of which one organic. ICA also supplied two brands of imported pork, one from Denmark, and the other from Netherlands/Germany. The one from Denmark were the only one available frozen.

*Table 1. Supply of pork (own creation).*

Supermarket	Brand	Frozen/Unfrozen	Origin
<b>Coop</b>	Lövsta	Unfrozen	Sweden
	Coop Änglamarkt	Unfrozen	Sweden (Organic)
	Coop	Unfrozen	Sweden
	Scan	Unfrozen	Sweden
	Scan rapeseed	Unfrozen	Sweden
	Dannish crown	Frozen/Unfrozen	Denmark
	John's selection	Frozen/Unfrozen	Netherlands
<b>ICA</b>	Lövsta	Unfrozen	Sweden
	ICA	Unfrozen	Sweden
	Matlaget	Unfrozen	Sweden
	ICA I love eco	Unfrozen	Sweden (Organic)
	Dannish crown	Frozen/Unfrozen	Denmark
	Stockholm World	Unfrozen	Netherlands/Germany

### The respondents

When conducting interviews at the supermarkets, the interview technique used appeared a bit complicated to the respondents. The respondents had problems formulating an answer and became a bit frustrated when they did not understand what we wanted to get out of it.

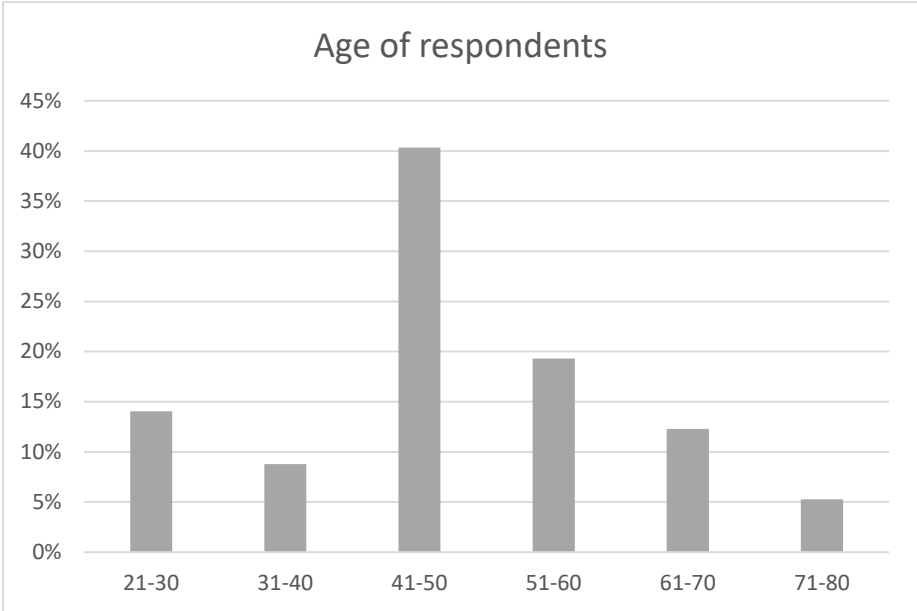
However, to overcome this issue, we repeated the respondent's latest answer to enable them to resume their reasoning. In some cases, we helped the respondent by reformulating the question. For example, if a person struggled to answer to "Why is X important to you?", we could formulate the question as "What would happen if X was not delivered/absence?". Even

though some respondents experienced the interview technique as difficult, most of them were capable of arriving at a desired answer.

During the collection of data, 67 respondents were approached and asked to participate in a shorter interview just after they selected either a frozen or unfrozen pork fillet at the meat counter. Of these, 57 respondents agreed to take part in the study, and 10 respondents declined. Each interview lasted in average 5 minutes. Out of the 57 participants, 46% were men and 54% women.

We divided the respondents into age range, starting from 21 years old and ending at 80 years old (see *Table 2*). The age of the respondents varied between 22 to 76 years, and the range 41-50 constitute the most substantial part of the respondent base. The age group with fewest respondents are 71-80, consisting of only three respondents.

*Table 2. Age of respondents (own creation).*



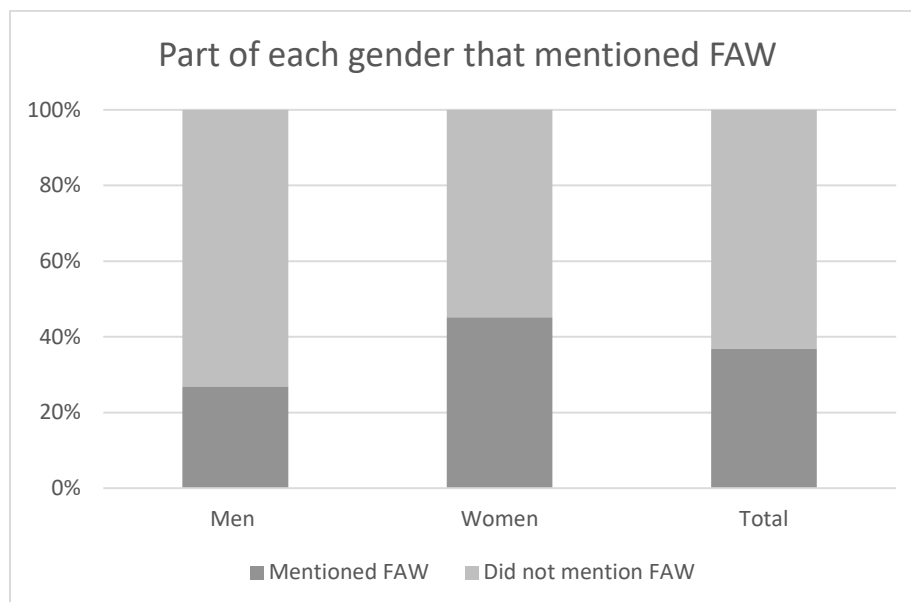
The number of family members in the respondents' households varied from 1-7, with a majority of 1-4 people households. When we asked the respondents what experience they had about farm animals, only 7 indicated that they had some relevant experience or knowledge. Mainly these respondents had farming in the family or had other practical experience working with farm animals. The majority of the respondents were the one in charge of the food purchase in their household, and therefore frequently making purchase decisions. Of the 57 respondents, 44% selected a pork fillet with Swedish origin, and 56% chose imported pork fillet. Only one respondent chose organic pork and stated that the main reason was the Swedish origin. Those respondents who declined to take part in the study had to 80% bought imported pork.

## The answers

The interviews resulted in 100 ladders where 53 of them were complete, including an attribute, a consequence, and a value. This implies that each person constructed an average of 1,75 ladders, and each ladder contained an average of 4 elements. The interviews resulted in 288 direct linkages and 381 indirect linkages. Respondents who had chosen Swedish pork were to a greater extent able to produce more than one ladder and more consequences than those who had chosen imported pork. In addition, consumers of Swedish pork tended to be more willing and motivated to explain the reasons for their choice.

In total, almost 37% mentioned FAW as an element in their ladders, see *Table 3*. Of the female respondents, 45% mentioned FAW and the same proportion of male respondents were 26%. Of the respondents who purchased Swedish meat, 84% considered FAW in their purchase decision.

*Table 3. Part of each gender that mentioned FAW (own creation).*

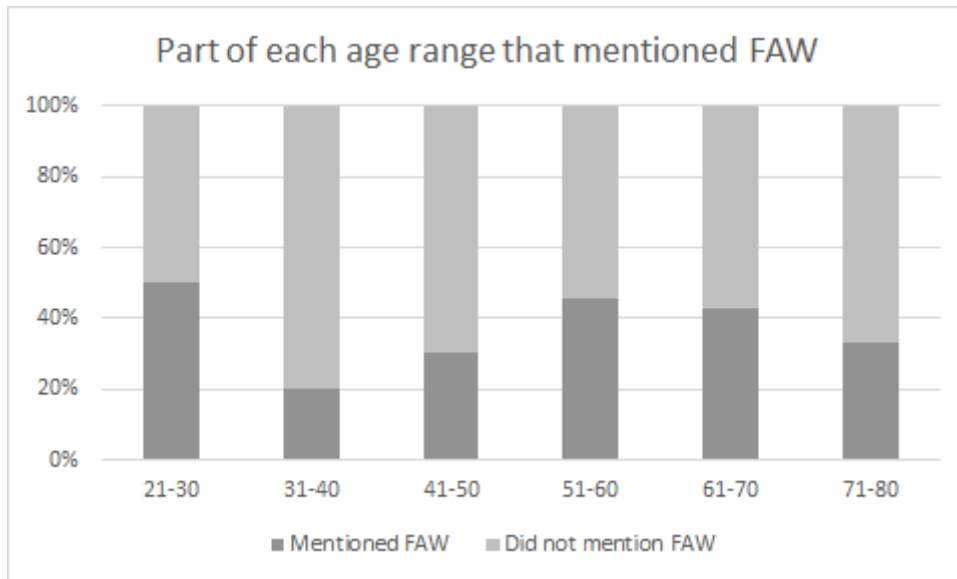


In households with 1-2 members, 50% of the respondents choose Swedish pork. Of them, 77% gave answers in the laddering interviews that included FAW as a consequence of the attribute Swedish. For households with 3-4 members, 44% of the respondents selected Swedish pork and 91% of them considered FAW in their purchase decision. All respondents that were more than 4 persons in the family chose imported meat and stated the price to be the main reason for their choice.

Our results show that half of the respondents at the age 21-30 acknowledges the animal welfare aspect when purchasing pork fillet (see *Table 4*). The respondents at the age 31-40 are the ones with least concern about FAW with only 20% mentioning the animal's welfare during the interview. The part of respondents mentioning FAW at age 41-50 was 30%, and at age 51-60 that number was 45%. At age 61-70, 43% of the respondents had FAW in mind when selecting pork fillet and 33% at the age of 71-80. The results display that our youngest

respondents are the ones most involved in the FAW aspect of their purchase, and respondents in 31-40 are the ones least concerned about the FAW aspect.

Table 4. Part of each age range that mentioned FAW (own creation).



None of the respondents who selected foreign origin stated that they considered FAW. Of our respondents, 47% acknowledged the price to be the most salient reason for their purchase decision, and all had chosen a pork fillet of foreign origin. One respondent expressed that he selected the cheaper pork because he wanted to use his money to fulfill his life’s meaning.

Several of the respondents who selected imported pork mentioned that they “know that one should buy Swedish meat”. A few of those who selected Swedish pork responded that they did so because they planned to serve it to dinner guests.

Some respondents expressed an ethical concern for the animals and meant that the animals “are living creatures as well” and “they are just as much worth as us humans”.

The elements that emerged from the laddering interviews were summarized into master codes with the distribution of 9 attributes, 22 consequences, and 13 values (see Appendix 2).

### The hierarchical value map

In this section, the constructed HVM is presented and found in *Figure 4*. The selected cut-off value was set to 2 and therefore are only 20 of all 44 master codes visible in the map. The HVM represents the respondents’ most salient attributes, consequences and values in their decision-making process when selecting a pork fillet. Two types of linkages are represented in the HVM, direct and indirect linkages. Direct linkages occur when one element leads to another without any intermediate element. The numbers in the HVM represent the distribution of directly and indirectly linkages, separated with a decimal. In the text, the number of linkages refers to the total of both directly and indirectly linkages.

### *Attributes*

With the chosen cut-off value, only three attributes were mentioned in connection with another element two or more times and are thereby displayed in the HVM. These attributes are *Swedish*, *Locally produced* and *Cheap price*. The attributes represent the most essential properties of a pork fillet for the interviewed consumers. The attribute *Swedish* was by far the attribute with the highest number of linkages to other elements. In the HVM, with cut-off value 2, the attribute *Swedish* has 38 linkages to other elements and is, therefore, the most salient attribute for the respondents when selecting a pork fillet at the supermarket. Further, the attribute *Locally produced* was mentioned 5 times connected to other elements. The third attribute visible in the HVM is *Cheap price* that has 22 linkages.

### *Consequences*

In the HVM with cut-off value 2, 11 consequences from the master codes are displayed. The consequences visible in the map are *Shorter transportation*, *Protect the environment*, *A perception of production process*, *Farm animal welfare*, *Low antibiotic use*, *Lower risk of antibiotic resistance*, *Support Swedish agriculture*, *Strict legislation*, *Contribute to Sweden's self-sufficiency*, *Limited income*, and *Reducing costs*. Of those 11 consequences, 9 are linked, directly or indirectly, to a value. This means that two of the consequences, *Protect the environment* and *Support Swedish agriculture*, are not linked further and the chain ends at these elements. The consequence with most connections to other elements in the HVM are *Farm animal welfare* with a total of 54 linkages. The consequence with second most connections in the HVM are *Low antibiotic use* with 29 linkages. *Shorter transportation* is linked a total of 20 times to other elements in the HVM. *Reducing costs* are mentioned 16 times connected to other elements. *Limited income* has 15 linkages to other elements in the HVM. *Lower risk of antibiotic resistance* has a total of 10 connections to other elements. *A perception of production process* has just one less link and is thereby connected to other elements 9 times. *Support Swedish agriculture* is as mentioned above, only connected to an attribute and has no linkages to another consequence or value. However, it is linked 6 times to other elements in the HVM. Further, *Protect the environment* is not connected to any value in HVM but has 4 linkages. The last two consequences, *Strict legislation* and *Contribute to Sweden's self-sufficiency*, has 3 respectively 2 linkages.

### *Values*

The identified values that exceeded the cut-off value 2 were *Feeling good*, *Ethics*, *Healthy*, *Food safety*, *Food security*, and *Money for other things*. Out of these six elements, *Food safety* is the most salient value that influences a consumer's choice. It is mentioned 13 times in connection with other elements. Further, *Feeling good*, *Ethics* and *Money for other things* were mentioned the most number of times in descending order. *Feeling good* has a total of 11 linkages, *Ethics* has 10 connections to other elements in the HVM, and the value *Money for other things* has 9 linkages. *Healthy* and *Food security* is both mentioned 2 times in connection with other elements and is right on the cut-off value.

Cut-off value: 2

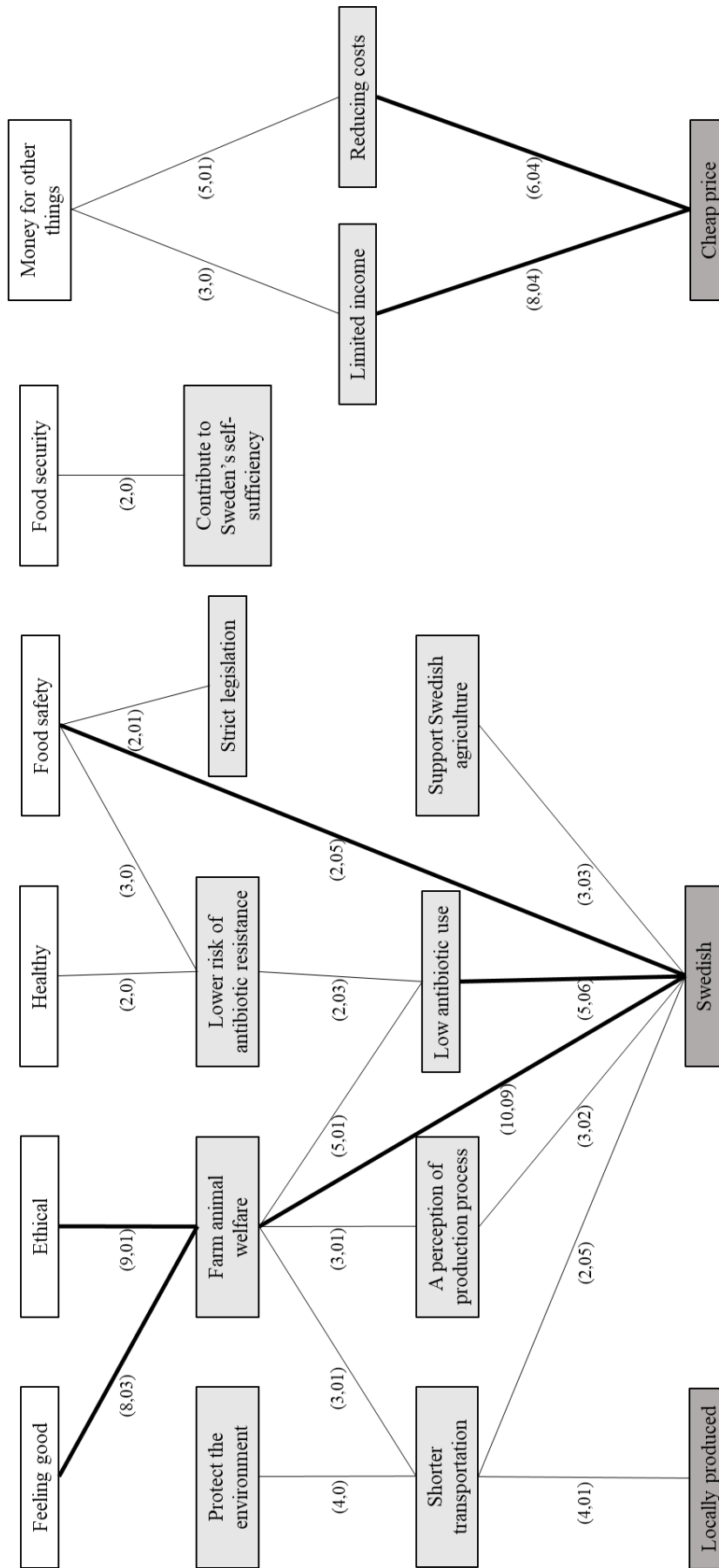


Figure 4. Hierarchical value map (own creation).

### **Farm animal welfare in the HVM**

*Farm animal welfare* is the most salient element in the HVM, connected to other elements through 54 linkages of the total 145 in the map (see *Figure 5*). This makes FAW the most central element in the map. The strongest chain including *Farm animal welfare* begins at the attribute *Swedish*, which is also the attribute with the highest number of linkages. The link between *Swedish* and *Farm animal welfare* is the strongest connection of all, both directly and indirectly. This link was mentioned a total of 19 times. *Farm animal welfare* is further linked to two values, *Feeling good* and *Ethics*, two of the most salient values.

The link between *Farm animal welfare* and *Feeling good* was mentioned 11 times, and the connection between *Farm animal welfare* and *Ethics* has 10 linkages. This results in the chains; *Swedish - Farm animal welfare - Feeling good*, and *Swedish - Farm animal welfare - Ethics*. The chain with the highest number total linkages and therefore also the most substantial chain the HVM are *Swedish - Farm animal welfare - Feeling good*, implying that consumers buy Swedish meat because of the farm animal welfare, which results in a good feeling for the consumer.

*Farm animal welfare* is connected to even more elements in the map. Another strong chain including FAW goes from *Swedish* to *Low antibiotic use* to *Farm animal welfare* and ends at either *Feeling good* or *Ethics*. This complements the previously presented chain with the assumption that the consumers strongly associate a Swedish origin with low antibiotic use, which results in welfare for the animals.

Further, the respondents consider having a perception of the production process that lets them make informed choices about FAW when purchasing pork. The respondents in our study also value the shorter transportation that a locally produced and Swedish origin entails, because of the better welfare it provides the animals.



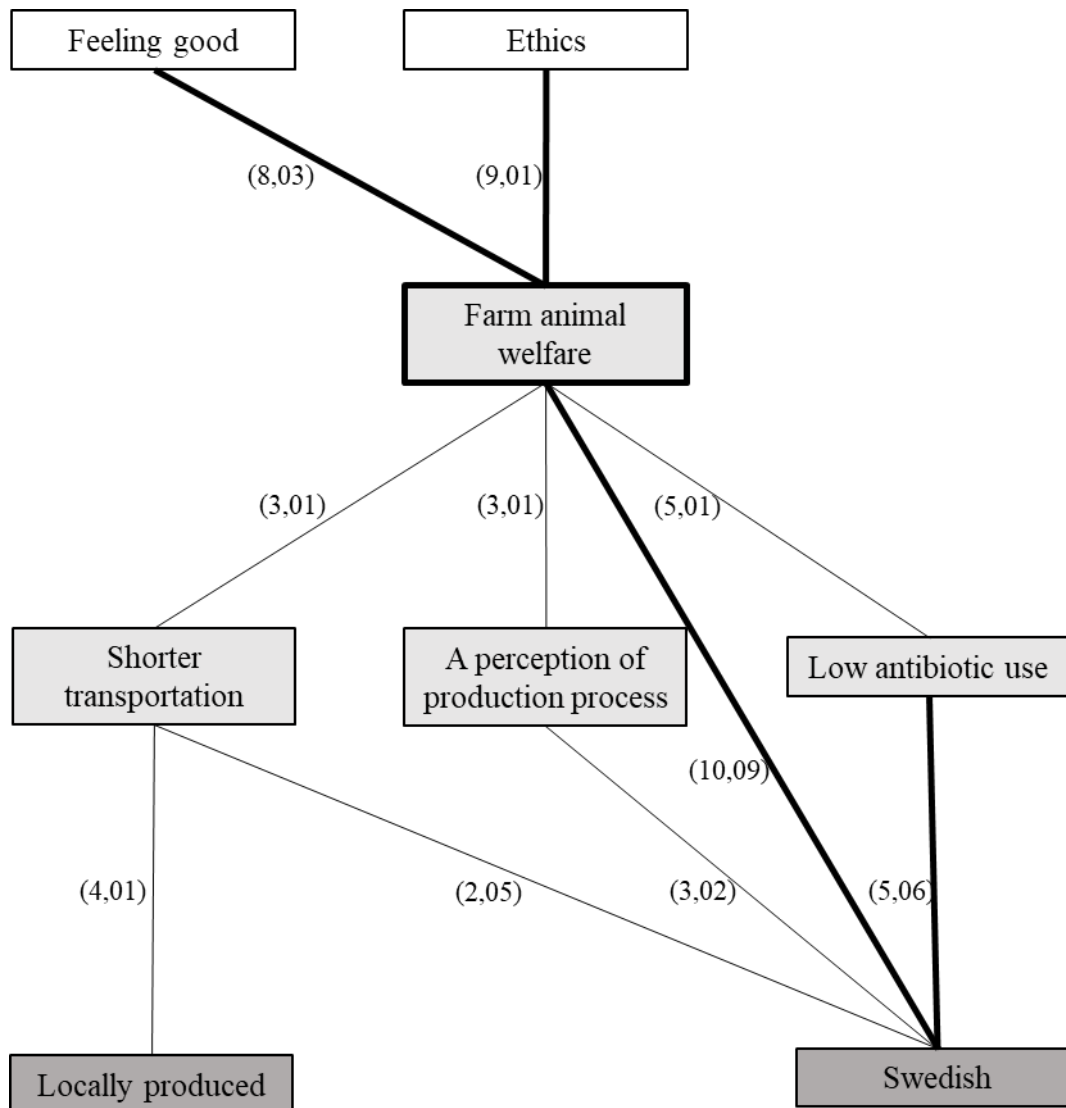


Figure 5. Farm animal welfare in the HVM (own creation).

### Notable connections in the HVM

The link between *Swedish* and *Low antibiotic use* demonstrate a strong implication that the consumer is aware of lower antibiotic use in Swedish meat and thinks that is important when purchasing pork. *Swedish* is also related to *Food safety* due to the high number of indirect linkages, mostly going through *Low antibiotic use*.

There are also two influential linkages from *Cheap price* to *Limited income* and *Reducing costs*. These connections display a willingness to buy cheap meat in order to afford it and to reduce the costs. These chains continue to the value *Money for other things*, but the number of linkages leading up to the value are fewer and indicates that not all consumers reached it in their ladder(s).

## 6 Discussion

The chapter presents a discussion of the results presented in the previous chapter. This study intend to answer the research question *How salient is farm animal welfare when consumers purchase pork, and what personal values is pork connected to in consumers' purchase decision?*

### **The personal value theory**

It is established in the literature that personal values have a significant impact on consumers' decision process (Vinson et al., 1977; Veludo-de-Oliveira et al., 2006; Schwartz, 1994; Fritzsche & Oz, 2007), and are a key factor to motivate choosing a certain product with its certain attributes (Pieters, Baumgartner & Allen, 1995). In our study, we have explored what personal values consumers are trying to reach when they are deciding what pork fillet to consume. Schwartz's (1992) personal value theory suggests that it is possible to derive all personal values into a limited set of value types. He presents ten value types where he argues all individuals' personal values can be divided into. In our study, which has a narrow focus, we can identify four different value types where the interviewed consumers' values can be inserted.

The *Hedonism* value type is recognized by pleasure and enjoying life. One of our respondents stated that he purchases cheaper pork to be able to do what he like to fulfill his life's meaning, our value *Meaning of life*. We are also interpreting the values *Good taste experience*, *Money for other things* and *Time for other things* as ways to enjoy life. The values *Good conscience* and *Feeling good* are deduced as a way for the respondents to reach the feeling of pleasure and contributes to a total of 30 direct linkages and 46 indirect linkages to the Hedonism value type. The two values with most linkages in the Hedonism value type are *Money for other things* and *Feeling good*, where the first is connected to the concern for costs and the latter for the concern for FAW.

The *Security* value type is recognized by, e.g. safety and stability of society and relationships, and it can be measured through values as family security, health, and clean. In our analysis, we named one of the master codes *Healthy*, that fit the Security value type. Furthermore, we derive the values *Good family life*, *Food security*, *Food safety*, and *Secure the future* into the security value type. Through this division, our results have 18 direct linkages and 32 indirect linkages to a value of the Security value type.

The *Benevolence* value type is recognized through a concern for the welfare of the people with whom the person is in frequent personal contact. From our results, we can conclude that the value *Able to feed my kids* is a value of the Benevolence type.

The last value type we can divide our results into is *Universalism*. The Universalism value type is recognized through understanding, appreciation, and tolerance, and is measured by a desire for equality and unity with nature, a world of beauty and a willingness to protect the

environment. In our results, we can distinguish one personal value fitting in the universalism value type, *Ethics*. *Ethics* is linked to FAW in the HVM and one of the most salient values in our results. It is represented by respondents who expressed equality between humans and animals. Some respondents meant that the animals “are living creatures as well” and “they are just as much worth as us humans”. The value type Universalism motivates these respondents to purchase certain types of pork because of their objective to act ethically correct with regard to animal welfare.

After analyzing our results through Schwartz’s (1992) personal value theory, we conclude that the value types influencing the respondents to choose pork products concerning FAW are Hedonism and Universalism. These value types motivate the respondents to consider the welfare of animals at the purchase decision due to a desire to reach the feeling of pleasure or to act according to their ethical beliefs.

### **The HVM**

When consumers are standing in the supermarket deciding what product to purchase, they have to make value trade-offs between different product attributes (Bettman et al., 1998). The HVM is a tool to aggregate consumers individual value maps that are developed from the laddering interviews (Costa et al., 2004), and makes it possible to identify patterns of attributes, consequences, and values that are relevant when purchasing pork (Grenkler et al., 1995). Previous literature has found FAW to be significant in consumers’ purchase decision of pork, but not the highest prioritized attribute (Nocella, 2012; Meuwissen & Van Der Lans, 2005). The result of our study shows in accordance with Thorslund et al. (2016) that some consumers consider animal welfare as important and some do not.

In the HVM, two consequences are not connected to a value, *Protect the environment* and *Support Swedish agriculture*. It is possible that these consequences might have been connected to a value in the HVM if there was not for the cut-off value. However, this would also imply that the connection has only been directly mentioned once as maximum and is not relatively strong. *Contribute to Sweden’s self-sufficiency* and *Strict legislation* are consequences that in the HVM looks like they are only connected directly to a value, and not to any other consequence or attribute. This is not entirely accurate since the cut-off value removes all linkages that have not been mentioned twice or more. This means that the consequences might be directly connected to an attribute that does not appear in the HVM.

The attribute *Cheap price* is viewed as a separate miniature HVM and reveals that there were two different customer segments, the ones who selected *Swedish* and *Locally produced pork*, and the ones who chose the one with a cheap price. These segments’ ladders were in no way connected to each other. This separate miniature HVM does only include four elements when using cut off value 2 and indicates that all ladders beginning with *Cheap price* are relatively the same and to a large part including the same elements. This result does also visualize that consumers who value the attribute *Cheap price* do not concern the animal welfare aspect of their purchase. These findings are similar to Lind’s (2007) result when investigating consumers perception and motivation in different kinds of pork. The consumers in her study

who stated low price to be an important attribute for their decision did not link it to FAW. The HVM's that involved animal welfare had, as one also can see in our result, two separate maps in the same HVM, one where the element price was included and one with animal welfare. Likewise, there were no connections between these elements.

### **Farm animal welfare in the HVM**

Of the respondents, 37 % mentioned animal welfare in the laddering interviews. However, *Farm animal welfare* was not mentioned as an attribute but as a direct consequence of the attribute *Swedish*. *Farm animal welfare* was linked to three consequences in the HVM; *Shorter transportation*, *A perception of the production process* and *Low antibiotic use*. *Shorter transportation* was linked to *Farm animal welfare* from both *Swedish* and *Locally produced* and mean that the respondents connect many hours of transportation with poorer welfare for the pigs. *A perception of the production process* implies that respondents make their purchase decision based on their perception of how the product have been produced. The consequences related to *Farm animal welfare* was, besides *Swedish*, linked to the attribute *Locally produced*. The third attribute *Cheap price*, which 47% of the respondents expressed to be the most important attribute when choosing pork, had no linkages to animal welfare.

The third consequence linked to *Farm animal welfare*, *Low antibiotic use*, was not only linked to higher levels of abstraction through *Farm animal welfare* but also through *Lower risk of antibiotic resistance*. This is an example of a distinguished concern for FAW elements (Vanhonaker & Verbeke, 2014). Some of the answers from respondents who mentioned *Low antibiotic use* had an animal-centered focus on antibiotics because these consumers explained that they do not want pigs to be treated with medication unnecessarily and want the farmers to prevent diseases instead. Other answers had a human-centered focus and linked further to *Lower risk of antibiotic resistance*. This is based on the consumers' own fear of diseases, that previously have been possible to cure with antibiotics, but now risk to be unable to cure due to resistance problems. The consequence *Shorter transportation* also had two diverse focuses. *Protect the environment* refers to long transportation that involves greenhouse gas emission that negatively affects climate and nature when *Farm animal welfare* is associated with poorer welfare of animals. Grunert et al. (2018) found that consumers mainly demand process characteristics in modern pig production that gives them individual benefits. According to Harper and Henson (2001), consumers are equally motivated by concerns for human health as they are for animal welfare. Our results show that the respondents in our study request benefit for both animals and humans, but that the strongest linkages are those connected to animals and their welfare.

Roininen et al. (2006) found when studying consumers' perception of different types of pork production, that FAW and healthiness were in greater extent associated with organically produced pork than the locally produced alternative. Lind (2007) concluded that consumers of organic pork associated the organic production with good FAW. Only one of the respondents in our study chose organic pork. However, this respondent did not mention organic

production as an element in the ladders but stated *Swedish* as the most essential attribute for the purchase decision.

### **Swedish trust and the Swedish model**

The fact that FAW is strongly directly and indirectly linked to the attribute *Swedish* in the HVM confirms that Swedish consumers have a high level of trust in the national government and controlling bodies (Bock & van Leeuwen, 2005). The majority of respondents that chose Swedish pork mentioned *Swedish* as the product attribute that was the most essential attribute in their purchase decision. The link from *Swedish* to *Farm animal welfare* through *A perception of the production process* and the link through *Low antibiotic use* shows that the respondents have knowledge about that the national legislation for farm animals is stricter than EU minimum standards. Respondents who purchased pork of Swedish origin stated that they did so because they know the pigs are treated better than in other countries. This relates to the trust northern Europe's consumers have in farmers (Nocella, 2010) and that Roe, Murdoch and Marsden (2005) described the word *Swedish* to be a welfare-claim and connect Swedish products with good animal welfare.

Overall, our results demonstrate that the respondents in our study connect the attribute *Swedish* to consequences and values related to the so called Swedish model. The model involves animal welfare, strict antibiotic use, and control programs (Andersson & Hoffman, 1997; Jonasson & Andersson, 1997). It has been promoted since the Swedish entry in EU, and it still has a significant impact on trends and norms of what food to purchase. Some of the respondents who chose imported pork answered that they “know that one should buy Swedish meat”. Two respondents who bought Swedish pork explained that they did so because they planned to serve it to dinner guests. This demonstrates a social norm that it is considered to be more “right” to purchase Swedish meat as a Swedish citizen. Those who bought imported pork were more uncomfortable to express their purchase decisions than buyers of Swedish pork, and the majority of those who declined to participate in the study had chosen imported pork.

### **Contribution**

Previous studies have concluded that consumers are willing to pay more for FAW (Harper & Henson, 2001; Carlsson et al., 2005; Liljenstolpe, 2008; Clark et al., 2017). However, these studies are based on methods including the respondent to answer in a simulated shopping experience, and not at the point of purchase. As we stated earlier, there is a risk that the respondents in those studies expressed their views as citizens and not as consumers. We wanted to overcome this risk by collecting data in direct connection to the respondent's purchase decision to make sure he or she answers in the role of consumer.

In contrast to earlier conducted studies, only 37% of our respondents care about the animal's welfare when purchasing pork, and indicates that only just over one third are willing to pay for FAW. The results of our study thereby confirm that the citizen-consumer gap exists. Further, 47% of our respondents stated that price was the most important attribute when selecting pork fillet. Our HVM visualize that there is no connection between the two elements

and suggests that the bigger of the two customer segments are the ones more interested in the product's price than the animal's welfare.

The animal welfare aspect of a product has proven to be challenging to communicate to the consumer (Olynk et al., 2010), and some may debate it would be necessary with a label ensuring the animal's living standards. Of the 37% of our respondents who cared for FAW, all had selected a fillet of Swedish origin. It is thereby possible to conclude that there already is a label consumers associate with FAW, the Swedish origin label. Our results, therefore, indicate that it is not necessary or profitable with an additional label. Some consumers who selected a foreign origin did express concern for FAW and said that "one should buy Swedish meat" because of the animals' welfare. Even so, FAW was not worth the difference in price, and for these consumers, a label focusing on FAW would not make any difference.

However, *if* a FAW-label would be introduced, we believe it would have to be an international label to be of any use since our respondents initiate that Swedish consumers already associate "Swedish" with FAW. Would a label be of only national concern, it would probably not be as useful since Sweden already has strict legislation, and the label with this supplementary information would only imply that the product has been produced with even higher FAW aspects than is required by the Swedish law. In addition, such a label would only be of interest to them whom today is selecting pork due to the FAW aspect. Even then, it is not certain that all 37% of the respondents whom today is purchasing pork with a FAW preference would think it is worth the higher price this would imply.

Our results are not possible to generalize over a population but may give an indication of how consumers are making their purchase decision of pork fillet. The results are thereby of use to farmers who in this situation would consider if it would be economically profitable to join a labeling scheme and adjust the already existing production methods to higher FAW standards. Label owners can also benefit from our study by using our results as guidelines when deciding to develop and market a label. Both the farmer and label owner are taking a risk in these situations that could bring an economic loss if it would turn out that consumers do not care for the possible label.

Though, many of the consumers raised the FAW aspect during the interview by mentioning the negative parts of it and compared the Swedish legislation and animal keeping with the foreign (mostly Denmark). This may imply that some consumers do not necessarily think that Sweden has good FAW when producing meat, but only the lesser of two evils. If this is true, it would indicate that an international label focusing on FAW is necessary and would fulfill a purpose.

### **Shortcomings of the study**

It is essential for a researcher to continually be critical and judge if ideas fit the evidence to minimize the risk of diminishing the study's authenticity (Coghlan, 2014). In our study, we had to consider how to handle consumers who talked about animal welfare aspects and the importance of Swedish origin when purchasing pork meat, but at the same time have picked

one of foreign origin. This problem occurred with two respondents in our raw data, who together constructed three ladders. These respondents' ladders have been removed from the database since we want to limit the risk of inaccurate answers. As Fisher (1993) argues, there is a tendency to try to present oneself in the best way possible when people talk about FAW, and it is unclear if this is what the respondents aimed to do or if they were not aware of the fact that they had picked an imported meat when they gave their answers. Therefore, we interpret these doubtful answers as spurious and remove them from our analysis.

A cut-off value set to 2 when managing nearly 60 interviews may sound low if following the recommendations of Reynolds & Gutman (1988). Since our data was reduced by almost 80% at a cut-off value 2, we did not find the recommendation for a cut-off between 3 to 5 suitable for our study. A cut-off set to 1 would, however, include all data that was collected since every link would be visible in the HVM. This massive reduction of linkages that was included in the map indicates that most of the connection between elements was only mentioned in one interview.

A critic that could be directed towards our study is the low average of ladders that each respondent constructed. Our average respondent constructed 1,75 ladders during the interview. This is explained by the low level of involvement that was shown from respondents who recognized a cheap price when purchasing pork. 47% of our respondents started their ladders with the price aspect, and most of them did only construct one ladder during the interview. This aligns with what Lind (2007) arrived at in her study when she concluded that consumers of branded and local-organically produced pork proved to be more involved in their purchase decision than consumers of unbranded and imported pork. Our results show a similar trend among those who bought imported pork due to its cheap price since they could only build one ladder and thereby indicate a lower involvement level. This resulted in a relatively low average.

## 7 Conclusions

The aim of this study is to explore how animal welfare is internalized in consumers' purchase decision and what personal values influence the decision when selecting animal-based food products. To fulfill our aim, we formulated following research question,

*How salient is farm animal welfare when consumers purchase pork, and what personal values is pork connected to in consumers' purchase decision?*

The result from this study indicates that animal welfare is not the most salient element in our respondents' purchase decision of pork. Right above one third (37%) of the respondents mentioned FAW as an aspect when selecting what pork fillet to purchase. Even though FAW is a credence attribute, none of the respondents who mentioned FAW perceived it as a single attribute but visualized it as a consequence, most of the attribute *Swedish*. The strong connection to Swedish indicates that the respondents are informed about differences in animal legislation and trust the domestic farmers and government bodies to fulfill the Swedish requirements.

Through Schwartz's (1994) theory of personal values, we found that the overall most salient personal value types that influence consumers' purchase decision of pork are Hedonism, Security, Benevolence, and Universalism. The ones connected to FAW are Hedonism and Universalism. This implies that the motivations to purchase pork considering the welfare of animals is a desire to reach the feeling of pleasure or act according to an ethical belief.

Our results demonstrate that when selecting a specific pork fillet, almost half of the respondents expressed the product's price as the primary mean to reach their desired end state; having money for other things. Around one third of the respondents had FAW as a consequence in their minds to reach their desired end state; feeling good or acting ethically. We can conclude from this study that our respondents prioritize their own comfort before the welfare of the animals.



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# Appendix 1

## Interview Guide

### Suggestions for questions

Why did you choose to buy that meat?

Why is X important to you?

Could you develop/elaborate?

Can you tell me more about your thoughts about X?

What would happen if X was not delivered/absence? /What would you do if you didn't have X?

You indicated X... Why is that?

What is the benefit of X?

You said X, What is so good with X?

Let me see if I understand you correctly, what do you mean by X?

How do you feel when you X/Y?

(When was the last time X?)

Why is Y something you don't want? / Why wouldn't you buy Y?

Is there a difference in your purchase of meat today compared to a couple of years ago? ....  
Why is that?... So why don't you buy Y now?

# Appendix 2

## Master codes

### Attributes

- 1.Swedish
- 2.Locally produced
- 3.Cheap price
- 4.Easily available
- 5.Long expreation date
- 6.Good taste
- 7.Look good
- 8.Convenient size
- 9.Perishable

### Consequences

- 10.Limited income
- 11.Reducing costs
- 12.Work less
- 13.Quality control
- 14.Nice to serve
- 15.Able to eat today
- 16.Able to store
- 17.Save time
- 18.Strict legislation
- 19.High quality meat
- 20.Low antibiotic use
- 21.Risk for resistance
- 22.Support Swedish agriculture

- 23.Contribute to Sweden's self-sufficiency
- 24.Support local production
- 25.Promote a living rural area
- 26.Counteract food waste
- 27.Protect the environment
- 28.Shorter transportation
- 29.Available information
- 30.Less stressed pigs
- 31.Good animal keeping

### Values

- 32.Feeling good
- 33.Food safety
- 34.Food security
- 35.Secure the future
- 36.Ethical
- 37.Good family life
- 38.Good conscience
- 39.Time for other things
- 40.Money for other things
- 41.Able to feed my kids
- 42.Healthy
- 43.Meaning of life
- 44.Good taste experience